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# INDIANA UNIVERSITY OF PENNSYLVANIA

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**Undergraduate Catalog 2023 - 2024**



**OFFICE OF THE REGISTRAR  
INDIANA PENNSYLVANIA  
1090 SOUTH DR. 15705**

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# Welcome to IUP's Undergraduate Catalog

Indiana University of Pennsylvania was founded more than 145 years ago, and has grown from a school with 225 students and one building to a world-renown university spread over 374 acres with more than 10,000 students studying more than 130 programs. Indiana University of Pennsylvania is one of the largest members of Pennsylvania's State System of Higher Education, and it was the first one of the State System schools to grant doctoral degrees. To find out more about the history of IUP, points of pride, and general information about Indiana Pennsylvania, please visit IUP at a glance. If you would like to learn more about the Pennsylvania State System of Higher Education, please navigate to [www.passhe.edu](http://www.passhe.edu).

## Statement of Nondiscrimination

Indiana University of Pennsylvania is committed to equal opportunity for its students, employees and applicants. The university provides equal educational and employment rights to all persons without regard to race, color, sex, religion, national or ethnic origin, citizenship status, genetic information, age, disability, sexual orientation, gender identity or expression, military/veteran's status, or any other status protected by law. Each member of the university community has a right to study and work in an environment free from any form of discrimination. To understand more about IUP's statement of nondiscrimination, please visit the Social Equity and Title IX Office's webpage

## Reporting an Incident of Concern

The incident of concern reporting forms are for **non-emergency** reports only. **If any person may be in danger, call 911 immediately.** For urgent emotional/mental health matters, please call the Crisis Intervention 24/7 Hotline at 1-877-333-2470.

Reports submitted are addressed through a coordinated university approach. Based on the type of report, you may be contacted for additional information. Anonymous reporting is available for certain University Police and Sexual Misconduct incidents—though these are permitted, please note that doing so may limit the university's ability to investigate and/or respond. For more information about how and where to submit a report, please visit the Report and Incident of Concern webpage of the Social Equity and Title IX Office.

**A Note About Retaliation:** *IUP strictly prohibits retaliation against any individual who makes a good faith report of suspected wrongful conduct or participates in an investigation, hearing, or inquiry. Retaliatory behavior should be reported and will be addressed through the appropriate university process.*

## Indiana University of Pennsylvania's Civility Statement

As a university of different peoples and perspectives, IUP aspires to promote the growth of all people in their academic, professional, social, and personal lives. Students, faculty, and staff join together to create a community where people exchange ideas, listen to one another with consideration and respect, and are committed to fostering civility through university structures, policies, and procedures. We, as members of the university, strive to achieve the following individual commitments:

1. **To strengthen the university for academic success,** I will act honestly, take responsibility for my behavior and continuous learning, and respect the freedom of others to express their views.
2. **To foster an environment for personal growth,** I will honor and take care of my body, mind, and character. I will be helpful to others and respect their rights. I will discourage intolerance, hatred, and injustice, and promote constructive resolution of conflict.

3. **To contribute to the future**, I will strive for the betterment of the community; myself, my university, the nation, and the world.

## Disclaimer

This bulletin contains announcements of courses for the academic year 2023 -2024. IUP reserves the right to repeal, change, or amend the rules, regulations, courses, and programs contained in this bulletin at any time. Tuition and fees are also subject to change.

## IUP Site Locations and Regional Campuses

### Richard J. Muth, Director, Regional Campuses

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

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

## Programs of Study

All three locations offer courses and programs at the undergraduate level, graduate level, or both. The Punxsutawney campus also hosts certificate and associate programs in Culinary Arts and Baking and Pastry. All three locations also host conferences and noncredit workshops.

Faculty advisors and administrators at the regional campuses are available to advise and support students on their instructional programs.

## Admission

Any prospective student who wishes to attend a regional campus may apply for admission by applying online through the IUP Admissions website, [www.iup.edu/admissions](http://www.iup.edu/admissions).

## Fees

Please see the Tuition and Fees section of this catalog for further information on other fees payable by all IUP students.

## Rules and Regulations Concerning Student Behavior

Students at the regional campuses are subject to the same rules and regulations as students at the Indiana campus. More information is available at [www.iup.edu/studentconduct/](http://www.iup.edu/studentconduct/) and in the Undergraduate or Graduate Catalogs.

## Northpointe Regional Campus

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

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

IUP Northpointe Regional Campus  
167 Northpointe Boulevard  
Freeport, PA 16229  
724-294-3300 [northpointe-campus@iup.edu](mailto:northpointe-campus@iup.edu) / [www.iup.edu/northpointe](http://www.iup.edu/northpointe)

## Punxsutawney Regional Campus

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

The Punxsutawney Regional Campus has a living center supporting a residential college experience for students looking to live on campus.

The Punxsutawney Campus also hosts the Academy of Culinary Arts for students looking to complete a certificate or Associate's Degree in Culinary Arts and/or Baking and Pastry.

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

IUP Punxsutawney Regional Campus  
1012 Winslow Street  
Punxsutawney, PA 15767  
814-938-6711 [iup-pxy@iup.edu](mailto:iup-pxy@iup.edu) / [www.iup.edu/pxy](http://www.iup.edu/pxy)

## IUP Pittsburgh East

This instructional site is located on the ninth floor of building No. 4 in Penn Center East. IUP offers 11 graduate degrees at both the master's and doctoral level at this location, as well as several noncredit programs and workshops.

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

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

IUP Pittsburgh East  
400 Penn Center Boulevard  
Building 4, Suite 900  
Pittsburgh PA 15235  
412-824-1999 [Pittsburgh-East@iup.edu](mailto:Pittsburgh-East@iup.edu) / [www.iup.edu/pittsburgh-east](http://www.iup.edu/pittsburgh-east)

## IUP Site Locations

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

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

IUP Police Academy  
California University of Pennsylvania  
250 University Ave.  
California, PA 15419

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

IUP Police Academy  
Robert Morris University  
6001 University Blvd.  
Moon Township, PA 15108

Southwestern University of Finance and Economics  
555, Liutai Ave.  
Wenjiang District  
Chendgu, Sichuan  
P.R. China, 611130

CCAC, Boyce Campus  
595 Beatty Rd.  
Monroeville, PA 15146

People's Education Society University  
100 Feet Ring Rd.  
BSK III Stage  
Bangalore - 560085  
India

## IUP Centers and Institutes

**Website:** <https://www.iup.edu/research/centers/>

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

## Student Programs and Services

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

## Student Affairs Division Areas

Website: [www.iup.edu/studentaffairs](http://www.iup.edu/studentaffairs) Email: [iup-hawks@iup.edu](mailto:iup-hawks@iup.edu)

**Student Wellness and Engagement**

Website: [www.iup.edu/atod](http://www.iup.edu/atod) Telephone: 724-357-1265

**Athletics**

Website: [www.iupathletics.com](http://www.iupathletics.com)

**The Counseling Center**

Website: [www.iup.edu/counselingcenter](http://www.iup.edu/counselingcenter) Telephone: 724-357-2621

Website: [www.iup.edu/haven](http://www.iup.edu/haven) Prevention/Education: 724-357-3947

**Department for Disability Access and Advising**

Website: [www.iup.edu/disabilitysupport](http://www.iup.edu/disabilitysupport) Email: [disability-access@iup.edu](mailto:disability-access@iup.edu)

**Health and Well-Being (Center for)**

Website: [www.iup.edu/chwb](http://www.iup.edu/chwb) Telephone: 724-357-WELL (9355)

**Health AWAREness**

Website: [www.iup.edu/healthawareness](http://www.iup.edu/healthawareness) Telephone: 724-357-4799

Email: [health-awareness@iup.edu](mailto:health-awareness@iup.edu)

**Health Service**

Website: [www.iup.edu/healthservice](http://www.iup.edu/healthservice) Telephone: 724-357-2550

Email: [health-inquiry@iup.edu](mailto:health-inquiry@iup.edu)

**Nutrition Connection**

Website:

[www.iup.edu/foodnutrition/nutritionconnection](http://www.iup.edu/foodnutrition/nutritionconnection) Telephone: 724-357-4797

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

Website: [www.iup.edu/housing](http://www.iup.edu/housing) Email: [iup-housing@iup.edu](mailto:iup-housing@iup.edu) or [iup-dining@iup.edu](mailto:iup-dining@iup.edu)

**Military and Veterans Resource Center**

Website: [www.iup.edu/veterans/resource-center](http://www.iup.edu/veterans/resource-center) Telephone: 724-357-3008

Email: [iup-mrc@iup.edu](mailto:iup-mrc@iup.edu)

**Student Support and Community Standards (Office of)**

Website:

<https://www.iup.edu/studentsupportandstandards/> Telephone: 724-357-1254

Email: [community-standards@iup.edu](mailto:community-standards@iup.edu)

**Student Cooperative Association**

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

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

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

## Division of Enrollment Management

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

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

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

**Paula L. Stossel**, Assistant Vice President for Enrollment Management

## Undergraduate Admissions

Website: [www.iup.edu/admissions](http://www.iup.edu/admissions) E-mail: [admissions-inquiry@iup.edu](mailto:admissions-inquiry@iup.edu)

See the Undergraduate Admissions Policy section of this catalog for information.

## Graduate Admissions

Website: <https://www.iup.edu/admissions/graduate/> E-mail: [graduate-admissions@iup.edu](mailto:graduate-admissions@iup.edu)

## Academy of Culinary Arts Admissions

**Website:** <https://www.iup.edu/culinary/> **E-mail:** [culinary-arts@iup.edu](mailto:culinary-arts@iup.edu)

## Admission Operations

**Website:** <https://www.iup.edu/enrollment/offices/admissions-operations/>

## University Testing Services

**Website:** <https://www.iup.edu/universitytesting/> **Email:** [university-testing@iup.edu](mailto:university-testing@iup.edu)

## University Resources

### University Police

**Website:** <http://www.iup.edu/police>

### IUP Hadley Union Building

**Website:** <https://www.iup.edu/coop>

### IT Support Center

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

### IUP Emergency Notification System

**Website:** <http://www.iup.edu/ens>

### The Co-Op Store

**Website:** <http://www.iupstore.com>

### Parking

**Website:** <http://www.iup.edu/parking>

## Admission and Registration

### Undergraduate Admissions Policy

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

Office of Admissions  
Indiana University of Pennsylvania  
Sutton Hall, Suite 120  
1011 South Drive  
Indiana, PA 15705  
724-357-2230

An online application for admission is available at [www.iup.edu/admissions/undergraduate/apply-next-steps](http://www.iup.edu/admissions/undergraduate/apply-next-steps)

The Admissions Committee, giving equal opportunity to all students, will take the following criteria into consideration when reviewing each application: grades and courses taken, SAT or ACT scores, if available, high school counselor recommendations, and other pertinent information that would be helpful to the Admissions Committee in making decisions. New students can be admitted without SAT or ACT scores to select majors if high school cumulative GPA requirements are met. SAT or ACT scores, are not required for transfer applicants, veterans, or applicants who have graduated from high school more than one year before applying. However, transcripts from high school and all colleges previously attended are required of all applicants.

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

SAT/ACT scores are not required for merit scholarship consideration at IUP, but if submitted, could potentially impact the amount of scholarship dollars offered. If you are applying for scholarships external to IUP, test scores may be required for consideration

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

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

## Freshman Applications

SAT or ACT scores are not required for admission. New students can be admitted without SAT or ACT scores to select majors if high school cumulative GPA requirements are met. For those students who choose to take the SAT or ACT, it's recommended to test during the junior and/or early part of the senior year. If a student tests more than once, the committee considers the highest scores from all tests taken.

Arrangements to take the SAT or ACT tests can be made through the high school counselor, by writing to the College Entrance Examination Board, Box 592, Princeton, NJ 08540, or American College Testing, P.O. Box 168, Iowa City, IA, 52243, for an information pamphlet and a test registration form, or online at [www.collegeboard.org](http://www.collegeboard.org).

In order for the test scores to be received by IUP, the applicant should designate IUP on the test registration form (SAT code 2652, ACT code 3704) as one of the universities to receive the scores, or the applicant can request that his or her school counselor forward test scores to the Admissions office.

## Undergraduate Transfer Admissions

A student who has been attending another institution of higher education and wishes to transfer to IUP must submit an application, official transcripts of all postsecondary educational work, and an official high school transcript. All admissions decisions are made on a rolling basis by the Admissions Committee. Under a rolling admissions policy, applications are reviewed as they become complete. Decisions can range from automatic acceptance, to requests for additional information, to other alternatives.

Transfer applications are reviewed on the basis of academic college course work attempted or completed. Transfers are required to have at least a cumulative 2.0 GPA on a 4.0 scale (C average) from all schools previously attended and to have met the minimum requirements established by the academic department to which the student is applying. Some majors require increased standards for admission and additional information. Contact the Office of Admissions for specifics. If a student has at least 12 college level (non-developmental and non-technical) credits, the decision will be based solely on their transfer GPA. If the student has less than 12 college credits, the admissions decision considers other evidence of students' performance and ability to be a successful college student.

The evaluation of credits from other institutions of higher education is the responsibility of the Office of Admissions and the application of the credits is at the discretion of the academic dean who has jurisdiction over the student's

desired major. Normally, courses considered for transfer are only those taken from institutions that are accredited by the seven regional accrediting agencies. Credit from institutions whose accreditation is recognized by CHEA (Council for Higher Education Accreditation) is also eligible for transfer. In accordance with PASSHE's Student Transfer Policy (Policy 1999-01-A), IUP evaluates learning from non-regionally accredited institutions on a student-by-student basis. IUP uses the American Council on Education's guidelines for learning evaluation to ensure consistency and equity in the application of credit from non-regionally accredited institutions as well as from military service, workplace training, digital credentials, and other alternative educational experiences.

Each course is evaluated separately. The evaluation includes a review of the description, credits, and grade of each course along with the applicability of the course to the student's major at IUP. However, only credits transfer, not grade point average.

Students may transfer credits in courses from regionally accredited institutions where the grade of "D" is earned only if the student has a GPA of 2.0 or higher from the institution(s) attended. Some academic programs at IUP may require the student to repeat certain courses in which a "D" grade was earned. Review of learning from non-regionally accredited institutions will be evaluated on a student-by-student basis.

No matter how many credits are transferable, the student must satisfy all of the degree requirements falling into the categories of (1) university requirements, (2) college requirements, and (3) department requirements.

For Second Bachelor Degree students, a block of 90 credits is awarded if the first degree was earned from another university. Liberal Studies requirements, other than ones specifically required by the major, are considered met. All second degree students, whether they completed the first degree at IUP or another university, are required to complete a minimum of 30 credits to earn the second degree. The academic department determines which courses must be completed to earn the second degree.

University Requirements: All students are obligated to fulfill a basic program in Liberal Studies. The transfer evaluator will look at this area first for applicable credits for transfer. A vast majority of introductory courses are generally equivalent.

Statewide transfer degrees: Also known as "TAOC" degrees these are specific AA or AS transfer programs at Pennsylvania community colleges. Students with these degrees are guaranteed to transfer at junior standing in a parallel program at IUP. Please discuss with the Transfer Services office or reference the following IUP website <https://www.iup.edu/admissions/transfer/college-guides-articulations-collaboratives/index.html>

## Undergraduate Credit Transfer Specifications

- In the acceptance and application of undergraduate transfer college-level credits, IUP will first apply as many college-level credits as possible toward the satisfaction of liberal studies requirements, then to requirements in the major, and finally to elective credits.
- IUP recognizes the integrity, design, and validity of liberal studies programs at other institutions with CHEA-recognized accreditation and will accept liberal studies coursework when comparable. Liberal studies credits aligned with the PA Statewide Transfer Credit Framework will transfer toward the liberal studies requirements at IUP.
- Students who transfer to IUP from a postsecondary institution with CHEA-recognized accreditation with an Associate of Science or an Associate of Arts degree, or having completed liberal studies requirements for a bachelor's degree, an Associate of Science or an Associate of Arts degree, shall have satisfied the liberal studies requirements at IUP. Exceptions may be made for the following, provided that these exceptions do not extend the student's time to the degree: (a) One signature liberal studies course (up to 3 credits), if applicable; (b) Any prescribed liberal studies course required for the major, if not satisfactorily completed; (c) Specific liberal studies overlays satisfied in advanced courses in the major. Students who have met their liberal studies requirements at a prior four-year institution will need to notify and provide verification to the Undergraduate Admissions office.



- Undergraduate students who transfer into IUP with an Associate of Arts or an Associate of Science degree from a postsecondary institution with CHEA-recognized accreditation in a parallel academic program or as part of the Program to Program (P2P) articulation agreements will be awarded full junior standing and shall not be required to satisfactorily complete more than 60 credits to earn a 120-credit baccalaureate degree in a P2P or other parallel program, regardless of the courses they took to earn the Associate degree; they will have the same requirements for admission to a particular academic program and for retention as students who began their education at a IUP. Students transferring into a program with accreditation or licensing/certification standards may be required to take limited additional credits to meet those standards.

## Second Baccalaureate Degree

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

## Teacher Certification

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

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

## Placement Test Policy

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

## Immunization Requirements

**Website:** [iup.edu/healthservice/](http://iup.edu/healthservice/)

Students are required to complete a Student Health form documenting immunization status.

## IUP Residency Requirement for Awarding of Degrees

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

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

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

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

## **Program for Visiting High School Students (Dual Enrollment)**

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

## **Re-enrollment Policy**

Graduate students wishing to return to the university must contact the School of Graduate Studies and Research for specific instructions.

An application for re-enrollment is *not* required for previously enrolled undergraduate students (in academic good standing) who have registered for classes in at least one of the two previous regular academic semesters. Under these circumstances, simply contact your department for advising and an alternate PIN number. If you do not meet these criteria, then you *must* submit an application for re-enrollment.

### **1. For Students in Academic Good Standing**

- a. Previously matriculated undergraduate students who have registered for classes in at least one of the two previous regular academic semesters can re-enroll for courses by contacting their department for advising and an alternate PIN number.
- b. Undergraduate students who have withdrawn from the university voluntarily or who have not been enrolled in the previous two or more regular academic semesters must submit an online application for re-enrollment. Applications may be submitted up to one week prior to the start of the semester for which the student wishes to return. After processing the application, the student will be sent information regarding registration.

### **2. For Students Not in Academic Good Standing**

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

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

### **3. For Students Who Have Been Involuntarily Withdrawn from the University**

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

### **4. Additional Information**

- a. To return to the university, log into MyIUP and select "Academics." You will find "Apply for Re-enrollment to IUP" in the "Academic Record" portal. Complete and submit the form. If you do not have a MyIUP account, claim your account to get MyIUP access. For more information on IUP's re-enrollment procedures, please access the Registrar's website.
- b. Separate from the re-enrollment process, a returning student may be required to address outstanding holds of any kind before being allowed to register for classes.
- c. Some programs may have enrollment restrictions that affect re-entry. Check with the dean's office of the college housing the major.
- d. Applications for students seeking to change their major will be forwarded to the Academic Standards Officer of the college of the requested major. A change of major request will be initiated on the student's behalf. If approved, the Office of the Registrar will officially change the major while reactivating the student account for registration.
- e. Students who want to be considered for financial aid must complete the Free Application for Federal Student Aid (FAFSA) to determine their financial aid eligibility. Eligibility will be based on financial need, as determined by the FAFSA, and on prior academic record.
- f. Returning students who have not been enrolled for two years or more may petition their college dean for application of the Cancelled Semester Policy, which provides for cancellation from the cumulative record of the effects of one semester below a GPA of 2.0. Students who have been separated from the university for two consecutive calendar years may petition their college dean to return under the Fresh Start Policy. Students must pay fees and attend classes before a designated semester will be cancelled or the Fresh Start Policy will take effect. Details regarding these policies can also be found in the Academic Policies section in the Undergraduate Catalog.
- g. A student whose education is interrupted by two or more calendar years will be governed by the requirements in effect at the time of reenrollment to the university. The reenrollment may carry specific requirements/substitutions necessary to provide for program integrity.
- h. The applicability of course work completed more than 10 years before the degree date is subject to review by the dean or designee for evaluation on a course-by-course basis.

## The Summer and Winter Sessions

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

Continuing university students, including newly admitted freshmen, who wish to accelerate their program of studies will find both Liberal Studies and special courses in all fields of study. Students from other colleges and universities may take courses at IUP; however, they are advised to first ensure that their home institution will transfer such credits earned at IUP.

Teachers-in-service will find courses in the summer program to serve a variety of needs. They may enroll to qualify for permanent certification, satisfy Act 48 requirements, take refresher courses in their field of specialization, or take courses for the purpose of extending their certification to a new field.

The Summer Sessions schedule can be viewed at the website [www.iup.edu/summer](http://www.iup.edu/summer). The Winter Session schedule can be viewed at the website [www.iup.edu/winter](http://www.iup.edu/winter).

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

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

# Finances

## Tuition and Fees

The Office of Student Billing is located on the first floor of Clark Hall and assists students regarding financial responsibility for their education. The Office of Student Billing provides services to current students, parents, alumni and the university community in general.

Team members of the Office of Student Billing can be reached at either 724-57-2207 or [student-billing@iup.edu](mailto:student-billing@iup.edu) and can assist with questions regarding billing, financing a student's education, refunds and other related matters. The fee schedule is subject to change; these figures are to be considered simply as an estimate. The most current fee schedule can be obtained by writing to the IUP Office of Admissions, by phoning 724-357-2230, or by visiting the website <http://www.iup.edu/student-billing/>. *\*The university reserves the right to change its fees without notice\**

## Tuition

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

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

## Dining Plan Fee

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

## Wellness Fees

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

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

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

## **Instructional Fee**

All students are charged an instructional fee to support academic equipment, library resources, maintenance and repair projects, recreational facilities, and the advancement of technologies. The fee is \$34.20 per credit for resident students with a max of \$410.40. The fee is \$83.40 per credit for nonresident students with a max of \$1,000.80.

## **Registration Fee**

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

## **Miscellaneous Costs**

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

## **Other Costs**

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

## **Residence Hall Fee**

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

## **Student Activity Fee**

This fee is collected from all students and administered through the Student Cooperative Association under regulations approved by the Council of Trustees. This fee covers the cost of student activities in recreation, athletics, lectures, entertainment, student organizations, student publications, etc. and is payable in one lump sum for the semester. The Student Activity Fee is assessed each semester on a per-credit basis as follows: \$35 per credit for all students, capped at 15 credits (\$525) for undergraduate students and 12 credits (\$420) for graduate students. This fee is assessed only to students attending the Indiana and Punxsutawney campuses.

## **Student Service Fee**

This fee will be used to support programming and services that support out-of-classroom experiences for both undergraduate and graduate students. Undergraduate students will be assessed \$17 per credit cap at (\$255.00) and graduate students, \$14 per credit.

## **Transportation Fee**

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

## Technology Tuition Fee

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

*Pennsylvania residents:* \$20 to a maximum of \$252

*Nonresident students:* \$30 to a maximum of \$372

## Summer Sessions Fees

### Basic Tuition Fee

The most current fee schedule can be obtained by writing to the IUP Office of Admissions, by phoning 724-357-2230, or by visiting the website <http://www.iup.edu/student-billing/>.

### Summer Dining Plan Fees

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

### Summer Instructional Fee

All students are charged an instructional fee to support academic equipment, library resources, maintenance and repair projects, recreational facilities, and the advancement of technologies. This fee is \$34.20 per credit for in-state students and \$83.50 per credit for out-of-state students.

### Summer Registration Fee

All students are charged a registration fee of \$32 for the summer.

### Summer Residence Hall Fee

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

### Summer Student Activity Fee

This fee in the summer is \$42 per credit for undergraduate students.

### Summer Student Services Fee

This fee in the summer is \$17 per credit for undergraduate students.

## **Summer Student Wellness Fee**

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

## **Summer Technology Tuition Fee**

This fee is assessed to all students per summer session as follows:

*In-state:* \$20/credit

*Out-of-state:* \$30/credit

## **Winter Session and Distance Education Only Fees**

### **Basic Tuition Fee**

The most current fee schedule can be obtained by writing to the IUP Office of Admissions, by phoning 724-357-2230, or by visiting the website <http://www.iup.edu/student-billing/>.

### **Winter Session and Distance Education Only Instructional Fee**

All students are charged an instructional fee to support academic equipment, library resources, maintenance and repair projects, recreational facilities, and the advancement of technologies. This fee is \$34.20 per credit for in-state students and \$83.40 per credit for out-of-state students.

### **Winter Session and Distance Education Only Registration Fee**

All students are charged a registration fee of \$32 for the winter session or distance education-only.

### **Winter Session and Distance Education Only Student Services Fee**

This fee in the winter session or distance education-only is \$17 per credit for undergraduate students.

### **Winter Session and Distance Education Only Technology Tuition Fee**

This fee is assessed to all students per winter session or distance education only as follows:

*In-state:* \$20/credit

*Out-of-state:* \$30/credit

## **Special Fees**

## **Additional Course Fees**

Additional fees may be attached to some courses; standard tuition fees are also charged. Courses currently carrying additional fees follow.

- **Applied Music Fee:** \$100 per credit—Students enrolled in applied music (APMU) courses will be assessed this fee.

## **Application Fee**

A nonrefundable \$25 application fee must accompany the application for admission to the university.

## **Advance Deposit Fee**

An advance deposit—tuition fee of \$150 is required of all incoming freshmen to reserve a space in the freshman class and a dormitory room if applicable (fall semester only). These deposits are nonrefundable.

## **Audit Fee**

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

## **Bad Check Charge**

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

## **Clinical Laboratory Registration Fee**

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

## **Damage Fee**

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

## **Disney International Program Fee**

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

## **Evacuation and Repatriation Fee**

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



## Examination for Credit Fee

A fee of \$40 will be assessed for each examination taken for credit.

## I-Card Production Fee

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

## Immigration Fee

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

## Installment Payment Fee

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

## International Student Orientation Fee

This fee of \$125 is charged to all international students who register for the IUP orientation program to support associated costs.

## International Student Placement Testing Fee

This fee of \$45 is charged to all international students who test.

## Student Conduct Fines and Fees for Service

Based on disciplinary sanctions, the following fines and fees may be assessed:

BASICS-Alcohol/Cannabis (fee for service)	\$75
Chemical Health Assessment (fee for service)	\$45
Disciplinary Probation (fine)	\$150
Stayed Removal from Residential Building (fine)	\$150
Removal/ban from Residential Building (fine)	\$150
Stayed Suspension (fine)	\$200
Suspension (fine)	\$300

## Late Payment Fee

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

## Off-Campus Instructional Fee

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

## Portfolio Application/Assessment Fee

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

## Teacher Certification Fee

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

## Testing Fee

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

## Transcript Fees

Printed and electronic transcripts must be ordered online through the National Student Clearinghouse (NSC). Please check the Registrar's Office's website for fees, details and complete instructions, [www.iup.edu/registrar](http://www.iup.edu/registrar).

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

## Billing and Payments

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

## Financial Delinquency Policy

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

## **Delinquent Accounts**

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

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

## **Payment of Financial Aid**

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

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

## **IUP Refund Policy**

For a copy of IUP's Refund Policy or a sample refund calculation, please contact the Office of Student Billing at 724-357-2207. The Refund Policy is also available at <http://www.iup.edu/student-billing/>.

## **Financial Aid**

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

## **Eligibility Requirements**

The general requirements for financial aid eligibility include the following:

1. Be enrolled on at least a half-time basis (6 credits per semester) except for the Federal Pell Grant program and Federal Work Study program.
2. Be a US citizen, national or permanent resident, or other eligible noncitizen.
3. Maintain satisfactory academic progress in your course of study.

4. Be enrolled or accepted for enrollment in an associate degree, bachelor's degree, postbaccalaureate teacher's certification, postbaccalaureate second undergraduate degree program, or eligible certificate program.
5. Not be in default and not have failed to make satisfactory arrangements to repay any federal student loans.
6. Not owe a repayment on a Federal Pell Grant or Federal Supplemental Educational Opportunity Grant.
7. Resolve unusual enrollment history (if required).
8. Not have borrowed in excess of any federal loan limits.
9. Have a valid Social Security number.

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

**Student Responsibilities**-Students who apply for financial aid have certain responsibilities, which are listed below:

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

## Financial Aid Programs Available

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

## Employment

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

Students can use MyIUP to review their eligibility for the Federal Work-Study program by following the steps in the Finances Section of the portal. They will see a message regarding their eligibility for this need-based program. If they are eligible for FWS funding, they can choose to forward a request to have the award added to their financial aid program directly to Financial Aid.

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

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

An FWSP award may affect eligibility for student loans. For more specific information on how an FWSP award could impact loan eligibility, students should inquire with the Financial Aid Office, by phone to 724-357-2218, or by e-mail at [financial-aid@iup.edu](mailto:financial-aid@iup.edu).

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

*\*International students' circumstances may vary. For more information, please consult Payroll Services (724-357-4872, G11 Sutton Hall).*

## Service Learning Work Study Program

This employment program places FWSP-eligible students in community service positions available off campus. In addition to earning money, students gain practical work experience related to their academic major. The Office of Service Learning, which assists students in obtaining these opportunities, is part of the Center for Multicultural Student Leadership and Engagement, located in 128 Elkin Hall.

## PHEAA State Work Study

This employment program provides Pennsylvania students with employment opportunities in high technology and community service fields. Students can gain career-related, on-the-job work experience. Applications are available through the PHEAA website at [www.pheaa.org](http://www.pheaa.org) and must be completed by both the student and the organization with which the student would like to be employed.

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

## Educational Loans

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

## Federal Direct Subsidized and Unsubsidized Loan

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

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

Additional Unsubsidized Federal Direct Loan funds are available to independent undergraduate students. Freshmen and sophomores may receive up to \$4,000; juniors and seniors may receive up to \$5,000. Dependent students whose parents cannot obtain a Federal Direct PLUS Loan may also be eligible for these additional unsubsidized funds.

## Federal Direct PLUS Loan

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

## Alternative Loans

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

## Grants

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

### Federal Pell Grant

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

### Federal Supplemental Educational Opportunity Grant (FSEOG)

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

### Pennsylvania State Grant

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

time semesters of eligibility is permitted. During summer sessions, students must be enrolled for a minimum of five weeks.

## State Grants

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

# Scholarships

## IUP Scholarships

Scholarships recognize achievements in academics, athletics, and the arts and provide gift assistance to help students finance their educational expenses. Incoming freshman and transfer students have their eligibility for merit-based scholarships determined at the time of admission to IUP. Eligibility for need-based scholarships and grants are determined automatically during the financial aid awarding process ([iup.edu/financialaid](http://iup.edu/financialaid)).

Visit [www.iup.edu/scholarships](http://www.iup.edu/scholarships) for further scholarship information, email [scholarships-info@iup.edu](mailto:scholarships-info@iup.edu), or call 724-357-7544.

## PASSHE Foundation Scholarships

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

## PHEAA-Administered Scholarships and Special Programs

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

## Private Scholarships

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

## ROTC Scholarships

The Reserve Officers' Training Corps (ROTC) offers many different types of scholarships. High school students can apply for the ROTC four-year or three-year Advanced Designee scholarships before attending college. College students can apply for a 3.5-year, 3-year, 2.5-year, or 2-year scholarship. ROTC scholarships pay for tuition and fees or room and board, a \$1,200 book allowance, and a \$420 monthly stipend (while school is in session). Scholarships are competitive and you must enroll in Army ROTC to compete for the scholarships. Interested and eligible high school students may apply online at [www.goarmy.com/rotc](http://www.goarmy.com/rotc). College students may obtain additional information and eligibility criteria by contacting the ROTC staff members in Pierce Hall at [cchavira@iup.edu](mailto:cchavira@iup.edu) or by calling 724-357-7682.

## Other Resources

### Athletic Grants-in-Aid

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

### Office of Vocational Rehabilitation Assistance (OVR)

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

### Pennsylvania National Guard Educational Assistance Program (EAP)

Together with the Pennsylvania Department of Military and Veterans Affairs, PHEAA administers this tuition assistance program for students who enter into a service commitment with the Pennsylvania National Guard for a period of six years. Eligible students who join the Pennsylvania Army/Air National Guard may be eligible for a state EAP grant up to the amount of the PASSHE full-time tuition rate. This award may be reduced for students who also are receiving Federal Tuition Assistance benefits and/or benefits from Chapter 33 of the GI Bill. EAP funding is awarded regardless of financial need and reductions or adjustments of PA State Grants cannot be made as a result of a service member receiving EAP. In addition, together with the Pennsylvania Department of Military and Veterans Affairs, PHEAA administers a tuition assistance program for dependents (spouses and children) of PA Guard Members who enter into an additional 6-year service commitment with the Pennsylvania National Guard. The PA Guard Member can assign the entire benefit to one dependent or a portion of the benefit to more than one dependent. Currently eligible students may receive ten semesters of EAP. To apply for EAP and/or receive the most current information regarding this benefit, the military member should contact the readiness noncommissioned officer at his/her unit. Additional information may also be obtained by calling 717-861-8626 or 1-800-GO-GUARD or visiting [PHEAA.org/EAP](http://PHEAA.org/EAP).

## University Refund Advance

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

## Military and Veterans Resource Center (MVRC)



Visit Military and Veterans Resource Center for more information.

## Title IV Satisfactory Academic Progress Policy

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

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

A student who meets the university's Academic Standards Policy, but who does not meet the Financial Aid SAP qualitative and quantitative standards, may continue in university registration, but will not be eligible to participate in the Federal Title IV aid programs. This happens because the Financial Aid SAP Policy is stricter than the university's Academic Standards Policy

A full statement of requirements for Satisfactory Academic Progress for Title IV Federal Student Aid is available at the Financial Aid office.

## Title IV Financial Aid Satisfactory Academic Progress Policy

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

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

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

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

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

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

rescinded beginning with the next semester of enrollment.

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

**d. Appeal Process:** Students who have special circumstances, beyond their control which cause them to not make SAP, may submit a written appeal to the Financial Aid Appeals Committee for consideration of reinstatement of Title IV aid eligibility. However, a special circumstance does not guarantee an exception to the financial aid SAP regulations. Students who exceed the 150 percent credit guidelines due to change of major or double majors may also submit a written appeal.

The written appeal must specifically outline the reason(s) for the progress deficiency *and* identify what has changed to allow the student to make SAP by the next evaluation. The appeal must contain sufficient documentation to substantiate the reason cited for lack of progress for instance, supporting documentation from a healthcare provider that clarifies the student's health situation, an obituary, and/or letters of support from relevant professional individuals (not related to the student) are all acceptable forms of documentation. Letters from third party individuals should be on letterhead and contain a hand-written signature.

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

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

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

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

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

1. **Transfer Credits:** All transfer credits that students transfer into IUP are taken into consideration as part of their attempted and passed credits for purposes of measuring SAP percent of progress as well as time frame for degree completion. Non-accepted transfer credits will not count towards measuring pace nor timeframe for degree completion.
2. **Audits, "S," and "U" Grades:** Because course audits, "S," and "U" grades carry no credits, they are not reviewed or counted for SAP progress purposes.
3. **Incompletes:** Designations of "I," "L," "R," and "\*" are treated as credits attempted/zero credits passed, thus have no effect on CGPA. However, these designations are treated as non-completed (attempted) credits and have an impact in the calculation of the percent of progress measure and time frame for degree completion. (Note: The "\*" is an administrative symbol indicating that a grade was not submitted at the time of grade processing.)

4. **"F" Repeat with Replacement:** An "F" repeat with replacement is treated as credits attempted/credits passed/with the quality points (QP) of the new grade replacing the 0.00 QP of the original "F" grade. An "F" repeat has a positive effect on the CGPA, but represents an additional number of credits attempted in regard to the percent of progress and time frame for degree completion measurements.
5. **"D" Repeat with Replacement:** Repeated classes that are "D" replacements to a student's record are treated as credits attempted/zero credits passed/with the quality points (QP) of the new grade replacing the 1.00 QP of the "D" grade. A "D" repeat with replacement may improve a student's CGPA, but represents an additional number of credits attempted in regard to the percent of progress and time frame for degree completion measurements.
6. **Repeats with Averaging:** Courses that are repeated with averaging count as credits attempted/credits passed with the quality points for the class averaged into the CGPA. The maximum time frame for degree completion may be impacted by repeat with averaging classes.
7. **Withdrawals:** Designations of "W," "Q," "WP," or "WF" are treated as registered credits/zero credits passed/no effect on CGPA. Any type of "W" designation is treated as noncompleted (attempted) credits in the calculation of percent of progress and time frame for degree completion measurements.
8. **"N" Grades:** An "N" grade represents a non-participation failing grade. This counts as credits attempted/zero passed and zero QP will be averaged into determine GPA. This grade is treated the same as an "F" grade.
9. **Pass/Fail Grades:** Pass grades are treated as registered credits/credits passed/no effect on GPA. Fail grades are treated as registered credits/ zero credits passed/with zero QP averaged into the calculation of GPA.
10. **Noncredit Courses:** Noncredit classes, such as those with Continuing Education Units (CEUs), are not used in measuring sufficient progress, since these classes cannot be applied toward degree requirements and no financial aid may be received for enrollment.
11. **Institutional Credits:** Institutional credits are counted as registered credits/credits completed. The QP for the course is not averaged into the student's overall GPA.
12. **Fresh Start Program/Canceled Semester:** Students readmitted under the Fresh Start Program, or who have had a canceled semester, must still meet the financial aid qualitative and quantitative SAP requirements (using all previously enrolled semester data). Federal regulations do not permit the financial aid office staff to remove or ignore any academic statistics.

## Unofficial Withdrawal

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

## Military and Veterans Resource Center

**E-Mail:** [iup-mrc@iup.edu](mailto:iup-mrc@iup.edu); **Telephone:** 724-357-3008

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

1. Certificate of Eligibility
2. Certification Request Form

Twelve credits are required to be considered a full-time undergraduate by the Veterans Administration. The minimum full-time requirement for a graduate student is nine credits. In addition to regular sources of financial aid, veterans and

dependents of veterans may be eligible for VA education benefits. Benefit programs may be reviewed at [www.gibill.va.gov](http://www.gibill.va.gov).

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

## Student Who are Using Veterans Education Benefits on Probation/ Suspension

The School Certifying Official (SCO) is required to notify the VA of any students who are on academic probation/suspension. Probation and suspension will affect your benefits. The VA requires students to make satisfactory progress toward their college degrees. Below are policies for using Veterans Education Benefits for students on probation or have been academically dismissed by the university.

1. *Probation:* Undergraduate students who fall below a 2.00 GPA and graduate students who fall below a 3.00 are placed on academic probation for one semester. Students may continue to use Veterans Education Benefits for the one semester they are on probation. Graduate students who fail to raise their GPA above a 3.00 during the probation period, are dropped from the graduate program, their benefits will be terminated, and will be dismissed from program.
2. *Extended Probation:* Undergraduate students are granted one semester of extended probation by the university. If they are making progress towards academic good standing, they can use their benefits for the semester they are on extended probation. After this period, if not above a 2.00 GPA, benefits will be terminated and will be dismissed from program.
3. *For undergraduate students failing to make a 2.00 GPA after probation,* their benefits will be terminated and students will be dismissed from program.
4. *Suspension:* Students who have been academically dismissed from the university will have their benefits terminated. The students who are reenrolled in the university can continue to use their benefits once they are in academic good standing (above a 2.00) with the university.

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

For further information, veterans should contact the Director, MVRC, G-60 Suites on Maple East, Indiana, PA 15705, 724-357-3008. Email may be sent to [veterans-affairs@iup.edu](mailto:veterans-affairs@iup.edu). Veterans may also review the IUP veterans website at [www.iup.edu/veterans](http://www.iup.edu/veterans).

## Academic Affairs Division Areas

**Lara M. Luetkehans, Provost and Vice President for Academic Affairs**  
**John N. Kilmarx, Associate Vice President for Academic Administration**  
**Edel Reilly, Provost's Associate**

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

## Academic Affairs Areas

The areas below provide instruction in several disciplines that are not specific to one of the university's distinct colleges. They offer services and instruction under the direction of the Office of the Provost.

## Office of the Registrar

**Website:** <https://www.iup.edu/registrar/> **Email:** [registrars-office@iup.edu](mailto:registrars-office@iup.edu)  
**Michael Powell, Registrar**

## Office of IT Services

**William Balint, Director**  
**Website:** <https://www.iup.edu/itservices/>

## Cook Honors College

**Website:** [www.iup.edu/honor](http://www.iup.edu/honor)  
**Chauna J. Craig, Director**

The Cook Honors College is IUP's university-wide honors program for undergraduate students of all majors who are accepted into the program. Its goal is to provide a unique educational environment in which students of high ability and motivation can achieve their potential in a nurturing learning community. The Cook Honors College makes an intentional effort to see that students and faculty members are provided with integrated courses, an appreciation for multiple perspectives on important issues, and common learning experiences wherever possible; it strives to see that the learning community remains cohesive with both academic and cocurricular components throughout the four years of the student's honors experience.

The Cook Honors College provides a challenging opportunity for academic and personal development through an integrated program of curriculum, residence, and cocurricular activities. Whitmyre Hall is a combined honors residential/academic facility that includes classrooms and program offices as well as student rooms and cocurricular spaces.

Students in any academic major may apply for admission to the Cook Honors College. Students may enter the program as freshmen or later as sophomore "transfer" students from either another university or from IUP. An application is required and is evaluated by the Cook Honors College Admissions Committee.

## Program Requirements

All first-year students are required to live in honors housing on campus and are encouraged to remain in honors housing throughout their undergraduate career as space permits. Exceptions to the first-year residency requirement are considered only under unusual circumstances, e.g. students 25 or older or who are married and/or have children.

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

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

## Requirements for Students Admitted as Freshmen

### Required Courses: 18

- HNRC 101 - Honors Core I **Credits: 5 (1)**
- HNRC 102 - Honors Core II **Credits: 5 (1)**
- HNRC 201 - Honors Core III **Credits: 4 (1)**
- HNRC 202 - Honors Core: Sciences **Credits: 4 (2)**

### Additional Honors Coursework/Experiential Education: 6

- Completion of H-Designated Course **Credits: 3**  
or
- Departmental Honors Thesis **Credits: 3 (3)**
- Completion of Experiential Education Requirement **Credits:3 (4)**

### Cook Honors College Requirements: 24

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

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

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

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

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

## Military Science

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

**LTC Erich Steffens, Chair**

### Military Science Department

- Military Science Program
- Military Leadership Minor

## Reserve Officers' Training Corps

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

The ROTC program is divided into two phases: the Basic Course (freshman and sophomore years) and the Advanced Course (junior and senior years). In most cases, students progress through the ROTC program by enrolling in MLSC 101 and MLSC 102 as freshmen. By taking MLSC 101 and MLSC 102, the student fulfills the university's 3-credit Liberal Studies requirement in Health and Wellness. Students who continue in the Basic Course by enrolling in MLSC 203 and MLSC 204 as sophomores incur no military obligation, but they retain the opportunity to compete for a full-

tuition ROTC scholarship. Students must complete the Basic Course to be eligible to enroll in the ROTC Advance Course. All students receive financial assistance while they are enrolled in the Advanced Course.

## What ROTC Offers

- Comprehensive academic program in military leadership teaches practical skills such as physical fitness, adventure training, rappelling, marksmanship, orienteering, and first-aid techniques.
- Regular ROTC classes for two semesters satisfy the mandatory Health and Wellness Liberal Studies requirement for graduation.
- Equipment, ROTC textbooks, and uniforms are issued, without cost, to enrolled students.
- Students enrolled in the Basic Course (MLSC 101, MLSC 102, MLSC 203, and MLSC 204) become eligible for full-tuition scholarships and enrollment in the ROTC Advanced Course.
- Students enrolled in the Advanced Course (MLSC 305, MLSC 306, MLSC 407, and MLSC 408) receive a cash stipend (\$450-\$500 each month) for 10 months during the academic year.
- Students who complete the Advanced Course and graduate from IUP receive commissions as second lieutenants and serve in one of three Army components: Active Army, National Guard, or Army Reserve.
- Dedicated dorms in Stephenson Hall with discounted room and board rates.

## ROTC Basic Course

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

## ROTC Advanced Course

The last two years of Military Science (MLSC 305, MLSC 306, MLSC 407, and MLSC 408) compose the Advanced Course and lead to a commission as an officer in the US Army. To be eligible to enroll in the Advanced Course, a student must meet these criteria: be a citizen of the United States; be physically fit and pass a physical examination; be an enrolled academic junior or senior with at least a 2.0 GPA; be not less than 17 years of age but less than 39 by the anticipated graduation date; successfully complete the ROTC Basic Course or its equivalent; and be accepted by the professor of military science. Advanced Course students study advanced leadership, management, professional ethics, small unit tactics, military law, and instructional and training techniques. Practical application is the rule, and students have the opportunity to practice and polish their skills as members of the ROTC battalion leadership. Once Advanced Course students agree in writing to complete the Advanced Course, graduate on time, and accept a commission as an officer, they become eligible to receive a monthly tax-free cash stipend of \$450 for 10 months of the academic year.

## Scholarships

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



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

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

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

## Military Science Program

### Required Courses:

- MLSC 101 - Introduction to Military Science **Credits:** 2 (1)
- MLSC 102 - Fundamentals of Military Science **Credits:** 2 (1)
- MLSC 203 - Fundamentals of Tactical Operations, Techniques of Leadership, and Weapons Characteristics **Credits:** 2 (2)
- MLSC 204 - National Security and Fundamentals of Military Topography **Credits:** 2 (2)
- MLSC 305 - Fundamentals of Leadership and Modern Learning/Teaching Relationship **Credits:** 3
- MLSC 306 - Study of Advance Leader Planning and Execution of Modern Combat Operations **Credits:** 3
- MLSC 407 - Advanced Army Leadership Seminar **Credits:** 2
- MLSC 408 - Seminar in Military Analysis and Management **Credits:** 3
- HIST 251 - United States Military History **Credits:** 3

### Total Program Requirements: 23

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

## Office of International Education

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

**Michele L. Petrucci, Associate Vice President for International Education and Global Engagement**

**Emma Archer, Director of International Student and Scholar Services**

**Jessica Mulvihill, Director, Education Abroad & National Student Exchange**

The Office of International Education (OIE) is a comprehensive international education office and the primary catalyst for IUP's international initiatives. The OIE proactively facilitates, promotes, and organizes the international programs, events, support, and initiatives to more fully diversify IUP and the local western Pennsylvania communities.

The OIE is a central source of information that provides special services for admitted international students, visiting scholars, and international visitors and faculty members. The office is also the main resource and support for education abroad programs and international programming. The office provides the following services:

- extensive orientation program for new international students
- advising on immigration matters
- counseling on cultural and personal matters
- preparation and processing of immigration documents
- predeparture orientation program for education abroad participants
- re-entry program for education abroad participants returning from overseas
- intercultural programming for the campus and Indiana community
- aid to faculty members for international programming and faculty-led education abroad
- organization of international events such as International Education Week and International Unity Day
- management of international programs such as Conversation Partners and International Friendship Program
- management and oversight of IUP's intensive English program, the American Language Institute
- International agreements and partnerships
- International recruiting and marketing

- A. International Exchange and Education Abroad Programs
  - B. CEA
  - C. International Student Exchange Program (ISEP)
  - D. SAI
- Semester at Sea (SAS)
  - Faculty-Led Program
  - American Language Institute (ALI)

## International Exchange and Education Abroad Programs

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

**Michele L. Petrucci, Associate Vice President for International Education and Global Engagement**

**Jessica Mulvihill, Director, Education Abroad & National Student Exchange**

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

Programs include:

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

**Australia, Manly.** IUP students can study courses in Hospitality Management, Business, Sports Management, Event Management, Marketing, and Tourism. ICMS is on a trimester schedule which falls inline well with IUP's

semesters. The autumn trimester runs from September to December and the spring trimester runs from February to May. Students are also able to take advantage of their May trimester that runs from late May to late August.

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

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

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

**China, Nanjing.** Students can attend Nanjing University and experience Chinese culture and language for a semester or an academic year. Language of instruction is Chinese.

**China, Shanghai.** Students can attend Shanghai Normal University and experience Chinese culture and language for a semester or an academic year. Language of instruction is Chinese.

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

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

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

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

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

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

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

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

**Germany, Duisburg.** Students may study at the University of Duisburg-Essen Mercator School of Management for one semester or an academic year. Language of instruction is German.

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

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

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

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

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

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

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

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

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

**Japan, Nagoya.** Students can study for one semester or an academic year at Nagoya Gakuin University. A variety of courses are offered in the Asian Studies program. Languages of instruction are English and Japanese.

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

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

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

**Netherlands, Amsterdam.** Study at the Amsterdam University of Applied Sciences in the Faculty of Digital Media & Creative Industries. Language of instruction is English.

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

**Norway (various cities).** Western Norway University of Applied Sciences is a public institution of higher education with multiple campuses throughout the western region of Norway: Bergen, Stord, or Haugesund. Various subject matters can be studied. Languages of instruction are English and Norwegian.

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

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

**Slovenia, Ljubljana.** Students may study for one semester or an academic year at the Academy of Music at the University of Ljubljana. The language of instruction is English.

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

**South Korea, South Jeolla.** Students interested in improving their Korean language and culture skills and taking academic courses in English can study at Korea University—Sejong campus, located outside of Seoul. Students can experience a quieter side of Korea. Languages of instruction are Korean and English.

**Spain, Valladolid (spring).** Students with 12 earned credits in Spanish and an interest in experiencing Spain's culture have an opportunity to participate in the Pennsylvania Valladolid Study in Spain Program during the spring semester. This experience enables students to spend a period of 20 weeks immersed in Spanish culture and language at the University of Valladolid.

**Sweden, Karlstad.** Students wishing to enroll in a range of courses with a desire to experience Swedish culture are invited to study at Karlstad University. Language of instruction is English.

**Taiwan, Tamsui.** Experience life in Taiwan at Tamkang University. Across-the-board curriculum is offered for semester or academic-year exchanges. Languages of instruction are Chinese and English (specific programs).

**Taiwan, Taipei.** Study in the heart of the capital at the University of Taipei in various academic programs; especially Kinesiology. Languages of instruction are Chinese and English.

**Taiwan, Taichung.** Providence University. Students can attend Providence University for a semester or summer program. Intensive Mandarin Chinese language courses, Taiwanese culture, and both undergraduate and graduate business courses are available. Languages of instruction are English and Chinese

**Turkey, Ankara.** Students may study at Middle East Technical University, located in the country's capital, in a full range of subjects. Language of instruction is English.

## CEA Study Abroad

IUP students can participate in a range of English-medium programs (including internships) around the world through CEA Study Abroad. For more information, visit the website [www.ceastudyabroad.com](http://www.ceastudyabroad.com) and the OIE.

## International Student Exchange Program - DIRECT (ISEP)

The ISEP offers a wide range of affordable educational and cultural experiences (including internships) for one semester or academic year for participants at more than 100 institutions in 35 different countries (summer and longer exchanges are also possible). Students who do not speak a foreign language still have many sites in which the language of instruction is English. Students who do speak a foreign language have even more options. For more information, visit the website [www.isep.org](http://www.isep.org) and the OIE.

## SAI Programs

Programs in Italy, France, and Spain are offered. Consider studying at one of the English-medium institutions offered through IUP's affiliate agreement with SAI: Rome, Florence, Milan, Sorrento, Paris, and Barcelona. A wide range of courses are offered. Language of instruction is English. For more information, visit the website <https://www.saiprograms.com/>

## Semester at Sea (SAS)

This is a multiple-country education abroad program open to students of all majors. The unique SAS shipboard environment travels the world while offering cocurricular activities and academics. For more information, visit the website [www.semestratsea.org](http://www.semestratsea.org).

## Faculty-Led Program

Faculty-led programs are designed and taught and led by IUP faculty in an international setting. The courses and locations vary from year to year. Current approved programming can be found on the OIE's website [www.iup.edu/educationabroad](http://www.iup.edu/educationabroad).

## American Language Institute (ALI)—English Language Programs for International Students and Visitors

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

The American Language Institute (ALI) offers intensive English classes for international students and visitors. The ALI provides courses for students from beginner to advanced proficiency in English. Students at the ALI take 18-24 hours of course work a week, with 14-week semesters in the fall and spring and a seven-week term in the summer. Cocurricular social and cultural programs are offered to all ALI students.

The ALI offers several programs of study to meet the language needs and academic interests of international students:

- The English for Academic Purposes program is for applicants preparing for study at a US college or university, exchange students, and individuals in the community who want to improve their English skills.
- The ALI Provisional program (ALI-P) is for applicants who plan to study at IUP. This program allows students to receive conditional admission to an undergraduate and several graduate programs at IUP while they study at the ALI to reach the required level of English proficiency.
- The ALI Bridge program allows qualified students to take up to two IUP classes while also studying English at the ALI. If students successfully complete nine IUP credits through the Bridge program, the language proficiency test requirement may be waived for undergraduate admission.

The ALI also works with groups and organizations to create programs to meet their students' schedules and specific language learning needs. Please contact the ALI for more information.

## Center for Teaching Excellence

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

The mission of the Center for Teaching Excellence is to foster the enhancement of teaching excellence in all its forms. The center offers many professional development opportunities to the campus community related to teaching and pedagogy. The center recognizes excellence in teaching through selection and presentation of the annual Faculty Recognition Awards. The center's Reflective Practice Project promotes effective teaching through the use of workshops, monthly meetings, and small "teaching circles." New Faculty Orientation, offered by the center, introduces new faculty members to the university and community and explores topics such as teaching, advising, and assessment. Current relevant and research-based teaching resources are available on the center's website. Faculty members are invited and encouraged to utilize the center resources to enhance student engagement in the learning process.

## Kathleen Jones White Writing Center

**Website:** <https://www.iup.edu/writingcenter/>

**Dana Lynn Driscoll, Director**

The Jones White Writing Center offers one-on-one tutoring, workshops, a graduate editing service, and writing-related events for the campus community. The Writing Center can assist students with any piece of writing at any stage of the writing process, in person or online. Individual tutorials with trained graduate and undergraduate tutors can last 30-60 minutes and can be scheduled at a variety of convenient times. Class and campus-wide workshops on a wide variety of writing topics are led by experienced tutors. The Writing Center also offers regular events and activities to support writers on campus. Our main Stabley Library 203 location offers a quiet, comfortable space with computers, printers, couches, and refreshments for students to work on their writing. Online synchronous and asynchronous tutorials are also available. The website offers a host of online resources available to view and download.

## Career and Professional Development Center

**Website:** [www.iup.edu/career](http://www.iup.edu/career) **E-mail:** [career-development@iup.edu](mailto:career-development@iup.edu)

**Tammy Manko, Director**

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

For general information about university internships and co-ops, reach out to the Career and Professional Development Center in B20 Stabley Library or via phone (724.357.2235) or email ([career-development@iup.edu](mailto:career-development@iup.edu)), the student's department internship/co-op coordinator, or the website [www.iup.edu/internships](http://www.iup.edu/internships).

## Student Rights

### Anti-Hazing Policy

The university prohibits hazing. The Anti-Hazing Policy applies to acts conducted on or off campus if such acts are deemed to constitute hazing under the policy or Pennsylvania law. Hazing is dangerous and detrimental to the health and safety of the entire community, degrades the values of the involved organization, and creates an environment of disrespect that contradicts the University's commitment to civility. To read the policy in its entirety, visit [www.iup.edu/studentssupportandstandards](http://www.iup.edu/studentssupportandstandards). The policy is managed by the Office of Student Support and Community Standards, G37 Ruddock Hall, 724-357-1254, [community-standards@iup.edu](mailto:community-standards@iup.edu).

### Community Standards Policies and Procedures

As a community, the University has developed a code of standards and expectations that are consistent with its purpose as an educational institution. The Community Standards Policy can be found at [www.iup.edu/studentssupportandstandards](http://www.iup.edu/studentssupportandstandards). The Office of Student Support and Community Standards supports the academic mission of the University by promoting the development of a campus community characterized by reasonable safety and security, responsible behavior, civility, and respect.

Through enforcement of University policies and regulations, the office challenges students to take responsibility for their action; demonstrate respect for themselves, property, and other individuals; and develop skills that will enhance lifelong problem solving, communication, and decision-making abilities. The Office of Student Support and Community Standards can be reached at 724-357-1254 or [community-standards@iup.edu](mailto:community-standards@iup.edu) and is located in G37 Ruddock Hall.

## Retaliation

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

## Sexual Discrimination/Misconduct Policy and Resources

The university is committed to providing a safe and positive living, learning, and work environment that is free from sexual discrimination and other prohibited sexual misconduct. Students, employees, and university affiliates are expected to conduct themselves in a manner that does not infringe upon the rights of others. The Sexual Discrimination/Misconduct Policy provides detailed definitions, reporting guidelines, and complaint resolution procedures. It can be found at <https://www.iup.edu/social-equity/policies/sexual-discrimination-and-sexual-misconduct/>.

The policy is applicable to all students and employees of the university, as well as designated volunteers, contractors, and vendors. Sexual discrimination and misconduct include: sexual harassment, nonconsensual sexual contact, non-consensual sexual intercourse, sexual exploitation, and retaliation. Resources and support services are available to the university community. Visit Title IX Reporting for more information. The Social Equity and Title IX Office can be reached at 724-357-3402, [social-equity@iup.edu](mailto:social-equity@iup.edu), [title-ix@iup.edu](mailto:title-ix@iup.edu), or in B-17 Delaney Hall.

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

FERPA affords students certain rights with respect to their education records. They follow:

1. The right to inspect and review the student's education records within 45 days of the day the university receives a request for access. Students should submit to the registrar, college dean, department chair, or other appropriate official written requests that identify the records they wish to inspect. The university official will arrange for access and notify the student of the time and place where the records may be inspected. If the records are not maintained by the official to whom the request was submitted, that official will advise the student to whom to direct the request.
2. The right to request amendment of the student's education records that he/she believes are inaccurate or misleading. Students should submit such requests in writing to the appropriate university official. The written request must clearly identify the part of the record the student wants to be changed and must specify why it is inaccurate or misleading. If the university decides not to amend the record as requested, the student will be notified of the decision by a university official who will advise the student of his/her right to a hearing regarding the requested amendment. Additional information regarding hearing procedures will be provided to the student when he or she is notified of the right to a hearing.
3. The right to consent to disclosures of personally identifiable information in the student's education records, except to the extent that FERPA authorizes disclosure without consent. One exception that permits disclosure without consent is to school officials with legitimate educational interests. A school official is a person employed by the university in an administrative, supervisory, academic or research, or support staff position (including law enforcement unit personnel and health staff); a person with whom the university has



- contracted (such as an attorney, auditor, or collection agent); a person serving on the Council of Trustees; or a student serving on an official committee, such as a disciplinary or grievance committee, or assisting another school official in performing his/her tasks. A school official has a legitimate educational interest if the official needs to review an education record to fulfill his/her professional responsibility. This includes school officials in other institutions to which a student is seeking admission or intends to enroll.
4. The right to file a complaint with the US Department of Education concerning alleged failures by IUP to comply with the requirements of FERPA. The name and address of the office that administers FERPA follows: Family Policy Compliance Office, US Department of Education, 400 Maryland Avenue, SW, Washington, DC 20202-4605.

## Student Rights/Directory Information

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

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

## University Policies

### Indoor Vaping Policy

Indiana University of Pennsylvania is a leading public, doctoral/research University, strongly committed to the health and safety of the University community.

The University bans the use of any and all electronic cigarettes, e-cigarettes, vaping products, and any other device which may cause a smoke, vapor, or other matter which may be inhaled by the user and/or bystander in all indoor areas on all Indiana University of Pennsylvania campuses, programming spaces, affiliated areas, and Student Cooperative Association property.

This policy applies to all students, faculty, staff, visitors, and vendors of the University.

Violations of this policy may be resolved through the appropriate offices:

1. Report violations by students to:  
The Office of Student Support and Community Standards  
724-357-1254  
community-standards@iup.edu

<https://www.iup.edu/studentsupportandstandards/>

2. Report violations by faculty and staff to:  
The Office of Human Resources  
724-357-2431  
[human-resources@iup.edu](mailto:human-resources@iup.edu)  
[iup.edu/humanresources](http://iup.edu/humanresources)

## Non Discrimination Policy

The University's Non-discrimination Policy was adopted on July 26, 2022. Any individual, including a third party, who becomes aware of behavior prohibited under this Policy may make a report to the Chief Diversity and Inclusion Officer and Title IX Coordinator in the Social Equity and Title IX Office.

Reports may be made at any time (including during non-business hours) by using the online reporting form <https://www.iup.edu/social-equity/report-an-incident-of-concern/index.html>, or by contacting the Social Equity and Title IX Office directly at [socialequity@iup.edu](mailto:socialequity@iup.edu) or during business hours by phone at 724-357-3402.

### Purpose

To define what actions and conduct are prohibited under this Policy and processes Indiana University of Pennsylvania ("University") will undertake to respond to reports of discrimination, harassment, and sexual misconduct allegations. This Policy applies to all applicants for admission or employment, students, employees, recognized volunteers, officials, and contractors of the University. The Pennsylvania State System of Higher Education and the University are committed to providing equal access to all individuals and prohibiting any form of discrimination and harassment on the basis of race, color, religion, national origin, ancestry, sex, age, marital status, familial status, sexual orientation, gender identity and expression, pregnancy, genetic information, disability, status as a veteran, or any other characteristic prohibited under applicable federal or state law (each a "protected category") in any decision-making regarding admissions, employment, or participation in a University Education Program or Activity.

### Scope

This Policy applies to on-campus and off-campus prohibited conduct. There is no time limit for reporting allegations of discrimination, harassment, or sexual misconduct; however, the University strongly encourages prompt reporting. If the reported Respondent is not a member of the University community or is no longer associated with the University at the time of the report or at the time a resolution process is initiated, the University may be unable to investigate or take disciplinary action and may be required to dismiss the complaint for a lack of jurisdiction.

### Legal Authority

Discrimination, harassment, and sexual misconduct are currently prohibited under federal, state, and local laws including under Titles IV, VI and VII of the Civil Rights Act of 1964, as amended; the Americans with Disabilities Act; the Age Discrimination in Employment Act; Title IX of the Education Amendments of 1972 and its implementing regulations; and the Pennsylvania Human Relations Act. This Policy is not intended to interfere with or replace any rights an individual may have under principles of due process, merit principles, an applicable collective bargaining agreement or applicable University or Board of Governors policies.

### Reporting

### **1. Reporting to the University:**

Any individual, including a third party, who becomes aware of behavior prohibited under this Policy may make a report to the Chief Diversity and Inclusion Officer and Title IX Coordinator in the Social Equity and Title IX Office. University administrators and supervisors who receive a verbal or written report of discrimination, harassment or sexual misconduct should contact the Chief Diversity and Inclusion Officer and Title IX Coordinator in the Social Equity and Title IX Office. While anonymous reports are accepted, the University's ability to address alleged misconduct reported anonymously may be significantly limited. Reports may be made at any time (including during non-business hours) by using the online reporting form (<https://www.iup.edu/social-equity/report-an-incident-of-concern/index.html>) or by contacting the Social Equity and Title IX Office directly at [socialequity@iup.edu](mailto:socialequity@iup.edu) or during business hours by phone at 724-357-3402. If the Chief Diversity and Inclusion Officer and Title IX Coordinator determines the allegations, if true, may represent a violation of this Policy or a related policy, an investigator will be assigned. The Complainant or Reporting Individual will be notified that an investigation will occur, and the Respondent will be notified in writing of the allegations consistent with the requirements of the applicable policy and any applicable collective bargaining agreement(s). Allegations of Regulatory Prohibited Sexual Misconduct will follow the procedures set forth in the University's Sexual Discrimination and Sexual Misconduct Policy. If the Chief Diversity and Inclusion Officer and Title IX Coordinator determines the allegations, if true, would not constitute discrimination, harassment, or sexual misconduct prohibited under this Policy, the Reporting Individual will be advised in writing of that determination.

The Chief Diversity and Inclusion Officer and Title IX Coordinator will respond to all inquiries, reports, and requests, or refer the Reporting Individual to the appropriate office in a manner appropriate to the circumstances. This response may include interim measures to protect the parties during the investigation and/or informal resolution processes. Interim measures involving employees in collective bargaining units may be determined in consultation with the Office of Human Resources and labor relations representatives.

In the case of allegations against the President, the Social Equity and Title IX Office will communicate with and cooperate with the State System's Office of Chief Counsel to identify an investigator. The selected investigator will forward a report to the Chancellor or Designee for review and final determination. In the case of allegations against the Chief Diversity and Inclusion Officer and Title IX Coordinator, the Office of the President will identify an investigator. The selected investigator will forward a report to the President or Designee for review and final determination. In the case of allegations against an employee or agent of a Contractor, the matter may be referred to the Contractor for resolution.

### **2. Anonymous Reporting:**

Individuals may file an anonymous complaint with the State System's Incident Reporting System by calling 855-298-5316 or filling out a form online. The Incident Reporting System is not intended to take the place of the reporting and investigation procedures established at the University. Matters reported through the State System's Incident Reporting System may be referred to the University to be handled under applicable University policy.

### **3. External Reporting:**

In addition to reporting to the University via the reporting procedures in this Policy, individuals may file a discrimination complaint directly with the outside agencies listed below.

A complaint may be filed with the U.S. Department of Education's Office for Civil Rights regarding an alleged violation of Title IX by calling 1-800-421-3481 : 1-877-521-2172 TTY or emailing [OCR.Philadelphia@ed.gov](mailto:OCR.Philadelphia@ed.gov) or visiting <https://www2.ed.gov/about/offices/list/ocr/complaintintro.html>. A complaint may be filed with the Pennsylvania Human Relations Commission by calling 717-787-

9780 for the Harrisburg Regional Office; 412-565- 5395 for the Pittsburgh Regional Office; or 215-560-2496 for the Philadelphia Regional Office; or by visiting <https://www.phrc.pa.gov/File-a-Complaint/Pages/How-to-File-a-Complaint.aspx>. Employees may file a charge with the Equal Employment Opportunity Commission regarding an alleged violation of Title VII by calling 1-800-669-4000 or visiting <https://www.eeoc.gov/employees/howtofile.cfm>. The filing of a complaint under this Policy does not obviate the need to meet time limits of outside agencies, which generally require reports to be made within 180 days of the alleged incident or knowledge of the incident. The University may not be informed of reports made to external agencies.

#### **4. Criminal Reporting Options:**

An individual may report criminal conduct to law enforcement, independent of, or parallel with, any report made to the University: Indiana University Police: 724-357-2141; Indiana Borough Police: 724-349-2121; Pennsylvania State Police: 724-357-1960. The University may not be informed of reports made to law enforcement agencies.

**Please Note:** The University's policy, definitions, and burden of proof may differ from criminal law. Neither law enforcement's decision whether to prosecute, nor the outcome of any criminal prosecution, is determinative of whether a violation of this Policy has occurred. In cases where there is a simultaneous law enforcement investigation, there may be circumstances when the University may need to temporarily delay its investigation; however, the University may choose to proceed with investigations even during the time of a pending law enforcement investigation.

## **Resources**

The University is committed to ensuring that individuals who experience discrimination, harassment, or sexual misconduct have access to a variety of services and resources. To talk with someone to receive support and assistance in a confidential setting, contact the following supportive resources, as applicable. Employees are eligible for crisis counseling by contacting the State Employee Assistance Program ("SEAP") at 800-692-7459. Students may contact a counselor at the University Counseling Center: 724-357-2621, [counseling-center@iup.edu](mailto:counseling-center@iup.edu), G-31 Suites on Maple East.

## **Training**

The University will conduct annual training on discrimination, harassment, and sexual misconduct for employees and students and as part of new student and employee orientations. All faculty, staff, and administrators are required to participate in this training within 60 days of commencing employment and at least every year thereafter. Failure to do so may subject the individual to discipline.

## **Free Expression and Academic Freedom**

The University is committed to the principles of free expression and academic freedom, applicable collective bargaining agreements, and related University policies, and to creating and maintaining a safe, healthy, and harassment-free environment for all members of its community. The free expression of ideas is protected, even if the expressions are unpopular. Freedom of speech can sometimes protect offensive and hurtful language and controversial ideas; however, it does not protect personal harassment, discriminatory conduct, or other acts of misconduct as defined in this Policy, the Community Standards Policy, other University or BOG policies, or relevant federal, state, and local laws.

## **Statement on Privacy and Confidentiality**

The University has a duty to respond to allegations of discrimination, harassment and sexual misconduct and cannot guarantee confidentiality once allegations are disclosed to designated University personnel. The University will respect the sensitivity of information disclosed during investigations or informal resolution efforts. This means that information about the complaint is shared only with those individuals within the University community who "need to know" to effectively investigate and/or resolve the complaint, implement interim measures, or provide support resources. Parties with a need to know include, but are not limited to, the Respondent, witnesses, and designated University personnel who need to be informed of the complaint as part of an investigation, implementing a resolution, implementing interim measures, or providing support. The University may be limited in restricting other individuals involved in the matter from sharing information with others. For more information on resources available to individuals who experience discrimination, harassment, or sexual misconduct, please refer to the Resources section of this document.

## Disability Accommodations

This Policy does not alter any obligations of the University under federal disability laws including the Americans with Disabilities Act of 1990 and Section 504 of the Rehabilitation Act of 1973. Parties may request reasonable accommodations for disclosed disabilities from the Reviewing Office at any point before or during the resolution process that do not fundamentally alter the process. The Reviewing Office will not affirmatively provide disability accommodations that have not been specifically requested by the Parties, even where the Parties may be receiving accommodations in other University Education Programs and Activities.

## Related Policies

The University's Sexual Discrimination and Sexual Misconduct Policy and/or Community Standards Policy shall govern the investigation of complaints of sexual misconduct and related allegations against Respondents who are Students. Reports of alleged sexual misconduct against an Employee that are defined as "Regulatory Prohibited Misconduct" in the University's Sexual Discrimination and Sexual Misconduct Policy will be handled pursuant to the Sexual Misconduct Resolution Process set forth in that University Policy.

## Definitions

- 1. Complainant:** An individual who has reported being or is alleged to be subjected to conduct that could constitute a violation of this Policy or other relevant policies.
- 2. Contractor:** An individual, program, company, or school that provides a program, activity, or service to the University. This includes experiential learning services such as internships, practicum experiences, pre-service teaching experiences, or other community service experiences in which the University places students. For purposes of this Policy, ROTC instructors and employees and officials of recognized affiliated entities will be considered Contractors.
- 3. Decision Maker:** The individual or individuals appointed by the University to render a decision on a Formal Complaint. The Decision Maker will be free of conflict of interest and bias and will not serve as the Investigator, Title IX Coordinator, or an Advisor to any Party in the same matter. The President of the University or their designee shall serve as the Decision Maker for all cases involving a Respondent who is an employee.
- 4. Employee:** An individual who is employed by the State System including, but not limited to, faculty members, coaches, staff, managers, and student employees (when acting in their capacity as employees).
- 5. Education Program or Activity:** For purposes of this Policy, the term includes any activity that occurs in, on or within: (a) Any on-campus premises; (b) Any off-campus premises over which the University has substantial control. This includes buildings or property owned or controlled by a recognized student organization or a recognized affiliated entity; or (c) Computer and internet networks, digital platforms, and

computer hardware or software owned or operated by, or used in the operations of, the University's programs and activities over which the University has substantial control.

**6. Official:** A member of a Council of Trustees or of the Board of Governors or their respective designees.

**7. Respondent:** Any individual who has been reported to be the perpetrator of conduct that could constitute a violation of this Policy.

**8. Reporting Individual:** The individual making a report of discrimination, harassment, or sexual misconduct, who may or may not be the Complainant.

**9. Student:** Any person: (a) seeking admission to the University through the formal University application process, (b) admitted to the University, (c) eligible to register or schedule for classes. The term "Student" shall include Employees, Registered Volunteers, and Officials where the Employee, Volunteer or Official otherwise meets the enrollment criteria set forth in this definition and is acting in that capacity as it pertains to the complaint.

**10. Recognized Volunteer:** A recognized individual who represents or acts on behalf of the University or whose actions may bind the University, regardless of whether the individual receives monetary or other compensation. A Recognized Volunteer is one who has undergone background checks consistent with Protection of Minors Policy..

## Prohibited Conduct

**1. Discrimination:** Conduct of any nature that denies a qualified individual the opportunity to participate in or benefit from a University Education Program or Activity, or otherwise adversely affects a term or condition of an individual's employment, education, or access to a University Education Program or Activity based on the individual's membership in a protected category. There are generally two types of discrimination recognized: disparate treatment and disparate impact. Disparate treatment discrimination involves a person being treated differently because of membership in a protected category. Disparate impact discrimination involves a practice that has a greater negative effect on members of a particular protected category than those not in the protected category.

**2. Harassment:** Unwelcome conduct directed against a person that is based on a protected category, that a reasonable person would determine is sufficiently severe or pervasive such that it has the effect of unreasonably interfering with access to a University Education Program or Activity or creates an intimidating, hostile, or offensive work or academic environment.

**3. Sexual Misconduct:** The University's Sexual Discrimination and Sexual Misconduct Policy (<https://www.iup.edu/socialequity/policies/sexual-discrimination-and-sexual-misconduct/index.html>) defines both regulatory and non-regulatory forms of Quid Pro Quo and Hostile Environment Sexual Harassment, Dating Violence, Domestic Violence, Sexual Assault, and Stalking. Those allegations defined as "Regulatory Prohibited Misconduct" in the University's Sexual Discrimination and Sexual Misconduct Policy will be handled pursuant to the Sexual Misconduct Resolution Process set forth in the University's Sexual Discrimination and Sexual Misconduct Policy. All other allegations of sexual misconduct against an Employee, Official, Registered Volunteer, or Contractor, including non-regulatory sexual misconduct, will be handled under the General Procedures set forth in this Policy. Allegations of sexual misconduct against a student, including regulatory and non-regulatory sexual misconduct, will be handled under the Sexual Misconduct Resolution Process set forth in the University's Sexual Discrimination and Sexual Misconduct Policy.

**4. Retaliation:** Any action, directly, indirectly, or through third parties, which is aimed to deter a reasonable person from reporting discrimination, harassment, or sexual misconduct or participating in an investigation, hearing, or action done in response to such activities. This includes, but is not limited to, intimidation, through

coercion, or discrimination against any individual because the individual has made a report or complaint, testified, assisted, or participated or refused to participate in any manner in an investigation, proceeding, or hearing under this Policy. A finding of retaliation under this Policy is not dependent on a finding that the underlying misconduct occurred.

**5. False Report:** Any person who willfully files a bad faith report or makes misrepresentations as part of a resolution of a complaint under this Policy is subject to disciplinary action up to and including dismissal or termination from the University.

## Interpretation and Revision

Procedural rules for investigations and the administration of hearings will be developed that are consistent with provisions of the Non-Discrimination Policy. A material deviation from these rules will, generally, only be made as necessary and may include reasonable notice to the parties involved either by posting online and/or in the form of written communication. Procedures may vary with notice upon determining that changes to law or regulation require policy or procedural alterations not reflected in this policy. Minor modifications to a procedure that do not materially jeopardize the fairness owed to any party may be made at the discretion of the President of the University as appropriate. Any question of interpretation of the Non-Discrimination Policy will be referred to the President of the University, whose interpretation is final. Non-Discrimination and related Policies and Procedures shall be updated as necessary to comply with applicable law, policy, or regulation. The review process shall be coordinated by the President of the University or designee.

## Title IX Reporting

Indiana University of Pennsylvania and its faculty are committed to assuring a safe and productive educational environment for all students. In order to meet this commitment and to comply with Title IX of the Education Amendments of 1972 and guidance from the Office for Civil Rights, the university requires faculty members to report incidents of sexual violence shared by students to the University's Title IX Coordinator. The only exceptions to the faculty member's reporting obligation are when incidents of sexual violence are communicated by a student during a classroom discussion, in a writing assignment for a class, or as part of a university-approved research project.

Faculty members are obligated to report sexual violence or any other abuse of a student who was, or is, a child (a person under 18 years of age) when the abuse allegedly occurred to the Department of Human Services, at 1-800-932-0313, and University Police, at 724-357-2141.

Information regarding the reporting of sexual violence and the resources that are available to victims of sexual violence is set forth at: [www.iup.edu/social-equity/policies/title-ix](http://www.iup.edu/social-equity/policies/title-ix)

**Please direct all general inquiries regarding equal opportunity and affirmative action to the Social Equity and Title IX Office.**

Delaney Hall, Suite B17  
920 Grant Street  
Indiana, PA 15705  
Telephone: 724-357-3402

**TD:** Telecommunications Device available in the Department for Disability Access and Advising, 724-357-4067 (V/TD) (8:00 a.m.-4:30 p.m., Monday through Friday)

**IUP ensures compliance with Section 504 of the Rehabilitation Act of 1973 and the Americans with Disabilities Act through the provision of program access accommodations. Please direct inquiries regarding accommodations for persons with disabilities to:**

**Student Concerns:**

Director, Department for Disability Access and  
Advising  
504 Coordinator/ADA Student Concerns Coordinator  
246 Stouffer Hall  
1175 Maple Street  
Indiana, PA 15705  
Telephone: 724-357-4067  
Fax: 724-357-2889

**Employee Concerns:**

Office of Human Resources  
G-8 Sutton Hall  
1011 South Drive  
Indiana, PA 15705  
Telephone: 724-357-2431  
Fax: 724-357-2685



**Specific inquiries regarding Title IX should be directed to:**

Social Equity and Title IX Office  
Delaney Hall, Suite B17  
920 Grant Street  
Indiana, PA 15705  
Telephone: 724-357-3402

The university publishes an online student handbook, *The Source: A Student Policy Guide*, which is a companion to this catalog. The handbook contains detailed information on the policies mentioned on this page. It is accessible to all enrolled students at: [www.iup.edu/studentconduct/thefsource](http://www.iup.edu/studentconduct/thefsource).

**Questions regarding the Sexual Harassment and Sexual Violence Policy or complaint procedures, should be directed to:**

**Chief Diversity and Inclusion Officer and Title IX Coordinator**  
**ADA/Section 504 Coordinator**  
Delaney Hall, Suite B17  
Indiana, PA 15705  
Telephone: 724-357-3402.

The IUP Sexual Harassment and Sexual Violence Policy is accessible at the website [www.iup.edu/socialequity/policies/sexual-harassment-and-sexual-violence/](http://www.iup.edu/socialequity/policies/sexual-harassment-and-sexual-violence/)

## Unmanned Aerial Systems Policy

UAS may be operated on university property for academic, research or public safety activities in accordance with federal, state and local laws and regulations and university policies. Operation of UAS on university property must be approved by the Department of Public Safety (DPS). Recreational or personal use of UAS on university property is prohibited, even if such use is a permitted "hobby" use under state or federal laws and regulations.

University departments or employees wishing to fly UAS for university-related purposes off university property must have appropriate permits and property owner permission for the location of the flight. They must also comply with any federal, state, and local laws and regulations of the jurisdiction where the UAS flight is conducted.

Requests for UAS operations on university property must be submitted to the DPS at least five business days prior to the date of anticipated flight. If approved, UAS operators are then required to confirm they will be flying as scheduled by notifying the DPS at (724) 357-2141 at least one hour before flight operations. Departments that are frequent users of UAS may acquire a standing authorization to fly from the DPS; however, the DPS must still deconflict requests for flight operations with any other known event(s) or other issues and notification must still be made to DPS within one hour of flight time.

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

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

## Undergraduate Academic Policies

*Note: Please see individual college sections for policies pertaining only to particular colleges and majors.*

## Academic Advising

All students are assigned a faculty member who serves as their academic advisor when they start at IUP. Students may have the same advisor from year to year or their advisor may change based on their class standing, specialty areas, or career goals.

Faculty members advise students on a variety of areas, such as degree progress and curriculum, academic success, course registration, add/drop, changing majors, student activities, study skills, and career options. Faculty should maintain regular contact with their advisees.

Students may find out who their advisor is by signing in to MyIUP (*my.iup.edu*), selecting the "Academics" page, and then scrolling down to the "My Advisor" section. Students should initiate contact with their advisor. Questions about advisor assignments should be directed to the chairperson of the department.

While faculty advise students on a variety of areas, students are ultimately responsible for knowing and fulfilling their major, college, and university requirements for graduation.

## Academic Honors

IUP recognizes academic achievement through Provost Scholars, Dean's Lists, and graduation honors.

### Provost Scholars

Provost's Scholars are recognized annually. At the start of the fall semester, all undergraduate students will be named Provost Scholars if they meet all of the following requirements:

- are a candidate for first bachelor's degree,
- are a current junior or senior with a minimum of 45 credits earned at IUP,
- have a cumulative GPA of 3.50 or higher,
- have not received this award previously (recognition is given only once).

### Dean's List

Undergraduate students receive Dean's List recognition for each semester or the summer session (cumulatively) in which they earn at least a 3.25 GPA based on at least 12 credits of graded (not P/F) undergraduate course work, or a combination of graded undergraduate course work and graded graduate course work applying to the baccalaureate degree.

### Graduation Honors

Traditional Latin honors are awarded based on the cumulative GPA of the undergraduate credits for the first bachelor's degree. Graduation honors are not granted for second (subsequent) degrees. The distinctions are:

*Cum laude* - 3.25 to 3.49 cumulative GPA

*Magna cum laude* - 3.50 to 3.74 cumulative GPA

*Summa cum laude* - 3.75 to 4.00 cumulative GPA

Beginning December 1994, non-Latin honors are awarded to associate degree candidates. The distinctions are:

*With Honor* - 3.25 to 3.49 cumulative undergraduate GPA

*With High Honor* - 3.50 to 3.74 cumulative undergraduate GPA

*With Highest Honor* - 3.75 cumulative undergraduate GPA

## Academic Integrity Policy

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

### A. Violations

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

1. **Plagiarism:** Plagiarism is a type of fraud that involves using someone else's work. It includes, but is not limited to, using someone else's words, ideas, data, or creative work as if it were one's own work. Plagiarism applies to any type of source, whether published or unpublished, human or AI generated and to any type of assignment, whether written, verbal, or otherwise. Plagiarism can be avoided simply by acknowledging that certain material is the work of another, and then providing a citation that gives a reader the information necessary to find the source of the work. Any assignment submitted by a student that includes the words, ideas, data, or creative works of another must include complete, accurate, and specific references. Any verbatim statements must also include quotation marks and appropriate citations.
2. **AI Generated Work:** AI generated work is not reflective of a student's own understanding and effort and, thus, is not acceptable, unless authorized specifically by the instructor/administrator.
3. **Fabrication:** Fabrication means making something up to deceive or mislead someone. This includes, but is not limited to, the use of fictitious data, research, citations, or any other kind of information. Fabrication also includes making false claims to influence testing or grading, or to gain academic credit.
4. **Cheating:** Cheating is an attempt to misrepresent one's mastery of information or skills being assessed. This includes, but is not limited to, using (or attempting to use) unauthorized materials, assistance, information, devices or study aids in any academic exercise. Cheating also includes, among other things, using the same paper or work more than once without authorization of the instructor/administrator to whom the work is being submitted.
5. **Technological Misconduct:** Computer dishonesty, as addressed by university computing policies, includes, but is not limited to, using or attempting to use computing accounts or other information for which the student is not authorized; providing false or misleading information to obtain a computing account or access to other information resources; attempting to obtain information resource access codes (usernames, passwords, PINs, etc.) for another user's computing accounts; sharing information resource access codes (usernames, passwords, PINs, etc.) with other individuals; attempting to disguise the identity of a computing account or other information resource; using or attempting to use university network resources to gain or attempt to gain unauthorized access to remote computers including, but not limited to, port scanning; violating the terms of intellectual property rights, in particular software license agreements and copyright laws; using information resources to monitor another user's data communications or to read, copy, change, or delete another user's files or software without permission of the owner; and using or installing or attempting to use or install software not properly licensed.
6. **Academic Dishonesty:** Academic dishonesty consists of any deceitful or unfair conduct relevant to a student's participation in a course or any other academic exercise or function. This includes, but is not limited to, tampering with

grades, any action that unfairly impacts the assessment of one's academic work, disrupting or interfering with the learning environment or the ability of others to complete academic assignments, intentionally evading IUP academic policies and procedures, or failure to comply with previously imposed sanctions for academic violations. Academic dishonesty also includes violations of student conduct policies, as related to the academic environment. IUP's policies and student behavior expectations has been compiled in, "The Source: A Student Policy Guide.

7. **Facilitating Academic Integrity Violations:** Facilitating academic integrity violations includes attempting to help another engage in an academic integrity violation.
8. **Classroom Misconduct:** This includes conduct that significantly disrupts the learning process or is a threat to others.
9. **Out-of-Classroom Misconduct:** This includes behavior that is unethical or hazardous in IUP-sponsored professional experience activities; for example, internship, practicum, service learning experience, out-of-the classroom experiences.
10. **Noncompliance:** Noncompliant behavior includes failure to fulfill any sanction levied as a result of an academic integrity proceeding.

## B. Referrals for Alleged Violation

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

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

## C. Conduct of Proceedings

1. If charges are brought, an accused student shall have an opportunity to answer, explain, and defend themselves against the charges in accordance with the procedures below.
2. The university shall have the burden of proof of establishing violations based on evidence to make a reasonable person believe a fact sought to be proved is more likely true than not.
3. All formal records pertaining to academic integrity will remain confidential to the greatest extent possible.
4. All references to days in this policy refer to calendar days.
5. Sequential processing of an alleged academic integrity violation through the following resolution processes is not required.

## D. Resolution by Documented Agreement with the Instructor/Administrator

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

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

2. If an agreement is reached, a Documented Agreement Referral form available online through MYIUP and at <https://www.iup.edu/academicaffairs/for-faculty/academic-integrity/> must be completed and acknowledged in writing by all required parties within ten (10) days of the conference. Electronic copies of the form must be distributed to all signatories to the agreement and Office of the Provost. If the violation pertains to work being judged or that has been judged by a committee such as a thesis or comprehensive examination, the Documented Agreement Referral form must be agreed to by a majority of the committee and the student. In all other cases, the instructor/administrator and student must acknowledge the agreement.

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

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

## E. Resolution by Formal Adjudication

Formal adjudication will be pursued if:

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

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

### Hearing by Department Chair

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

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

c. Despite the wishes of the referring party and the student, the matter may be referred directly to an AIB if:

- The Department Chair believes the circumstances and the severity of the alleged violation would result in a recommended sanction of suspension, expulsion or rescission of degree if true or if the Department Chair otherwise believes the violation warrants Hearing by AIB; or
- The Department Chair feels he/she is unable to provide an unbiased/impartial opportunity for a hearing.

d. If the Department Chair elects to send the violation directly to the AIB, the Department Chair should forward the Academic Integrity Referral form to the Office of the Provost within ten (10) days of receiving the form from the instructor/administrator.

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

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

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

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

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

j. The student has the right to appeal the Department Chair's decision and/or sanctions through the Office of the Provost as outlined in the appeal procedure.

## Hearing by Academic Integrity Board

a. A hearing before the AIB will occur if:

- The instructor/administrator feels the alleged violation is egregious enough to warrant sanctions including suspension or expulsion;
- The instructor/administrator and the student do not agree to have the matter adjudicated by a Hearing by Department Chair;
- The Department Chair refers the matter to an AIB without conducting a hearing; or
- The student has previous violations on record. In this case, the AIB will determine if additional sanctioning is warranted due to multiple academic integrity violations.

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

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

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

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

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

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

## Composition of an AIB

- a. For undergraduate hearings and reviews, an AIB will be made up of four (4) instructors and two (2) undergraduate students. All members, including the chair, are voting members.
- b. For graduate-level hearings and reviews involving undergraduate students taking graduate level courses, please refer to the Graduate School's policy on AIB composition.
- c. For any case heard or reviewed, at least four AIB members must be available, at least one of whom must be a student, preferably an undergraduate student if the accused is an undergraduate student. An instructor will chair all hearings and reviews.
- d. Selection of members to a specific AIB will avoid conflicts of interest with the student (e.g., AIB members being from the student's department). A board member may recuse themselves or be recused upon the request of the accused student/referring party if there is a perceived conflict of interest.

## F. Sanctions

### Sanctions Imposed through Documented Agreement

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

- a. **Single Grade Reduction:** Reduction of grade or failure on project, examination, quiz, or other academic exercise on which the student is alleged to have cheated.
- b. **Course Grade Reduction:** Reduction of course grade or failure in the course. If the violation involves a project spanning multiple courses (such as a dissertation or multiple semester internship), the grade reduction may apply to all courses involved.
- c. **Constructive or Educational Task:** A task that requires students to examine their dishonest behavior and that may benefit the student, campus, or community.
- d. **Letter of Reprimand:** A reprimand letter may be issued indicating that the student has been found in violation of an academic policy and that failure to comply with policies in the future may result in further disciplinary action to be handled as a subsequent offense. The letter of reprimand will remain in effect for the period of time specified by the individual or board hearing the case.
- e. **Other:** Sanctions deemed appropriate and tailored to a specific violation as agreed to by the student and instructor/administrator.

### Sanctions Imposed through Formal Adjudication

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

- a. **Disciplinary Probation:** Disciplinary probation, which is for the period of time specified by the individual or board hearing the case, is an indication that a student's status at the university is seriously jeopardized. If the student is found in violation of another IUP policy during the probationary period, a more serious sanction will be levied, which may include involuntary withdrawal from part of IUP's academic or other programs, suspension, or expulsion from the university.
- b. **Involuntary Withdrawal from Part of IUP's Academic or Other Programs:** A student may be denied the right to participate in some IUP program(s). Such involuntary withdrawal might be imposed on either a temporary or permanent basis.
- c. **Suspension:** A student may be suspended from the university for a specified period of time, not to be less than the remainder of the current semester. Suspension requires that students remove themselves from university premises, not attend classes or social activities, and not be present on university property (including residence halls) or Student Cooperative Association property during the period of suspension.
- d. **Expulsion:** Expulsion may be considered under any of the following circumstances: when there is a very serious violation of the Academic Integrity Policy, when a student is proven to have violated the Academic Integrity Policy on more than one

occasion, or when a student appears before the board after already having been suspended. Expulsion from the institution is permanent. Appeals to the sanction of expulsion must be submitted to the Office of the President.

e. **Rescission of a Degree:** Students may have their degree rescinded if found to have plagiarized or not to have conducted their research on their thesis. Sanctions of expulsion and/or rescission of a degree: can be recommended by a Department Chair or AIB but can only be imposed by the President/designee. A sanction of suspension can be imposed by the Provost/designee.

#### Previous Violations

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

## G. Appeal Procedures

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

## H. Operational Notes

1. In cases where a violation is alleged at, or near, the end of the semester and resolution by Documented Agreement or Formal Adjudication cannot be completed before grades are submitted, the instructor should submit a grade of "Incomplete" (I) for the student. The instructor/administrator must initiate formal notification of an academic integrity violation to the student. The "I" grade will remain on the student's record until the case has been resolved. Once the case has been resolved, the "I" grade will be replaced with the appropriate grade.
2. If the violation is alleged during the semester when classes are in session, the accused student should continue attending all classes and continue to complete course requirements while the academic integrity case is pending.
3. Conversion of a Withdrawal: Individual course withdrawals initiated by a student before resolution of an academic integrity case will not remain on the transcript if the student is found to have violated the policy and the resolution of the referral is the assignment of a grade. If the student has withdrawn and has been found to have violated this policy, another grade, including an "F," may be placed on the transcript. If the student has withdrawn and has not been found to have violated this policy, the "W" will remain on the transcript.
4. The 10-day timeframe within this policy is a period of time violation intended to reasonably ensure a swift response while allowing the student a reasonable opportunity to prepare a response. A instructor/administrator, student, or Provost/designee may request an extension of time for good cause (e.g., alleged violation occurring at the end of the semester or during summer or winter session/break); this extension may be granted by the Provost/designee



5. The university may withhold transcripts, grades, and diplomas or take other appropriate actions necessary to preserve its ability to enforce its rules.

Questions concerning the Academic Integrity Policy and Procedures and the availability of forms described in this policy can be directed to the Office of the Provost. A copy of this policy is posted on the Office of the Provost website ([www.iup.edu/academicintegrity](http://www.iup.edu/academicintegrity)).

## Academic Standards Policy

1. **Purpose:** The university establishes minimum standards for cumulative grade point average (CGPA) to encourage academic accomplishment and timely progress toward graduation. This policy applies to all undergraduate students.
2. **Terminology**
  1. *Academic Good Standing:* Students maintaining a CGPA of at least 2.00 are in Academic Good Standing.
  2. *Probation:* Students whose CGPA falls below the 2.00 standard are on Probation during the next semester for which they are registered.
  3. *Extended Probation:* Students who have been authorized to continue, even though they have not achieved a 2.00 CGPA after one semester of probation, are on Extended Probation during the next semester for which they are registered.
  4. *Academic Recovery Plan:* Students whose CGPA falls below the 2.00 standard must develop an Academic Recovery Plan for achieving Academic Good Standing.
  5. *Academic Recovery Hold:* An Academic Recovery Hold is placed on the records of students who fail to submit an Academic Recovery Plan, preventing them from processing any registration transaction.
3. **Administrative Review and Enforcement of Standards**
  1. Each college and regional campus will designate an Academic Standards officer who will be responsible for academic review and enforcement of standards.
  2. An academic review is conducted at the end of each semester.
    1. Students earning a 0.00 CGPA at the end of their first semester of enrollment will be dismissed from the university, except for students enrolled in only one course (up to 4 credits), who may be placed on probation at the discretion of the appropriate Academic Standards officer.
    2. Other students falling below the 2.00 CGPA standard will be placed on probation at the end of the semester. They may continue on probation for one semester. They will be required to develop and implement an Academic Recovery Plan.
    3. Students still below the 2.00 CGPA standard after a semester of probation are subject to dismissal. The Academic Standards officer may grant one semester of extended probation to those who (1) made progress toward Academic Good Standing while on probation or followed their approved Academic Recovery Plan and (2) have a reasonable mathematical chance of reaching a 2.00 CGPA after one additional semester. Other probation students will be dismissed.
    4. Students still below the 2.00 CGPA standard after a semester of extended probation will be dismissed.
    5. Students who regain Academic Good Standing but again fall below the 2.00 CGPA standard in a subsequent semester are permitted another semester of probation and, where appropriate, extended probation.
    6. Students who fail to establish an Academic Recovery Plan before the beginning of registration for the next semester will incur an Academic Recovery Hold preventing registration.
    7. Students referred by the Office of Admissions for first-year study at a regional campus may transition to the Indiana campus upon achieving 24 credits through two regular academic semesters at a 2.00 CGPA.
    8. Students admitted through the Department of Undergraduate Studies and Student Success remain under the direction of the department for at least an academic year after initial enrollment and until reaching the 2.00 CGPA standard.
4. **Academic Recovery Plan:** Students not meeting the 2.00 CGPA standard must design and implement a comprehensive plan leading to Academic Good Standing. The plan must be developed with and approved by the appropriate Academic Standards officer (or designee).
  1. *Analysis:* Students must identify the factors contributing to their unsatisfactory achievement.

2. *Planning*: Plans must include a schedule of minimum grades needed to achieve Academic Good Standing.
  3. *Commitment*: Students must commit to changes in behavior necessary to achieve academic success. This might include better time management, career exploration, and the use of such support services as academic advisors, tutoring, the Writing Center, the Counseling Center workshops on study skills and related activities, and any other opportunities deemed important by the Academic Standards officer (or designee).
  4. *Documentation*: Each plan must include an explanation of satisfactory methods of documentation. It is the student's responsibility to provide documentation supporting compliance with the agreed upon plan, if requested.
5. **Re-enrollment**
1. Students dismissed under this policy may not be re-enrolled for at least one calendar year.
  2. Dismissed students may, after one calendar year, apply for re-enrollment through the Office of the Registrar.
    1. A decision for re-enrollment of a student in probationary or dismissed status, regardless of whether the student was dismissed by the university or the student voluntarily withdrew, is the responsibility of the Academic Standards Officer of the college the student wishes to enter. If the student is seeking admission to a new college, the officer of the new college will consult with the officer of the former college before making a decision. The Office of the Registrar will officially change the major based on the Academic Standards Officer's re-enrollment letter to the student.
    2. A decision for re-enrollment of a student enrolled at a regional campus at the time of dismissal or voluntary withdrawal, regardless of whether the student was dismissed by the university or the student voluntarily withdrew, is the responsibility of the Academic Standards Officer of the regional campus.
    3. A decision for re-enrollment of a student enrolled in the University College at the time of dismissal or voluntary withdrawal is the responsibility of the University College's Academic Standards Officer.
  3. Those students who, in the opinion of the appropriate Academic Standards Officer, are likely to achieve academic success may be re-enrolled.
  4. Students may be re-enrolled only once under this policy. Subsequent re-enrollment may be available under the Canceled Semester Policy or the Fresh Start Policy.

## Audit Policy

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

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

## Change of Major

Before seeking a change of major, the student should consult with the departmental chair (or chair's designee) of the new major concerning admission and program requirements and the mapping of existing credits into the new curriculum.

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

Students not in academic good standing (having a cumulative GPA less than 2.00) may petition to change their major with the college dean or designee (e.g., academic standards officer) of the college they wish to enter. After assessing the potential for academic success in the new major, the college dean or designee may grant the change of major.

## Students with One Major

A student who has one primary major must apply for a change of major online through MyIUP under Academics/Academic Record, Change of Primary Major.

## Student with Secondary or Tertiary Major

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

## Additional Information

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

## Class Disruptions

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

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

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

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

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

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

- Students who routinely enter class late or depart early;
- Students who repeatedly talk in class without being called upon;
- Students who continually interrupt lectures;
- Students who refuse to comply with an instructor's requests to stop disruptive conduct;
- Students whose cell phones repeatedly ring and/or emit an audible sound during class or students who repeatedly text during class;
- Students who harass an instructor or classmate;
- Students who threaten an instructor or classmate, physically or verbally, or display aggressive behavior;
- Students whose disruptive conduct otherwise violates University policies including, but not limited to, the IUP Community Standards Policy and/or the Sexual Discrimination and Sexual Misconduct Policy

This disruptive conduct may result in instructor intervention and/or disciplinary action.

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

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

If there is any suggestion of violence, instructors always should err on the side of safety by calling University Police. If the disruptive conduct cannot be mitigated by the above procedure, or if the disruptive conduct continues or magnifies negatively impacting the learning of fellow students, the instructor may, in consultation with the department chair, and with the consent of their academic dean, refer the case to the Office of Student Support and Community Standards for adjudication under the IUP Community Standards Policy. The University can impose interim measures, as appropriate, pursuant to the IUP Community Standards Policy.

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

## Classification of Students

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

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

**Freshmen** Fewer than 30 credits

**Sophomores** 30-59 credits

**Juniors** 60-89 credits

**Seniors** 90 credits or more

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

## Conflict of Interest Policy

In order to fulfill the university's educational mission and uphold standards of academic integrity, faculty members are expected to avoid apparent or actual conflicts of interest, favoritism, or bias. Ideally, instructors shall refrain from teaching any person to whom they are related, including their own children, other close relatives (including but not limited to immediate family members), or romantic partners. Instructors with any conflicts of interest have a duty to report, in a timely fashion, the existence

of the conflict to their Dean. As part of the disclosure, the instructor shall submit to the Dean a strategy or plan that would mitigate the conflict.

## Course Repeat Policy

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

1. **Repeatable courses:** Certain courses are eligible for repeat for credit and grade. These courses are advanced art studio courses, music ensembles, special topics courses (281, 481) if the topic is different, and other specifically designated courses.
2. **D, F, and N grades:**
  1. *Repeat with replacement:* Undergraduate students are permitted to replace the grades and quality points in the GPA calculation for courses in which they receive a "D," "F," or "N" grade by repeating that course at IUP. No more than six repeat-with-replacement attempts are permitted for undergraduate students. A single course can be repeated a maximum of two times. The most recent grade (regardless of whether it is higher or lower) will be the grade used in the GPA calculation. However, the transcript continues to document all academic work, and repeated courses are not deleted from the visual record.
  2. *Course transfers:* Students seeking to replace or average "D," "F," or "N" grades must repeat these courses at IUP. If an IUP course in which a student received a "D," "F" or "N" is repeated at another institution, the credit will transfer to IUP if the course grade is "D" or better (but only if students have a GPA of 2.0 or higher from the institution attended). However, the original "D," "F" or "N" will continue to count toward the IUP GPA. Please note that some academic programs require students to repeat certain courses in which a "D" grade was earned.
  3. *Postbaccalaureate students (Undergraduate):* Students seeking to replace or average "D," "F," or "N" grades must repeat these courses at IUP. If an IUP course in which a student received a "D," "F" or "N" is repeated at another institution, the credit will transfer to IUP if the course grade is "D" or better (but only if students have a GPA of 2.0 or higher from the institution attended). However, the original "D," "F" or "N" will continue to count toward the IUP GPA. Please note that some academic programs require students to repeat certain courses in which a "D" grade was earned.
3. **Other grades:** Courses in which students earned a grade of "A," "B," "C," or "P," may be repeated only on an audit basis. New grades will not be assigned, and additional credit will not be awarded.

## Determining GPA

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

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

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

## Double Major Policy

Students meeting the requirements of two majors can obtain a double major (one diploma). Students who wish to receive two diplomas, one for each degree, must complete a minimum of 150 credits and follow the University's Dual Baccalaureate Degrees Policy.

The application for the double major must be completed by the student, at which time the student must declare one of the majors to be the primary major. The degree for the primary major (BS or BA) will be the degree designation that appears on the transcript and the diploma. The second major will appear on the transcript as the secondary major earned.

Students pursuing a double major will be required to fulfill all Liberal Studies, College, and Major requirements for the primary major and only the Major requirements for the secondary major with the exception of the Colleges of Business and Education which have required professional core requirements.

If students after declaring a double major decide to pursue only one of the majors, they will need to rescind their decision to pursue a double major in order to graduate by filing the appropriate form found on the registrar's website or on MyIUP. Students should consult with their advisors prior to making this decision. On this form, students will need to declare what their single major will be. Students will then need to fulfill the Liberal Studies, College and Major requirements of that single major.

## Dual Baccalaureate Degrees Policy

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

Furthermore:

1. All requirements for each degree must be satisfied for the student to graduate.
2. A course required in both degree programs does not have to be repeated for the second degree, but substitutions may be required at the departmental level.
3. All university requirements, such as a minimum GPA and number of residency credits taken at IUP in the major, must be met for each degree separately.
4. If a student decides not to pursue a dual baccalaureate degree, they should complete the *Request to Remove Minor, Certificate, Double Major, or Dual Baccalaureate* form, and then they may apply for graduation for the remaining degree if the degree requirements have been met. If upon graduation the student returns to pursue a second bachelor's degree or certification, they will be bound to the requirements for Post-baccalaureate Studies (for a second degree or certification).

## Evaluation of Student Progress by Level or Standing

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

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

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

## Excess Credit Load

A student who wishes to schedule 18 or more credits during fall, spring, or summer semester/term must obtain approval from the dean of the college of the student's major; approval will be predicated on various criteria, such as the student's demonstrated

competencies, total courses, and specific conditions. If approval is granted, the dean will set the credit limit and make the appropriate computer entry.

## **Experiential Learning**

### **Internship Experiences**

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

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

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

### **Cooperative Education (Co-ops)**

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

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

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

## **Prior Learning and Credit/Exemption Examinations**

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

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

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

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

## **Advanced Placement Examinations**

Courses taken by students before college admission under the Advanced Placement Program of the College Entrance Examination Board may be recognized by the award of college credit. Those who earn a score of 3, 4, or 5 in the Advanced Placement Examination will receive academic credit. The student's department and academic college will decide if and how the credit can be applied to the degree program. For questions regarding the granting of Advanced Placement Examination credits, consult with the transfer counselors in the Undergraduate Admissions Office.

## **CLEP/ DSST Examinations**

Students who have had the opportunities for instruction or who have advanced in a given field may gain credit for a course through the College Level Examination Program (CLEP) offered through the College Board. Those who earn a qualifying score on the CLEP exam will receive academic credit. The student's department and academic college will decide if and how the credit can be applied to the degree program. For questions regarding the granting of CLEP exam credits, consult with the transfer counselors in the Undergraduate Admissions Office.

## **International Baccalaureate Examinations**

Courses taken by students before college admission under the International Baccalaureate Program may be recognized by the award of college credit. Those who earn a 4 or higher on a IB Higher Level (HL) exam will receive academic credit. The student's department and academic college will decide if and how the credit can be applied to the degree program. For questions regarding the granting of IB HL exam credits, consult with the transfer counselors in the Undergraduate Admissions Office.

## **Departmental Examinations**

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

## **Portfolio Assessment**

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

Credit awarded through portfolio assessment must conform to specific course titles in the undergraduate catalog (i.e., no credits will be awarded for general areas of knowledge) and will only be awarded for undergraduate courses. All IUP applicants and active students are eligible to request portfolio assessment, and any credits awarded must be intended for use as part of a degree or certificate program. (For IUP applicants, credits will be awarded only after matriculation.)

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

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

For information about portfolio assessment fees and instructions on how to apply for portfolio assessment, please see the visiting and non-degree student link on the Office of Admissions website.



## Final Examination Policies

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

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

Faculty members who do not schedule or do not attend the terminating activity for a course may be subject to disciplinary action commensurate with unexcused absences. Once the final examination has been set by the Office of the Registrar, changes and absences must be approved by the instructor's dean. Faculty members are only obligated to offer a makeup in cases where officially scheduled exams are in conflict. Where such conflicts exist during the examination period, the following general rules apply:

1. The higher-numbered course takes precedence. Thus, a student enrolled in GEOG 102 and ECON 325 would take the ECON 325 exam at the assigned time and the makeup in GEOG 102.
2. If courses in conflict are the same level and number, an alphabetical determination by full name of the department, not its acronym, will be made. For example, a student enrolled in MATH 350 (mathematics) and MGMT 350 (management) would take the MGMT 350 exam at the assigned time and a makeup in MATH 350.

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

## Maximum Number of Exams on One Day/Conflicts

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

## Grade Change Policy

Once final grades have been recorded, they may be changed only in the case of clerical and/or calculation error or in the event of a successful grade appeal. For instance, it is not appropriate to change a grade based on options, such as supplemental assignments. The deadline for corrections of clerical and/or calculation errors is the last day of class of the following semester (fall or spring) after the grade has been awarded.

## Grading System

### Grades and Quality Points

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

Grade	Description	Quality Points
A	Excellent	4 quality points/credit
B	Good	3 quality points/credit
C	Average	2 quality points/credit
D	Passed	1 quality point/credit

<b>F</b>	<b>Failed</b>	0 quality points/credit
<b>N</b>	<b>Non-Participation Failure</b>	0 quality points/credit
<b>P</b>	<b>Passed</b>	0 quality points/credit (for credit courses only)
<b>S</b>	<b>Satisfactory</b>	0 quality points (for 0-credit courses only)
<b>U</b>	<b>Unsatisfactory</b>	0 quality points (for 0-credit courses only)

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

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

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

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

## I (Incomplete) Policy

The "I" (incomplete) designation is used to record work, which so far as covered, is of passing grade (e.g., student has completed passing work throughout most of the semester) but is incomplete because of a late in the semester emergency (e.g., personal illness, bereavement absence, or other unavoidable reason). The "I" designation may be requested by the student or offered by the instructor; however, the instructor will have final say as to whether an "I" designation is a viable option.

Step 1. Before assigning the "I" designation when entering grades online, the instructor must confirm with the student the details of the work to be completed and the deadline for completion. The faculty member must complete a hardcopy Incomplete Grade Form, indicating/documenting the reason for the incomplete grade, the work to be completed, deadlines for completion (it is not necessary to permit the maximum allowable time), and a default grade if the work is not successfully submitted by the established deadline. While the time needed to complete the work will vary based on amount and type of work, instructor time frame, and student situation, incomplete coursework must be submitted to the instructor by the end of the next regular (fall/spring) semester (i.e., last day of classes). For the department files, both the instructor and student will sign a hardcopy Incomplete Grade Form; the instructor signature signifying agreement and the student signature signifying understanding of the

required work and time frame. Students are encouraged to stay in touch with the instructor to discuss progress on completing the work during the semester.

Step 2. To officially record the incomplete, the following information must be entered into the IUP Grade Management System: the "I" grade, the default grade (incomplete final grade), and date when deliverable(s) are due (extension date). The system then electronically notifies 1) the instructor, 2) the student, 3) the student's advisor, 4) the chairperson of the department that delivered the course, and 5) the dean of the college of the course that delivered the course.

Step 3. Upon submission of the incomplete coursework, or notification by the student that the course work will not be completed, the instructor will calculate the final course grade and submit the change of grade in the IUP Grade Management System no later than the last day of classes for the next regular (fall/spring) semester.

If the student fails to submit the designated coursework by the last day of classes for the next regular (fall/spring) semester, the "I" designation automatically converts to an F or the default grade at the end of the grading period of the next regular (fall/spring) semester after the designation was assigned. Likewise, if the instructor fails to submit the appropriate grade change by the end of the grading period of the next regular (fall/spring) semester after the designation was assigned, the "I" designation converts to an F or the default grade. To monitor designations, the registrar will provide semester reports of outstanding "I" designations to department chairs.

Under extreme circumstances, with instructor agreement, an "I" designation may be extended through the end of an additional regular semester following the initially designated semester for completion. For this to occur, an instructor must complete another hardcopy Incomplete Grade Form, forward the form to the dean of the college that delivered the course, obtain the dean's approval, and inform the Registrar's Office ([registrars-office@iup.edu](mailto:registrars-office@iup.edu)) of the approved extension. Note: Students have the right to use the University's Grade Appeal Policy to resolve any differences between a student and instructor related to the granting and resolving of an "I" designation.

*Receiving an "I" designation in a course means that the course DOES NOT satisfy prerequisites.*

## L (Late Grade, Continuing Course) Policy

The designation of "L" (Late grade, continuing course) is appropriate for cases in which student work is expected to extend beyond a given semester/session. The designation of "L" is not to be confused with a designation of "I," which is only appropriate for individual students unable to complete their course work because of unexpected illness or personal emergency. "L" designations are appropriate for

1. internships, practicums, field experience courses, workshops, and independent studies that, by design, extend beyond the normal end of the grading period,
2. others as approved by the department chairperson and the dean of the college in which the course is taught. If a specific course is always eligible for "L" designations, the dean may grant standing approval for "L" designations every time the course is offered.

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

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

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

*The "L" designation is considered as having MET the prerequisite for subsequent course enrollments.*

## Canceled Semester Policy

The Canceled Semester Policy provides for cancellation from the cumulative record of the effects of **one semester below a GPA of 2.00** for the purpose of helping a student improve academic standing.

**Conditions.** A student who has been separated from the university for a minimum of one calendar year (12 consecutive months) and has reenrolled at the University may apply for/request a Canceled Semester from the appropriate college dean or designee. The college dean or designee and/or the student's advisor may also recommend that the student pursue this Canceled Semester option. Having reviewed the prior and intervening factors for evidence of potential for improved academic success, the college dean or designee may grant the canceled semester on a case-by-case basis.

**Academic Standards and Application.** A student reenrolled under this policy must meet current degree requirements and will be reviewed under current academic standards requirements applicable at the time of reenrollment. A student must apply to the college of which the student was a member at the time of last enrollment. If a student wishes to enter a major in a college other than the one from which they were separated, they will apply to the original college, which will forward the application and related records to the new college for action. The college will inform the Office of the Registrar if the application is approved. Authorization for registration will come from that office.

**Transcript Effects.** Cancellation removes the mathematic effect of all grades (passing, failing, withdrawals) from the semester. However, all courses and original grades remain visible on the official transcript; credit toward graduation remains for those credits associated with passing grades.

**Financial Aid Effects.** Students reenrolled under the Canceled Semester Policy must still meet the financial aid qualitative and quantitative SAP requirements (using all previously enrolled semester data). Federal regulations do not permit the financial aid office staff to remove or ignore any academic statistics.

**Constraints.** This policy may be invoked only once in a student's undergraduate enrollment in the university. While reenrollment may be based on the application of the canceled semester, the transcript record will reflect this only after the student is enrolled and attending IUP. It is not a tool to qualify for transfer to another institution.

**Definition of a Semester.** A "Canceled Semester" refers to any semester of enrollment, whether full or part-time. Students may elect to use an enrolled summer as their "semester" to be canceled. The entire summer of any given year will be treated as a semester for the purpose of cancellation of grades. The definition of a "Canceled Semester" does not include the winter term.

## Fresh Start Policy

**Purpose.** A student who has been separated from the university for a minimum of two calendar years (24 consecutive months) and has reenrolled may apply to the appropriate college dean or designee for a Fresh Start. Having reviewed the prior and intervening factors for evidence of potential for improved academic success, the college dean or designee may implement this policy.

**Academic Standards.** A student reenrolled under this policy must meet current degree requirements and will be reviewed under current academic standards requirements applicable at the time of reenrollment. A student reenrolled under this policy waives the right to exercise the Canceled Semester Policy.

**Transcript Effects.** All credits and grades for IUP course work taken before reenrollment under this policy shall remain on the transcript. Upon reenrollment, a new cumulative (GPA) is established based on credits and grades earned from the date of reenrollment.

Previously accepted transfer credits and IUP credits/grades earned before reenrollment will be reviewed in terms of appropriateness (applicability, timeliness) to the new degree. Those courses, approved by the college dean or designee, will be counted as credits earned and applied toward graduation in the manner of transfer credits.

**Financial Aid Effects.** Students reenrolled under the Fresh Start Policy must still meet the financial aid qualitative and quantitative SAP requirements (using all previously enrolled semester data). Federal regulations do not permit the financial aid office staff to remove or ignore any academic statistics.

**Constraints.** This policy may be applied only once. For a first bachelor's degree, a minimum of 30 credits must be completed at IUP after a student returns to IUP under this policy. For a first associate degree, a minimum of 15 credits must be completed at IUP after a student returns to IUP under this policy. A student who wishes to enter a major in a college other than the one from which they were dismissed will apply to the original college, which will forward the application and related records to the new college for action.

*Please note that students must complete their returning semester classes before the Fresh Start Policy will take effect and be applied to their academic record*

## IT Acceptable Use Policy

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

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

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

**Policy:** Use of the university's IT resources is a privilege and signifies agreement to comply with this policy. Users are expected to act responsibly and follow the university's policies and any applicable laws related to the use of IT resources. This policy provides regulations to ensure IT resources are allocated effectively.

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

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

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

### Responsibilities of Users of IT Resources:

- Respect the intellectual property of authors, contributors, and publishers in all media.
- Protect user identification, password information, and the system from unauthorized use.

- Adhere to the terms of software licenses and other contracts. Persons loading software on any university computer must adhere to all licensing requirements for the software. Except where allowed by university site licenses, the copying of university-licensed software for personal use is a violation of this policy.
- Comply with federal, state, and local laws, relevant university personal conduct regulations, and the terms and conditions of applicable collective bargaining agreements. Applicable laws include, but are not limited to, those regulating copyright infringement, copyright fair use, libel, slander, and harassment.
- Become acquainted with laws, licensing, contracts, and university policies and regulations applicable to the appropriate use of IT resources. Users are expected to use good judgment and exercise civility at all times when utilizing IT resources and respect the large, diverse community utilizing these resources in a shared manner.
- Understand the appropriate use of assigned IT resources, including the computer, network address or port, software, and hardware.
- Comply with the university's Use of E-mail as an Official Means of Communication Policy. Electronic mail should never be considered an appropriate tool for confidential communication. Messages can be forwarded or printed, and some users permit others to review their e-mail accounts. Message content can be revealed as part of legal proceedings. Finally, messages are sometimes not successfully delivered due to a technical issue requiring authorized IT personnel to review message content as part of the troubleshooting process.
- Protect Personally Identifiable Information (PII) on IUP's network by only storing sensitive information when necessary on university drives, and adhering to best practices for the proper storage.
- Adhere to the Portable Storage Device Procedure.

**Prohibited Uses of IT Resources:**

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

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

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

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

The University Senate-via the Library and Educational Services Committee-is responsible for recommending the university's Acceptable Use Policy. Questions regarding the applicability, violation of the policy, or appropriate access to information should be referred to the chief information officer.

## Portable Storage Device Procedure

This procedure is a specific extension of the IUP Acceptable Use of Information Technology Resources Policy. As such, the Senate Library and Educational Services Committee (LESC) is responsible for recommending changes to the procedure.

The use of portable electronic storage devices with IT Services-managed desktops and laptops is permitted. These devices include flash drives, memory sticks, data disks, etc. The university reserves the right to conduct security scans on portable storage devices connected to the network.

Users are strongly encouraged to store only non-sensitive data on these devices. When sensitive data is stored, IT Services encourages the use of data encryption. Users can submit an ihelp ticket to obtain data encryption assistance.

The university is not responsible for backing up data stored on these devices. As these devices are susceptible to loss, theft, data corruption or damage, users are strongly encouraged to back up the data to a non-portable storage device. The university is not liable for any data loss on these devices.

## Inclement Weather Policy and Procedures

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

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

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

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

In the event of cancellation of classes or events, or closure of the university, employees should go to the IUP website ([www.iup.edu](http://www.iup.edu)) or call the IUP Information Line at 724-357-7538. Local media outlets (WDAD-AM 1450) and the Indiana Gazette may include information about cancellations or closures, but the most reliable source of information is the IUP website, IUP social media, or IUP Information Line.

IUP Emergency Notification System subscribers will receive a text message in the event of cancellations or closures.

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

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

# IUP Policy for Enrolled Students Called to Active Military Service

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

## Option 1

Students may choose to do a total semester (fall, spring, summer, winter) withdrawal from all their classes and, under a State System of Higher Education policy, receive full refunds for tuition and fees; any university room and dining hall contract fees would be refunded on a prorated basis for the actual services students have received up to the date of the withdrawal. This option requires that students withdraw from every course and receive no grade for any course taken in that semester.

To process a total semester withdrawal, undergraduate students must contact the Office of the Student Advocate at the University College to complete the necessary paperwork to assign the course withdrawal designations and to start the process for refunds; graduate students must notify the School of Graduate Studies and Research.

Students who have elected to use this option shall be granted re-enrollment for the next semester in which the students wish to return to IUP. The students' academic standing at the time of reenrollment shall remain as it was before the call to active military duty.

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

## Option 2

If a substantial part of the semester (fall, spring, summer, winter) has been completed (typically two-thirds to three-quarters of the semester) by the time students are called for active military duty, they may meet with each instructor to determine an appropriate grade. If the appropriate grade is an "incomplete," IUP will extend the deadline by which the incomplete must be removed to 180 days from the time students return from active duty. Any university room and dining hall contract fees would be refunded on a prorated basis for the actual services students have received up to the date of leaving the university for active duty.

To process a partial semester withdrawal, undergraduate students must contact the Office of the Student Advocate at the University College to complete the necessary paperwork to assign the course withdrawal designations and to start the process for refunds; graduate students must notify the School of Graduate Studies and Research.

Students who have elected to use Option 2 who wish to return to IUP must apply for re-enrollment, which will be granted under this policy.



# IUP Student Grade Appeal Policy

## Purpose

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

## Grade Review

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

## Grade Appeal

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

1. **Capricious Evaluation:** Significant and unwarranted deviation from grading procedures and course outlines set at the beginning of the course (ordinarily in a written statement during the first week of the course) or grade assigned arbitrarily on the basis of whim or impulse. Disagreement with the instructor's professional evaluation is not sufficient by itself for a claim of capriciousness.
2. **Error:** Demonstrable, objective determination that a mathematical or clerical error resulted in the entry of an incorrect grade.

**Note:** If a student believes that an improper grade has been assigned due to discrimination, the student should contact the Office of Social Equity.

## Procedures of Appeal

### Level I: Informal Resolution

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

### Level II: Appeal Screening

- A. **Composition:** Each year there shall be appointed a Grade Appeals Committee to determine the existence of the substantive basis for appeal. The committee will be composed of seven voting members: three faculty members appointed by APSCUF, three members elected by and from the Senate Academic Committee (one faculty, one administrator, one student), and one student appointed by the Student Government Association. A quorum consists of a majority of the committee. To take action, a majority of those present must be faculty members. If a quorum of the

Level II committee is not available to meet within the designated time limits, the Office of the Provost will seek additional members from the appointing bodies. If these bodies are unable to respond in a timely manner, the Office of the Provost may select additional members from the appropriate groups.

- B. **Procedure to Initiate Appeal:** To initiate Level II of the appeal, the student must file an appeal form with the Office of the Provost. This form must be filed within 60 calendar days of the beginning of the semester immediately following the semester in which the grade was received. The Office of the Provost may extend the 60-day limit only in unusual circumstances when equity demands it. (Note: Grade appeals will not generally be processed during the summer. Therefore, the appeal of any grade received in the spring or summer sessions normally will be processed in the fall. A review will be scheduled in the summer only when the student's academic eligibility is jeopardized by the grade in question or when the student is a graduating senior.) The Office of the Provost will notify the appropriate dean, department chairperson, instructor, APSCUF president, and the Student Government Association president of the student's initiation of the Level II process.
- C. **Procedure to Process Appeal:** In addition to the appeal form, the student will be expected to submit pertinent information/documentation and rationale for his/her complaint, which will serve as supporting evidence. The faculty member instructor will be expected to submit in writing the course grading procedure and any other pertinent information. Appeals based on capriciousness will be reviewed in light of the instructor's announced evaluation and grading system. The committee will review the materials to deny or confirm appeal continuation. Denial of appeal continuation must be by a negative vote of a majority of those present. This committee will immediately inform the Office of the Provost of its findings. Within five (5) class days of the receipt of the committee's report, the provost or designee will notify the student and the instructor of the findings. If the basis for appeal is determined to be substantive, the provost or designee will schedule a Level III Grade Appeal Panel within 15 class days to be convened before the conclusion of the semester.

## Level III: Appeal Review

- A. **Composition:** The Grade Appeal Panel will consist of five voting members: one academic dean or assistant/associate dean and four faculty members. The Student Government Association Executive Committee designee may advise as requested by the student. The panel will be constituted from the Grade Appeal Pool by random selection. The panel chairperson will be elected by and from the panel before each review.
- B. **Membership:** The Grade Appeal Pool will be established in the spring semester to serve for the following academic year. Using random selection methods, the pool will be established by the Office of the Provost. A pool of three deans or assistant/associate deans and 12 full-time faculty members will be maintained. To establish the membership for each appeal panel, before each appeal, the names of pool members will be supplied to all parties involved. A panel member must recuse him or herself if there is a conflict of interest. The student and the instructor each may eliminate only one dean or assistant/associate dean and two faculty members. The opportunity to disqualify panel members will take place only once. If through self-disqualification and challenges a panel cannot be constituted from the pool, then the Office of the Provost will supplement the pool using appropriate random selection methods.
- C. **Procedure:**
1. Both the student and the instructor will have the right to appear before the panel, present witnesses, and offer evidence. In addition to those specified in Level III, Section A, each may also bring one observer, with whom he or she may consult but who may not participate in the proceedings.
  2. The panel shall determine its rules of order for internal operation. After hearing the evidence brought forth, the panel will privately deliberate and render a decision. If the grade appeal is upheld, the Office of the Provost will assemble a committee of three appropriate faculty members (knowledgeable in the discipline but excluding the instructor against whom the complaint was lodged), who will review the student's work and recommend to the panel the appropriate grade or suitable remedy. The panel will incorporate this recommendation in its determination, which it then forwards to the Office of the Provost for implementation, ordinarily within 30 days. The Office of the Provost will initiate the processing of grade changes resulting from Level III decisions. The Office of the Provost will notify the student of grade changes resulting from Level III decisions.
  3. The written report sent to the Office of the Provost will state whether the student's appeal is upheld or denied; if upheld, the committee's evaluation and remedy will be included. Both the student and the instructor have the right to review all documents related to the appeal. All documents supporting the report will be sealed and kept for one year to ensure the appropriate action is taken before they are destroyed or returned to the individual presenting the evidence.

4. The Level III decision is final for all involved parties.

## Ancillary Provisions

- A. **Appeals on Procedural Grounds:** Decisions may not be challenged merely because the Office of the Provost fails to comply with Ancillary Provisions E, J, or I.
- B. **Confidentiality:** Students, faculty, administrators, and staff involved in processing and hearing grade appeals must respect the confidentiality of all aspects of these proceedings. Those breaching confidentiality subject themselves to possible disciplinary action. This shall not abridge the First Amendment rights of the student appellant nor the instructor against whom the appeal has been filed.
- C. **Continuing Rights:** This appeal does not supplant any legal rights afforded by the Commonwealth of Pennsylvania and/or the Government of the United States. Nothing in this policy abrogates or modifies any provisions of or rights under the Collective Bargaining Agreement.
- D. **Dissemination of Grade Appeal Information:** The Office of the Provost will annually report to the university community a statistical summary of grade appeal data that does not compromise confidentiality, including (1) the number of appeals filed, (2) the resolutions at levels II and III, and (3) the final implementation of level III decisions.
- E. **Faculty Compensation:** If a Level III Grade Appeal Panel (hearing) is scheduled at a time when any faculty member involved is not under contract, the faculty member will be compensated under terms mutually agreed upon at Meet-and-Discuss.
- F. **Intended Purpose:** Unless there is intentional misrepresentation, the results of a grade appeal may not be used for disciplinary action of students or instructors.
- G. **Intentional Misrepresentation:** Intentional misrepresentation in the filing of grade appeals by students will be referred to the university judicial system for students. Intentional misrepresentation by faculty instructors in the grade appeals process will be referred to the Office of the Provost.
- H. **Support Mechanism:** The Office of the Provost, after consultation with the Senate Academic Committee and APSCUF, will be responsible for identifying a pool of at least 10 faculty members well versed in the preparation of grade appeals who will be available upon request to help students or faculty members prepare documentation for the grade appeals process.
- I. **Tenure and Promotion Committee Membership on Grade Appeals Committees:** Members of the university-wide tenure and promotion committees may not serve concurrently on grade appeals committees.
- J. **Training/Support:** Upon request, the Office of the Provost will offer information sessions/workshops to assist deans, chairs, grade appeals panel/committee members, and members of Student Government Association/university in identifying issues and to provide guidance for the resolution of grade appeals.

## Midterm Grade Report Policy

Students are advised to be in contact with instructors throughout the semester to remain current on their course status and progress. To help students monitor their academic performance, instructors will post advisory grades for all undergraduate students reflective of each student's progress to date. Each semester, the registrar will establish and announce the dates for instructors to enter midterm grades in MyIUP and for students and advisors to access them.

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

## Night Exam Policy

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

## Guidelines

1. Night exams can only be scheduled on Monday through Thursday evenings within the 6:00-10:00 p.m. time period.
2. Appropriate physical facilities must be arranged in advance without encroachment upon other authorized university functions.
3. If night exams are to be given, the day of the week on which they will be given must be listed in the course schedule on MyIUP before registration.
4. No night exam can take precedence over a regularly scheduled class.
5. Arrangements for nonpunitive makeup exams at a mutually agreeable time must be available for students who cannot attend the night exam.
6. For each hour of night exams, an hour of regularly scheduled class time will be canceled. Such cancellations are prohibited for two class days immediately preceding or immediately following holiday and/or vacation periods and/or semester terminations, as published in the academic calendar.

## Pass-Fail Policy

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

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

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

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

## Policy for Holding Exams Outside the Prescribed Course Times

Tests, examinations, and quizzes (assessments) should normally be administered during the prescribed course times.

However, for instructors who choose to administer assessments outside the prescribed course times, the following apply:

1. For on-line tests, examinations, and quizzes (assessments):
  - a. The instructor shall inform students in the course syllabus that on-line assessments are required outside the prescribed course times. The instructor shall provide students with as much information as possible regarding

- window of access to and time to complete these assessments. If an assessment format or timing change occurs at some point in the semester, students shall be provided ample notice.
- b. Reasonable windows for accessing (e.g., at least 24 hours) and completing on-line assessments shall be provided to students. For instance, instructors should avoid providing access to the assessments only late at night and only on weekends.
  - c. Arrangements for non-punitive makeup assessments must be available for students with valid reasons (e.g., medical, work schedule) for not being able to complete the on-line assessments during the prescribed time window.
2. For tests, examinations, and quizzes (assessments) scheduled outside prescribed course times where the physical presence of the student is required (on-campus or at another location):
- a. Instructors shall obtain their dean's approval for including the requirement that students need to be physically present for assessments outside the designated course times.
  - b. The requirement shall be listed in the course schedule on MyIUP before registration begins.
  - c. The requirement shall also be included in the course syllabus. The instructor shall provide students with as much information as possible regarding dates and times. If an assessment format or timing change occurs at some point in the semester, students shall be provided ample notice.
  - d. Assessments can only be scheduled on Monday through Thursday from 8 a.m. to 10 p.m. and Friday from 8 a.m. to 4 p.m.
  - e. Appropriate physical facilities must be arranged in advance without encroachment upon other authorized university functions.
  - f. Assessments cannot take precedence over another regularly scheduled class for the student.
  - g. Arrangements for non-punitive makeup assessments must be available for students with valid reasons (e.g., medical, work schedule) for not being able to physically attend the assessment during the prescribed time window.
  - h. For each hour of assessment conducted outside of regularly scheduled class time, an hour of regularly scheduled class time will be cancelled.

## Research Integrity Policy

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

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

Policies are in place to protect research involving human subjects or animals, and to ensure compliance with additional university policies and state and federal law.

Those engaged in research can find more information about IUP's research policies, procedures, required trainings and other resources at <https://www.iup.edu/research/resources/policies/index.html>

## Schedule Changes (Drop/Add)

From the initial registration time for a given semester through the end of the drop/add period, as defined by the academic calendar, students may modify their schedules to the extent that classes are available or permission to register for a closed or restricted section has been granted and students have been informed that they can register for the closed or restricted section.

Students are responsible for confirming in MyIUP the accuracy and completeness of their schedules.

Note that while the department may grant permission to register for a section, students must complete the actual registration transaction in MyIUP.

## Verification of Participation in Academically Related Activities

This policy formalizes how IUP will determine the earned and unearned portions of federal Title IV student aid funds, which is required under Title IV of the Higher Education Act of 1965, as amended. Up through the 60 percent point in each payment period or period of enrollment, a pro rata schedule is used to determine the amount of earned Title IV aid. After the 60 percent point, a student has earned 100 percent of the Title IV aid funds he/she was scheduled to receive during the period. If a student unofficially withdraws (ceases to participate in academically related activities), the university must determine that date.

All students shall engage in academically related activities in order to be eligible for federal (Title IV) student aid. All instructors of record shall verify their course rosters at designated times during each semester for such activity. This information will assist IUP personnel in Financial Aid and Office of Student Billing with the calculations of aid that may be awarded and/or returned.

### Definitions

#### A. *Withdrawal*

To cease attendance in all Title IV eligible classes in a payment period or period of attendance, as applicable. A student is considered to have withdrawn from a payment period or period of enrollment if, in the case of a program that is measured in credit hours, the student does not complete all the days in the payment period or period of enrollment that the student was scheduled to complete.

1. Official Withdrawal Date – If a student provides written or oral notification of withdrawal to the university's designated office stating intent to withdraw, the withdrawal date is the date the university receives the notification.
2. Unofficial Withdrawal Date – In general, if a student leaves the university without the provision of official notification, the withdrawal date is the midpoint of the payment period or period of enrollment, as applicable, or the last known date of an academically related activity in which the student participated.

#### B. *Academically Related Activity*

1. Academically related activities include, but are not limited to:
  - a. Physically attending a class where there is an opportunity for direct interaction between the instructor and students.
  - b. Submitting an academic assignment.
  - c. Taking an exam, an interactive tutorial, or computer-assisted instruction.
  - d. Attending a study group that is assigned by the university.
  - e. Participating in an online discussion about academic matters.
  - f. Initiating contact with a faculty member to ask a question about the academic subject studied in the course.
2. Academically related activities **do not include** activities where a student may be present but not academically engaged, such as:

- a. Living in institutional housing.
- b. Participating in the university's meal plan.
- c. Logging into an online class without active participation.
- d. Participating in academic counseling or advisement.

*C. Academically Related Activity for Distance Education Courses*

In a distance education context, **documenting that a student has logged into an online class is not sufficient, by itself, to demonstrate academic attendance by the student.** A school must demonstrate that a student participated in class or was otherwise engaged in an academically related activity. Academically related activities in a distance education course include, but are not limited to:

1. Student submission of an academic assignment.
2. Student submission of an exam. .
3. Documented student participation in an interactive tutorial or computer-assisted instruction.
4. A posting by the student showing the student's participation in an online study group that is assigned by the institution.
5. A posting by the student in a discussion forum showing the student's participation in an online discussion about academic matters.
6. An email from the student or other documentation showing the student initiated contact with a faculty member to ask a question about the academic subject studied in the course

*D. Failing Grade, Earned (F)*

Grade awarded to students who generally completed the course period but failed to achieve the course objectives. It is used when, *in the opinion of the instructor*, completed assignments or course activities or both were sufficient to make normal evaluation of academic performance possible (instructor will record a grade of "F").

*E. Failing Grade, Unearned (N)*

Grade awarded to students who did not officially withdraw from the course, but who failed to participate in course activities through the end of the period. It is used when, in the opinion of the instructor, completed assignments or course activities or both were insufficient to make normal evaluation of academic performance possible (instructor will record a grade of "N", along with the last known date of participation in academically related activities.).

All instructors of record must verify in the student system that students on their course rosters have participated in academically related activities immediately after the drop/add period, when mid-term grades are recorded, and when final grades are submitted.

Immediately after drop/add, verification of course rosters affirms that the students listed have been involved in academically related activities associated with the course. For online courses, the faculty member shall advise students to log into the course and begin course activity during the add/drop period.

Mid-term and final grades must be recorded in the student system for all students with earned and unearned failing grades. **Instructors must determine** if the failure was based on performance ("F") or non-participation ("N"), respectively, and must also record the last known date of participation in academically related activities if the student receives an unearned failing grade ("N").

Students will be responsible for engaging in academically related activities in their courses. Instructors will record participation at the end of the drop/add period. For students failing the course at mid-term and/or finals, instructors will record whether or not the failing grade was due to performance or non-participation (earned or unearned). If the failure was due to nonparticipation, the last known date of the student's participation in academically related activities will be reported. IUP personnel in Office of Financial Aid and the Office of Student Billing will use the recorded information to determine the amount of Title IV student aid may be awarded and/or returned.

## Use of IUP E-mail as an Official Means of Communications

**Purpose:** The purpose of this policy is to define IUP e-mail as an official method of communication for the university.

**Scope:** This policy applies to all students and employees except those employees who do not normally have access to e-mail.

**Objective:** The objective of this policy is to define the use of IUP e-mail as an official method of communication and the responsibility of e-mail users to monitor, read, and use their IUP e-mail accounts. As the IUP e-mail system provides a recognized method to authenticate the user, it is suitable to use for official communications.

**Policy:** Indiana University of Pennsylvania provides e-mail services to all students and employees as an official method of communication. Students and employees (except those employees who do not normally have access to e-mail) have a responsibility to read their IUP e-mail accounts and, if responding to or sending e-mail about IUP business, use their IUP e-mail accounts to do so.

**Definitions:** *E-mail user* is defined as any student or employee who has been issued an IUP e-mail account. *E-mail account* is an active IUP e-mail (*@iup.edu*). *E-mail spoofing* is the creation of e-mail messages with a forged sender address.

**Responsibilities:** Users are expected to check their e-mail accounts regularly and to use their IUP e-mail accounts when responding to or sending e-mail to IUP employees and students about IUP academic and administrative matters.

**Procedures:** The rationale for this policy is that for faculty members who wish to use IUP e-mail for communication to and from students, there is a policy that states that this is approved. Faculty members can put this policy in their syllabi and other documents. Communicating via the IUP e-mail system facilitates determining the identity of the sender. Users are therefore not permitted to impersonate other users by modifying e-mail header information for the purpose of deception. All forms of e-mail spoofing are prohibited.

Where applicable, academic and administrative offices should publish e-mail addresses that can be used to receive such e-mail. Faculty members should make students aware of their e-mail address by including it on their syllabi or by other means.

## Undergraduate Course Attendance Policy

The university expects all students to attend class.

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

1. Each policy must be distributed to students by the first day of class. The information dealing with course attendance standards will be distributed with the course syllabus.
2. Each policy must define the level of allowable absence. In addition, each policy must recognize students' need to miss class because of illness, personal emergency, university-sponsored activities, bereavement, or active military duty.
3. Each policy must not penalize students who add the course during the regular or specified university drop-add period and must allow those students to make up work missed before adding the course.



## Bereavement-related Class Absences

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

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

## Anticipated Class Absence for University Representation and Participation

The university community recognizes and values student participation in cocurricular and extracurricular activities of the university, while acknowledging the instructor's right to determine the extent of allowable deviations from the course syllabus. The student is expected to notify the instructor as soon as the student knows that a class will be missed due to a university-sponsored event. The instructor may request documentation signed by the activity director, coach, or advisor detailing the specifics of the event in advance.

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

## University Policy on Semester Course Syllabi

A syllabus is a document that specifies the expectations and requirements of a given course and protects the interests of faculty and students.

Each course instructor shall distribute a course syllabus, without charge, to each student by the first day of the course. The syllabus may be distributed in hard copy or electronic formats. The syllabus will be consistent with the course content and catalog description approved by the University Senate.

Each syllabus shall contain the following, unless otherwise noted:

### 1. Instructor Contact Information

- Name and office location
- IUP e-mail address
- Office phone, if available
- Schedule of office hours. Note: Full time faculty must maintain a minimum of five office hours per week spread across three days. For online courses, the method and times for instructor availability to consult with students must be included.

### 2. Course Information

- Title, number, and section of the course
- Meeting times and building/room location
- Catalog or course description
- Prerequisites, as appropriate
- Learning objectives, specific to discipline or department.

### 3. Course Materials

- Required book(s) with title, author, edition, and ISBN
- Other required materials, technologies, or software to be purchased or made available to students
- A list of readings, as appropriate
- Information on learning management systems and delivery modes (e.g., D2L, Moodle, Zoom), as appropriate.

### 4. Course Requirements

- Outline of topics
- Description of course assignments and dates for major assignments and tests
- Listed culminating activity, such as a final examination. Note: Each course shall have a culminating activity given during the scheduled final examination period.

### 5. Grading Information

- Description and listing of the grading components (e.g., quiz, midterm, final examination, term papers, homework, class participation, etc.) and the relative contributions of assignments/activities/participation to the final grade
- Description of the grading scale.

### 6. Course Policies and Statements

Syllabi *shall* contain the following policies and statements:

- Policy on course attendance. The policy must be consistent with IUP's policies on Undergraduate and Graduate Course Attendance, Bereavement-related Class Absences, and Anticipated Class Absence for University Representation and Participation, available at <https://www.iup.edu/registrar/catalog/>
- Policy on class disruption, consistent with IUP Undergraduate and Graduate Policies on Class Disruption available at <https://www.iup.edu/registrar/catalog/>
- Complete text on Title IX and Protection of Minors Compliance required by the Board of Governors of the State System of Higher Education, available at <https://www.iup.edu/socialequity/policies/title-ix/>
- Statement on academic integrity, consistent with IUP Undergraduate and Graduate Policies on Academic Integrity, available at <https://www.iup.edu/registrar/catalog/>
- Statement on accommodations for students with disabilities, consistent with IUP's mission and vision on Accommodations for Students with Disabilities, available at [www.iup.edu/disabilitysupport](http://www.iup.edu/disabilitysupport).

Syllabi *should* contain the following policies and statements as best practices:

- Policy on student participation. The policy should include language regarding what constitutes participation and how participation or lack of participation may impact the student's grade.
- Policy, including penalties if appropriate, on make-up exams and late submission of assignments.
- Statement that IUP email is IUP's official means of communicating with the student during the course.
- The following statement on use of plagiarism detection services: "IUP is committed to the fundamental values of academic integrity. Academic integrity means honesty and responsibility in scholarly endeavors and behaviors; it means that academic work must be the result of an individual's own effort. To assist instructors in detecting plagiarism, and to protect students from plagiarism, your written work may be submitted to a detection service that reviews submitted material for originality of content."

- Additional instructor policies as appropriate.

## Visiting Student Program Policy

### 1. Purpose

1. To facilitate undergraduate student enrollment at institutions of Pennsylvania's State System of Higher Education to take advantage of courses available across the System, without loss of institutional residency, eligibility for honors or athletics, or credits toward graduation at the home institution.

### 2. Undergraduate Student Standards

1. The student must be matriculated at the home university with a minimum of 12 college-level credits and be in academic good standing.
2. Students may take a maximum of 24 credits via the Visiting Student Policy.
3. The student who presents evidence of good standing at the home university will be allowed to register for courses at other State System universities. The visiting student priority level for registration will be determined by each university.
4. All credits and grades accrued at other System universities shall be accepted in full by the home university and thereafter treated as home university credits, residency, and grades.
  1. It is the responsibility of the student to work with the student's advisor at the home institution regarding applicability of credits toward graduation requirements at the home institution consistent with State System procedures.
  2. It is the responsibility of the student to complete the Visiting Student Notification form and submit to the home institution prior to enrolling in courses at another State System institution.
  3. Students cannot use the Visiting Student Program to repeat courses. Students cannot use the Visiting Student Program for internship or practica that are required for licensure or certification without the express written permission of their appropriate university officials at the home university and placement availability at the requested institution.
5. The student shall register at, and pay tuition and fees to, the State System university visited. A student wishing to divide a course load between two institutions during the same term shall register and pay appropriate tuition and fees at both universities.
6. The Office of the Chancellor will work with universities to establish and publish procedures to identify visiting students such that financial aid, residency, eligibility for honors, eligibility of athletics, and credits to graduation are assured.

## Withdrawal Policies

### Individual Course Withdrawal Policy

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

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

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

Students should discuss their options with instructors, academic advisors, and the Office of Financial Aid before considering course withdrawals. Course withdrawals may impact financial aid eligibility (percent of completion and eligibility to move to the

next class level), full-time status, athletic eligibility, and health insurance, etc. Students are also cautioned to consider the detrimental impact of "Ws" in a transcript review by a prospective employer or graduate school. RATIONALE: Upon five year review, minor clarifications were made to the policy.

## Involuntary Withdrawal Policy

### Introduction:

The purpose of this policy is to provide a procedure for determining whether a student's behavior poses a direct threat and for responding to such behavior. Involuntary withdrawal may be appropriate when a student displays behavior which is not prohibited by and/or may not be adjudicated by other University policies and procedures that nonetheless poses a direct threat and a student demonstrates a risk of repeated display of such behavior.

This policy will be applied to all students without regard to race, color, sex, religion, national origin, age, disability, sexual orientation, or veteran status.

### Definitions:

1. **Direct Threat:** behavior that poses
  - significant risk to the health or safety of the University Community, or
  - significant risk of damage to University property, or
  - substantial disruption to the activities or education of other students
2. **Significant Risk:** behavior which has a high probability (not just a slightly increased, speculative, or remote risk) of substantial harm or damage
3. **Substantial Disruption:** behavior which continually and considerably interferes with other University community members' participation in academic, work, extracurricular, housing/residence life or other university-related activities
4. **Involuntary Withdrawal Review Team:** A team of individuals convened by the Vice President for Student Affairs (or designee) to assist the Vice President for Student Affairs (or designee) in determining whether or not a direct threat exists. The Review Team will include a representative from the Counseling Center, Disability Access and Advising, Health Services, and Academic Affairs, and may include other professionals qualified to interpret the information available for consideration.

### Procedures:

#### A. Review

##### Process

1. When made aware of an identified student whose behavior could warrant an involuntary withdrawal, the Vice President for Student Affairs (or designee) will convene and oversee an Involuntary Withdrawal Review Team to conduct an individualized assessment of the student behavior and circumstances related to the observed behavior of concern and advise him/her whether or not a direct threat exists.

During the review process, the following factors may be considered:

- the likelihood that the potential harm will occur;
- the nature, duration, and severity of the risk of harm;
- whether or not other University policies or procedures may be appropriate to address the behavior;
- any assertion by the student of a legally protected disability entitled to reasonable accommodation;
- Consideration should be given to whether reasonable modification of University policies, practices, and procedures would sufficiently mitigate the risk.

2. A request may be made to review educational records and/or to consult with various University community members or others who may be knowledgeable of the student and/or the behavior of concern.
3. The student may be requested to take part in a medical/psychological evaluation. In such a case, the Vice President and Review Team will identify a qualified and licensed health professional to conduct the evaluation. The University will be responsible for the fees associated with this evaluation.
4. Personal meetings with the student may be requested. Although it is strongly recommended that the student choose to attend such a meeting, the review process will proceed if the student does not attend. Furthermore, the review process will proceed regardless of the student's ongoing University status. If the student chooses to attend, the student is permitted to have an advocate present.
5. Based upon the Review Team's assessment, the Vice President of Student Affairs (or designee) may conclude that a direct threat exists and, if so, will determine an appropriate next step, which may entail involuntary, total withdrawal of the student from the University. The outcome of this process would not preclude other actions or processes depending on the particular situation.
6. The review decision will be communicated by the Vice President of Student Affairs (or designee) to the student and will provide the primary information that led to the decision. Any conditions for later reenrollment, including when the student may request reenrollment, may also be communicated at that time. The decision will be delivered in writing and delivered via the University-issued email address. Other means of delivery may include delivery in person, delivery by mail to the local or permanent address of the student as indicated in official University records, or delivery by email to a non-University email address confirmed by the student as their personal email account. Once mailed, emailed, and/or received in-person, such notice will be presumptively delivered.
7. At any time prior to conclusion of the review process, the student may withdraw voluntarily.

#### **B. Appeal Process**

1. The decision of the Vice President for Student Affairs (or designee) may be appealed in writing by the student to the President.
2. An appeal must be filed within ten (10) calendar days after the decision of the Vice President for Student Affairs (or designee) is delivered to the student.
3. The President's decision on the appeal will be final and conclusive.
4. During the appeal process the student will remain totally withdrawn from the University.
5. Exceptions to this appeal process and associated deadlines may be considered in extenuating circumstances.

#### **C. Reenrollment Process**

1. Students wishing to reenroll after having been involuntarily withdrawn should contact the Office of the Vice President for Student Affairs who will determine whether or not the conditions which led to the involuntary withdrawal decision persist. The Vice President for Student Affairs (or designee) may consult with the Involuntary Withdrawal Review Team during this process.
2. The decision of the Vice President of Student Affairs (or designee) will be based on a determination of whether the student can return safely to the University community.

#### **D. Emergency Removal**

At any time prior to the initiation or conclusion of the review process, the Vice President of Student Affairs (or designee) may implement an emergency removal of the student from the University, should immediate action appear warranted. A review process, as outlined above, will occur as soon as reasonably possible.

Reasonable deviation from these procedures due to crisis and/or emergency situations will not invalidate the need for a review process and its subsequent decision.

## **4. Interpretation and Revision:**

Any question of interpretation of this policy will be referred to the Vice President for Student Affairs, whose interpretation is final.

The Involuntary Withdrawal Policy shall be reviewed at least every three years. The Involuntary Withdrawal Policy shall be updated as necessary to comply with applicable law, policy, or regulation. The review process shall be coordinated by the Vice President for Student Affairs or designee.

## 5. Rescission:

This policy will not be rescinded or modified except by action of the IUP President, following consultation with the University Senate, and in accordance with University Senate By-Laws and Constitution.

## 6. Publications Statement:

The IUP office of the Vice President for Student Affairs will publicize and transmit this policy to all members of the University community.

# Undergraduate Total Semester Withdrawal Policy

The Total Semester Withdrawal Policy provides students who are unable to complete a term with the option of withdrawing from all classes, and thus from the university, for that semester. During the fall and spring semesters, Total Semester Withdrawals may be processed between the first day of classes and the end of the 11th week of the term. During summer and winter sessions, the deadline is the two-thirds point of each course for which the student is registered.

Questions about academic impact of withdrawal should be directed to the University College (see "Process" below). Questions about the financial impact withdrawal should be addressed to the Office of Student Billing and/or the Office of Financial Aid

- **Late Withdrawal:** Undergraduate students who need to withdraw from the current academic semester after the deadline must process a waiver through the office of the dean of the college of their primary major. Approval of the waiver is contingent on documentation of catastrophic circumstances preventing the student from completing the semester and/or session. Approved waivers must be submitted to the University College and attached to the Total Semester Withdrawal form for processing as below.
- **Involuntary Withdrawal:** Any undergraduate student involuntarily withdrawing from the university as a result of suspension or expulsion unrelated to violations of the Academic Integrity Policy will automatically have the designation of "W" assigned to each registered course as a result of such judicial action.
- **Process:** Undergraduate students voluntarily withdrawing from the university should first review information on withdrawals on the University College's Academic Success Center website and confirm the financial impact of withdrawal. Then the student must submit a Total Semester Withdrawal either via MyIUP (*my.iup.edu*) or by form completion with the University College, B01 Stabley Library, 724-357-2375. Once the Total Semester Withdrawal has been processed, a withdrawal designation ("W") will be assigned to all registered courses from which the student is withdrawing. There are no financial leniencies for withdrawals caused by medical situations. IUP's percentage of forfeiture rates follow state and federal dictates, which do not address medical situations.
- **Reenrollment:** Students should refer to the Reenrollment Policy in the Admissions section of this catalog for further information about returning to IUP.

# Liberal Studies and Requirements for Graduation

Undergraduate students at IUP may pursue programs of study in any one of six undergraduate colleges: the Eberly College of Business, the College of Education and Communications, the College of Arts and Humanities, the College of Health and Human

Services, the University College, or the Kopchick College of Natural Sciences and Mathematics. A student may earn the degree of bachelor of arts, bachelor of science, bachelor of fine arts, or bachelor of science in education. The University College offers an associate of arts degree program. The College of Health and Human Services offers two associate in applied science degree programs.

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

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

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

## Liberal Studies

All students must fulfill the requirements of the university's Liberal Studies program. This involves a minimum of 40 credits divided among Learning Skills, Knowledge Areas, and Liberal Studies Electives. The number of credits may rise slightly depending on student choices. The maximum number of Liberal Studies credits is 48.

Different colleges and sometimes departments within colleges may have specific variations as to how these Liberal Studies requirements are to be met.

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

## Liberal Studies Requirements

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

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

## Knowledge Area

### Humanities: 9

#### Three Courses

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

#### History:

- HIST 196 - Explorations in US History **Credits: 3**
- HIST 197 - Explorations in European History **Credits: 3**
- HIST 198 - Explorations in Global History **Credits: 3**

#### Literature:

- ARHU 122 - Big Ideas I: Ancient to Enlightenment **Credits: 3 (GMA)**
- ARHU 123 - Big Ideas II: Enlightenment to Present **Credits: 3 (GMA)**
- ENGL 121 - Humanities Literature **Credits: 3**
- ENGL 122 - Introduction to English Studies **Credits: 3** (English majors)
- FNLG 121 - Humanities Literature **Credits: 3** (taught in English)
- MUHI 102 - Music and Literature Survey **Credits: 3** (music education majors only)
- ENGL 225 - Introduction to Literature by Women **Credits: 3**
- ENGL 256 - Videogames and Digital Literature **Credits: 3**

#### Philosophy or Religious Studies:

- PHIL 100 - Introduction to Philosophy **Credits: 3**
- PHIL 101 - Critical Thinking **Credits: 3**
- PHIL 122 - Contemporary Moral Issues **Credits: 3**
- PHIL 130 - Introduction to Biomedical Ethics **Credits: 3**
- PHIL 240 - Philosophy and the Good Life **Credits: 3**
- RLST 100 - Introduction to Religion **Credits: 3**
- RLST 110 - World Religions **Credits: 3**
- RLST 120 - Comparative Religious Ethics **Credits: 3 (GMA)**

### Fine Arts: 3

#### One Course from List

- ARHI 101 - Introduction to Art **Credits: 3**
- ARHI 103 - How Design Changes the World **Credits: 3**
- ART 113 - 3D Design and Digital Fabrication **Credits: 3**



- DANC 102 - Introduction to Dance **Credits: 3**
- FIAR 101 - Introduction to Fine Arts **Credits: 3**
- MUHI 101 - Introduction to Music **Credits: 3**
- MUHI 102 - Music and Literature Survey **Credits: 3** (music education majors only)
- THTR 101 - Introduction to Theatre **Credits: 3**
- THTR 161 - Introduction to Theatre: Teamwork **Credits: 3**

## Natural Science: 7-8

### One Option

### Option I: Two-Semester Laboratory Course Sequence: 8

Two courses with laboratories (two 4cr or 3+1 credit lecture lab pair) from the Natural Science Laboratory course list. These two courses do not have to be taken in sequence.

#### Natural Science Laboratory Courses:

- BIOL 103 - Life on Earth **Credits: 4**
- BIOL 104 - Human Biology: How the Human Body Works **Credits: 4**
  
- BIOL 106 - Human Genetics and Health **Credits: 3** and
- BIOL 116 - Human Genetics and Health Laboratory **Credits: 1**
  
- CHEM 101 - College Chemistry I **Credits: 4**
- CHEM 102 - College Chemistry II **Credits: 4**
- CHEM 111 - General Chemistry I **Credits: 4**
- CHEM 112 - General Chemistry II **Credits: 4**
- CHEM 113 - Advanced General Chemistry I **Credits: 4**
- CHEM 114 - Advanced General Chemistry II **Credits: 4**
  
- GEOS 101 - The Dynamic Earth **Credits: 3** - OR -
- GEOS 111 - Earth and Environmental Systems **Credits: 3** and
- GEOS 102 - The Dynamic Earth Lab **Credits: 1**
  
- GEOS 103 - Oceans and Atmospheres **Credits: 3** and
- GEOS 104 - Oceans and Atmospheres Lab **Credits: 1**
  
- GEOS 105 - Exploring the Universe **Credits: 3** and
- GEOS 106 - Exploring the Universe Lab **Credits: 1**
  
- GEOS 200 - Foundations of Geology **Credits: 4**
- GEOS 203 - Surficial Processes **Credits: 4**
- GEOS 204 - Historical Geology **Credits: 4**
  
- PHYS 111 - Physics I Lecture **Credits: 3** and
- PHYS 121 - Physics I Lab **Credits: 1**

- PHYS 112 - Physics II Lecture **Credits:** 3 and
- PHYS 122 - Physics II Lab **Credits:** 1
  
- PHYS 131 - Physics I-C Lecture **Credits:** 3 and
- PHYS 141 - Physics I-C Lab **Credits:** 1
  
- PHYS 132 - Physics II-C Lecture **Credits:** 3 and
- PHYS 142 - Physics II-C Lab **Credits:** 1
  
- PHYS 151 - Physics for Life Sciences **Credits:** 3 and
- PHYS 161 - Medical Physics Lab **Credits:** 1
  
- SCI 104 - Fundamentals of Environmental Biology **Credits:** 4
  
- SCI 105 - Physical Science **Credits:** 3 and
- SCI 115 - Physical Science Lab **Credits:** 1
  
- SCI 107 - Chemistry for Everyone **Credits:** 3 and
- SCI 117 - Chemistry for Everyone Laboratory **Credits:** 1

## Option II: One Laboratory plus One Non-laboratory Course: 7

One course with laboratory (4cr) from the Natural Science Laboratory course list and one course (3cr) from Natural Science Non-laboratory course list.

Natural Science Non-laboratory Courses:

- BIOL 106 - Human Genetics and Health **Credits:** 3
- BIOL 107 - Introduction to Forensic Biology **Credits:** 3
- BIOL 115 - Biotic Diversity of North America **Credits:** 3
- BIOL 117 - Understanding HIV Biology and AIDS **Credits:** 3
- BIOL 118 - The History of Pain **Credits:** 3
- BIOL 119 - Emerging Diseases **Credits:** 3
- CHEM 105 - The Forensic Chemistry of CSI **Credits:** 3
- CHEM 107 - Chemistry of Food and Beverages **Credits:** 3
- CHEM 255 - Biochemistry for Health Sciences **Credits:** 3
- GEOS 101 - The Dynamic Earth **Credits:** 3
- GEOS 103 - Oceans and Atmospheres **Credits:** 3
- GEOS 105 - Exploring the Universe **Credits:** 3
- GEOS 111 - Earth and Environmental Systems **Credits:** 3
- GEOS 150 - Geology of National Parks **Credits:** 3
- GEOS 151 - The Age of Dinosaurs **Credits:** 3
- GEOS 154 - Human Exploration of Space **Credits:** 3
- GEOS 155 - Geology of Climate Change **Credits:** 3
- GEOS 156 - Geology of Natural Disasters **Credits:** 3 (GMA)
- PHYS 101 - Energy and Our Environment **Credits:** 3
- PHYS 105 - The Physics of Light and Sound **Credits:** 3
- PHYS 111 - Physics I Lecture **Credits:** 3

- PHYS 112 - Physics II Lecture **Credits: 3**
- PHYS 131 - Physics I-C Lecture **Credits: 3**
- PHYS 132 - Physics II-C Lecture **Credits: 3**
- PHYS 151 - Physics for Life Sciences **Credits: 3**
- SCI 101 - Fundamentals of Physics **Credits: 3**
- SCI 103 - Fundamentals of Earth and Space Science **Credits: 3**
- SCI 105 - Physical Science **Credits: 3**
- SCI 107 - Chemistry for Everyone **Credits: 3**
- SCI 113 - Physics in Science Fiction **Credits: 3**

## **Social Science: 9**

### Three Courses from List

\*No course prefix may be used more than once

- ANTH 110 - Contemporary Anthropology **Credits: 3 (GMA)**
- ANTH 211 - Cultural Anthropology **Credits: 3 (GMA)**
- ANTH 213 - World Archaeology **Credits: 3 (GMA)**
- CRIM 101 - Crime and Justice Systems **Credits: 3**
- ECON 101 - Basic Economics **Credits: 3**
- ECON 121 - Principles of Macroeconomics **Credits: 3**
- FASH 125 - Cultural Studies of Dress and Appearance **Credits: 3 (GMA)**
- GEOG 101 - Environment and Society **Credits: 3**
- GEOG 102 - Geography of the United States and Canada **Credits: 3**
- GEOG 104 - World Geography: Global Context **Credits: 3 (GMA)**
- PLSC 101 - World Politics **Credits: 3 (GMA)**
- PLSC 111 - American Government **Credits: 3**
- PSYC 101 - General Psychology **Credits: 3**
- RGPL 103 - Global Cities: Planning and Development **Credits: 3 (GMA)**
- SOC 151 - Principles of Sociology **Credits: 3**
- SOC 161 - Foundations of Sociology: Social Relations in Groups and Organizations **Credits: 3 (GMA)**
- SOC 231 - Contemporary Social Problems **Credits: 3**

## **Dimensions of Wellness: 3**

### One Course

- COMM 143 - Media Wellness **Credits: 3**
- COSC 143 - Cyber Wellness **Credits: 3**
- ECON 143 - Financial Wellness **Credits: 3**
- FCSE 143 - Financial Wellness **Credits: 3**
- FDNT 143 - Current Issues in Nutrition and Wellness **Credits: 3**
- FIN 143 - Financial Wellness **Credits: 3**
- KHSS 143 - Wellness **Credits: 3**
- NURS 143 - Healthy People—Promoting Wellness **Credits: 3**

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

## **Global and Multicultural Awareness: 3**

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

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

- ECON 338 - Poverty in Africa **Credits: 3**
- ECON 345 - International Trade **Credits: 3**
- ECON 346 - International Finance **Credits: 3**
- HOSP 245 - Multicultural Management in Hospitality **Credits: 3**
- MGMT 350 - International Business **Credits: 3**
- MKTG 350 - International Business **Credits: 3**
- MGMT 451 - International Management **Credits: 3**
- PLSC 285 - Comparative Government II: Non-Western Political Systems **Credits: 3**
- SPAN 244 - Modern Mexico **Credits: 3**
- SPAN 344 - Spanish-American Cultures from the 19th Century to the Present **Credits: 3**
- SPAN 364 - Survey of Spanish-American Literature **Credits: 3**

## **Learning Skills**

### **English Composition: 3-7**

- ENGL 101 - Composition I **Credits: 3**  
- or -
- ENGL 103 - Composition I Accelerated **Credits: 4 (1)**
- ENGL 202 - Composition II **Credits: 3** (sophomore standing) (2)

## Mathematics: 3-4

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

## Note

(1) Restricted to students whose guided self-placement testing score is 3. May not be taken after successfully completing English 101.

(2) Students in some programs with WAC writing plans are not required to take ENGL 202. These programs must be approved by WAC, and a program revision must be completed through the curricular process.

(3) Restricted to designated majors.

## Liberal Studies Electives

- No course carrying the student's major prefix may be used.
- No course prefix may be used more than once, except for intermediate-level foreign language prefixes (CHIN, FRNC, GRMN, JAPN, KORE, and SPAN), which may be used twice.
- Refer to program of study for specific requirements.

## Courses: 3-9cr

### Global Citizenship

- ANTH 271 - Cultural Area Studies: Africa **Credits: 3 (GMA)**
- ANTH 272 - Culture Area: China **Credits: 3 (GMA)**
- ANTH 274 - Cultural Area Studies: Latin America **Credits: 3 (GMA)**
- ANTH 310 - Voyages of Discovery **Credits: 3 (GMA)**
- ANTH 314 - Contemporary Native American Cultures **Credits: 3 (GMA)**
- ANTH 350 - Anthropology of Gender **Credits: 3 (GMA)**
- ANTH 365 - Native North American Religions **Credits: 3 (GMA)**
- ANTH 370 - Latinos and Diasporas **Credits: 3 (GMA)**
- ANTH 430 - Anthropology of Food **Credits: 3 (GMA)**
- ARHI 207 - Renaissance to Modern Art **Credits: 3**
- COMM 230 - Global Media and Communication **Credits: 3 (GMA)**
- COMM 325 - Gender in Media **Credits: 3**

- ECON 122 - Principles of Microeconomics **Credits: 3**
- GEOG 230 - Human Geography **Credits: 3**
- GEOG 231 - Economic Geography **Credits: 3 (GMA)**
- GEOG 254 - Geography of Russia, Central Eurasia, and Eastern Europe **Credits: 3 (GMA)**
- GEOG 255 - Geography of Africa **Credits: 3 (GMA)**
- GEOG 256 - Geography of East and Southeast Asia **Credits: 3 (GMA)**
- GEOG 257 - Geography of South and Southwest Asia **Credits: 3 (GMA)**
- HDFS 218 - Child Development **Credits: 3**
- HDFS 224 - Marriage and Family Relations **Credits: 3**
- HIST 313 - Europe Since 1945: Division, Revolution, and Unity **Credits: 3**
- HIST 365 - History of Black America since Emancipation **Credits: 3**
- MUHI 333 - History of Popular Music Since 1945 **Credits: 3**
- PHIL 270 - Ethics and the Environment **Credits: 3**
- PHIL 323 - Political Philosophy **Credits: 3**
- PHIL 324 - Ancient Greek Philosophy **Credits: 3**
- PHIL 450 - Philosophy of Law **Credits: 3**
- PLSC 389 - International Development Strategies **Credits: 3 (GMA)**
- PNAF 131 - Introduction to Pan-African Studies **Credits: 3 (GMA)**
- PSYC 225 - Abnormal Psychology **Credits: 3**
- PSYC 378 - Psychology of Death and Dying **Credits: 3**
- RLST 311 - Eastern Philosophy **Credits: 3 (GMA)**
- RLST 365 - Native North American Religions **Credits: 3 (GMA)**
- RLST 374 - Buddhism **Credits: 3 (GMA)**
- RLST 380 - Islam **Credits: 3 (GMA)**
- RLST 385 - Christianity **Credits: 3 (GMA)**
- RLST 388 - Interpreting the Bible **Credits: 3 (GMA)**
- SOC 251 - Sociology of Human Sexuality **Credits: 3 (GMA)**
- SOC 314 - Sociology of Native Americans **Credits: 3 (GMA)**
- SOC 337 - Society, Globalization, and Risk **Credits: 3 (GMA)**
- SOC 361 - Social Stratification **Credits: 3**
- SOC 362 - Racial and Ethnic Minorities **Credits: 3**
- SOC 363 - Sociology of Gender **Credits: 3**
- SUST 201 - Introduction to Sustainability Studies **Credits: 3**
- THTR 214 - Theatre History and Literature: Tragedy **Credits: 3 (GMA)**
- THTR 215 - Theatre History and Literature: Comedy **Credits: 3 (GMA)**
- THTR 362 - Performance for Social Change **Credits: 3**
- WGS 200 - Introduction to Women's and Gender Studies **Credits: 3**

## Information Literacy

- ARHI 205 - Ancient to Medieval Art **Credits: 3**
- ARHI 207 - Renaissance to Modern Art **Credits: 3**
- ARHI 224 - Introduction to Asian Art **Credits: 3 (GMA)**
- ASIA 200 - Introduction to Asian Studies **Credits: 3 (GMA)**
- ASIA 244 - Samurai and Gongfu Heroes: Masculinity in East Asia **Credits: 3 (GMA)**
- COMM 101 - Introduction to Communications, Media, and Culture **Credits: 3**

- COMM 201 - Internet and Multimedia **Credits: 3**
- COMM 261 - Teamwork and Communication Skills for College and Career **Credits: 3**
- COMM 325 - Gender in Media **Credits: 3**
- COMM 420 - Media Portrayal of Crime **Credits: 3**
- CRIM 420 - Media Portrayal of Crime **Credits: 3**
- EDSP 102 - Educational Psychology **Credits: 3**
- FDNT 145 - Personal Nutrition **Credits: 3**
- GEOG 222 - Geography of National Parks **Credits: 3**
- HDFS 330 - Consumer Economics and Family Finance **Credits: 3**
- HIST 206 - The History of East Asia **Credits: 3 (GMA)**
- HIST 207 - The History of the Middle East **Credits: 3 (GMA)**
- HIST 230 - Queer Global History **Credits: 3 (GMA)**
- HIST 231 - History of Jerusalem **Credits: 3**
- HIST 239 - Witches and Witch Hunts 1400-1800 **Credits: 3**
- HIST 240 - Zombies: A Cultural History of Death, Disease, and Technology **Credits: 3**
- HIST 244 - Samurai and Gongfu Heroes: Masculinity in East Asia **Credits: 3 (GMA)**
- HIST 245 - History and Climate Change **Credits: 3 (GMA)**
- HIST 265 - The History of Power: Its Uses and Abuses **Credits: 3**
- HIST 323 - Modern France: Renewing an Old Country **Credits: 3**
- HIST 332 - History of Early China **Credits: 3 (GMA)**
- HIST 333 - Vietnam in War and Revolution **Credits: 3 (GMA)**
- HIST 338 - The History of Iran **Credits: 3 (GMA)**
- HIST 348 - Top Secret America: The Rise and Reach of the National Security State **Credits: 3**
- HIST 360 - History of Pennsylvania **Credits: 3**
- HIST 365 - History of Black America since Emancipation **Credits: 3**
- HIST 374 - Blind Pigs and Brothels: A History of Crime and Vice in America **Credits: 3**
- HIST 433 - China 1300-1800: The Late Imperial Age **Credits: 3 (GMA)**
- HIST 434 - Modern China 1800-present **Credits: 3 (GMA)**
- HIST 436 - Japan 1500-1850: Early Modern Japan **Credits: 3 (GMA)**
- HIST 437 - Modern Japan 1850-Present **Credits: 3 (GMA)**
- IFMG 110 - Business Spreadsheet Computing **Credits: 3**
- KHSS 225 - Social Issues in Sport **Credits: 3**
- PLSC 251 - State and Local Political Systems **Credits: 3**
- PLSC 348 - Top Secret America: The Rise and Reach of the National Security State **Credits: 3**
- RLST 385 - Christianity **Credits: 3**
- RLST 388 - Interpreting the Bible **Credits: 3**
- SAFE 100 - The Science of Living Safely **Credits: 3**
- SOC 269 - Sociology of Deviance **Credits: 3**
- THTR 313 - American Theater Between the Wars **Credits: 3**

## Oral Communication

- CHIN 102 - Elementary Chinese II **Credits: 4 (GMA)**
- CHIN 201 - Intermediate Chinese **Credits: 4 (GMA)**
- COMM 261 - Teamwork and Communication Skills for College and Career **Credits: 3**
- FRNC 102 - Basic French II **Credits: 4**

- FRNC 201 - Intermediate French **Credits: 4**
- GRMN 102 - Elementary German II **Credits: 4**
- GRMN 201 - Intermediate German **Credits: 4**
- GRMN 220 - Intermediate German Conversation **Credits: 3**
- JAPN 102 - Elementary Japanese II **Credits: 4 (GMA)**
- JAPN 201 - Intermediate Japanese **Credits: 4 (GMA)**
- KORE 102 - Elementary Korean II **Credits: 4**
- KORE 201 - Intermediate Korean **Credits: 4**
- RLST 385 - Christianity **Credits: 3**
- RLST 388 - Interpreting the Bible **Credits: 3**
- SAFE 221 - Oral Communication in Spanish for Safety and Health **Credits: 3**
- SPAN 102 - Elementary Spanish II **Credits: 4**
- SPAN 201 - Intermediate Spanish **Credits: 4**
- SPAN 220 - Intermediate Spanish Conversation **Credits: 3**
  
- SPAN 221 - Oral Communication in Spanish for Safety and Health **Credits: 3**
- THTR 132 - Introduction to Acting **Credits: 3**
- THTR 261 - Simulation Performance **Credits: 3**
- THTR 313 - American Theater Between the Wars **Credits: 3**
- THTR 361 - Performance of Caring **Credits: 3**
- THTR 362 - Performance for Social Change **Credits: 3**

## Quantitative Reasoning

- ECON 122 - Principles of Microeconomics **Credits: 3**
- ECON 239 - Economics of Sports **Credits: 3**
- HDFS 330 - Consumer Economics and Family Finance **Credits: 3**
- MATH 122 - Calculus II for Natural and Social Sciences **Credits: 4**
- MATH 126 - Calculus II/Physics, Chemistry, Mathematics **Credits: 3**
- MATH 152 - Elements of Mathematics II **Credits: 3**
- MATH 214 - Probability and Statistics for Business Majors **Credits: 3**
- MATH 216 - Probability and Statistics for Natural Sciences **Credits: 3**
- MATH 217 - Probability and Statistics **Credits: 3**
- MATH 225 - Calculus III/Physics, Chemistry, Mathematics **Credits: 3**
- MATH 341 - Differential Equations **Credits: 3**

## Scientific Literacy

- HDFS 330 - Consumer Economics and Family Finance **Credits: 3**
- PHIL 330 - Philosophy of Science **Credits: 3**
- PSYC 215 - Developmental Psychology **Credits: 3**
- PSYC 235 - Social Psychology **Credits: 3**
- SAFE 100 - The Science of Living Safely **Credits: 3**

## Technology Literacy



- COSC 101 - Computer Literacy **Credits: 3**
- HDFS 330 - Consumer Economics and Family Finance **Credits: 3**
- HIST 230 - Queer Global History **Credits: 3 (GMA)**
- HIST 240 - Zombies: A Cultural History of Death, Disease, and Technology **Credits: 3**
- IFMG 101 - Computer Literacy **Credits: 3**

## Writing Across the Curriculum

- All students must include among the total courses required for graduation a minimum of two designated writing-intensive courses. One of these courses must be in the student's primary major; the other(s) may be in Liberal Studies, college or major requirements, or free electives. Such courses, which involve extensive use of writing as part of the learning experience, are identified with a W as the first character in the section number (such as MATH 350-W01 History of Mathematics) in the listing of course offerings. For more information, please see the Liberal Studies page.
- Student majoring in programs with approved writing plans are not required to take writing-intensive courses. For a current list of programs with approved writing plans, see <https://www.iup.edu/wac/department-writing-plan/current-department-writing-plans.html>.
- Writing requirements for students in pre-professional sciences programs (pre-chiropractic, pre-dentistry, pre-optometry, pre-pharmacy, pre-physical therapy, and pre-physician assistant) are covered by writing plans in Biology, Mathematics, and Chemistry.

## Eligibility and Application for Graduation

It is the responsibility of all students to know and fulfill their requirements for graduation and to track their academic progress. Information on applying for graduation may be obtained at the dean's office of the college of student's primary major or program and on the commencement website.

Commencement ceremonies at IUP are in the month of May at the conclusion of the spring semester, and in the month of December at the conclusion of the fall semester. All undergraduate and graduate students must complete an application for graduation. The application for graduation is also required for participation in the commencement ceremony. The deadlines for the application for graduation are posted on the commencement website. **Dual baccalaureate degree students must file a separate graduation application for each degree.** Students apply for graduation through MyIUP.

Students who have applied for May graduation attend the May commencement ceremony and are included in the May commencement booklet. Students who have applied for August graduation attend the May commencement ceremony and are included in the May commencement booklet.

**Undergraduate students:** August graduates *can* petition the dean or the dean's designee of the college of the student's primary major to attend the December commencement ceremony but **will not be** included in the December commencement booklet (they are included in the May commencement booklet).

**Graduate students:** August graduates *can* choose to participate in the May or December commencement ceremony. August graduates **will not be included** in the December commencement booklet (they are included in the May commencement booklet).

Students who have applied for December or January graduation attend the December commencement ceremony and are included in the December commencement booklet. *Please note: Students need to reapply for graduation if they have not met all of their requirements for their initial date of graduation*

Degrees will not be finalized until approval by the dean or the dean's designee of the college of the student's primary major is received in the Office of the Registrar. Diplomas will then be mailed to the student provided all financial obligations and

requirements (including primary major, secondary major(s), and minors) have been satisfied. *NOTE: Students with an international address will have their IUP diploma sent to the Office of International Education [OIE].*

## Pre-approval for Transfer Coursework

Students enrolled at IUP who wish to take coursework at another institution must complete an Application for Pre-approval of Coursework at Another College/University before taking the course(s). Only the credits from the course(s) transfer, not the grade; therefore, students cannot use outside coursework for IUP's repeat policy to replace/improve grades. Only the credits for which students receive the grade of "A", "B", "C" or "D" will transfer.

Please note that some academic programs require students to earn a "C" grade or better to meet program requirements. Therefore, in these cases, if P/F is the only grading option available, there must be either a narrative evaluation from the transferring institution's faculty member certifying that the work was of "C" level or better or notification on the transcript stating that a "P" grade is equal to a "C" grade or better.

No more than 60 credits total may be earned at a junior or community college for application towards an IUP degree unless it is part of an articulated agreement. Courses without prior approval are taken at the risk of the student; there is no obligation on the part of any officer of IUP to accept such credit.

## Credits and Cumulative Grade Point Average Requirement

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

## Re-evaluation of Transfer Credit

If you believe a course was evaluated incorrectly, you may submit a reevaluation form with a syllabus for the course in question. The form and syllabus for each course submitted for review should be emailed to [transfer-credit@iup.edu](mailto:transfer-credit@iup.edu). Once received, the information will be reviewed by a transfer counselor and/or the appropriate academic department to determine whether a change to your transfer credit is warranted. A transfer counselor will email you with the results of the review once it is completed.

## Program Changes

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

## IUP Residency Requirement for Awarding of Degrees

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

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

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

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

## Non-native Students: English Language Requirements

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

## Timely Completion of Degree Requirements

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

## Degree Requirements Based on Undergraduate Catalog

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

1. A student who has been in continuous registration (fall and spring semesters) or who has interruption(s) of less than two calendar years is governed by the requirements outlined in the catalog in effect at the time of entrance into a degree program (major).
  - a. A student who changes majors will be governed by the requirements of the major and/or college at the time of acceptance into the new major, without change of Liberal Studies requirements except as specified by the new major.
  - b. A student entering through the non-degree program is governed by the requirements in effect at the time degree candidacy is awarded.
  - c. A part-time student may be covered by these provisions of continuous registration to a maximum of 10 years.
2. If changes occur in program requirements during a student's tenure, the student should contact their department for curriculum requirement options and complete any necessary "request for catalog change" forms.
3. A student whose education is interrupted by two or more calendar years will be governed by the requirements in effect at the time of re-enrollment. The re-enrollment may carry specific requirements/substitutions necessary to provide for program integrity.
4. The applicability of course work completed more than 10 years before the degree date is subject to review by the dean(s) or designee(s) for evaluation on a course-by-course basis. Also see Re-enrollment policy

## Academic Success Center

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

The Academic Success Center at IUP (ASC@IUP) supports the achievement of students as they attain their academic goals. ASC@IUP is an important bridge between Academic Affairs, Student Affairs, and Enrollment Management in support of student success. It serves as a hub through which students can navigate the network of offices and service providers across the university.

Equally important is the support provided to faculty members in their role as academic advisors. ASC@IUP provides resources to faculty, using a variety of avenues, which are important tools for working with students.

Resources for students, faculty, and parents are provided online. The center is coordinated by the Office of the Provost, with outreach to all divisions across the university. The Office of the Student Advocate, Office of New Students Orientation, the Major and Career Exploration Center, and the ASC@IUP Walk-in Tutoring Center are components of ASC@IUP.

## Student Advocate (Office of the)

**Website:** [www.iup.edu/success/student-advocate/](http://www.iup.edu/success/student-advocate/)

**E-mail:** [asc-inquiry@iup.edu](mailto:asc-inquiry@iup.edu)

Building on a culture of student success and retention, the Office of the Student Advocate provides personal student support, outreach services to at-risk populations, and information/referrals to other campus resources for both students and parents. The Advocate assists currently enrolled students as they navigate university systems; can address concerns about life on campus, academic policies, and will provide referrals as appropriate, with the goal of assisting students to fully engage in the learning process.

The Student Advocate oversees the Lead Peer Mentoring Program. Peer Mentors are fellow students who guide students to resources and experiences across the university. All students have easy access to the Student Advocate, a staff member dedicated to helping students through any roadblocks they might encounter.

The Student Advocate serves as the point-of-contact for any student seeking to withdraw from the university by coordinating the Total University Withdrawal process with other offices on campus. The Advocate strives to create a supportive environment and offers high quality services on behalf of the entire student population in collaboration with others across the university.

## New Student Orientation (Office of)

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

**E-mail:** [orientation-testing@iup.edu](mailto:orientation-testing@iup.edu)

IUP provides an orientation program for all new students, including all entering freshman and transfer students. Students are expected to participate in the mandatory orientation program that provides information, resources, and interactions designed to ensure a successful first-year or transfer experience. IUP views student orientation as an opportunity to showcase the academic and student experiences that are important to initial success, satisfaction, and retention within the university. The first year at IUP is critical in regard to academic success. During this time, students must develop academic competency in the college curriculum and adjust to the personal decision-making process college life affords. New Student Orientation is designed to assist with this important college adjustment. Freshman and transfer students are expected to participate fully in the orientation program, including any overnight components and associated activities.

**Freshman Spring/Summer Orientation:** The orientation, advising, and course registration program occurs during the spring or summer immediately preceding students' matriculation on campus. This overnight, two-day program is designed to assess

academic readiness for courses integral to the IUP curriculum and acquaint students with the IUP collegiate experience. A concurrent Parent and Family Member Orientation is also offered.

**Transfer Summer Orientation:** Transfer orientation serves to acquaint students with prior college experience with IUP resources to support academic and career success. The program provides placement testing for students in selected majors; concluding with advisement and course registration. A concurrent Parent and Family Member Orientation is also offered.

## Major and Career Exploration Center (MCEC)

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

**E-mail:** [mcecc-explore@iup.edu](mailto:mcecc-explore@iup.edu)

The Major and Career Exploration Center is designed to assist all students, regardless of class year, with making informed academic and career decisions. Through the use of various tools and resources, peer advisors assist students through evaluating their options while sharing what IUP has to offer in relation to their interests. Services offered include the FOCUS-2 test, several interest inventories, and a resource library.

Students may also want to consider taking DVST 170 - Career Exploration. This class introduces students to the theoretical and practical framework with which to explore careers compatible with overall academic skills, aptitudes, and life goals. Students will examine the world of work, assess their interests and abilities, and make realistic decisions on academic majors and careers.

## ASC@IUP Tutoring Center

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

IUP offers several tutoring services for students, the ASC@IUP Tutoring Center provides free peer-to-peer tutoring with no appointment necessary and is located in Stabley Library. Students should refer to the Tutoring Schedule online at the start of each semester for specific tutoring times and locations. Supplemental Instruction (SI) and other discipline-specific tutoring can be found at other locations across campus.

## Center for Learning Enhancement

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

## Center for Policy and Data Analysis

The Center for Policy and Data Analysis focuses on research, surveys, and studies to support the mission of IRHS. Recent projects include an analysis of traffic crashes in Pennsylvania through a grant from the Center for Rural Pennsylvania.

## Colleges and Departments

# College of Arts and Humanities

## **Curtis Scheib, Dean**

**David A. Ferguson, Assistant Dean**

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

The Arts and the Humanities are at the heart of what it means to be human. In the College of Arts and Humanities, creativity of thought and discourse, of language and expression, of design and form, of performance, of artmaking, of culture, of civic engagement, and of exploring the diversity of our world come together to provide the groundwork for students to develop meaningful lives and careers. Students engaged across the college's majors, courses, and programs, as well as through their foundational role in the Liberal Studies Curriculum, will develop ways of thinking, communicating, and knowing that provide an integrative pathway for the future by promoting creativity, critical and objective thinking, analytical skills, and a keen awareness of our mutual responsibilities to our communities. In doing so, we prepare students to become leaders in an ever-changing world.

## College Majors

### **Art and Design**

- Art/Studio, BA
- Art/History, BA
- Art Studio, BFA
- Art Studio/Graphic Design and Illustration, BFA
- Art Education, BSED
- Interior Design, BS
- Fashion Studies, BS

### **Arts and Humanities**

- Asian Studies, BA

### **English**

- English/Literature and Culture, BA
- English/Writing Studies, BA
- English Education, BSED

### **Foreign Languages**

- Spanish, BA
- Spanish Education K-12, BSED

### **History**

- History, BA
- Social Studies Education/History, BSED

### **Music**

- Music/General Music, BA
- Music Performance, BFA
- Music Education, BSED

### **Philosophy and Religious Studies**

- Philosophy/Philosophy, Politics, and Economics, BA
- Religious Studies, BA

### **Political Science**

- Political Science, BA
- Political Science/Pre-law, BA
- Political Science/Homeland Security, BA
- International Studies, BA

### **Theatre, Dance, and Performance**

- Theatre, BA
- Theatre/Musical Theatre, BA

## **College Minors**

- Art History Minor
- Art Studio Minor
- Asian Studies Minor
- Dance Minor
- English Minor
- Fashion Studies Minor
- French Minor
- German Minor
- History Minor
- Homeland Security Minor
- International Studies/Political Science Minor
- Lesbian, Gay, Bisexual, Transgender, and Queer (LGBT&Q) Studies Minor
- Music Minor
- Philosophy Minor
- Pan-African Studies Minor
- Political Science Minor
- Pre-law Interdisciplinary Minor
- Religious Studies Minor
- Spanish Minor
- Theatre Minor
- Women's and Gender Studies Minor

## **Credit Certificate Programs**

- Applied Theatre and Performance Certificate
- Big Ideas: Transformative Culture and Professions Certificate s
- China Studies Certificate
- Dance Pedagogy and Research Certificate
- Dance Leadership and Women's and Gender Studies Certificate
- Digital History Certificate
- English as a Second Language Certificate
- Foreign Language/Chinese Certificate
- Foreign Language/French Certificate
- Foreign Language/German Certificate

- Foreign Language/Japanese Certificate
- Foreign Language/Spanish Certificate
- Japan Studies Certificate
- Middle Eastern Studies Certificate
- Museum Studies Certificate
- Pre-Dance Therapy and Dance Wellness Certificate
- Public History Certificate
- Popular Music Studies Certificate

## Interdisciplinary Programs, Minors and Certificates

The interdisciplinary degree programs, minors, and certificates are multidisciplinary and are not specific to one university college. Visit [Interdisciplinary Programs](#) to view offerings and requirements.

## Critical Languages Program

The critical languages program is a self-instructional/tutorial approach to less commonly taught foreign languages. Students meet with a tutor three hours per week in addition to practicing with audio recordings. Most tutors are native speakers of the language. Professional teachers of the specific language may be brought in from other universities to evaluate student performance. The final grade is based on a final examination as well as on performance during the tutorial sessions. Interested students must contact the coordinator before registration. Each course carries 3 credits.

The following languages may be available for study: Arabic, Dutch, Finnish, Modern Greek, Hebrew, Hindi, Hungarian, Korean, Portuguese, Russian, Swahili, and Swedish.

## Departmental Honors Tracks

Some departments in the College of Arts and Humanities offer honors tracks that enable eligible students to participate in advanced study in the discipline. These tracks are particularly encouraged for students who intend to seek admission to graduate or professional schools.

Honors course work is recorded on the university transcripts, and students completing the departmental honors tracks will be recognized at commencement. For detailed guidance in departmental honors tracks, students should consult the description in their major department and meet with their advisors.

## Internship Programs

Many departments in the College of Arts and Humanities encourage internship programs that allow students to engage in supervised experiences in a work setting related to their personal career goals, giving them the benefits of mentoring and coaching from professionals in the discipline. For information about specific internship programs, students should consult their advisors or the chairs of their academic departments.

## Foreign Study Programs

The College of Arts and Humanities offers several study-abroad programs through its various academic departments. Students are encouraged to work with their advisors and the IUP Office of International Education.

Current programs within the college include IUP at Costa Rica Summer Program, IUP at Mexico Summer Program, IUP at Nancy, and IUP at Valladolid. Exchange programs in the arts are offered at the following institutions: Schools of Art, Music,



and Theatre at the University of Zagreb, Croatia; University of Ljubljana, Slovenia (Music); and ENSA (École Nationale Supérieure d'Art de Design de Nancy, France (Studio Art).

## Art and Design

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

**Karen Scarton, Chair**

The Department of Art and Design provides a sequence of foundation and advanced-level courses directed toward the development of the student's creative, technical, and expressive abilities. Degree programs offered are the Bachelor of Fine Arts degree program in Art Studio, Bachelor of Fine Arts degree program in Art Studio/Graphic Design and Illustration, Bachelor of Arts degree program in Art/Studio, Bachelor of Arts degree program in Art/History, Bachelor of Science in Interior Design, Bachelor of Science in Fashion Studies, and Bachelor of Science in Education degree program in Art Education. Minors in the department include Art Studio, and Art/History, and Fashion Studies.

Students pursuing Graphic Design are required to submit an entrance portfolio for review. Prospective Art Studio or Art Education degrees can choose to submit a portfolio (optional) for potential freshman scholarship eligibility. Art History, Fashion Studies, and Interior Design majors are not required to submit a portfolio.

### BFA: ART STUDIO

The bachelor of fine arts degree program in studio prepares students for careers as professional visual artists and creative practitioners and is a platform from which to go on to study for the master of arts and the master of fine arts degrees.

Students pursuing a BFA in Art Studio will elect a specialization in one of the department's studio areas including drawing, painting, ceramics, fibers, jewelry and metals, sculpture, and wood. The BFA degree enables students to pursue substantial instruction in their area of concentration. The BFA major must successfully complete the BFA Sophomore Review where studio faculty members assess student progress within the program. During the final semester of their studies, BFA students publicly present their art in a culminating bachelor of fine arts exhibition.

### BFA: ART STUDIO/GRAPHIC DESIGN AND ILLUSTRATION

The Bachelor of Fine Arts/ Graphic Design and Illustration Track prepares students for careers in graphic design and illustration, covering a range of topics within these areas: illustration, narrative and sequential art, webdesign and interactive design, publication design, layout, animation, corporate identity, and 3D modeling. Faculty mentors assist Graphic Design and Illustration students with the development of a professional, industry-focused portfolio.

Students pursuing the Bachelor of Fine Arts/Graphic Design and Illustration Track receive substantial instruction in their area of study. All BFA / Graphic Design and Illustration Track students must participate in an Annual Review with the faculty at the conclusion of their freshman, sophomore, and junior years of study and complete a design portfolio prior to graduation.

The Bachelor of Fine Arts/Graphic Design and Illustration Track is a selective degree program that requires a portfolio for entry. Please visit [www.iup.edu/art](http://www.iup.edu/art) for more information on submission guidelines.

### BA: ART/ART STUDIO

The bachelor of arts degree program in art studio offers students a broad range of advanced studio options. This degree option should be chosen by the student who seeks a generalized art studio program and provides opportunities for achieving double majors and minors in and outside the Department of Art and Design. The BA major must successfully complete the Sophomore Review where studio faculty members assess student progress within the program.

## BA: ART/HISTORY

The mission of the bachelor of arts degree program in art/history is to provide majors with a solid foundation in the history of art, from ancient through modern times. The degree prepares students for graduate study leading to careers in museums, galleries, fine art libraries, visual resources, teaching, and research. Specific goals, objectives, and competencies related to this degree include the acquisition and demonstration of critical thinking, research, and writing skills; knowledge of terminology, methodology, and competency with various approaches to art historical inquiry; and the ability to conduct art history research through independent investigations. The bachelor of science in education degree program in art education is a professional degree program leading to certification to teach K-12 art in the Commonwealth of Pennsylvania. The program reflects contemporary theory and practice in art studio, art history, criticism, aesthetics, visual culture, and pedagogy. The program complies with all Pennsylvania standards needed for certification to teach art in the commonwealth.

## BSED: ART EDUCATION

The Bachelor of Science in Education Degree in Art Education is a professional degree program leading to certification to teach K-12 art in the Commonwealth of Pennsylvania. The program reflects contemporary theory and practice in art studio, art history, criticism, aesthetics, visual culture, and pedagogy. The program complies with all Pennsylvania standards needed for certification to teach art in the commonwealth.

## BS: FASHION STUDIES

The fashion studies program emphasizes the multi-faceted nature of the apparel industry from pre- design to post-consumer and beyond. Students gain a holistic view of fashion through required coursework then choose one or more of three fashion studies specializations (merchandising, design, or styling and promotion) based upon their interests, skills, and career goals. Communications, problem solving, group project organization, professional presentation, and analytical and critical thinking skills are incorporated into course content.

## BS: INTERIOR DESIGN

The Interior Design program offers students opportunities in analyzing problems, synthesizing information, and implementing design solutions supportive of the needs of people and the environment. The program emphasizes creative problem solving through interdisciplinary experiences and communicating solutions. It enables graduates to adapt to a changing world by drawing on history while applying the principles of informed design and research. This program is accredited by the National Association of Schools of Art and Design.

*The core of the program includes courses addressing space planning, hand drafting, design graphics and presentation techniques, color theory, building systems, materials and finishes, human factors, computer-aided drafting techniques, history of design, 3-D design, textiles, lighting, residential and commercial design, and professional practice. Detailed information is available from instructors regarding equipment and supplies to be purchased by students for individual courses in this program. Internships present an excellent opportunity for students to gain practical, on-the-job training and are highly recommended. Experiential learning opportunities in the community augment the program. Students tour a variety of settings including offices, museums, factories, showrooms, retail outlets, and construction sites. Supportive courses are offered in art, theater, communications media, and business. Graduates are prepared for entry-level positions in commercial and residential design, sales, historical preservation, kitchen and bath design, and showroom management.*

The College of Fine Arts and the Department of Art and Design have established an exchange program with the National Art Academies of Slovenia and Croatia. Qualified and highly skilled juniors and seniors may participate in the exchange by application to the Department of Art and Design exchange coordinator and with approval of their major studio professor, the Department of Art and Design chair, and the College of Fine Arts exchange coordinator.

## MAJOR REQUIREMENTS

All art majors are obligated to fulfill the university requirement for Liberal Studies course work. Art education majors must achieve and maintain a 3.0 cumulative GPA. Students enrolled in the Bachelor of Fine Arts—Studio program must achieve a 2.5 cumulative GPA and earn a grade of "C" or better in all ART and ARHI courses to graduate.

## MINORS

The Art Studio minor is available to majors within the department whose major area of study is art education or art history; this provides further exploration in the various studio disciplines. Additionally, the Art Studio minor provides majors from other disciplines the opportunity to experience the visual arts in greater depth.

The mission of the Art History minor is to provide students with the necessary skills to critically assess the origins and changing dynamics of the visual arts. By its very nature, art history is multidisciplinary and not only develops visual literacy and tools for critical thinking, but also introduces students to the sociocultural contexts in which artworks are produced, providing students with the opportunities for understanding cultural diversity and lifelong learning.

The minor in Fashion Studies allows students in the creative and educational majors of Art, Theatre, and Family and Consumer Sciences Education to supplement their coursework with additional techniques and competencies. The minor addresses foundational fashion concepts and skills; students then choose additional Fashion Studies courses that complement major coursework and career goals to complete minor requirements.

For detailed information regarding application to one of the degree programs and scheduling a portfolio review, please contact the department office by e-mail at [art-info@iup.edu](mailto:art-info@iup.edu), or through the website [www.iup.edu/art](http://www.iup.edu/art). For information on entrance portfolio requirements, please visit <https://www.iup.edu/art/undergrad/freshman-entrance-portfolios.html>.

## English

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

**Gian S. Pagnucci, Chair**

The program of studies in the English Department at IUP focuses on critical thinking and effective reading and writing at all levels. English majors study a wide variety of subjects ranging from literary theory to practical pedagogy in an atmosphere that encourages and fosters a high degree of professional commitment.

The English Department's bachelor of arts degree program in English reflects the diversity of subject matter, methods, and purposes of this vital, constantly evolving field. BA majors will have the opportunity to pursue the traditional concern of literary study—the careful analysis of canonized works—as well as encounter and analyze texts by members of traditionally marginalized groups and texts that are nontraditional or innovative in form and content. The department encourages students to design their course of study so that they can be active and capable members of the global community and effective contributors to the multicultural workplace. To these ends, the department is committed to promoting and supporting an intellectual environment in which minority writers, nontraditional texts, and a variety of critical perspectives are an integral part of the curriculum.

After completing the introductory course in English (ENGL 122), all BA majors will take a core of 15 credits: 6 credits of historical/regional literary survey courses; 3 credits of a writing course; 3 credits of a rhetoric, speech, or linguistics course; and 3 credits of an upper-level capstone course. In addition to these core courses, all BA majors will take 6 credits of English elective courses and declare a track of 15 credits, chosen from the following: Writing Studies or Pre-law.

Since the BA program can be completed with 36 credits of course work, students will have 25-31 credits outside of the Liberal Studies requirements to develop other interests, including a second major or a minor. In addition to creating these sorts of academic connections, the department encourages its students to explore and enhance links between their scholarship and their professional goals by seeking an internship in their junior or senior year. Students should explore their options carefully with their advisors.

## Foreign Languages

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

**Charles McCreary, Chair**

The Department of Foreign Languages offers a varied curriculum designed to provide not only basic language instruction but also the more advanced competencies needed by language specialists and students hoping to take advantage of an international study experience.

## History

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

**R. Scott Moore, Chair**

History is a critical study of the past that examines how societies have been shaped by cultural, political, social, and economic influences across time and space. Degree programs offered by the History Department are the Bachelor of Arts degree program in History, and the Bachelor of Science in Education degree program in Social Studies Education, concentrating in history. The Social Studies Education program prepares students to teach at the junior- and senior-high school levels. The Bachelor of Arts program prepares students for careers in law, government service, public history, and broad business opportunities.

History is the study of change in human societies over time, and thus it is of broad applicability. The many careers in teaching and in Public History (including work in museums, archives and the park service) attest to the continued importance of history to communities everywhere. Governments, non-government organizations and businesses all value the understanding of social change and the research skills the study of history is based on. All of us are living through the process of historical change and studying the discipline of history is the best way to understand these changes.

All students complete a set of skills and foundation courses where they develop the skills of research, analysis, and presentation that are essential to history and are introduced to the broad outlines of the history of the peoples of the United States and the world. During sophomore year B.A. students, in consultation with their advisor, choose a focus based on their future career plans.

Requirements for the Bachelor of Arts degree program in history are 41 credits in history. Requirements for the Bachelor of Science in Education degree program in Social Studies Education, concentrating on history, are a minimum of 30 credits in history within the 57 credits required for social studies certification.

Program offered by the History Department: History, BA

## Music

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

### **Dr. Matthew Baumer, Chair**

The mission of the Department of Music is to prepare the next generation of music professionals: teachers, performers, composers, conductors, scholars, and those in music-adjacent fields. The department is committed to artistic and intellectual excellence and provides its students with thorough training and meaningful cultural experiences. The department also recognizes its responsibility to serve a local and global community, to promote diversity, and to encourage lifelong advocacy for the arts.

The Department of Music is an accredited member of the National Association of Schools of Music. It offers the Bachelor of Arts, Bachelor of Fine Arts, Bachelor of Science in Education, Music Minor, and Certificate in Popular Music Studies.

The Bachelor of Arts degree has two tracks: Music Industry and General Music. The former combines a core music curriculum with courses in business, management, and marketing. The latter provides focused instruction in music within the context of a traditional liberal arts education.

The Bachelor of Fine Arts degree emphasizes the acquisition and application of musical skill and knowledge. It is designed to prepare students for careers as professional performers and composers, often with graduate study in mind. As such, applicants to the program are held to high artistic standards.

The Bachelor of Science in Education degree, the department's most popular, is a program that leads to K-12 teaching certification in the state of Pennsylvania. It integrates music instruction with courses in the College of Education and Communications. The final semester is a hands-on teaching experience under faculty supervision.

Admission to the department's degree programs requires a satisfactory audition, interview, or portfolio review. Information about this process is available on the department's website.

## **Special Requirements for All Music Majors**

1. Students must declare a primary performing medium. Those in the Music Industry Track of the BA may specify a non-traditional instrument, such as a DAW, provided they are able to participate in at least one of the department's ensembles. Students may establish a secondary performing medium with four semesters of applied study and a successful jury.
2. Students must demonstrate piano proficiency. Those in the Music Industry Track of the BA are encouraged, but not required, to study piano. Non-keyboardists who arrive with skills beyond those covered in class piano will elect applied instruction for a total of two credits. Vocalists typically elect piano as a secondary instrument.
3. Students must participate in ensembles. Those in the BFA and BSEd programs must join at least one large and one small ensemble per semester, as directed by their advisor. BA students are required to participate in one ensemble per semester. Students may register for ensembles at zero credits provided they accrue the number of hours required by their program. Pianists, guitarists, and other musicians whose instrument does not feature regularly in large ensembles will be assigned suitable alternatives by the chairperson.
4. Students must register for MUSC 475 Music Lab and attend four departmental meetings and eight campus performances each semester. Performances may include recitals, concerts, opera and theater productions, guest lectures, art exhibits, and so on. A great number of these events are hosted by the Department of Music for the direct benefit of its students.

## **Philosophy and Religious Studies**

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

**Brad Rives, Chair**

Two degree programs are available: the Bachelor of Arts in Philosophy and the Bachelor of Arts in Philosophy/Philosophy, Politics and Economics (PPE). Minors in philosophy and in religious studies are also offered.

## BA in Philosophy

The discipline of philosophy involves sustained, rigorous focus on some of the deepest questions human beings ask, questions about the nature of reality, thought and consciousness, the scope and limits of human knowledge, the value and essence of art, and the foundations of ethics and justice. Philosophy distinguishes itself by its methods: unpacking concepts, questioning beliefs, evaluating arguments, and examining the methods and assumptions of other disciplines, including natural science, social science, law, and fine arts. Interdisciplinary focus is inherent in philosophy, and most courses offered by the department are designed to be accessible to a broad range of students, not just those majoring in philosophy.

Students of philosophy learn to read carefully, think independently, communicate clearly, argue cogently, spot fallacies, clarify muddled reasoning, and identify questionable assumptions. Surveys show that such critical reasoning and analytical writing skills are those most sought by potential employers. Standardized exams for graduate, business, and law school test for such skills, and the data demonstrate that philosophy majors do extraordinarily well on them. Historically, according to Educational Testing Service data, philosophy majors outperform all other majors on both the Verbal Reasoning section and the Analytical Writing section of the Graduate Record Exam (GRE).

The BA in Philosophy is best suited for students intending a broad education in philosophy. Some philosophy majors earn advanced degrees and pursue academic careers, but most pursue careers in law, medicine, public service, business, or information technology.

Students interested in exploring interdisciplinary connections may choose philosophy as a second major, both for its flexibility and the new perspective it provides on the primary major. Course work in epistemology and metaphysics (PHIL 420), and the philosophy of science (PHIL 330) deepens students' understanding of the methods and assumptions of natural science and social science. Course work in the history of ideas deepens students' appreciation of the Western intellectual tradition and their understanding of academic pursuits, generally (PHIL 324, PHIL 325, and PHIL 326). Course work in ethics (PHIL 122) and political philosophy (PHIL 323) provides orientation for work in social science, business, law, criminology, or safety science. Philosophers also take a distinctive perspective on aesthetic questions of interest to fine arts majors (PHIL 223) and questions about the nature of the mind (PHIL 360) and human nature (PHIL 390) of interest to psychology, biology and anthropology majors.

## BA in Philosophy/PPE

The BA in Philosophy, Politics and Economics is designed to help students understand the social institutions and structures that shape our world by looking at them through the lenses of three disciplines. To understand how the social world actually is, could be, and should be, the track combines the expertise and perspectives of philosophy, political science, and economics: economics to explain how economic systems operate and predict the effects of potential policy changes; political science to explain how political systems operate and how those systems might be changed; and, philosophy to analyze the moral costs and benefits of different economic and political systems. This program is best suited for students concerned about the impact of law, policy, business, and government on individuals, social groups, and the broader world, preparing them for careers in law, government, public policy, public administration, the non-profit sector, advocacy, or consulting.

## Theatre, Dance, and Performance

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

**Carrie J. Cole, Chair**

The Department of Theatre, Dance, and Performance leads innovation to transform local, regional, national and global communities through diverse artistic practices. A classic, eclectic, and broad education provides a foundation for innovative, leading-edge courses and career path preparation led by an experienced faculty. It is dedicated to both theatre and dance as

collaborative and highly disciplined fields offering an extended view of the world as a part of a liberal and humanistic education. The department takes a broad view of performance in its traditional, applied and experimental forms. Study and practice includes design, technology, management and dramaturgy as requisite knowledge and skills. As a result, successful students develop an artistic sensibility, critical analysis, creative orientation, and a disciplined work ethic, skills necessary in most endeavors. They will be able to:

- apply an aesthetic sensibility through informed and knowledgeable critiques of live performance
- create work of artistic expression or technical craftsmanship in at least one area of production
- engage diverse audiences by transforming knowledge into understanding, and understanding into social impact
- utilize the skills, knowledge and techniques of theatre, dance, and performance to gain and keep employment in the performing arts, or in other fields in which these attributes can be gainfully applied.

The department offers a Bachelor of Arts Degree in Theatre with concentration and a concentration in Musical Theatre, providing for the study of theatre within a broad liberal arts education. The department offers a Dance minor and a Theatre minor. The Dance minor and Theatre minor each require 18 controlled credits. Also offered are Certificates in Pre-Dance Therapy and Wellness, Dance Leadership and Women's and Gender Studies, Dance Pedagogy and Leadership, and Applied Theatre and Performance.

## Women's and Gender Studies Minor

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

**Lynn Botelho, Director**

The Women's and Gender Studies minor is designed to increase students' interdisciplinary knowledge about the gendered nature of women's experiences and the ways that all genders are shaped by history, culture, and society. In order to achieve this goal, the program offers courses using a variety of theories and methodologies from a range of disciplines, such as anthropology, art, communication media, criminology, film, the fine arts, history, journalism and public relations, literature, philosophy, political science, psychology, religious studies, and sociology. The program explores gendered hierarchies and the impact of gender on the experiences of women, as well as women- and gendered-centered knowledge productions and learning. Students are encouraged to challenge traditional theories and research regarding women and gender through innovative and experimental classroom experiences and writing assignments. Students analyze the world, imagine and re-envision it, and seek to enact social transformation in both theory and practice.

A minor in women's and gender studies strengthens and supplements every academic major and later professional careers. Students' awareness of gendered, sexualized, classed, and racialized hierarchies make them valuable professionals in a range of careers, from business and banking to social work and law.

## Eberly College of Business

**Prashanth Bharadwaj, Interim Dean**

**Amy Cook, Assistant Dean**

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

In the spring of 1994, the College of Business was renamed to commemorate the generous commitment of the Eberly family through the Eberly Family Trust to the developmental needs of the college. Departments within the Eberly College of Business include Accounting and Information Systems, Finance and Economics, Management, and Marketing.

## College Majors

- Accounting, BS

- Economics, BA
- Finance, BS
- Hotel, Restaurant, Tourism, and Event Management, AS
- Hotel, Restaurant, Tourism, and Event Management, BS
- Human Resource Management, BS
- International Business, BS
- Management/General Management, BS
- Management/Entrepreneurship and Small Business Management, BS
- Management/Supply Chain Management, BS
- Marketing, BS

## College Minors

- Accounting Minor
- Business Administration Minor (for non-business, economics, and hotel, restaurant, tourism, and event management majors)
- Economics Minor
- Finance Minor
- Hospitality Management Minor
- Hotel and Lodging Management Minor
- Human Resource Management Minor
- Management Minor
- Marketing Minor
- Restaurant and Food Service Management Minor
- Special Event/Tourism Management Minor

## Credit Certificate Programs:

- Digital Marketing Certificate

## Interdisciplinary Programs, Minors and Certificates

The interdisciplinary degree programs, minors, and certificates are multidisciplinary and are not specific to one university college. Visit Interdisciplinary Programs to view offerings and requirements.

## Mission Statement

The mission of the Eberly College is to provide students with a broad range of high-value undergraduate and graduate business programs aimed at fostering ethical behavior and entrepreneurial spirit and developing skills vital to their success in today's world.

The college enrolls a highly diverse student body from Pennsylvania, other states, and from many countries around the world. The college provides a student-centered and technologically integrated learning environment. The college maintains a global focus and provides opportunities for real-world exposure and cross-cultural experience.

The Eberly College is especially committed to high-quality instruction. It is committed to research activities which enhance the quality of instruction and contribute to both the applied and basic literature of business.



Committed to the economic vitality of the region, the Eberly College engages in service activities that include opportunities for involvement of both faculty and students with the business community.

## Vision Statement

The Eberly College of Business aspires to be a premier business school, recognized worldwide for excellence through applied learning, leadership development, cross-cultural enrichment, scholarship, and service.

## Accreditation

AACSB International—the Association to Advance Collegiate Schools of Business—has accredited the undergraduate and graduate business degree programs offered by the ECOB. Accreditation shows that a school fulfills its mission, meets its objectives, and maintains the high standards set by AACSB International. The outcome is managers and business professionals who know how to think, communicate, solve problems, and provide leadership in the global marketplace.

## Bachelor of Science and Bachelor of Arts Degrees

For those pursuing the bachelor of science or bachelor of arts degree, IUP's training will provide a broad liberal background in the behavioral sciences; a keen perception of the socioeconomic world in which we live and work; a foundation of general professional education for personally fruitful and socially useful careers in the varied fields of business; and an opportunity to obtain the specialized knowledge and skills essential to future occupational growth and advancement. There are nine degree programs offered in business: Accounting, Economics, Hotel, Restaurant, Tourism, and Event Management (BA and AS), Finance, Human Resource Management, International Business, Management (General Management), Entrepreneurship and Small Business Management, and Supply Chain Management), and Marketing. Each program includes a variety of business and business-related courses designed to enrich the student's understanding of the modern business system.

A student may not pursue course work in the ECOB with the expectation of graduating from the college unless he/she has been accepted as a degree candidate in the college.

Enrollment in all ECOB courses at the 300 and 400 level is restricted to students with junior or senior standing. All students, regardless of major or program affiliation, must meet course prerequisite requirements to enroll in a given course.

Students may, in consultation with their advisors, plan their program of study to obtain a minor in an area of business specialization other than their major or a related area outside the ECOB.

Students can also pursue a bachelor of science degree in all the ECOB's majors and concentrations by completing the first 75 credits of the IUP BS program at the campus of PES University in Bangalore, India. Upon successful completion of these 75 credits, students can transfer these 75 PES credits to IUP and complete the remaining 45 credits at IUP and receive a BS degree in one of the majors offered by the ECOB at IUP. Contact the ECOB for further details.

## ECOB Honors Program

The Eberly College of Business Honors Program is a highly selective academic track of 21 credits that provides accelerated and unique learning experiences. The program emphasizes integrated curricula, leadership development and student/faculty collaboration that intellectually advances students who possess the capacity and motivation to excel. A Business Honors application process is holistic in nature and considers SAT scores, secondary school GPA and business coursework, a letter of recommendation, a listing of leadership and service activities and a writing sample describing academic and career goals. Selection is made by an Honors Selection Committee comprised of faculty members and administrators. Each admitted student receives a merit-based academic scholarship commensurate with his or her application credentials. To remain in the program, a

student must maintain a minimum 3.25 cumulative GPA, participation in prescribed campus leadership and engagement activities and abide by the Eberly Business Honors code of conduct.

## **Minor in Business Administration (for non-business majors)**

The ECOB offers, as a joint effort of its departments, a 18 credit Business Administration Minor. The program is designed to give nonbusiness majors a general background in business.

## **ECOB Academic Policies**

### **Academic Integrity Pledge**

ECOB continually strives to strengthen the integrity and ethical conduct of both students and faculty. Students studying in the ECOB are required to sign a student pledge of academic honesty. The purpose of the student pledge is to build trust among students and faculty while fostering an academic environment of shared values.

### **Residency Requirement**

All of the college's majors must take a minimum of 50 percent of their required business\* credits in IUP course work. IUP credits earned by examination, such as CLEP, are counted toward IUP residency.

### **Restriction for Nonbusiness Majors**

Students not majoring in business may count a maximum of 30 credits in business\* coursework toward the 120-credit-degree minimum. Business credits in excess of 30 will be permitted only as credits beyond the 120 for graduation.

\*For purposes of all policies above, "business" coursework consists of all ECOB courses except IFMG 101 and QBUS 215. ECON 434 is also treated as a "business" course. "Nonbusiness" coursework consists of IFMG 101, QBUS 215, and all non-ECOB courses except ECON 434.

## **The Corporate Relations and Internship Office**

IUP offers one of the largest business internships programs in Pennsylvania. Students can choose from a wide range of organizations to gain real-world experience while earning academic credit. Internship advisors are available to counsel students regarding internship prerequisites, procurement of the internship position, and scheduling. The Eberly College of Business partners with the IUP Career and Professional Development Center for Career Fairs, networking programs, and professional development programming.

### **School of International Management**

With the increasing demand for cross-cultural knowledge and international competence, the ECOB has committed itself to a comprehensive strategy of providing future business leaders with a global foundation so they may become the world-class managers of tomorrow. The School of International Management offers a rich program that will strengthen business students and provide regional businesses with personnel who have a global perspective and internationally competitive management skills. This global perspective is provided to students through broad exposure to cross-cultural course work, integration of international concepts in selected business courses, direct exposure to individuals from other cultures, and a period of residency in another country.

## Business Advisory Council

Eberly College's Business Advisory Council is a select group of more than 80 business leaders. The council helps the college in its educational and service mission through counsel and feedback on matters such as program objectives, curriculum development, program development and promotion, and recruitment of students, retention, and placement of students.

## College of Business Student Advisory Council (COBSAC)

Unique at IUP, COBSAC facilitates communication and collaboration among the 16 departmental student organizations and honorary societies within Eberly College. COBSAC also serves as a representative body for Eberly College students and an organizing body for college-wide activities and events.

## COBSAC Member Organizations

- American Marketing Association
- Association for Supply Chain Management
- Association of Management Information Systems
- Club Managers Association of America (CMAA)
- Economics Club
- Eta Delta Sigma (ESD)
- Graduate Business Student Association
- International Business Association
- Management Association
- Meeting Professionals International (MPI)
- National Association of Black Accountants
- National Society of Minorities in Hospitality (NSMH)
- Phi Gamma Nu (PGN)
- Phi Beta Lambda (PBL)
- Society for Human Resource Management
- Student Accounting Association
- Student Finance Association
- Student Managed Investment Portfolio
- Women in Business

The **Small Business Development Center** offers free business consulting to existing and start-up businesses in the preparation of business plans. The staff helps pull together a business plan suitable for presentation to a bank. This includes working with the client to put together a complete set of financial projections.

The **Small Business Institute** (SBI) was established to assist existing small businesses with various types of problem resolution. Through the SBI, undergraduate and graduate business students work under close supervision of faculty members to assist clients with accounting systems, market studies, computer system installation, business planning, and operations management.

## Accounting and Information Systems

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

**Sekhar Anantharaman, Chair**

The Accounting undergraduate program at the Eberly College of Business recently achieved separate accounting accreditation by the AACSB, the premier accrediting body for business schools in the world. The program is one of only two accounting programs in the western Pennsylvania region to have achieved this special accreditation. Worldwide there are only about 194 accounting programs that have this separate accounting accreditation, which is the ultimate endorsement of quality.

Accounting majors receive instruction in financial reporting system design and analysis, managerial accounting, taxation, and forensic accounting leading to career opportunities in public, industry, and government accounting.

MIS majors - the Information Systems track prepares students for careers in computer-based information systems in organizational environments. Integrates areas such as networking, cybersecurity, and user/manager involvement in the global business environment with the traditional skills of programming, analysis and design, database development, architecture designs, and application development. Project management, Internet of Things (IoT), and client server applications are included, as well as an emphasis on business computing issues such as profitability, budgeting, collaboration, and front end/back-end system processing.

## Finance and Economics

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

**Stephanie Jozefowicz, Chair**

### B.S. – FINANCE

The Finance program, leading to a degree of bachelor of science, is designed to educate students who are interested in pursuing one of the many career opportunities within the areas of corporate and personal financial management, banking, insurance, other financial institutions, and investments.

The objective of the Finance program is to provide students with a broad base of knowledge, both theoretical and practical, as well as the analytical and technical skills necessary to build a successful career in an exciting and rapidly changing field.

#### [Corporate Finance Specialization](#)

The corporate finance specialization provides a foundation in financial concepts, analytics, and decision-making skills essential for success in a wide variety of careers in financial management, banking, insurance, other financial institutions, and investments.

### B.A. – ECONOMICS

Economics provides a background and educational base that open a broad range of professional, educational, and vocational opportunities. A bachelor of arts degree program in economics provides a liberal arts education, as well as professional and technical training. Indeed, many students completing an undergraduate major in economics do not pursue careers as professional economists; they enter such fields as law, management, finance, and labor relations. By helping to develop a

student's ability to think and communicate, economics provides a firm foundation upon which the student can build any one of a large number of possible careers.

The bachelor of arts program in economics prepares students for immediate employment or graduate school in economics, business, policy analysis, and law. Students interested in law are encouraged to complete the Pre-law Interdisciplinary Minor.

Either ECON 101 or ECON 121 counts as a Liberal Studies social science course. However, ECON 101 is intended for students who will take only one course in the field. Students who anticipate taking more than one economics course should schedule ECON 121. ECON 101 will not count toward either a major or minor in economics and may not be taken after the successful completion of, or in concurrent registrations with, any other economics course.

Economics majors are encouraged to minor in one of the other business fields, social sciences, mathematics, or applied statistics.

## ECONOMICS HONORS PROGRAM

The honors program is open by departmental permission to economics majors with a minimum 3.25 cumulative GPA and a 3.25 GPA in economics courses. Students complete ECON 355\*, ECON 356/H/, and ECON 456/W/. In addition, students must choose one class from the following: CRIM 306, FIN 310, FIN 315, GEOG 316/RGPL 316, HIST 487/H/, MATH 371, MATH 411, MATH 412, MATH 416, PLSC 370, PLSC 422, or SOC 315. Students must earn at least a grade of "C" in each course completed for the track. Students should consult their advisors to determine how Honors Track courses may be integrated into existing requirements for the economics majors.

*\*In practice, MATH 214, MATH 216, or MATH 217 can be substituted for ECON 355.*

To apply, complete the Economics Honors Program form, which is available in the Department of Finance and Economics office. In addition, a change of major form must be filed.

## Management

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

**Ramesh G. Soni, Chair**

Graduates holding the Bachelor of Science degree with a major in management will find employment opportunities in both the public and private sectors. Opportunities are expected to be especially plentiful in the services sector (e.g., retailing, health care, information technology, finance, transportation, and Hotel, Restaurant, Tourism & Event Management), where these degrees will be valuable.

The department offers six separate bachelor degree programs: Bachelor of Science in General Management; Supply Chain Management; Entrepreneurship and Small Business Management; Human Resource Management; International Business; and Hotel, Restaurant, Tourism & Event Management. In addition, we offer an Associate of Science in Hotel, Restaurant, Tourism & Event Management.

We also offer several minors for business and non-business majors: Hospitality Management; Hotel and Lodging Management; Human Resource Management; Management; Restaurant and Food Service Management; and Special Event/Tourism Management.

## Marketing

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

**Framarz Byramjee, Chair**

With an undergraduate degree in marketing from the Eberly College of Business at IUP, you will develop skills that can open doors to marketing careers in a wide range of industry sectors including sales & advertising, retail & supply chain, digital/social media, marketing research, branding and international markets. You will focus on integrating technical knowledge with analytical and communication skills. You will choose from a large number of electives, specializing in areas of marketing that most interest you, and also have access a very active internship and placement program with diverse opportunities. We offer a Minor in Marketing and a Certificate in Digital Marketing for all students.

## College of Education and Communications

**Edel Reilly, Interim Dean**

**Nicole Dunmire, Assistant Dean for Academic Affairs and Educator Preparation**

**Holly J. Travis, Dean's Associate for Educator Preparation, PK-12 and Secondary Programs**

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

Since its founding in 1875 as the Indiana Normal School, Indiana University of Pennsylvania has been widely recognized for its excellent programs in teacher education. Although the scope of the university has been greatly expanded, the College of Education and Communications continues the tradition of preparing outstanding teachers to serve the students of the commonwealth and the nation.

The college comprises six multidimensional departments that offer 25 programs leading to bachelor's, master's, and doctoral degrees. Included in the college are Communication Disorders, Special Education, and Disability Services; Communications Media; Counseling; Professional Studies in Education; Student Affairs in Higher Education; and the Center for Career and Technical Personnel Preparation.

The college is well-known for its opportunities to integrate hands-on learning. More than 100 students enjoy early field experiences each semester. In addition, the college places roughly 100 student teachers each year in public schools that provide a full semester of supervised teaching experience. Students are encouraged to take advantage of a full range of activities offered in urban, rural, and multicultural settings.

Practical experiences are important for students majoring in communications media. Students in this program are prepared in one of the largest internship programs in Pennsylvania. They select supervised work experiences with agencies throughout the commonwealth and neighboring states; many students are so successful in their internship placements, they are hired immediately upon graduation.

## Mission Statement

The college provides leading-edge development and growth opportunities for students and professionals in education and allied fields.

## Vision Statement

The college will be known nationally and internationally for the preparation of practitioners in education to serve a global society. The college will be prepared to serve a clientele of graduate and undergraduate scholars from increasingly diverse backgrounds. Teacher-scholars will apply diversified delivery systems to instruction, research, and service to meet the contemporary societal challenges.

## Degree Requirements

All bachelor's degree candidates must satisfactorily complete a minimum of 120 credits to include all Liberal Studies and major requirements. All bachelor of science in education degree candidates must also complete the IUP 3-Step Process for Teacher Education as defined by Chapter 354 of the Pennsylvania Education Code and in accordance with university policies.

## Associations and Organizations

- American Association of Colleges of Teacher Education (AACTE)
- American Psychological Association (APA)
- American Society for Training and Development (ASTD)
- American Speech-Language-Hearing Association (ASHA)
- Association for Childhood Education International (ACEI)
- Council for Accreditation of Counseling and Related Educational Programs (CACREP)
- Council for Exceptional Children (CEC)
- Council of Education of the Deaf (CED)
- National Association for the Education of Young Children (NAEYC)
- National Association of School Psychologists (NASP)
- National Broadcasting Society (NBS)
- National Council of Social Studies
- National Council of Teachers of Mathematics
- National Council of Teachers of English
- National Middle School Association (NMSA)
- Pennsylvania Association of Colleges of Teacher Education (PAC-TE)
- Pennsylvania Department of Education (PDE)
- Society of Health and Physical Educators (SHAPE)
- Teacher Education Council of State Colleges and Universities (TECSCU)

## Undergraduate Degrees, Majors, Minors, Certificates and Concentrations

### Associate in Applied Science:

- Career and Technical Teacher Education, AAS

*Bachelor of Science:*

- Communications Media/Media Marketing, BS
- Communications Media/Media Production, BS
- Communications Media/Media Studies, BS
- Communications Media/News Media, BS
- Human Development and Family Science, BS
- Speech-Language Pathology, BS

**Bachelor of Science in Education:**

- Early Childhood Education, BSED
- Early Childhood Education/Special Education, BSED
- Family and Consumer Sciences Education PK-12, BSED
- Special Education, BSED
- Vocational-Technical Education, BSED

**Minors:**

- Child Development and Family Science Minor
- Communications Media Minor
- Deaf Studies Minor
- Educational Technology Minor
- Family and Consumer Science Minor
- Special Education PK-12 Minor

**Certificates:**

- Audio Production Certificate
- Infant-Toddler Development Certificate
- Photography and Digital Imaging Certificate
- Preschool Education Certificate
- Secondary School Cooperative Education Teacher/Coordinator Certification
- Urban Education Certificate
- Vocational-Technical Education Certification

**K-12 and Secondary Education Programs:**

- Art Education, BSED
- Family and Consumer Sciences Education PK-12, BSED
- Health and Physical Education/K-12 Teacher Education, BSED
- Mathematics Education, BSED
- Music Education, BSED
- Social Studies Education/History, BSED
- Spanish Education K-12, BSED
- Secondary Science Education Certificate
- Secondary English Education Certificate

## **Interdisciplinary Programs, Minors and Certificates**

The interdisciplinary degree programs, minors, and certificates are multidisciplinary and are not specific to one university college. Visit Interdisciplinary Programs to view offerings and requirements



## Graduate Programs and Certifications

- **Master of Education:** Education, Literacy, School Counseling, and Special Education
- **Master of Arts:** Clinical Mental Health Counseling, Education, Training, and Instructional Technology, and Student Affairs in Higher Education
- **Master of Science:** Speech-Language Pathology and Strategic Communications
- **Doctor of Education:** Curriculum and Instruction
- **Doctor of Philosophy:** Media and Communication Studies, Counselor Education and Supervision
- **Graduate-Level Certifications:** Academic Advising, Autism Spectrum Disorder, Business, Computer and Information Technology, Principal Post-Masters Graduate Certificate, Clinical Mental Health Counseling Licensure, Reading Specialist, School Counseling, Special Education, Superintendent's Letter of Eligibility, Supervisor- Pupil Personnel Services K-12, Vocational Administrative Director

Information describing master's and doctoral programs in education may be found in the current issue of the *Graduate Catalog*.

## Change of Major to a Teacher Education Program

Currently enrolled students who wish to make application for a teacher education program may do so via MyIUP. Many PK-12 and secondary education programs are housed in the college of their respective discipline. A minimum cumulative GPA of 3.0 is required for all education majors by Chapter 354 of the Pennsylvania Education Code.

Students admitted to the new major will be advised by a faculty advisor in the major and permitted to register for major courses during the next registration period.

Students must comply with the IUP 3-Step Process for Teacher Education as appropriate to their current status. This information can be viewed on the College of Education and Communications website at [www.iup.edu/education](http://www.iup.edu/education).

## IUP 3-Step Process for Teacher Education

### Step 1. Application for Teacher Education Candidacy

Eligibility requirements for enrolling in the professional education sequence:

, which includes EDEX 103/EDEX 301, EDUC 242, EDUC 342, EDUC 442, EDSP 477:

- A minimum of 48 earned credits and a 3.0 cumulative GPA
- Completion of the following courses with a minimum grade of "C":
- ENGL 101
- ENGL 121, FNLG 121, ENGL 225, ENGL 256, ARHU 122, or ARHU 123 for all majors,
  - except; ENGL 122 for English Education and MUHI 102 for Music Education
- EDSP 102
- ETIT 103 (or major program requirement in lieu of ETIT 103); includes satisfactory evaluation of Step 1 LiveText portfolio
- 6 credits in mathematics (level 101 or higher)
- Act 34 criminal background check (must be renewed annually)
- Act 151 child abuse clearances (must be renewed annually)
- Act 24 (PDE-6004) arrest or conviction report (must be renewed annually)

- Act 114 FBI fingerprinting (continuing enrollment in IUP Teacher Preparation Program is required for fingerprinting results to remain valid; some districts/sites require an updated ACT 114 within the year)
- Documented completion of ACT 126 training:www.reportabusepa@pitt.edu (must be retaken annually)
- TB test (results must be current prior to entering schools/annually; some districts/sites require a two-step TB)
- Speech and hearing test (recommended, not required)
- Proof of liability insurance (annual update required or join multiple years); PSEA student membership or private insurance (must have a minimum of \$1,000,000 per claim and an aggregate of \$3,000,000 per occurrence if obtained via private insurance)
- Satisfactorily completed essay
- Advisor's recommendation and signature
- Documents (Clearances, TB results, and liability insurance) should be updated and uploaded into CastleBranch

**Results of Step 1 approval:**

**Ability to register for: EDUC 242, EDUC 442, and other professional education courses.**

## Step 2. Application for Student Teaching

Eligibility requirements for student teaching placement:

- Successful completion of Step 1
- Maintenance of a cumulative GPA of 3.0
- Current Act 34 clearance (must be renewed annually)
- Current Act 151 clearance (must be renewed annually)
- Current Act 114 clearance (must be renewed annually)
- Current Act 24 (PDE-6004) arrest or conviction report (must be renewed annually)
- Current documentation of completion of ACT 126 training:www.reportabusepa@pitt.edu (must be renewed annually)
- Current TB test (results must be current prior to entering schools /annually; some districts/sites require a two-step TB)
- Proof of liability insurance (annual updated required);- PSEA membership or private insurance (must have a minimum of \$1,000,000 per claim and an aggregate of \$3,000,000 per occurrence if obtained via private insurance)
- Completion of all major courses and methods courses with a minimum grade of "C"
- Completion of liberal studies science courses with a minimum grade of "C"
- Advisor's or Program Coordinator's recommendation and signature

**Results of Step 2 approval:**

**Ability to register for student teaching**

## Step 3. Application for Graduation and Pennsylvania Teacher Certification

Eligibility requirements:

- Successful completion of Step 2
- Successful completion of student teaching with a grade of "C" or better
- Maintenance of a cumulative GPA of 3.0
- \*\* If needed verification of sliding scale Praxis 2 or PECT results based on final posted GPA
- Final satisfactory review of the LiveText Teacher Work Sample (submitted in LiveText) 9/11/2018
- Completed application for graduation
- Completed application for Pennsylvania Teacher Certification
- Copy of TIMS coversheet from PDE website
- Copy of IUP Marketplace receipt for certification processing
- The recommendation of designated student teaching supervisor and program coordinator

- The recommendation of the IUP Teacher Certification officer.

**Results of Step 3 approval: Recommendation to PA Department of Education for Teacher Certification**

## Appeal Provision

A student who believes that any requirement of this policy has been inequitably applied or that he/she merits special consideration may appeal through the proper sequence of channels: academic advisor, chairperson, and finally the to Assistant Dean or Dean's Associate for Educator Preparation. Appeals must be made before the end of the next regular academic semester following the application.

Every effort should be made to resolve the appeal through the described process. If, at the conclusion of the appeals process, the student is still in disagreement with the findings, the student may request review before the Teacher Education Appeals Committee of the Academy for Teacher Preparation. The committee will be composed of three members representing the faculty of the Academy for Teacher Education Preparation, the Teacher Education Coordinator Council, and senior teacher preparation students.

To initiate an appeal, the student must file a form obtained at the Office of Educator Preparation. Appeals will be heard only during the regular academic semester. The student will be expected to submit written documentation of his/her complaint about the process of review for continuation or eligibility in the Educator Preparation program. The committee will review the materials and make its recommendation to the associate dean for Educator Preparation. A final decision rests with the associate dean for Educator Preparation, who is the certification officer.

## Federal Higher Education Act Title II

This act requires all institutions that educate teachers to publish annually the passing rates on Praxis tests for their program completers. The annual report for IUP can be found on the website [www.iup.edu/education](http://www.iup.edu/education).

## Student Teaching

Student teaching is designed to be the culminating learning experience for prospective teachers. Student teachers practice teaching and managing a classroom under the supervision of a full-time master teacher in an off campus center. A university supervisor is assigned to work with individual student teachers and their cooperating master teachers. To gain admission to student teaching, applicants must have achieved a minimum cumulative GPA of 3.0. In addition, students must complete all requirements of the 3-Step Process and should complete all other components of the Liberal Studies and professional core before student teaching. Some programs have standards above the minimum 3.0 cumulative GPA and/or course grade expectations above the minimum grade of "C." Each student should counsel with his/her advisor for information about specific program requirements related to qualification for student teaching. He or she should also check the College of Education and Communications web pages regularly for the most current information ([www.iup.edu/education](http://www.iup.edu/education)).

Student teaching is the capstone experience in the program of the emerging professional educator. Student teaching assignments are the responsibility of the university. To avoid conflicts of interest, students will not be assigned to districts from which they graduated or to districts in which they permanently reside or to schools in which an immediate family member is employed. Exceptions to this policy may be made in large urban school districts such as Pittsburgh and Philadelphia, where there are numerous elementary and secondary schools so avoidance of assigning student teachers to their "home school area" can be achieved. Any exception to this policy must be approved by the dean, College of Education and Communications, or his/her designee. All official policies and procedures, regarding the student teaching experience are included as part of the college's official *Handbook for Student Teaching*. The handbooks are available for download as part of the Educator Preparation website at [www.iup.edu/teachereducation](http://www.iup.edu/teachereducation).

All teacher education programs leading to a certificate issued by the Pennsylvania Department of Education require that candidates complete field placements including student teaching in a school setting or intermediate unit. Under current law, no

placement can be made until a candidate presents Pennsylvania Criminal Record (Act 34) and Child Abuse Clearances (Act 151), Arrest and Conviction Report (Act 24), FBI Fingerprinting Record (Act 114), and evidence of completion of on-line training for Act 126. Candidates for these programs should be aware that some districts or intermediate units may not accept placements if any criminal record is reflected on these background checks. Candidates with a criminal record, even a summary offense, are asked to disclose this history to their program upon entry so that a determination can be made about whether placement will be possible. Some serious offenses, typically involving child welfare, preclude state certification. Students who do not provide the required background checks or for whom the Educator Preparation office cannot find an acceptable placement will be terminated from the program. Copies of candidate clearances must be on file with the Educator Preparation office before the student's beginning any school or intermediate unit placement.

## Field Placements

The Office of Educator Preparation determines final placements for all fieldwork conducted in the public schools. In accordance with university policy, students must be officially enrolled in the course for which the fieldwork is being done. Students entering a classroom without being duly registered are in violation of university policy and may place themselves at risk legally. Therefore, registration for all field placements is mandatory.

All official policies and procedures for field experiences are included as part of the Field Experience I and II handbook, available for download as part of the Educator Preparation website at [www.iup.edu/teachereducation](http://www.iup.edu/teachereducation).

## Removal of a Student Teacher from a Student Teaching Placement

The policy for the removal of a student teacher from a student teaching placement can be found at the website [www.iup.edu/education](http://www.iup.edu/education).

## Certification Requirements

College of Education and Communications requirements for recommendation for certification as a teacher, as well as the intermediate steps leading to commonwealth certification, are outlined in the 3-Step Process. The requirements include the following:

- A minimum grade of "C" in all professional education courses and a 3.0 cumulative GPA
- Review and recommendation by the major academic advisor indicating completion of all university and departmental teacher education requirements
- Completion of student teaching with a minimum grade of "C"
- Successful completion of the PAPA, Praxis II, or PECT, and Praxis Specialty Area Tests
- Successful completion of PDE Form 430
- Competency in working with students with special needs (special education)
- Completion and submission of electronic portfolio, including portfolio evaluation of teacher work sample

Applications for certification cannot be processed until the student completes the BSED degree or its equivalent.

## Commonwealth Requirements for Teacher Certification

(Excludes Vocational Instructional Certification. See "Career and Technical Personnel Preparation Center.")

Certification standards for commonwealth public school teachers are established by the Pennsylvania Department of Education and the Pennsylvania Board of Education. The academic advisor of the student's major department must verify for the dean of the College of Education and Communications that all academic requirements are met. The student's name is then placed on the graduation list.

Applicants for certification must sign a statement attesting to United States citizenship. Applicants who are not citizens must have an immigrant visa that permits them to seek employment within the United States, and they must have declared the intent to become citizens of the United States. Applicants must also submit a physical examination report and certify they are not in the habit of using narcotic drugs in any form, do not use excessive amounts of intoxicating beverages, are not currently under indictment by legal authorities, and have not been convicted of a criminal offense.

Applicants who are unable to meet one or more of these requirements must submit a full explanation with the application. In addition, they must attest to the fact that all information supplied in the application is accurate.

The Pennsylvania Department of Education issues an Instructional I certificate to beginning teachers upon graduation from and recommendation by the College of Education and Communications.

## Professional Certification Application Fee

All applicants for teacher certification or professional education certifications from the Commonwealth of Pennsylvania through IUP will be assessed a \$260 application fee. Applicants for add-on and second certifications processed through IUP will also be assessed this fee. Requests for processing out-of-state teacher certification applications will be assessed a \$35 processing fee per request.

## Centers and Clinics

The five centers and one clinic supported by the college offer a variety of services to the university community and citizens of the Commonwealth of Pennsylvania to include experiential learning, diagnostic testing, academic support, and learning resources.

The **Bill and Judy Scheeren Literacy Center**, housed within the Department of Professional Studies in Education, provides opportunities for graduate students in the MEd— Literacy program to gain experience toward a Reading Specialist Certification. The center offers assessment and instruction in reading and writing for children and adolescents. These instructional sessions are offered in the fall, spring, and summer. Family literacy services are also available.

The **Center for Creativity and Change** seeks to advance the knowledge base of undergraduate and graduate students as well as mental health professionals through the promotion and creation of professional trainings. The center is staffed by faculty members from the Department of Counseling.

The **Speech, Language, and Hearing Clinic** is staffed by speech-language pathology faculty and supervised graduate students working toward advanced degrees in speech-language pathology. Using state-of-the-art equipment, clinic personnel provide diagnosis of speech problems and hearing tests and evaluations, as well as a regular program of therapy for clients. As part of this program, clinic staff members provide testing and necessary therapeutic services to all teacher education candidates, who must meet strict speech and hearing clearances. Regularly enrolled students at IUP, including all teacher certification candidates, are eligible to receive these services without charge.

The **Center for Media Production and Research** provides IUP students with real-world experiences in preproduction, production, and postproduction of digital media. Its primary technologies are advanced video techniques, such as green screen and digital video recording, but also include related media technologies such as animation, digital photography, video streaming, advanced audio production, and interactive software construction with video, audio, or animation components. The center supports the university and improves the region's quality of life by providing clients with advanced digital media products and by improving the overall climate for technology companies in the region.

The **Labyrinth Center** provides a comprehensive and holistic approach to support IUP students with Autism Spectrum Diagnosis (ASD) as they build relationships, gain independence, experience academic success, and graduate from IUP with the professional and personal skills needed to embark on a fulfilling life and career.

The **Larry F. Sobotka Science Discovery and Outdoor Learning Center** is an outdoor classroom facility where students and educators have access to state-of-the-art facilities and a lush natural environment for versatile learning on campus. The center is open to use by IUP students, faculty, local community educators, members of the community, and local groups such as garden clubs and scout troops. This 7,150-square-foot facility consists of a large pavilion with seating for instructional presentations, projection and presentation equipment, and cabinets for storage of materials.

## Specialized Instructional Facilities

The **Audio Studios** has multitrack analog recording and digital capabilities. Students are able to digitally master professional-quality tracks. Both analog and digital facilities are housed in sound-dampened studios and supplemented by radio production and recording studios for medium- and small-group recording sessions.

The **Graphics Multimedia Lab** provides a variety of software applications, black-and-white and color printing capabilities, color scanner, and a negative film scanner. The facility is used for instruction in graphics, as well as multimedia production.

The **Photography Studio** provides industry-standard photography studio equipment for students to create photographs in custom-controlled environments.

The **Radio Station** at IUP, WIUP-FM, is a 1600-watt, noncommercial, student-operated facility. Students from a variety of majors volunteer as DJs and news and sports staff members. There are also many opportunities for students to host a variety of different types of music shows.

The **Television Studio, IUP-TV**, broadcasts over a cable system that has a potential audience of 100,000 people. IUP-TV has approximately 100 students involved in management and production. The facility is student run with a faculty advisor and features state-of-the-art hardware and software.

## Career and Technical Personnel Preparation Center

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

**Monica Murdoch, Chair**

The Career and Technical Professional Studies program offers undergraduate curricula that prepare in-service teachers for career and technical education. Programs may lead to either a Bachelor of Science in Education with certification or to professional certification only. Program graduates have a broad range of employment opportunities as teachers/trainers in secondary schools, career and technical schools, postsecondary schools, and business and industry.

Certification to teach career and technical education in the commonwealth's secondary schools is issued to individuals who meet statutory requirements, demonstrate occupational/technical proficiency on a nationally standardized occupational competency examination (which includes documenting four years of wage earning experience) and complete 60\* credits of the Pennsylvania Department of Education's approved university program.

Certification to serve as a cooperative education teacher-coordinator in the commonwealth's secondary schools can be earned by completing a program of studies tailored to each student's individual background and professional needs. The program prepares individuals for managing industrial cooperative training and school-to-work transitional experiences. For people holding a valid Pennsylvania Instructional Certificate, the program of studies will be individualized based on educational credits earned.

Each program requires completion of the following credits: Bachelor of Science in Education (120cr), cooperative education teacher/coordinator certification (9-13cr), and vocational-technical education certification (60cr\*).

## Communication Disorders, Special Education, and Disability Services

**Website:** [www.iup.edu/special-ed](http://www.iup.edu/special-ed)

**Lori Lombard, Chair**

This department offers degree programs that include a bachelor of science in speech-language pathology and a bachelor of science in education with a major in special education. A bachelor of science in education degree program with a major in early childhood education/special education is offered in conjunction with the Department of Professional Studies in Education. Each major follows a prescribed sequence of courses.

### **Programs offered by this Department:**

#### **Bachelor of Science**

Speech-Language Pathology, BS

#### **Bachelor of Science in Education**

Early Childhood Education/Special Education, BSED

Special Education, BSED

#### **Minors**

Deaf Studies Minor

Special Education PK-12 Minor

## Communications Media

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

**Anna Ortiz Juarez Paz, Chair**

The department offers a Bachelor of Science degree program in Communications Media with tracks in Media Marketing, Media Production, or Media Studies. The department also offers a Bachelor of Arts degree program in Journalism and Public Relations. Communications Media and Journalism are offered as minors. The department offers Audio Production and Photography and Digital Imaging Certificates.

The department faculty offers a wide variety of experience in all areas of Communications Media. With the combination of classroom work and hands-on production experience, departmental graduates are competitive candidates for positions in various areas. Students graduating from this program have obtained positions in areas such as radio, television, cable television, public relations, advertising media, media relations, and corporate media relations. Students changing majors from other academic departments within the university are required to be in good academic standing before the change of major will be approved.

## Counseling

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

**Kimberly Desmond, Chair**

**Brittany L. Pollard-Kosidowski, Assistant Chair**

This graduate department offers two master's degree programs, as well as separate tracks for licensure-only and certification-only applicants. The 60-credit MA degree program in Clinical Mental Health Counseling is designed to prepare students to work in a variety of settings, including mental health centers, drug and alcohol treatment programs, specialized community agencies, vocational education or rehabilitation programs, correctional institutions, private practice, health care settings, social

services, and business and industry. Students complete a number of skills-based courses, as well as two clinical practicum courses and a six-credit field experience under the supervision of approved clinical supervisors.

The MEd program in School Counseling is designed to prepare students to qualify for combined PreK-12 institutional and commonwealth certification. This 60-credit competency-based program includes a series of counseling skills courses for both individual and group counseling, as well as practicum and field experiences completed under the supervision of certified school counselors.

All programs within the Department of Counseling are offered in full at both IUP main campus and at IUP's Pittsburgh East location. Those students already possessing a master's degree in counseling or a closely-related field may consider applying for "certification only" or "licensure only" status. Eligibility for these non-degree tracks is determined through a transcript audit facilitated by the Graduate Coordinator. Please refer to the *Graduate Catalog* for further details.

## Student Affairs in Higher Education

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

**Wesley Lowery, Chair**

The department offers a master of arts degree in student affairs in higher education. Students in this program prepare to be professional practitioners in two- and four-year colleges and universities in a variety of administrative areas, i.e., admissions, housing and residential life, student development programs, student activities and organizations, Greek affairs, registration, financial aid, career planning and development, minority affairs, health services, athletics, advising and testing, international student services, and counseling programs. Please refer to the *Graduate Catalog* for further details.

## Professional Studies in Education

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

**DeAnna M. Laverick, Chair**

The Department of Professional Studies in Education prepares students to teach, lead, and serve learners across the life span. The programs offered lead to teacher certification or training for professionals in human services. Graduates are prepared to work in schools, early care settings, and human service organizations.

### Programs Offered by this Department:

#### **Bachelor of Science**

- Human Development and Family Science, BS

#### **Bachelor of Science in Education**

- Business Education, BSED
- Early Childhood Education, BSED
- Early Childhood Education/Special Education, BSED
- Family and Consumer Sciences Education PK-12, BSED

#### **Minor**

- Child Development and Family Science Minor
- Educational Technology Minor
- Family and Consumer Science Minor

#### **Certificate and Certification Programs**



- Infant-Toddler Development Certificate
- Preschool Education Certificate
- Urban Education Certificate

## College of Health and Human Services

**Sylvia S. Gaiko, Dean**

**Lynanne Black, Dean's Associate for Graduate Programs**

**Jonathon Cooper, Dean's Associate for Academic Affairs**

**Kristi Storti, Dean's Associate for Administration**

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

**Email:** [chhs-deans-office@iup.edu](mailto:chhs-deans-office@iup.edu)

The College of Health and Human Services comprises eight multifaceted departments, six centers, and two interdisciplinary programs that offer 23 baccalaureate degrees, 14 master's degree programs, two associate degrees, eleven minors, three credit-bearing certificate programs, and six noncredit certificate programs. The departments in the College are Academy of Culinary Arts; Criminology and Criminal Justice; Employment Relations and Health Services Administration (previously Employment and Labor Relations); Food and Nutrition; Kinesiology, Health, and Sport Science; Nursing and Allied Health Professions; Psychology; and Sociology. To strengthen our educational mission while providing engagement opportunities for students, the College also oversees the Criminal Justice Training Center; the Institute for Rural Health and Safety; the Child Studies Center; the Center for Research in Criminology; the Center for Sports Science Research and Education; the Administration and Leadership Studies Research and Training Center; and the Center for Applied Psychology.

The College offers degrees in areas relevant to workforce needs and prides itself on having established a learning-centered environment in which the curricula bridge theory and practice. Hands-on fieldwork, observations, internships, clinical experiences, service-learning opportunities, and cooperative education are regular components of the curricula and provide valuable learning experiences for students. Instructional methods are often cooperative and collaborative, affording students the opportunity to understand what they can contribute to and gain from collective efforts. Discovery based instruction provides opportunities to learn about a discipline by practicing in the field. Media technology, an ever-expanding resource, provides access to worldwide information. Faculty members recognize the central role of the learner in the learning process and strive to create integrated, holistic learning environments. The focus on learning is a commitment to the continuous improvement of the quality of education offered by the College.

To fulfill degree requirements for many programs, students are required to complete clinical experiences, field work, or internships through one of the many affiliations at a myriad of health and human services facilities, agencies, and organizations. Due to the nature of these experiences, academic programs may require the successful completion of specific courses or maintaining a minimum GPA in order to be placed in clinical or internship experiences. Some students may be required to undergo criminal background checks, drug testing, as well as provide proof of health insurance, liability insurance, and/or immunization records prior to participating in any required experiences at selected facilities/agencies. Additionally, other requirements may be specified by the facility/agency or program that a student must meet in order to be eligible for field or practical experiences at a facility. It is the responsibility of the student to ensure that all institutional and/or facility requirements are met as a condition of participating in the experiences; students may be responsible in part or in full for any costs incurred to meet such requirements. Students are also responsible for transportation to and from off-campus experiences. In some programs, the students are responsible for rental fees for clinical instruments and supplies, purchasing uniforms, equipment, and fees above the regular tuition. At the completion of the program, students may also be responsible for fees related to national, regional, and/or state licensing exams.

The mission of the College is to serve the public interest by providing a quality education to prepare students for applied professional disciplines. Graduates will affirm high personal and professional standards, provide leadership, and be committed to creating and advancing knowledge in their disciplines.

## College Majors

- Baking and Pastry Arts, AAS
- Criminology, BA
- Criminology/Pre-law, BA
- Culinary Arts, AAS
- Health and Physical Education/K-12 Teacher Education, BSED\*
- Health and Physical Education/Community Health Education (non-teacher certification), BSED
- Medical Technology, BS
- Medical Imaging/Diagnostic Medical Sonography (Ultrasound), BS
- Medical Imaging/Echocardiography, BS
- Medical Imaging/Nuclear Medicine Technology, BS
- Nutrition/Dietetics, BS
- Nutrition/Food and Health, BS
- Nursing, BS
- Nursing/Licensed Practical Nurse, BS
- Kinesiology, Health and Sport Science/Exercise Science, BS
- Kinesiology, Health and Sport Science/Pre-athletic Training, BS
- Kinesiology, Health and Sport Science/Sport Administration, BS
- Psychology, BA
- Public Health, BS
- Public Health/Emergency Medicine, BS
- Respiratory Care, BS
- Sociology, BA
- Sociology/Human Services, BA

## College Minors

- Child and Adult Advocacy Studies (CAAST) Minor
- Community Health Minor
- Criminology Minor
- Exercise Science Minor
- Sociology Minor
- Sociology of Human Services Minor
- Nutrition Minor
- Psychology Minor
- Sport Management Minor

## Credit Certificate Programs

- Athletic Coaching Certificate

- Child and Adult Advocacy Studies Certificate (CAAST)
- Diversity and Social Justice Certificate
- Public Health and Community Nutrition Certificate
- Sociology for Human Services Certificate

## Noncredit Certificate Programs

- Baking and Pastry Certificate
- Culinary Arts Certificate
- Emergency Medical Technician, Center for Emergency Services Training
- Paramedic Certificate, Center for Emergency Services Training
- Criminal Justice Training Program (Police Academy)
- Act 67 School Security Personnel Basic Training
- Act 180 Mandatory In-Service Training
- Non-mandatory In-Service Training

\* Programs leading to PA Teacher Certification, also available Driver Education

## Interdisciplinary Programs, Minors and Certificates

The interdisciplinary degree programs, minors, and certificates are multidisciplinary and are not specific to one university college. Visit Interdisciplinary Programs to view offerings and requirements.

## Early Admission to Graduate Programs

The early admission program is designed for IUP undergraduate students who want to continue their studies in a graduate program at IUP. In an early admission program, you can begin taking graduate level courses toward your Master's degree while concurrently finishing your baccalaureate degree. Application requirements are available on the above website. Your undergraduate advisor and the graduate coordinators are available to provide guidance. Early Admission graduate programs in CHHS include:

- MA in Criminology
- MS in Food and Nutrition
- MEd in Health and Physical Education
- MS in Health Services Administration
- MA in Human Resources and Employment Relations
- MS in Nursing
- MA in Sociology
- MS in Sport Science

## Criminology and Criminal Justice

**Wilson Hall, Room 200**  
**Phone: 724-357-2720**

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

**Dr. Daniel Lee, Chair** ([danlee@iup.edu](mailto:danlee@iup.edu))

The Department of Criminology and Criminal Justice offers students seeking careers in criminology or criminal justice a broad liberal arts education that encourages them to think critically about crime and justice issues and prepares them for careers in the criminal justice system. The degree programs offered are the bachelor of arts program in criminology and the bachelor of arts program in criminology/pre-law. Additionally, students may minor in criminology. Through the School of Graduate Studies and Research, the department also offers graduate work at both the master's and doctoral levels.

The program in criminology and criminal justice has a fivefold objective:

1. The education of students for employment and leadership in the expanding field of criminology and criminal justice
2. The education of presently employed criminal justice personnel who recognize a need for furthering their education
3. The instruction of students who wish to acquire an understanding of the processes of criminal justice as a cultural part of their higher education
4. The instruction of students who wish to prepare for graduate study and/ or research in criminology
5. A curriculum that provides an excellent foundation for students preparing for a career in law

Nearly every level of government offers opportunities for professional careers in criminology and criminal justice. For example, employment opportunities normally exist in more than 50 federal agencies (e.g., Federal Bureau of Investigation, US Department of Treasury, Federal Bureau of Prisons). Graduates also will find employment in local and state organizations including law enforcement (e.g., Pennsylvania State Police, various municipal police departments) and correctional agencies (e.g., probation, parole, Pennsylvania Department of Corrections). Additionally, there are a wide variety of opportunities in the expanding fields of private, commercial, and industrial security, including cybersecurity. Furthermore, many governmental agencies have specialized units dealing with juveniles, community relations, training, education, and research. Career opportunities also are available in research and teaching at the college level and in research divisions of various agencies.

## **Criminal Justice Training Center (CJTC)**

The CJTC provides high-quality education and training programs for the continuing professionalism of the criminal justice system. The CJTC is one of only 17 schools in the commonwealth certified to offer Act 120 training, an 924-hour program that qualifies graduates to be municipal police officers. The police academy is located at the Indiana campus at IUP and various satellite locations. The center also offers programs for in-service personnel in fulfillment of annual mandatory continuing education requirements and nonmandatory courses such as Basic and Advanced Accident Investigation, Perceptual Driving, and Instructor Development. Lethal Weapons Training, Act 235, provides the basic requirements and mandatory recertification for armed security personnel. Visit the website [www.iup.edu/crimjustice/](http://www.iup.edu/crimjustice/) for more information.

The Department of Criminology and Criminal Justice will accept the Pennsylvania Act 120 Graduation Certificate from any Pennsylvania Municipal Police Officer Education and Training Commission (MPOETC) approved academy or the graduation certificate from the Pennsylvania State Police Training Academy for fifteen hours of academic credit towards criminology free electives for students enrolled in IUP's Department of Criminology and Criminal Justice.

CRIM 1XX Laws and Procedures (3c-0l-3cr)

CRIM 1XX Patrol Procedures and Investigations (3c-0l-3cr)

CRIM 1XX Cultural Diversity and Human Relations (3c-0l-3cr)

CRIM 1XX Crisis Management and Families in Crisis (3c-0l-3cr)

CRIM 1XX Physical and Emotional Readiness (3c-0l-3cr)

To receive transfer of these academic credits, the student must present the official PA Act 120 Graduation Certificate from the appropriate MPOETC approved academy or the official graduation diploma from the Pennsylvania State Police Training

Academy to the Office of Admissions-Transfer Services. Application of these credits for graduation requirements other than by IUP's Department of Criminology and Criminal Justice must be approved by the individual department.

## Criminal Justice Training Program

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

The Criminal Justice Training Center (CJTC) provides high-quality education and training programs for the continuing professionalism of the criminal justice system. The CJTC is one of only 17 schools in the commonwealth certified to offer Act 120 training, a 919-hour program that qualifies graduates to be municipal police officers. The police academy is located at the Indiana campus at IUP with satellite locations at California University of Pennsylvania and Robert Morris University.

The center also offers programs for in-service personnel in fulfillment of annual mandatory continuing education requirements and nonmandatory courses such as Municipal Police Training Officer (FTO), Perceptual Driving (EVOC), Municipal Police Firearms Instructor, and Instructor Development. Lethal Weapons Training, Act 235, provides the basic requirements and mandatory recertification for armed security personnel.

The Criminal Justice Training Center is the only Municipal Public Safety Training Center in Pennsylvania accredited by the Commission on Accreditation for Law Enforcement Agencies (CALEA).

## School Security Personnel Basic Training Program

**Website:** <https://www.iup.edu/crimjustice/>

The School Security Personnel Basic Training Course is a non-degree certificate program offered through the IUP Criminal Justice Training Center. This program is specifically designed to satisfy the requirements for the PA Act 67 of 2019. Successful completion of this program will certify the graduate to work in Pennsylvania schools only, in the following roles School Police Officer, School Resource Officer, and School Security Officer.

The School Security Personnel (SSP) Basic Training Course is a 40-hour block of instruction for those wishing to work in school-based law enforcement or security type positions. The course provides a knowledge base for the SSP to build rapport with students and staff. The material is also designed to provide non-protection personnel, i.e., schoolteachers, administrators, counselors, etc. with a thorough overview of the SSP functions as part of the school staff. The course is offered by IUP through face-to-face instruction or online platform.

Both face-to-face and online courses are approved by the Pennsylvania Commission on Crime and Delinquency (PCCD).

Admission is contingent on approval of the director of the IUP Criminal Justice Training Center and various clearances.

The 40-hour (pass/fail) program may be offered in-person and/or online throughout the year. Successful completion requires students to pass unit quizzes and deliver a culminating presentation. Students will receive a letter of completion upon passing the program. A course representing the SSP program will appear on the student's IUP clock hour transcript, which will serve as official confirmation of completion.

More details outlining the program's curriculum, fees, and required clearances will be outlined on the IUP Criminal Justice web page

## Academy of Culinary Arts

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

**Chef Lynn A. Pike, Chair**

**125 South Gilpin St.  
Punxsutawney, PA 15767  
Phone: 814-938-8400**

The Department of Culinary Arts offers a five-semester associate in Applied Science Degree in Culinary Arts and a five-semester associate in Applied Science Degree in Baking and Pastry Arts. These distinctive programs combine hands-on learning experiences in the kitchen laboratory, instruction in fundamental culinary and baking and pastry theory, liberal studies coursework, and a paid externship in the industry to provide each student with the necessary skills and knowledge to begin a successful career in the field of culinary arts or baking and pastry arts. The program consists of the 16-month, competency-based culinary arts or baking and pastry arts curriculum, plus an additional 12 credits of Liberal Studies requirements.

This contemporary approach to learning enables students to achieve advanced levels of proficiency in culinary and/or baking and pastry techniques and business management skills combined with a basic foundation of liberal arts knowledge.

The Department of Culinary Arts also offers a 16-month, non-credit Certificate in Culinary Arts and a 16-month, non-credit Certificate in Baking and Pastry Arts. Both programs are accredited by the American Culinary Federation.

Graduates of the certificate program may elect to transfer 38 credits of course work toward a Bachelor of Science degree program in Hospitality Management, 32 credits toward a Bachelor of Science degree program in Nutrition, or 21 credits toward a Bachelor of Science degree program in Family and Consumer Science Education.

## **Employment Relations and Health Services Administration**

**Davis Hall, 4th Floor  
Phone: 724-357-4470  
Website: [www.iup.edu/elr](http://www.iup.edu/elr)  
David M. Piper, Chair ([dpiper@iup.edu](mailto:dpiper@iup.edu))**

The Department of Employment Relations and Health Services Administration offers a graduate program within the College of Health and Human Services leading to the degree of master of arts in Human Resources and Employment Relations. The 36-credit program consists of a required core of 21 credits, including an elective thesis and elective course offerings totaling 15 credits. Internships are available and strongly encouraged.

The program is multidisciplinary, combining analytical and human relations skills with knowledge drawn from social sciences and business disciplines. The degree is designed to prepare professional employment and labor relations practitioners in public and private management, unions, neutral agencies, government agencies, and arbitration panels.

While the department does not offer course work leading to an undergraduate major or degree, it does offer several undergraduate courses that are open to students of any major or college.

## **Food and Nutrition**

**Ackerman Hall, Room 102  
Phone: 724-357-4440  
Website: [www.iup.edu/foodnutrition](http://www.iup.edu/foodnutrition)  
Stephanie Taylor-Davis, Chair ([stdavis@iup.edu](mailto:stdavis@iup.edu))**

The Department of Food and Nutrition offers a bachelor of science degree program in nutrition with two tracks: Dietetics and Nutrition. Within the degree program, students select a Natural Science option determined by their academic preparation and career goals. This curriculum prepares students as professionals for a diversity of career opportunities in dietetics, food service, the food industry, food and nutrition research, and health care.

In addition, the department provides Liberal Studies courses that are available to all university students. These include FDNT 143, Current Issues in Nutrition and Wellness, a course that meets the Dimensions of Wellness requirement, and FDNT 145, Personal Nutrition, a Liberal Studies elective.

#### Dietetics Track

Dietetics Track students who complete the Dietetics Track (Didactic Program in Dietetics) meet the academic requirements as accredited by the Accreditation Council for Education in Nutrition and Dietetics (ACEND) of the Academy of Nutrition and Dietetics. This track prepares individuals to translate food and nutrition science information for members of the larger community with respect to healthful food preparation, healthy eating behaviors, medical nutrition therapy, management of nutrition delivery and food service systems, and advocacy for the profession of dietetics. The individual who completes this program will exhibit an in-depth knowledge of food, nutrition, behavioral sciences, and management theory and be able to apply this knowledge to solve problems.

The Dietetics Track offers a choice of two Concentrations: Culinary Nutrition or Food and Health Promotion.

Students interested in combining academic preparation and extensive hands-on learning experiences in culinary arts may: (1) enroll in the Culinary Arts program at the Punxsutawney Regional Campus, where the three-semester program (fall, spring, summer) will transfer into the Department of Food and Nutrition 32 credits, which apply to earning an Associate of Arts degree as well as the Bachelor of Science in Nutrition degree; or (2) earn a culinary certificate from another institution before admission to the Dietetics track program will receive 32 credits toward the degree. Dietetics track graduates who include culinary certification as a component of their academic program are uniquely prepared to incorporate healthy nutrition into classical cuisine, manage food service operations focused on nutrition needs, and integrate culinary arts into hospital, extended care, and school food service operations. Students who meet GPA requirements upon completion of 90 credits may qualify for early admission to the Master of Science in Food and Nutrition program offered by the department. Graduate assistantships are available. More information may be obtained from the department's Graduate Coordinator and the School of Graduate Studies and Research.

Graduates are qualified to take the Commission on Dietetic Registration (CDR) credentialing examination to become certified as a Dietetic Technician Registered (DTR). In addition, program graduates are eligible to apply for admission to ACEND-accredited dietetic supervised practice programs in pursuit of dietetic registration (i.e., Registered Dietitian Nutritionist (RDN)). IUP Department of Food and Nutrition has demonstrated leadership in education by being selected as a demonstration program for Future Education Model Graduate Program (accepted its first class of students in summer 2021) for its MS in Food and Nutrition – Dietitian-Nutritionist Program (DNP). Graduates of the DNP earn a master's degree and are eligible to take the Commission on Dietetic Registration (CDR) credentialing exam to become an RDN.

## Kinesiology, Health, and Sport Science

**Zink Hall, Room 225**

**Phone: 724-357-2770**

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

**Joshua Castle, Chair ([bqfm@iup.edu](mailto:bqfm@iup.edu))**

The Department of Kinesiology, Health, and Sport Science provides the following services:

1. Instruction in health and wellness courses as part of the university's Liberal Studies requirement
2. Instruction in health and physical education courses as physical education course electives
3. An undergraduate program in health and physical education that leads to the bachelor of science in education degree with two programs of study: Teacher Education with potential to earn certification to teach in the Commonwealth of Pennsylvania and the program in Community Health Education.
4. Bachelor of science program in Kinesiology, Health and Sport Science, which includes tracks in exercise science, pre-athletic training, and sport administration
5. Certification program in driver education

## Required Program—Liberal Studies

The department, through its Health and Wellness course in the Liberal Studies program, seeks to enhance the overall well-being of students through instruction planned to promote and maintain desirable levels of physical, mental, emotional, and social well-being. Self-responsibility and sustainability in the following dimensions of wellness is emphasized: nutritional awareness, stress awareness and management, exercise and fitness, substance use and abuse, and sexually transmitted diseases/AIDS. The importance of reducing risk factors for chronic degenerative disease and managing lifestyle factors for promotion of health is presented with implications for both the present and future. Information is provided during class lectures and enhanced by a variety of practical learning experiences that give students opportunities for self-assessment and personal application of the subject matter.

## Institute for Rural Health and Safety

### South Campus Trailers

101 University Drive

Phone: 724-357-4051

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

Louis J. Pesci, Director ([Louis.Pesci@iup.edu](mailto:Louis.Pesci@iup.edu))

The IUP Institute for Rural Health and Safety (IRHS) brings together university personnel from various disciplines and professional backgrounds to solve problems related to health and safety in rural areas. IRHS includes three centers with certification capabilities, the Center for Transportation, Teacher certification in Safety/Driver Education, the Emergency Medical Technician, Center for Emergency Services Training, and the Center for Policy and Data Analysis .

## Certification Preparation Programs

### Center for Transportation, Teacher certification in Safety/Driver Education

Website: [www.iup.edu/rural-health-safety/center-for-transportation](http://www.iup.edu/rural-health-safety/center-for-transportation)

The Center for Transportation focuses on improving safety through injury prevention by offering teacher certification in safety/driver education, driver training programs, and by coordinating community programs and events that promote safe driving. Injury is the leading cause of death for persons age 1 to 44. Unintentional motor vehicle traffic crashes remain the leading cause of injury death for those age 5 to 24 and the second leading cause of injury death for those age 1 to 4 and 25 and older.

**Teacher certification in Safety/Driver Education** is the last program of its kind in Pennsylvania that certifies teachers and instructors to teach driver education. The Driver Education Certification program requires completion of four core courses through cooperative effort with the Department of Kinesiology, Health, and Sport Science.

From **Novice Driver Education** programs for beginning drivers to **Advanced Driver Training** programs in emergency driving techniques, including perceptual driving, the IRHS provides a cadre of courses, all designed to meet the needs of the student.

**Community Traffic Safety** projects are Community Health Education projects that are federally funded and contracted with the Pennsylvania Department of Transportation's Bureau of Maintenance and Operations. Originating at IUP in 1987, programs and trainings for corporations, schools, civic groups, law enforcement agencies, etc., include topics such as occupant protection, impaired driving, distracted driving, aggressive driving, safe driving near heavy trucks, motorcycles and other vulnerable road users, and safety while walking and bicycling, with emphasis on young drivers and mature drivers.



A secondary focus for the Center for Transportation is on health by reducing obesity and increasing physical activity. According to the National Institutes of Health, obesity and overweight are the second leading causes of preventable death in the US, behind only tobacco use. Center staff teach courses in active transportation planning, complete walkability assessments, and promote walk- and bike-friendly places to foster healthy communities in Pennsylvania.

## Emergency Medical Technician, Center for Emergency Services Training

**Website:** <https://www.iup.edu/est/emt-training/>

Emergency Medical Technician (EMT) is a non-degree certificate program offered through the IUP Institute for Rural Health and Safety provides the necessary coursework to apply for the National Registry and Pennsylvania EMT certification or licensure, Issued by National Registry and Pennsylvania Department of Health. Certification or licensure is valid for 3 years.

The Emergency Medical Technician (EMT) program will primarily be designed for future emergency medical service personnel but is appropriate for anyone who may respond to emergencies, including fire/rescue personnel, nurses, coaches, athletic trainers, and safety professionals. Participants who successfully complete this program are eligible to take National Registry of EMT certification exams for both Pennsylvania certification and national certification as an EMT. The EMT program does have an articulation agreement for credit transfer, but only in the Kinesiology, Health and Sport Science Program. Other departments could embed EMT into their programs, for example: Athletic Training, Biology Pre-Med, Public Health, Natural Science Pre-Physical Therapy and Physician's Assistant.

The EMT program is accredited by Pennsylvania Department of Health. This pursuant to the Emergency Medical Services System, Act of August 18, 2009, P.L. 308, No. 37 as amended, and as set forth in the rules and regulations. The Pennsylvania Department of Health hereby issues this certificate of accreditation to conduct education programs for prehospital personnel in the Commonwealth of Pennsylvania.

- Accreditation Number: 0068110165
- Types of Training Programs: BLS and ALS
- Date of Issue: 11/28/2018
- Expiration: 12/31/2021
- Region: EMS West

Admission to the EMT program requires a HS Diploma/GED, approval of the Director of Emergency Services Training, and various clearances.

The 152-hour (pass/fail) program may be offered at IUP's Indiana campus, and the West Pike Institute for Rural Health and Safety or Monroeville sites. Successful completion requires students to pass all modular exams and the final exam with 70% or greater, have a minimum of 10 patient contacts in the clinical/field, and graded as competent in the cognitive, affective and psychomotor domains.

Students will receive a certificate upon passing the program. A course representing the EMT program will appear on the student's IUP clock hour transcript which will serve as official confirmation of completion.

More details outlining the program's curriculum, fees, and required clearances are outlined on the IUP Institute for Rural Health and Safety webpage.

## Paramedic Certificate, Center for Emergency Services Training

The Center for Emergency Services Training offers programs designed to meet the training needs of ambulance, fire, and police personnel in the areas of emergency medical services and rescue. Projects include emergency services training for first

responders through a federal Health Resources and Services Administration grant to reduce incidences of morbidity and mortality related to opioid usage in rural areas, and for employees in industrial settings like power plants and coal mines. Two certifications available are Emergency Medical Technician and Paramedic.

The **Paramedic** 1,150-clock-hour program with 600 hours in the classroom, including 230 hours of interactive lecture and 370 lab hours. Also, a minimum of 550 hours are required in clinical and field settings, with a minimum of 250 hours at clinical sites, and a minimum of 100 hours during the Summative Capstone Field Internship. Up to 30 transfer credits may be awarded to students with Paramedic certification.

## Nursing and Allied Health Professions

**Johnson Hall, Room 210**

**Phone: 724-357-2557**

**Website:** [www.iup.edu/rn-alliedhealth](http://www.iup.edu/rn-alliedhealth)

**Theresa M. Gropelli, Chair** ([tgropell@iup.edu](mailto:tgropell@iup.edu))

**Lei Hao, Coordinator of Medical Imaging and Medical Technology Programs** ([leihao@iup.edu](mailto:leihao@iup.edu))

**Jacqueline Heisler, Program Director of Respiratory Care Program** ([jheisler@iup.edu](mailto:jheisler@iup.edu))

The College of Health and Human Services offers a curriculum leading to the Bachelor of Science degree program in nursing. Students are admitted to the Nursing program as freshmen. Those with a previous degree may also be admitted. Internal change of majors who meet criteria are also admitted if seats are available. LPN applicants meeting criteria are admitted to the LPN to BSN track. Upon completion of the program, the graduate is prepared to take the examination for licensure as a registered nurse in Pennsylvania and all other states. The baccalaureate degree program in nursing at Indiana University of Pennsylvania is accredited by the Commission on Collegiate Nursing Education.

The nursing curriculum has as its primary goal the development of professional nurse generalists who are liberally educated, clinically competent, and aware of their social responsibilities as health professionals. The program is designed to provide a broad background in liberal education, coupled with the specialized knowledge and skills required for professional nursing practice. Additionally, the curriculum prepares the nurse to practice within the professional code of nursing ethics, to function effectively as a member of the health care team, and to utilize scientific principles in planning, implementing, and evaluating health care. The nursing curriculum emphasizes concepts in primary, secondary, and tertiary prevention of health problems.

The first two semesters are devoted mainly to Liberal Studies and science courses considered essential to the nursing major. Throughout the last six semesters, clinical experiences in patient care are provided in acute and long-term care facilities as well as community settings.

The Bachelor of Science degree program in nursing is offered for licensed practical nurses who are graduates of accredited, approved practical nursing programs and who have met IUP's admission requirements. The track for licensed practical nurses provides an alternative curriculum accounting for prior work completed in a nursing program. Licensed practical nurse students will fulfill all requirements set by the university. The track is designed to prepare the practical nurse to function as a provider, designer, manager, and coordinator of care in a variety of health care settings.

Prior to graduation, Nursing and Licensed Practical Nurse Track majors must earn a minimum grade of "C" in all required NURS (NURS 211, NURS 212, NURS 213, NURS 214, NURS 236, NURS 312, NURS 316, NURS 330, NURS 331, NURS 332, NURS 333, NURS 336, NURS 337, NURS 412, NURS 431, NURS 432, NURS 433, NURS 434, NURS 436, NURS 437, NURS 440, NURS 450) and BIOL courses. Students in the LPN to BSN track must earn a minimum grade of "C" in all required NURS and BIOL courses for this track. Students earning a "D" in a NURS course may repeat the course as a prerequisite, corequisite or with permission of chairperson. A grade of "D" in a NURS or BIOL course may hinder progression to the next level of required courses when mastery of the content is essential for success. If a student is not successful in a course multiple times, then a student may not be able to complete the major since a course may be taken a maximum of three times with permission of the dean of Health and Human Services.

Detailed information is available in the department office regarding requirements such as health screening, liability insurance, legal clearance, transportation, and professional uniforms.

Change of major applications and criteria are available in the Nursing Department office. Changes of major are granted based on meeting the criteria and seat availability.

Some students may be required to undergo criminal background checks, drug testing, as well as provide proof of health insurance, liability insurance, and/or immunization records prior to participating in any required experiences at selected facilities/agencies. Additionally, other requirements may be specified by the facility/agency or program that a student must meet in order to be eligible for field or practical experiences at a facility. It is the responsibility of the student to ensure that all institutional and/or facility requirements are met as a condition of participating in the experiences; students may be responsible in part or in full for any costs incurred to meet such requirements. Students are also responsible for transportation to and from off-campus experiences. In some programs, the students are responsible for rental fees for clinical instruments and supplies, purchasing uniforms, equipment, and fees above the regular tuition. At the completion of the program, students may also be responsible for fees related to national, regional, and/or state licensing exams.

## Psychology

**Uhler Hall, Room 101**

**Phone: 724-357-2426**

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

**Lisa C. Newell, Chair ([newell@iup.edu](mailto:newell@iup.edu))**

The program in psychology leads to a Psychology, BA degree and is designed to give students an understanding of the methods of psychological inquiry and the state of knowledge in the science of behavior and mental processes. The major offers the background required for graduate work in psychology and also preparation for such related fields as social work, business, medicine, marketing, law, criminal justice, and education. Psychology majors select one of two specializations (Applied Psychology and Psychological Science), which allows them to tailor their educational experience to their own goals and interests. The program emphasizes a broad scholarly foundation across the chief areas of psychology, depth of learning in students' chosen direction, and hands-on opportunities for skill-building integrated throughout the program.

The department also offers a Psychology Minor.

Qualified Psychology majors are invited to apply for admission to an Psychology Honors Program that offers enriching educational experiences beyond the traditional curriculum. The core for the program is the same as for the Psychology major. Students in the honors program also complete special seminar classes and an independent research experience that culminates in an honors thesis.

All Psychology majors are required to complete a minor or a concentration, chosen in consultation with their academic advisor.

## Public Health

**Zink Hall, Room 225B**

**Phone: 724-357-2770**

**Website:** <https://www.iup.edu/public-health/>

**Kristi Storti, Director ([klstorti@iup.edu](mailto:klstorti@iup.edu))**

**Scott Decker, Assistant Director ([sdecker@iup.edu](mailto:sdecker@iup.edu))**

## Sociology

**McElhane Hall, Room 102**

**Phone: 724-357-2730**

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

**Dana Hysock Witham, Chair (<http://dhysock@iup.edu>)**

The Department of Sociology seeks to develop both the scientific and humanistic foundations of sociology, to educate the wider community as to the significance of sociological knowledge, to apply sociological knowledge to current social problems, and to advance the profession by promoting the welfare of individuals and society. The discipline of sociology focuses primarily on the analysis of modern industrial societies by examining their basic patterns of social organization, the various changes that occur within these patterns, and the impact of the patterns on individual thought and action. Students are prepared for employment in human service fields or for graduate study in sociology or related fields.

Students majoring in sociology may select one of two tracks: **General Sociology or Human Services.**

The **General Track** attempts to broadly educate those students who may wish to pursue graduate training in sociology and make sociology a career and profession. Because of its flexibility, it is also appropriate for students who want to pursue double majors that would include such fields as psychology or criminology. The General Track gives students the broadest possible training in sociology. Students graduating with majors in general sociology often find employment in business, industry, and government.

The **Human Services Track** seeks to help students understand the causes of many of the problems that plague modern societies, such as poverty, racial discrimination, substance abuse, and domestic violence. It is designed to provide students with the knowledge and skills necessary to become practitioners in various human services areas (e.g., juvenile delinquency, medical sociology, gerontology, and interpersonal dynamics and family sociology).

Minors in sociology are available in both the General and Human Services tracks.

## The Kopchick College of Natural Sciences and Mathematics

**Steve Hovan, Dean**

**Daniel A. Burkett, Dean's Associate for Academic Affairs**

**Dan Widzowski, Dean's Associate for Pre-professional Programs**

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

We change lives through science and math. Our graduates change the world as educators, scientists, and leaders.

We change lives through:

- opportunities to explore, create, and innovate,
- team-based problem-solving in teaching and learning,
- interdisciplinary scientific research, and
- challenges that inspire individual achievement.

These four mission objectives encompass the Kopchick College of Natural Sciences and Mathematics' (KCNSM) approach for education of its students now and in the future. New scientific and mathematical methods often arise through an integration of

qualitative and quantitative concepts to identify patterns and processes. Thus, progress in the natural sciences and mathematics is maximized through interdisciplinary-collaborative teams built on separate and specific knowledge and approaches of their respective disciplines. Scientific endeavors increasingly depend on this integrative approach that includes interconnecting scientific theory, experimentation, and simulation. Solutions to the problems facing future generations will involve ever larger and more complex databases capturing information of ever finer resolution. The college's graduates become responsible lifelong learners, applying lessons learned in the natural sciences and mathematics to their professional and personal lives, changing the world as educators, scientists, and leaders.

## College Majors

- Anthropology/Applied Anthropology, BA
- Anthropology/Archaeology, BA
- Biochemistry, BS
- Biology, BA
- Biology, BS
- Biology/Cell and Molecular Biology, BS
- Biology/Ecology, Conservation, and Evolutionary Biology, BS
- Biology/Pre-medical, BS
- Biology/Pre-veterinary, BS
- Biology Honors Program
- Chemistry, BS
- Chemistry/Pre-pharmacy, BS
- Computer Science/Cyber Security, BS
- Computer Science/Languages and Systems, BS
- Computer Science/Software Engineering, BS
- Environmental Engineering, BS
- Geography and Geographic Information Science, BA
- Regional Planning, BS
- Geology, BS
- Mathematics, BS
- Mathematics/Actuarial Science and Statistics, BS
- Mathematics Education, BSED
- Natural Science/Pre-chiropractic, BS
- Natural Science/Pre-dentistry, BS
- Natural Science/Pre-optometry, BS
- Natural Science/Pre-physical Therapy, BS
- Natural Science/Pre-physician Assistant, BS
- Physics, BS
- Physics/Pre-engineering, BS
- Safety, Health, and Environmental Applied Sciences, BS

## College Minors

- Anthropology Minor
- Animal Behavior Minor
- Biology Minor
- Biomedical Science Minor

- Environmental Microbiology Minor
- Forensic Biosciences Minor
- Neurobiology Minor
- Wildlife and Conservation Biology Minor
- Biochemistry Minor
- Chemistry Minor
- Physics Minor
- Geography Minor
- Geology Minor
- Regional Planning Minor
- Applied Statistics Minor
- Computer Science Minor
- Cyber Security Minor
- Elementary and Middle-Level Mathematics Minor
- Mathematics Minor

## Credit Certificate Programs

- Biochemistry Honors Certificate
- Cell and Molecular Biology Certificate
- Chemistry Honors Certificate
- Cultural Competencies Certificate
- Geospatial Intelligence Certificate
- Military Geographic Competencies Certificate
- Secondary Science Education Certificate
- Unmanned Aerial Systems (UAS) Science and Applications Certificate
- Water Resources/Watershed Management Certificate

## Interdisciplinary Programs, Minors and Certificates

The interdisciplinary degree programs, minors, and certificates are multidisciplinary and are not specific to one university college. The areas with significant coursework in our college are: Bachelor of Science in Public Health, Cyber Security, Global Health, Professional Teamwork and Leadership, Sustainability, Cultural Competencies Certificate, and the Scientific Communication Certificate. Visit Interdisciplinary Programs to view offerings and requirements.

## Degree Requirements

In addition to the university's Liberal Studies requirements, all students seeking a baccalaureate degree in the KCNSM must complete the requirements for a major as established by the department through which they wish to specialize. Statements of these requirements and those for minoring in a specific field appear in the department sections that follow. A double major or minor may encompass a discipline outside as well as within the college but should be selected only with advisor approval. As a general principle, there is considerable latitude in course choice for Natural Sciences and Mathematics majors; for specifically required courses, substitution in any program must have the written approval of the student's department chairperson or the college dean.

## Degrees

Students may earn a bachelor of arts degree in anthropology, biology, computer science, or geography and GIS. All other undergraduate tracks and programs are awarded a bachelor of science degree.

Several departments in the college sponsor a Masters degree. Many of the Masters programs offer an early admission option for current undergraduates. The Department of Safety Sciences offers a PhD in Safety Sciences Information on these programs and early graduate admissions can be obtained from the School of Graduate Studies and Research.

## **Minors and Certificates**

Each department in the college offers a minor in their discipline. Note that minors may not include more than two courses from their department that also count for their major. In addition, there are certificates in Geospatial Intelligence, Military Geographic Competencies, Unmanned Aerial Systems, and Secondary Science Education.

## **The Foreign Language Requirement**

Several programs require some level of foreign language competency. See individual program requirements for more information.

Any foreign student, registered as such at IUP, whose acquired native language is other than English and who demonstrates an acceptable proficiency in English, is exempt from the foreign language requirement for a Natural Sciences and Mathematics degree if the department he/she is majoring in does not require a specific language not thus covered.

## **Internship Programs**

Several departments in the KCNSM have established extensive internship programs under which students engage in an off-campus supervised work experience for credit. For more information about specific internship programs, students should consult with the chairperson of the department in which the student is majoring. Students eligible for internships may receive federal or state funding.

## **Preprofessional Programs**

The college offers programs for the preparation of students for acceptance by a professional school: pre-medical (including osteopathic medicine) and pre-veterinary medicine. In addition, the college offers a major in the natural sciences for those students whose goal is audiology, dentistry, pharmacy or pharmacology, optometry, podiatry, chiropractic medicine, physician assistant or physical therapy. All programs are so designed that, should a student not pursue a graduate program, the student may still earn an IUP baccalaureate degree with appropriate coursework.

The preprofessional health programs in the college presuppose that the student has an excellent background in the high school sciences and mathematics and will prove to be an excellent college student. Students should identify their proposed field of study upon admission to IUP.

## **Cooperative Programs**

IUP has been fortunate to enter into cooperative agreements with a number of outstanding institutions to provide significant career opportunities to students. These formal agreements provide for accelerated graduate or professional degree programs or carefully planned and coordinated undergraduate programming with the cooperating institution. Programs are intended to ensure acceptance of properly qualified students by the cooperating professional schools. Additional information about specific programs can be found under the appropriate academic department in this catalog.

- **Chiropractic** (See Natural Science): The New York Chiropractic College, Palmer Chiropractic College, Sherman College of Straight Chiropractic, Parker College of Chiropractic, and Logan Chiropractic College programs are designed to accelerate professional training of IUP students in the field of chiropractic medicine.
- **Dentistry** (see Natural Science)
- **Jefferson Medical College, Physician Shortage Area Program** (See Department of Biology): The program increases the opportunities for IUP students to be admitted to Jefferson Medical College.\*
- **Lake Erie College of Osteopathic Medicine (LECOM)** (See Department of Biology): LECOM and IUP have a cooperative "3+4" program. Students will be awarded a BS degree with a major in biology from IUP upon successful completion of the first-year curriculum at LECOM and of the undergraduate requirements at IUP.\*
- **Optometry** (See Natural Science): The Pennsylvania College of Optometry program accelerates the professional training of IUP students in the field of optometry.
- **Pharmacy** (see Natural Science): The Shenandoah University School of Pharmacy or LECOM School of Pharmacy programs are designed to accelerate the professional training of IUP students in the field of pharmacy.
- **Physical Therapy** (see Natural Science): The Gannon University School of Physical Therapy program is designed to enhance the professional training of IUP students in the field of physical therapy.
- **Physician Assistant** (See Natural Science): The Salus University Physician Assistant Studies program accelerates the professional training of IUP students in the field of physician assistant.
- **Primary Care Scholars Program:** This program enables the college to identify students with primary care potential and to provide these students with the opportunity to interact with primary care faculty, physicians, and medical students at the Pennsylvania State University College of Medicine for one week during the summer.\*
- **Philadelphia College of Osteopathic Medicine (PCOM)** (See Department of Biology): PCOM has established this "3+4" Early Acceptance program with IUP. The program will enable students who have demonstrated academic excellence and a commitment to the practice of medicine to gain a provisional acceptance to PCOM. Students will be awarded a BS degree with a major in biology from IUP upon successful completion of the first-year curriculum at PCOM and the undergraduate requirements at IUP.\*

\*Contact the pre-medical advisor, N. Bharathan, for specific information.

## Anthropology

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

**Benjamin Ford, Chair**

The Anthropology Department promotes awareness of anthropological knowledge and methods and seeks to further the discipline and its applications to the problems of the contemporary world. Through teaching, research, and involvement in campus and community events and programs, the Anthropology faculty members contribute to the liberal education of IUP students. The anthropology major itself equips students with knowledge and skills needed for full participation in the global environment of the 21st century.

Anthropology emphasizes the study of human biological and cultural diversity within its four subfields: sociocultural anthropology, biological anthropology, linguistic(s) anthropology, and archaeology. All students receive a solid foundation in the discipline of anthropology and tailor their major to specific interests by following one of the two tracks.

## Biology

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

**Narayanaswamy Bharathan, Chair**

Degree programs offered by the Department of Biology are the Bachelor of Science degree program in biology (and its specialized tracks), the Bachelor of Arts degree program in biology, and the Bachelor of Science in Education with a biology



certification. The department also offers minors in animal behavior, biology, biomedical science, environmental microbiology, forensic biosciences, neurobiology, and wildlife and conservation biology.

Additionally, for the BS Biology/Pre-medical track option, the department also offers an interdisciplinary dual baccalaureate option with Medical Technology (College of Health and Human Services), and a sub-baccalaureate certificate in Cell and Molecular Biology.

## Accelerated MS Track

The department offers an accelerated curriculum that provides an alternative pathway for progression through the requirements for the master of science degree with a major in biology. Although a graduate program, the Accelerated MS Track begins during and overlaps with the undergraduate program. By taking advantage of this track, a highly motivated undergraduate student can, with appropriate planning beginning in the junior year, tailor his or her curriculum to complete the requirements for both the BS—Biology and MS—Biology in a total of five calendar years. Upon completion of this accelerated program, students will be prepared for skilled technical positions in the industrial or academic workforce or for advanced study in outstanding graduate or professional schools. Undergraduate students should consult the *Graduate Catalog* or contact the Biology Department graduate coordinator for more information.

## Cooperative Programs

The department cooperates in programs with Jefferson Medical College, Lake Erie College of Osteopathic Medicine, and Pymatuning Laboratory of Ecology.

**Jefferson Medical College, Physician Shortage Area Program (PSAP):** IUP is a participating affiliate of the PSAP, established by Jefferson Medical College of Thomas Jefferson University in Philadelphia for the purpose of increasing the distribution of physicians practicing in underserved areas of Pennsylvania. To be eligible for this special program, students must be from, or have spent a significant amount of time living in, a non-urban area. Students interested in this program should enroll as biology/pre-medical majors.

This program will admit approximately four graduates of IUP and 20 graduates of other colleges each year. Students from IUP will be admitted only if properly qualified according to the admission standards and policies of Jefferson Medical College. Applications are reviewed by the Joint IUP/Jefferson Subcommittee, and recommendations are made to the Jefferson Committee on Admissions. Preference will be given to Pennsylvania residents who are interested in this program, with highest priority given to those who actually live, at the time of application, in the underserved area in which they hope to practice.

**Osteopathic Medicine:** IUP Biology has "Early Acceptance" agreement with Lake Erie College of Osteopathic Medicine (LECOM), and an affiliation agreement with Philadelphia College of Osteopathic Medicine (PCOM). The admission requirements for both are listed below. For further information, please contact Pre-Med Program Coordinator, Dr. N. Bharathan at [bharathn@iup.edu](mailto:bharathn@iup.edu)

## LECOM Early Admission Program (EAP) (3+4) or (4+4):

The EAP allows qualifying students to gain admission into the medical college as long as they have a minimum GPA of 3.5 or better in the BS Biology/Pre-Medical curriculum at IUP. No MCAT is required. To submit an EAP application, student should consult with Dr. N. Bharathan, Pre-Med Program Coordinator.

### Requirements:

1. High school GPA of 3.5 or Higher on a 4.0 scale.
2. ACT score of at least 26 or SAT Composite of at least 1240. LECOM does not super score.
3. Students admitted to the Biology Pre-Med program at IUP.

### **Philadelphia College of Osteopathic Medicine (PCOM) affiliation:**

#### **Requirements:**

1. Students should be enrolled in the Biology Pre-Med program at IUP.
2. GPA requirement of a minimum of 3.25 for BOTH cumulative and Science GPA.
3. Students in the DO program must be US citizens or Permanent Resident status applicants.
4. MCAT is required with a composite of 504 with 126 on each section.

**Pymatuning Laboratory of Ecology:** Biology majors can expand their selection of course offerings by participating in a cooperative program with the University of Pittsburgh's Field Station at the Pymatuning Laboratory of Ecology located in northwestern Pennsylvania. These elective courses center on ecological and environmental topics and vary annually. Application and registration for both summer sessions must be completed by April 1. Students usually register for credit and pay fees at IUP. Books, lab fee, and room and board are paid to the Pymatuning Laboratory of Ecology. The faculty advisor for this program assists students in program planning, application, and registration.

## **Degree Programs**

In the programs of study that follow, no more than a total of 6 credits from internships, independent study, and special topics can be counted toward biology course requirements. Credits beyond 6 earned from these sources are counted as general electives. Note: Students changing into the majors of biology or biology education are required to have a 2.5 cumulative GPA or permission of the chairperson.

## **Madia Department of Chemistry, Biochemistry, Physics and Engineering**

**Nathan McElroy, Chair**

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

### **Chemistry**

Chemistry is a field that has historically enjoyed very strong career possibilities. Many students are employed directly after their undergraduate education by the chemical, pharmaceutical or related industries, in jobs that have excellent career prospects. Graduate school in chemistry or biochemistry usually includes very generous financial support, and can lead to outstanding career paths in industry, government or academic areas. These opportunities are available to students completing any of the concentrations in the Chemistry B.S., and graduates of these programs have gone on to industrial leadership positions, and some of the most prestigious graduate programs in the country.

The **Traditional Chemistry** specialization is designed for students intending a career in chemistry and is certified by the American Chemical Society. The advanced courses in the Traditional Chemistry specialization reflect trends in the modern field of chemistry, and the requirements are flexible enough to allow students to tailor the degree program to their specific needs and interests. There is also a strong laboratory component in the Traditional Chemistry specialization, which gives the student excellent hands-on preparation for the challenges of employment or graduate school. Internships with local chemical companies are available, and the credits from these internships can be counted to meet some of the program requirements.

The **Pre-Med Chemistry** specialization provides students with the basic requirements of a chemistry degree. A few upper-level chemistry courses in the Chemistry major are replaced with additional biology courses that prepare the student for medical and professional school entrance examinations (e.g., MCAT). This specialization does not prevent a student from entering graduate school or the workforce as a chemist, should they decide not to apply to medical or other professional school upon graduation.

The **Applied Chemistry** specialization is designed not only for students intending a career in chemistry, but also for those students interested in cross-disciplinary fields that involve chemistry. Students intending to follow a dual-degree program

should work with their Chemistry adviser, as courses from their other major can count for many of the requirements in the Applied Chemistry specialization.

The **Chemistry Education** specialization is a professional degree that includes the secondary science education certificate that allows students to be certified by the Pennsylvania Department of Education as high school chemistry teachers. This degree also retains the essential coursework of a chemistry degree, so these graduates will be well-prepared for the demands of teaching or employment as a chemist.

## Chemistry/Pre-pharmacy

The **Pre-pharmacy** concentration of the BS degree allows students to take all courses required for entrance into their intended professional health program. Students in this track retain the option of: (a) attending medical or pharmacy school; (b) attending graduate school in chemistry, biochemistry, pharmacology, or a variety of medically-related PhD programs; (c) employment in the chemistry or pharmaceutical industry. Additionally, the flexibility of the specializations in the BS Chemistry degree allows students to change the focus of their degree program during their undergraduate experience.

## Biochemistry

Biochemistry is a dynamic and growing area in the sciences that integrates the understanding of chemical principles in living organisms. IUP's biochemistry program offers excellent training and coursework that combine the principles of chemistry and biology with the fundamentals of mathematics and physics. An exciting facet of the Biochemistry BS is the undergraduate research component. This aspect allows a student to work with a faculty member on a novel problem in biochemistry. Very often these students give presentations of their results at national and local scientific conferences.

The IUP Biochemistry degree prepares graduates to pursue various careers in medicine, science and technology, or advanced studies in biochemistry, bioengineering, biotechnology and other related fields. Students who pursue the Biochemistry major simultaneously fulfil all of the science coursework required by most medical schools. Additionally, many IUP Biochemistry graduates have continued their education to earn Ph.D. degrees at highly prestigious graduate programs.

## Physics

The goals of the Physics program include preparing students for productive careers analyzing complex physical systems using mathematics. A physics degree can lead to various careers: business analyst; data analyst; engineer; patent attorney; physicist; physics researcher; physics teacher or professor; or programmer.

Students can pick their specialization. Coursework that can lead to admission into a graduate program in physics is available. Applied physics is another option, which leads to a career as a technician or researcher in industrial technology. Nanomanufacturing technology is also available. After a small set of required core courses, students will pick from course offerings that will lead them toward a deeper understanding of their field of interest.

The **Physics Education** specialization is a professional degree that includes the secondary science education certificate to prepare students to become certified middle- and high-school teachers in Pennsylvania and other states. Secondary Physics Teachers from the program have a deep understanding of the physics principles and enjoy transmitting that knowledge to their students.

### Nanofabrication Cooperative Experience

The IUP physics program participates in a cooperative agreement with Penn State University (PSU) to help address the Pennsylvania industry's need for skilled nanofabrication workers. Anyone who meets the prerequisite requirements may enroll through IUP in a one-semester experience at the PSU Center for Nanotechnology Education and Utilization (CNEU). These courses are offered in two modes: (1) as a capstone semester experience at the Penn State CNEU or (2) as a hybrid capstone

semester consisting of distance learning followed by a two-week hands-on lab experience CNEU. For more information, contact the CBPE department.

## Physics/Pre-engineering

Students can start the first two to three years of their education at Indiana University of Pennsylvania and then complete their engineering studies at the University of Pittsburgh.

Engineering translates science into action in many different ways. From biomedical engineers to civil engineers, professionals in this field use scientific principles to address problems. A physics major taking the Pre-Engineering track at IUP will be prepared for a promising scientific career.

In the physics pre-engineering major, students cover concepts in computer science, math, and physics, including Problem Solving and Structured Programming, Differential Equations, and Modern Physics. Further courses will be selected based on interest, including chemical engineering, civil engineering, electrical engineering, industrial engineering, materials science and engineering, or mechanical engineering.

## Environmental Engineering

Environmental Engineering is a multi-disciplinary program that prepares students to work to minimize the impact of human development and technology on the natural world. The program's interests include water purification, pollution control, public health, recycling, waste disposal, and sustainable design and manufacturing. Graduates trained in basic sciences and mathematics will use the principles of engineering, geosciences, chemistry, biology, and physics to develop solutions to environmental problems. This degree program combines a solid grounding in college-level basic sciences and mathematics with Environmental Engineering and technical courses.

Graduates of the BS program in Environmental Engineering will be qualified to enter the workforce immediately or to further their educations in master's or doctoral programs. The degree program will prepare students to apply mathematical and scientific principles to the design, development, and operational evaluation of systems for controlling contained living environments and for monitoring and controlling factors in the external natural environment, including pollution control, waste and hazardous material disposal, health and safety protection, conservation, life support, and requirements for protection of special materials and related work environments.

Graduates of this program will possess the technical expertise required to maintain a healthy balance between societal welfare, economic growth, and the environment surrounding us, and will be in demand in the Pennsylvania workforce where the need for environmental engineers is projected to grow faster than other occupations.

## Geography, Geology, Environment, and Planning

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

**Nicholas D. Deardorff, Chair**

The Department of Geography, Geology, Environment and Planning offers three individual degree programs (**BA Geography and Geographic Information Science (GIS)**, **BS Geology**, and **BS Regional Planning**, program links below), as well as a **Secondary Science Education Certificate** for the geographer, geologist, environmental scientist, planner and teacher. Each of our programs emphasizes hands-on learning, including indoor and outdoor instruction, student-oriented research, and professional experiential learning opportunities. Our programs thoroughly prepare students for successful careers in a wide variety of job markets including industry, energy, land management, planning agencies (local, state, and federal), education, environmental consulting and conservation, environmental regulation, geology, and more.

### Bachelor of Arts

- Geography and Geographic Information Science, BA

#### **Bachelor of Science**

- Geology, BS
- Regional Planning, BS

#### **Bachelor of Science with Teacher Certification**

- Those interested in becoming a middle- and/or high-school science teacher with Pennsylvania certification in Earth and Space Science (grades 7-12) can complete a Bachelor of Science in Geology together with a Secondary Science Education Certificate .

#### **Minors**

- Geography Minor
- Geology Minor
- Regional Planning Minor

#### **Specialization Certificates**

- Unmanned Aerial Systems (UAS) Science and Applications Certificate
- Geospatial Intelligence Certificate
- Secondary Science Education Certificate (grades 7-12)
- Military Geographic Competencies Certificate
- Water Resources/Watershed Management Certificate

#### **Honors Programs**

- Geography Honors Program
- Regional Planning Honors Program

## **Mathematical and Computer Sciences**

**Website:** [www.iup.edu/math-computer-sciences](http://www.iup.edu/math-computer-sciences)

**Timothy B. Flowers, Chair**

The Department of Mathematical and Computer Sciences prepares students for work in business, industry, government, teaching, and graduate school. Degree programs offered by the department span a variety of bachelor's degrees in Computer Science, Mathematics, and Mathematics Education with minors in computer science, cyber security, mathematics, elementary and middle-level mathematics, and applied statistics. Undergraduates can also pursue 4+1 programs and early admission to graduate work in the master's level offerings from the department.

Programs include:

#### **Bachelor of Arts**

- Computer Science, BA

#### **Bachelor of Science**

- Mathematics/Actuarial Science and Statistics, BS
- Computer Science/Cyber Security, BS
- Management Information Systems/Information Technology, BS
- Computer Science/Languages and Systems, BS
- Mathematics, BS

- Computer Science/Software Engineering, BS

#### **Bachelor of Science in Education**

- Mathematics Education, BSED

#### **Minor**

- Applied Statistics Minor
- Computer Science Minor
- Cyber Security Minor
- Elementary and Middle-Level Mathematics Minor

Mathematics Minor

## **Safety Sciences**

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

**Tracey Cekada, Chair**

The department offers a Bachelor of Science (B.S.) degree program with a major in Safety, Health, and Environmental (SHE) Applied Sciences, as well as a minor. This hands-on applied B.S. program enables students to understand key applications in areas such as industrial hygiene, ergonomics, safety management, and construction. The program prepares students for professional, managerial, and supervisory positions in industries such as manufacturing, insurance, construction, transportation, utility, government, oil & gas, healthcare, consulting, the service industry, and others. There remains a demand in both Pennsylvania and nationwide for university-educated occupational safety, health, and environmental professionals. The curriculum includes a minimum of 49 credits in the SHE Applied Sciences major. The B.S. degree program with a major in Safety, Health, and Environmental Applied Sciences is accredited by the Applied and Natural Science Accreditation Commission (ANSAC), of ABET, <http://www.abet.org>.

## **University College**

**Amber N. Racchini, Vice Provost for Student Academic Success**

**Website:** [www.iup.edu/university-college](http://www.iup.edu/university-college)

The University College was created to strengthen IUP's tradition of nurturing student success by enhancing the support provided to all students. From its central location on campus, the University College provides accessible wayfinding experiences for students who are unsure of their academic path, and possibly their personal and career goals. The entire campus can utilize the University College staff and faculty to help students navigate their way through the wealth of academic services and resources available to them. The University College includes Academic Enrichment Programs, Student Transition and Support, Student Outreach and Advocacy, Student Success Programs, Exploratory Studies, the department Undergraduate Studies and Student Success, the department of Disability Access and Advising, University Libraries, and the Navigators.

## **Academic Enrichment Programs**

**Hillary Stitt, Assistant Director for Academic Enrichment Programs**

IUP's Academic Enrichment Programs support the achievement of students as they attain their academic goals. These programs include:

## Tutoring

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

IUP offers several tutoring services for students. The Tutoring Center provides free peer-to-peer tutoring with no appointment necessary and is located in Stabley Library. Students should refer to the Tutoring Schedule online at the start of each semester for specific tutoring times and locations. Supplemental Instruction (SI) and other discipline-specific tutoring can be found at other locations across campus. In addition to in-person tutoring, students have access to free online tutoring that is offered through Tutor.com.

## Supplemental Instruction

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

Supplemental Instruction provides small-group study and review sessions for sections of courses with difficult content or high levels of failure and withdrawal rates. Peer leaders guide students on how to learn course content. The sessions supplement, but do not replace, out-of-class preparation for the course. All students in designated course sections who want to improve their understanding of course content and grades are urged to participate weekly. As a group, students review notes, clarify text material, discuss ideas, complete worksheets, prepare for tests, and take practice exams.

[Peer Mentoring](#)

**Website:** <https://www.iup.edu/success/student-advocate/peer-mentoring-program/>

The LEAD and University College Peer Mentoring Programs provide students the opportunity to strengthen their on-campus experience by connecting them with an upper-class student mentor who is pursuing similar career goals, or has a similar background, concentration, or academic interest.

[Hawks Q&A Center](#)

**Website:** <https://www.iup.edu/studentlife/hawks-q-a-center/>

For those who are not sure who to ask, or are having trouble finding the right office, the Hawks Q&A Center is a one-stop shop for questions about IUP! The Center is here to unravel whatever feels complicated.

## Student Transition and Support

**Allison Baker, Assistant Director for Student Transition and Support**

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

**E-mail:** [orientation-testing@iup.edu](mailto:orientation-testing@iup.edu)

IUP provides an orientation program for all new students, including all entering first-year and transfer students. Students are expected to participate in the mandatory orientation program that provides information, resources, and interactions designed to ensure a successful first-year or transfer experience. IUP views student orientation as an opportunity to showcase the academic and student experiences that are important to initial success, satisfaction, and retention within the university. The first year at IUP is critical for our students' academic success. During this time, students must develop academic competency in the college curriculum and adjust to the personal decision-making process college life affords. New Student Orientation is designed to assist with this important college adjustment.

In addition to New Student Orientation, the University College coordinates academic programming throughout Welcome Week in order to help students learn about the resources and develop skills that are foundational for student success. This first-year

experience programming continues throughout the first semester with a Student Success Seminar series developed to meet students where they are and assist them with the transition to college.

## Student Outreach and Advocacy

**Megan McCue, Assistant Director for Student Outreach and Advocacy**

**Website:** [www.iup.edu/success/student-advocate/](http://www.iup.edu/success/student-advocate/)

**Email:** [asc-inquiry@iup.edu](mailto:asc-inquiry@iup.edu)

Building on a culture of student success and retention, the University College provides personal student support, outreach services to at-risk populations, and information/referrals to other campus resources for both students and parents. We assist currently enrolled students as they navigate university systems; address concerns about academic policies and life on campus, and provide referrals as appropriate, with the goal of assisting students to fully engage in the learning process.

The University College also serves as the point-of-contact for any student seeking to withdraw from the university by coordinating the Total University Withdrawal process with other offices on campus. We strive to create a supportive environment and offer high quality services on behalf of the entire student population in collaboration with others across the university.

The University College trains all Academic Success Assistants and helps plan and implement the academic recovery process for students across the university.

## Student Success Programs

**Jeremy Risinger, Assistant Director for Student Success Programs**

The University College provides leadership and programming for specific subgroups within the IUP population. These programs include:

### Act 101 Program

Students identified as eligible for Act 101 support receive services through the University College. The ACT 101 programs offers many free services including peer mentoring, textbook lending, snack and school supply pantry, and success coaching.

### Crimson Scholars Circle

The primary purpose of the Crimson Scholars Circle is to teach skills, increase self-efficacy, and provide support and resources to Black and Brown first-year students that will enrich their connection to IUP and increase the likelihood of their retention, persistence, and college success. The program will provide a direct link to faculty, staff, mentors, alumni and other resources to increase positive educational outcome measures and enhance Crimson Scholars' college experience.

### Promising Scholars

A scholarship and mentorship program for Pennsylvania students that blends diversity, financial support, academic, and professional development. This four-year program provides students with experiences that encourage them to reach their full potential academically, socially, and as student leaders.



## Athletic Academic Support

The University College partners with IUP Athletics to provide a solid academic foundation for student athletes. The University College provides success coaching for any student-athlete who needs assistance improving their grade point average, finding a tutor to assist course content, and tracks participation in their study hall program. We also provide a first-year experience for all incoming student-athletes which includes enrollment in UGSS 281: College Adjustment and Student Success that is linked to KHSS 143: Physical Well-being.

## Exploratory Studies

**Website:** <https://www.iup.edu/university-college/exploratory-studies/>

The University College offers six subject-area-based, exploratory major options. Students select one, which will act as a starting point for finding the major that inspires them. College Mentors will help students identify their strengths and interests.

EXPL-STEM: Science, technology, engineering, or mathematics as well as programs in anthropology, geography, geoscience, and safety sciences

EXPL-AH: Arts such as art, dance, fashion merchandising, interior design, music, theatre; as well as Humanities such as English, foreign languages, history, philosophy and religious studies, and political science

EXPL-EDU: Communications, disability services, early childhood education, family studies, special education, and speech pathology

EXPL-HHS: Criminology, health and physical education, nursing and allied health, nutrition, psychology, sociology, and sports sciences

EXPL-BU: Accounting, economics and finance, hospitality management, management, and marketing

EXPL: disciplines from across the entire university

## Undergraduate Studies and Student Success

**Luke E. Faust, Chairperson**

**Website:** <https://www.iup.edu/undergraduestudies>

Through its curriculum, programs, academic support and advising, the Department of Undergraduate Studies and Student Success provides IUP students with courses and services designed to enhance the development and success of all students.

Student support services provided include:

- *Advising.* Each student in the University College has a first-year College Mentor.
- *College Mentor.* This is a professor who will work with the student to monitor their academic progress and assist them in navigating the many university offices and their services.
- *Help with selecting a major.* Dedicated programming in the Career and Professional Development Center and Pathways courses.
- *Student Success courses.* During the first year, students are enrolled in courses that are taught by professors from different departments with a goal of building skills for academic success throughout their college career, while finding the pathway to a major.
- *Peer Mentoring.* Peer Mentors are fellow students who guide new students to resources and experiences across the university, helping them to make connections with each other.
- *Academic Support.* Students have access to academic support services such as tutoring, supplemental instruction, and skill-building workshops. The Student Success Series bring students together to learn about campus resources and to meet others.

## Department for Disability Access and Advising

**Website:** [www.iup.edu/disabilitysupport](http://www.iup.edu/disabilitysupport) **Email:** [disability-access@iup.edu](mailto:disability-access@iup.edu)

**Catherine Dugan, Chairperson and Director, Disability Access and Advising**

## University Libraries

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

**Kelly Heider, Acting Assistant Vice Provost for University Libraries**

The IUP Libraries include the Patrick J. Stapleton, Jr. Library, the Rhodes R. Stabley Library, and the Orendorff Music Library. Stapleton and Stabley Libraries form a combined structure located in the southwest corner of the Oak Grove. The Orendorff Music Library is located in Cogswell Hall.

Upon entering the Stapleton/Stabley Library complex, students are greeted by a smiling face at our Information Desk. Here, you can get help with your research or ask any question about IUP. We won't stop until we get you an answer! Once inside, grab a cup of coffee and a snack at the Commonplace Coffeeshouse & Roastery before you find a space on one of four floors for quiet or group study.

Undergraduate students have a wealth of resources and services available to them through the IUP Libraries!

## Resources

The Stapleton/Stabley Library collection includes over half a million books and e-books, 26,700 children's books, over 100,000 print and electronic journals, and 30,671 audiovisual materials. Special Collections and University Archives, located on the third floor of Stapleton Library, collects, organizes, preserves, and provides access to research materials, rare books, artifacts, items related to the institutional history of IUP, and so much more!

The Orendorff Music Library features a large commons area with comfortable furniture for quiet and group study. The music collection includes more than 7,000 volumes of monuments and collected editions, 3,000 reference books, 12,000 circulating books, 30,000 scores, 10,000 LP sound recordings, and 5,000 compact discs.

Most of our collections are accessible in digital format through our website using your MyIUP username and password. Print format-only materials may be checked out for 30 days.

## Services

- Need help finding resources for an assignment? Ask a Librarian (<https://answers.lib.iup.edu>).
- Need to access a book your professor put on reserve? Visit the Circulation Desk on the first floor of Stapleton Library.
- Need to grab some books at the library but don't have much time? Use the Get It request feature in the Discovery Search or Library Catalog to have your books waiting for you at the Circulation Desk.
- Need a book or journal article that isn't part of our collection? Place an item request through Interlibrary Loan (<https://iup.edu/library/departments/access-services/interlibrary-loan>).
- Need a computer? Work at one of our desktops located throughout the library or borrow one of our laptops from the Circulation Desk.
- Need to study or work on a project with some classmates? Meet in one of our group study rooms.

- Need a quiet or silent place to study? Go to the second floor of Stapleton Library for quiet study and the third floor for silent study.
- Need to become more information literate? Take a class with one of our librarians or use our Library Help for Students LibGuide (<https://libraryguides.lib.iup.edu/ILforstudents>).

According to the Association of College and Research Libraries (2017), students benefit from library instruction in their initial coursework, library use increases student success, collaborative academic programs and services involving the library enhance student learning, information literacy instruction strengthens general education outcomes, and library research consultations boost student learning. So, what are you waiting for? Start taking advantage of the many resources and services IUP Libraries provide. We're here to help!

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

The library faculty offer individual and group instruction as well as several credit-bearing courses and Information Literacy. For information about Library hours, please access our website at [www.iup.edu/library](http://www.iup.edu/library)

## Undergraduate Studies and Student Success

### Luke Faust, Chair

Through its curriculum, programs, academic support and advising, the Department of Undergraduate Studies and Student Success provides IUP students with courses and services designed to enhance the development and success of all students.

### General Studies, BA

In the General Studies program, you can choose to make friends and network with other students who share your interests. You also have the option to complete much of your coursework online or away from the IUP campus. Regardless to how you design your individualized program of study, many opportunities are available to enrich your student experience. As well, the flexibility of our program enables you to choose a minor to supplement your area of interest.

The General Studies program is ideal for students who don't want to be limited by one specific subject, or for those who would like to tailor their undergraduate coursework toward a specific post-baccalaureate curriculum. Graduates from our program have found success in all walks of life.

### General Studies, AA

The Associate of Arts degree with a major in general studies is designed for the nontraditional or adult learner. This program provides an earned degree that fits the student's unique circumstances or special interests. With this degree, you can pursue a career matching your academic course of study.

This program consists of the core liberal studies requirements for the bachelor's degree programs plus 10 credits of electives. Course requirements are sometimes adjusted for individuals. No more than 30 credits may be transferred into this degree program from other colleges.

# Programs of Study

*Indiana University of Pennsylvania offers several programs leading to professional licensure or certification within the State of Pennsylvania. Other states vary in what professions they require to be licensed/certified and how licensure/certification is acquired. Some states require an individual to graduate from an accredited program. Others require individuals to obtain additional coursework, additional fieldwork, background checks, passage of additional state licensing exams, additional fees, or other requirements. Students should check licensure/certification requirements in the specific state where they wish to work to make sure their educational program prepares them for employment in their desired profession.*

## Associate Degree Programs

### Baking and Pastry Arts, AAS

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

**Lynn A. Pike, Chair**

Program code: BKNG-AAS

The **Department of Culinary Arts** offers a five-semester Associate in Applied Science Degree in Baking and Pastry Arts. This distinctive program combines hands-on learning experiences in the kitchen laboratory, instruction in fundamental baking and pastry and culinary theory, liberal studies coursework, and a paid externship in the industry to provide each student with the necessary skills and knowledge to begin a successful career in the field of baking and pastry arts. The program consists of the 16-month, competency-based baking and pastry arts curriculum, plus an additional 12 credits of Liberal Studies requirements.

This contemporary approach to learning enables students to achieve advanced levels of proficiency in culinary and/or baking and pastry techniques and business management skills combined with a basic foundation of liberal arts knowledge.

### Liberal Studies: 21-22

As outlined in Liberal Studies Requirements with the following specifications:

### Mathematics: 3

MATH 101 - Foundations of Mathematics **Credits: 3**  
(1)

### English: 3

ENGL 101 - Composition I **Credits: 3**

### Natural Science: 3-4

Lab or Non-Lab Science

### Social Science: 3

## Humanities: 3

HIST 196 - Explorations in US History **Credits: 3**  
HIST 197 - Explorations in European History **Credits: 3**  
HIST 198 - Explorations in Global History **Credits: 3**  
ENGL 121 - Humanities Literature **Credits: 3**  
PHIL/RLST course

## Liberal Studies Electives: 6

(2,3)

COSC 101 - Computer Literacy **Credits: 3**  
or  
IFMG 101 - Computer Literacy **Credits: 3**  
  
FDNT 145 - Personal Nutrition **Credits: 3**

## Major Baking and Pastry Arts:

### Required Courses: 39

Completion of Baking and Pastry program coursework and externship

### Total Degree Requirements: 60-61

- (1) CMGT 1200 is established as equivalent to MATH 101
- (2) CMGT 1301 established as equivalent to LS Electives FDNT 145
- (3) COMP 1000 and COMP 2000 are established as equivalent to COSC 101/IFMG 101

## Career and Technical Teacher Education, AAS

Program Code: CTTE-AAS

### Liberal Studies: 21

Liberal Studies requirements as outline in the Liberal Studies Requirements section with the following specifications:

**English:**

ENGL 101 - Composition I **Credits: 3**

**Humanities:**

One course from list of Liberal Studies Humanities courses. **Credits: 3**

**Mathematics:**

MATH 151 - Elements of Mathematics I **Credits: 3**

**Natural Science:**

One course, either lab or non-lab **Credits: 3-4**

**Social Science:**

PSYC 101 - General Psychology **Credits: 3**

**Liberal Studies Electives:**

EDSP 102 - Educational Psychology **Credits: 3**

One additional course (not VOED) from the list of Liberal Studies Electives. **Credits: 2-3**

## Education Core: 14

EDEX 301 - Education of Students with Disabilities in Inclusive Secondary Settings **Credits: 2**

EDEX 323 - Instruction of English Language Learners with Special Needs **Credits: 2**

EDEX 458 - Transition Assessment and Planning for Youth with Disabilities **Credits: 3**

EDSP 477 - Assessment of Student Learning: Design and Interpretation of Educational Measures **Credits: 3**

EDUC 442 - School Law **Credits: 1**

ETIT 103 - Digital Instructional Technology **Credits: 3**

## Major Courses: 25

VOED 101 - Introduction to Career and Technical Education **Credits: 1**

VOED 102 - Instructional Planning in the Career and Technical Classroom **Credits: 2**

VOED 103 - Strategies for Teaching Career and Technical Education **Credits: 3**

VOED 201 - Making Accommodations for Students with Special Needs in the Career and Technical Classroom  
**Credits: 1**

VOED 202 - Industry Linkages for Career and Technical Programs **Credits: 3**

VOED 203 - Incorporating Reading and Communications Strategies in the Career and Technical Classroom  
**Credits: 3**

VOED 301 - Integrating Math and Science in Career and Technical Education **Credits: 3**

VOED 302 - Career Education in the Career and Technical Classroom **Credits: 3**

VOED 404 - Research in Career and Technical Education **Credits: 3**

VOED 405 - Professional Seminar in Career and Technical Education **Credits: 3**

## Total Credits Required: 60

## Culinary Arts, AAS

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

**Lynn A. Pike, Chair**

Program code: CULN-AAS

The Department of Culinary Arts offers a five-semester Associate in Applied Science Degree in Culinary Arts. This distinctive program combines hands-on learning experiences in the kitchen laboratory, instruction in fundamental culinary and baking and pastry theory, liberal studies coursework, and a paid externship in the industry to provide each student with the necessary skills and knowledge to begin a successful career in the field of culinary arts. The program consists of a 16-month, competency-based culinary arts curriculum, plus an additional 12 credits of Liberal Studies requirements.

This contemporary approach to learning enables students to achieve advanced levels of proficiency in culinary and/or baking and pastry techniques and business management skills combined with a basic foundation of liberal arts knowledge.

## Liberal Studies: 21-22

As outlined in the Liberal Studies Requirements with the following specifications:

## English:

ENGL 101 - Composition I **Credits: 3**

## Mathematics:

MATH 101 - Foundations of Mathematics **Credits: 3 (1)**

## Humanities: 3

HIST 196 - Explorations in US History **Credits: 3**

HIST 197 - Explorations in European History **Credits: 3**

HIST 198 - Explorations in Global History **Credits: 3**

or

ENGL 121 - Humanities Literature **Credits: 3**

or PHIL/RLST course

## Natural Science: 3-4

Lab or Non-Lab Science

## Social Science: 3

## Liberal Studies Electives: 6

(2, 3)

COSC 101 - Computer Literacy **Credits: 3**

or

IFMG 101 - Computer Literacy **Credits: 3**

FDNT 145 - Personal Nutrition **Credits: 3**

## Major Culinary Arts:

## Required Courses: 39

Completion of Culinary Program Coursework and Externship 9 credits from the Culinary Program will articulate toward the Liberal Studies **requirement**.

The remaining 12-13cr will be completed in one additional semester at the Punxsutawney Regional Campus after successful completion of the Culinary Externship.

## Total Degree Requirements: 60

(1) CMGT 1200 is established as equivalent to MATH 101

(2) CMGT 1301 and CKRY 2001 are established as equivalent to LS Elective FDNT 145

(3) COMP 1000 and COMP 2000 are established as equivalent to COSC 101/IFMG 101

## **General Studies, AA**

Program code: GNSTUC-AA

The associate of arts degree program with a major in general studies is designed to provide the student with a broad base of knowledge in liberal studies with a focused concentration in a field of study at IUP. The program is available in a format of either a traditional classroom or online instruction. The required concentration may include the already approved courses of an established minor program or a set of pre-approved courses to satisfy the 18-credit concentration. No more than 30 credits may be transferred into this degree program from other colleges or universities.

Students who may find this degree appropriate are those whose career goals only require an associate of arts degree, who are distance education students, who need a degree credential in route to a bachelor's degree, or who are unable to complete a bachelor's degree, but seek a degree that can accurately reflect their accomplishments in college.

### **Liberal Studies: 39-40**

As outlined in the Liberal Studies Requirements with the following specifications:

**Fine Arts: 3**

**Dimensions of Wellness/ROTC: 3**

**Humanities: 9**

**Learning Skills: 6**

ENGL 101 - Composition I **Credits: 3** or higher

MATH 101 - Foundations of Mathematics **Credits: 3** or higher

**Natural Science: 6-7**

**Social Science: 6**

(1)

**Liberal Studies Electives: 6**

**Concentration: 18**

Completion of an approved minor or pre-approved set of courses



**Free Electives: 2-3**

**Total Degree Requirements: 60**

(1) A 3cr course in Global and Multicultural Awareness must be taken.

## **Hotel, Restaurant, Tourism, and Event Management, AS**

Program code: HOSPBU-AS

Hotel, Restaurant, Tourism, and Event Management Associate graduates are successful, competent, and well prepared. Entry-level management careers and exciting employment opportunities await either as an entrepreneur or within the larger global operational systems, including corporate support centers, supply chain and logistics management, restaurants, tourism, special events, hotels, resorts, clubs and beverage operations, theme parks, contract food services, gaming operations, catering, cruise lines, and other travel-related venues and operations. The program is accredited by the Accreditation Commission for Programs in Hospitality Administration. Continuation in the Bachelor of Science Degree in Hotel, Restaurant, Tourism, and Event Management is encouraged.

**Liberal Studies: 24**

As outlined in the Liberal Studies Requirements section with the following specifications:

**Learning Skills: 6**

ENGL 101 - Composition I **Credits: 3**

MATH 101 - Foundations of Mathematics **Credits: 3** or higher

**Fine Arts: 3**

**Humanities: 9**

HIST 196 - Explorations in US History **Credits: 3**

or

HIST 197 - Explorations in European History **Credits: 3**

or

HIST 198 - Explorations in Global History **Credits: 3**

ENGL 121 - Humanities Literature **Credits: 3**

Philosophy/Religious Studies **Credits: 3**

**Natural Science: 3**

Non-lab Science

**Social Science: 3**

ECON 101 - Basic Economics **Credits: 3**

or  
ECON 121 - Principles of Macroeconomics **Credits: 3**

## Hospitality Core: 36

HOSP 101 - Introduction to the Hospitality Industry **Credits: 3**  
HOSP 130 - Food Service Sanitation **Credits: 1**  
HOSP 150 - Principles of Hospitality Management **Credits: 3**  
HOSP 220 - Food Service Operations **Credits: 3**  
HOSP 256 - Human Resources in the Hospitality Industry **Credits: 3**  
HOSP 259 - Hospitality Purchasing **Credits: 3**  
HOSP 260 - Hotel Operations Management **Credits: 3**  
HOSP 265 - Hospitality Cost Management **Credits: 3**  
HOSP 310 - Professional Development in the Hospitality Industry **Credits: 3**  
HOSP 320 - Hospitality Marketing **Credits: 3**  
HOSP 330 - Applications of Food Production and Service **Credits: 4 (1)**  
HOSP 393 - Exploratory Hospitality Field Experience **Credits: 3-12 (2)**

## Total Degree Requirements: 60

(1) Department-specified kitchen food preparation uniform, knife kit, and proof of ServSafe Certification are required for major lab courses.

(2) HOSP 393 requires students to complete 40 hours of a supervised internship per credit. See department internship coordinator for detailed information.

# Bachelor Degree Programs

## Accounting, BS

Program code: ACCT

Accounting majors receive instruction in financial reporting system design and analysis, managerial accounting, taxation, and forensic accounting leading to career opportunities in public, industry, and government accounting.

## Liberal Studies: 46-47

As outlined in the Liberal Studies Requirements with the following specifications:

### Mathematics: (1)

MATH 107 - Business Mathematics **Credits: 3**  
MATH 108 - Applications of Business Mathematics **Credits: 1**

### Natural Science: Option II

See requirements for **Natural Science: Option II** of the Liberal Studies Requirements **Knowledge Area: Natural Science: One Option** in the *Graduation Requirements* section of this catalog.

## Social Science:

ECON 121 - Principles of Macroeconomics **Credits: 3**  
PSYC 101 - General Psychology **Credits: 3**

## Liberal Studies Electives: 6

ECON 122 - Principles of Microeconomics **Credits: 3**  
MATH 214 - Probability and Statistics for Business Majors **Credits: 3 (2)**

## College: Business Administration Core: 36

### Required Courses:

ACCT 201 - Accounting Principles I **Credits: 3**  
ACCT 202 - Accounting Principles II **Credits: 3**  
BCOM 321 - Business and Interpersonal Communications **Credits: 3**  
BLAW 235 - Legal Environment of Business **Credits: 3**  
COSC 101 - Computer Literacy **Credits: 3**  
or  
IFMG 101 - Computer Literacy **Credits: 3**  
or  
IFMG 110 - Business Spreadsheet Computing **Credits: 3 (2)**  
FIN 310 - Fundamentals of Finance **Credits: 3**  
IFMG 300 - Information Systems: Theory and Practice **Credits: 3**  
MGMT 310 - Principles of Management **Credits: 3**  
MGMT 330 - Operations Management **Credits: 3**  
MGMT 495 - Business Policy **Credits: 3**  
MKTG 320 - Principles of Marketing **Credits: 3**  
QBUS 215 - Business Statistics **Credits: 3**

## Major: Accounting: 24 (3)

### Required Courses:

ACCT 304 - Intermediate Accounting I **Credits: 3**  
ACCT 305 - Intermediate Accounting II **Credits: 3**  
ACCT 311 - Cost Accounting **Credits: 3**  
ACCT 401 - Advanced Accounting **Credits: 3**  
ACCT 421 - Federal Tax I **Credits: 3**  
ACCT 431 - Auditing **Credits: 3**

## Controlled Electives: 6

Any two courses from the following:

ACCT 412 - Advanced Cost Accounting **Credits: 3**

ACCT 422 - Federal Tax II **Credits: 3**

ACCT 432 - Forensic and Internal Auditing **Credits: 3**

ACCT 441 - Accounting for Government and Nonprofit Organizations **Credits: 3**

ACCT 461 - Accounting Systems **Credits: 3**

## Free Electives: 12-13 (4, 5)

## Total Degree Requirements: 120

(1) MATH 214 or MATH 216 or MATH 217 .

(2) IFMG 110 cannot be used as a D/F repeat for COSC 101/IFMG 101.

(3) Students must meet the grade prerequisite(s) listed in the course description section of this catalog before advancing to the next course.

(4) Students interested in pursuing the following career paths should consider:

— **Certified Public Accountant (CPA):** ACCT 422, ACCT 441, ACCT 493, and BLAW 336. Students seeking certification as a CPA will be required to satisfy the educational requirement of 150cr.

— **Certified Management Accountant (CMA):** ACCT 412, ACCT 432, ACCT 461, ACCT 493

— **Certified Fraud Examiner (CFE):** ACCT 432, ACCT 493, CRIM 101, ECON 223.

(5) Students may be able to apply these credits in conjunction with the controlled electives to earn a minor in another discipline, such as finance, marketing, economics, and pre-law. Students should follow the advice of their faculty advisor to fulfill the above requirements.

## Anthropology/Applied Anthropology, BA

Program code: ANTHNM-APPL

Applied anthropology focuses on the anthropologist as an agent of social change and bridges the gap between theories of cultural behavior and the policies that affect contemporary cultures. The Applied Anthropology Track provides students with a background in anthropological method and theory, a cross-cultural perspective, and an avenue to translate this knowledge into action through internships and research. Contemporary applied anthropologists work in international development, health, human rights, business and marketing, the environment, education, and as advocates for marginalized communities. In consultation with an advisor, each student will develop their own curriculum to build expertise in a specific topical area.

## Liberal Studies: 43-44

As outlined in the Liberal Studies Requirements with the following specifications:

### Learning Skills: 6 (1)

MATH 217 - Probability and Statistics **Credits: 3**

### Social Science:

GEOG 104 - World Geography: Global Context **Credits: 3** (recommended)

## Liberal Studies Electives: 6

No courses with ANTH prefix

## Major: 33-41

### Required Courses:

ANTH 211 - Cultural Anthropology **Credits: 3**  
ANTH 222 - Biological Anthropology **Credits: 3**  
ANTH 233 - Language and Culture **Credits: 3**  
ANTH 244 - Basic Archaeology **Credits: 3**

### Two methods courses:

ANTH 456 - Ethnographic Research Methods **Credits: 3**  
ANTH 457 - Applied Anthropology **Credits: 3**

### One theory course:

ANTH 480 - Anthropology Seminar **Credits: 1-3**

### Controlled Electives:

**One area course from the following:**

ANTH 271 - Cultural Area Studies: Africa **Credits: 3**  
ANTH 272 - Culture Area: China **Credits: 3**  
ANTH 274 - Cultural Area Studies: Latin America **Credits: 3**  
ANTH 314 - Contemporary Native American Cultures **Credits: 3**  
ANTH 370 - Latinos and Diasporas **Credits: 3**  
One additional ANTH elective (300 or 400 level) **Credits: 3**  
One additional ANTH elective (any level) **Credits: 3**

ANTH 493 - Internship in Anthropology **Credits: 3-12 (2)**

or

ANTH 460 - Ethnographic Field School **Credits: 3-6 (2)**

## Foreign Language: 0-8

Foreign Language Basic/Elementary II level (102 level) (3)

## Free Electives: 35-44 (4)

## Total Degree Requirements: 120

- (1) ENGL 202 Composition II requirements are fulfilled by the department's Writing Plan.
- (2) An internship or ethnographic field school is highly desirable but may be replaced by 3-6cr of pragmatic skill courses upon approval of the advisor.
- (3) Foreign language may be included in Liberal Studies electives.
- (4) State System Board of Governors policy states that at least 40 percent of the course work in a degree must consist of courses numbered 300 and above.

## **Anthropology/Archaeology, BA**

Program code: ANTHNM-ARCH

The Archaeology Track provides an emphasis on the study of culture through the material remains of human behavior. This track provides training for careers in the growing fields of cultural resource management and historic preservation, with opportunities for employment in both government and the private sector. This track is the preferred option for students intending to pursue archaeology at the graduate level as well. Students in this track take archaeological methods, theory, and area courses as well as anthropology core courses and electives. A wide variety of internship opportunities provide hands-on training in these areas.

### **Liberal Studies: 43-44**

As outlined in Liberal Studies Requirements with the following specifications

#### **Learning Skills: 6 (1)**

MATH 217 - Probability and Statistics **Credits: 3**

#### **Natural Science:**

Geoscience courses recommended. (2)

GEOS 101 - The Dynamic Earth **Credits: 3** (recommended)

GEOS 102 - The Dynamic Earth Lab **Credits: 1**  
(recommended)

#### **Social Science:**

ANTH 213 - World Archaeology **Credits: 3** (required)

GEOG 104 - World Geography: Global Context **Credits: 3** (recommended)

#### **Liberal Studies Electives: 6**

No courses with ANTH prefix

#### **Major: 39-47**

## Required Courses:

- ANTH 211 - Cultural Anthropology **Credits: 3**
- ANTH 222 - Biological Anthropology **Credits: 3**
- ANTH 233 - Language and Culture **Credits: 3**
- ANTH 244 - Basic Archaeology **Credits: 3**
- ANTH 315 - North American Archaeology **Credits: 3**

## Controlled Electives:

### Three Methods Courses:

- ANTH 320 - Archaeological Field School **Credits: 6 (3)**
- ANTH 325 - Archaeological Lab Methods **Credits: 3**
- ANTH 415 - Cultural Resource Management **Credits: 3**

### Two Theory Courses:

- ANTH 425 - Archaeological Theory and Research Design **Credits: 3**
- ANTH 480 - Anthropology Seminar **Credits: 1-3**

### Any Two Anthropology Courses from the Following:

- ANTH 271 - Cultural Area Studies: Africa **Credits: 3**
- ANTH 272 - Culture Area: China **Credits: 3**
- ANTH 274 - Cultural Area Studies: Latin America **Credits: 3**
- ANTH 310 - Voyages of Discovery **Credits: 3**
- ANTH 314 - Contemporary Native American Cultures **Credits: 3**
- ANTH 318 - Museum Methods **Credits: 3**
- ANTH 323 - Mesoamerican Archaeology **Credits: 3**
- ANTH 333 - The Archaeology of Early China **Credits: 3**
- ANTH 370 - Latinos and Diasporas **Credits: 3**
- ANTH 413 - Archaeology of Coasts **Credits: 3**
- ANTH 420 - Environmental Anthropology **Credits: 3**
- ANTH 470 - Environmental Archaeology **Credits: 3**
- ANTH 484 - Specialized Methods in Archaeology **Credits: 3 (4)**
- ANTH 486 - Historic Artifacts **Credits: 3**
- ANTH 487 - Geoarchaeology **Credits: 3**
- ANTH 488 - Geophysical Applications in Archaeology **Credits: 3**
- ANTH 489 - Prehistoric Technologies of Eastern North America **Credits: 3**
- ANTH 490 - Applied Spatial Methods in Archaeology **Credits: 3**
- ANTH 491 - Zooarcheology **Credits: 3**
- ANTH 496 - Human Osteology **Credits: 3**
- ANTH 497 - Forensic Anthropology **Credits: 3**

## Foreign Language: 0-8

Foreign Language Basic/Elementary II level (102 level) (5)

## Free Electives: 29-38 (6, 7)

## Total Degree Requirements: 120

- (1) ENGL 202 Composition II requirements are fulfilled by the department's Writing Plan.
- (2) Determine the specific courses in consultation with academic advisor.
- (3) With department approval, an equivalent field School with lab component from another university may be used.
- (4) May be repeated for credit with departmental approval but may only count once toward the requirements of the Archaeology Track.
- (5) Foreign language may be included in Liberal Studies electives.
- (6) A minor in geoscience, geography, history, or other approved field is recommended. An internship (ANTH 493) also is recommended. The student's advisor should be consulted.
- (7) State System Board of Governors policy states that at least 40 percent of the course work in a degree must consist of courses numbered 300 or above.

## Art Education, BSED

Program code: AREDAH

See requirements leading to teacher certification, titled "3-Step Process for Teacher Education," in the College of Education and Communications section of this catalog.

## Liberal Studies: 43-44

As outlined in Liberal Studies Requirements with the following specifications:

### Fine Arts:

Fulfilled by

ARHI 205 - Ancient to Medieval Art **Credits: 3**

### Mathematics: 3

### Natural Science: Option II

See requirements for **Natural Science: Option II** of the Liberal Studies Requirements **Knowledge Area : Natural Science: One Option** in the *Graduation Requirements* section of this catalog.

### Social Science:

PSYC 101 - General Psychology **Credits: 3**



## Liberal Studies Elective: 3

ARHI 207 - Renaissance to Modern Art **Credits: 3**

## College: 28

## Professional Education Sequence:

An additional 3cr of MATH 101 or above

ETIT 103 - Digital Instructional Technology **Credits: 3**

EDSP 102 - Educational Psychology **Credits: 2**

EDEX 301 - Education of Students with Disabilities in Inclusive Secondary Settings **Credits: 2**

EDEX 323 - Instruction of English Language Learners with Special Needs **Credits: 2**

EDUC 242 - Pre-student Teaching Clinical Experience I **Credits: 1**

EDUC 342 - Pre-student Teaching Clinical Experience II **Credits: 1**

EDUC 421 - Student Teaching **Credits: 5-6**

EDUC 441 - Student Teaching **Credits: 5-12**

EDUC 442 - School Law **Credits: 1**

## Major: 21

ARED 101 - Introduction to Art Education **Credits: 3**

ARED 215 - Issues in Art Education **Credits: 3**

ARED 317 - Art in K-6 Programs **Credits: 3**

ARED 318 - Art in 7-12 Programs **Credits: 3**

ART 112 - Fundamentals of Drawing **Credits: 3**

ART 113 - 3D Design and Digital Fabrication **Credits: 3**

ART 114 - Color and Two-Dimensional Design **Credits: 3**

## Controlled Electives: 33

15 credits from any ARHI or ART prefix

3 credits from any ARED prefix

## 15 Credits from the Following:

ARHI 100 - Arts of the 20th Century **Credits: 3**

ART 111 - Figure Drawing **Credits: 3**

ART 211 - Painting **Credits: 3**

ART 213 - Woodworking: Function and Form **Credits: 3**

ART 214 - Ceramics **Credits: 3**

ART 215 - Sculpture **Credits: 3**

ART 216 - Jewelry and Metals **Credits: 3**

ART 217 - Print Media **Credits: 3**

ART 218 - Introduction to Graphic Design **Credits: 3**

## Total Degree Requirements: 125-126

See advisory paragraph "Timely Completion of Degree Requirements" in the section on Requirements for Graduation.

## Art Studio, BFA

Program Code: ARSTAH-BFA

The Bachelor of Fine Arts Degree in Studio Art prepares students for careers as visual artists and creative practitioners. It is also a platform from which to go on to graduate study. Students pursuing the Bachelor of Fine Arts - Art Studio will elect a concentration in one of the department's studio areas including drawing, painting, ceramics, jewelry and metals, sculpture, and wood. The BFA major must successfully complete the BFA Sophomore Review where studio faculty members assess student progress within the program. During the final semester of their studies, BFA students publicly present their art in a culminating Bachelor of Fine Arts Exhibition.

## Liberal Studies: 43-44

As outlined in Liberal Studies Requirements with the following specifications:

### Fine Arts:

ARHI 205 - Ancient to Medieval Art **Credits: 3**

### Mathematics: 3

### Liberal Studies Elective: 3

ARHI 207 - Renaissance to Modern Art **Credits: 3**

### Major:

### Foundation Required: 12

ART 111 - Figure Drawing **Credits: 3**

ART 112 - Fundamentals of Drawing **Credits: 3**

ART 113 - 3D Design and Digital Fabrication **Credits: 3**

ART 114 - Color and Two-Dimensional Design **Credits: 3**

### Beginning Studio Electives: 15

Five of the following nine courses:

ART 211 - Painting **Credits: 3**

ART 213 - Woodworking: Function and Form **Credits: 3**

ART 214 - Ceramics **Credits: 3**

ART 215 - Sculpture **Credits: 3**

ART 216 - Jewelry and Metals **Credits: 3**

ART 217 - Print Media **Credits:** 3  
ART 218 - Introduction to Graphic Design **Credits:** 3  
ART 281 - Special Topics **Credits:** 1-3

## Art History Required: 6

ARHI 100 - Arts of the 20th Century **Credits:** 3  
Controlled ARHI Elective: One course from any 300-400 level ARHI prefix

## Intermediate/Advanced Studio Required: 27

### Art Studio:

Studio areas of study include ceramics, painting, woodworking, drawing, fibers, sculpture, print media, jewelry and metals, and internship. Select from:

ART 423 - Drawing: Materials and Process **Credits:** 3  
ART 424 - Drawing: Ideation and Concept **Credits:** 3  
ART 451 - Advanced Woodworking: Function and Form **Credits:** 3  
ART 452 - Advanced Ceramics **Credits:** 3  
ART 453 - Advanced Sculpture **Credits:** 3  
ART 454 - Advanced Painting **Credits:** 3  
ART 457 - Advanced Print Media **Credits:** 3-6  
ART 460 - Advanced Jewelry and Metals **Credits:** 3  
ART 481 - Special Topics **Credits:** 1-3  
ART 493 - Internship **Credits:** 3-12

## Primary Studio Emphasis: 18

Select any 300-400 level courses from one studio area listed in track options above. (2, 3)

## Synthesis Studio: 9

Art Studio majors select 300-400 level courses listed within track options above that are outside students' primary studio area. These studio courses must relate to one's primary studio area emphasis conceptually and/or technically. Graphic Design Track majors may select 300-400 level graphic design courses or 300-400 level courses from the Art Studio Track if they relate conceptually and/or technically.  
(2, 3, 4)

## Intermediate/Advanced Studio Electives: 9

Select any 300-400 level art studio courses. (1, 2)

## Senior Thesis and Professional Practicum: 3

ART 400 - Professional Practices **Credits:** 3

## Free Electives: 4-5

## Total Degree Requirements: 120

See advisory paragraph "Timely Completion of Degree Requirements" in the section on Requirements for Graduation

- (1) Student must achieve a cumulative 2.5 GPA and earn a "C" or better in all ART and ARHI courses to graduate.
- (2) Students must complete 3cr within an advanced studio before permission will be granted to enroll in the 6cr component of the advanced level. Permission of the instructor is a prerequisite to all 6cr advanced courses.
- (3) Inclusion of internship credits toward any portion of fulfillment of degree requirements must be approved by the departmental chair and student's major advisor. Approval must be obtained in writing before enrollment.
- (4) Synthesis studio courses must be approved by academic advisor.

## Art Studio/Graphic Design and Illustration, BFA

Program Code: ARST-GRPH

The Bachelor of Fine Arts - Graphic Design and Illustration Track prepares students for careers in graphic design and illustration, covering a broad range of topics within these areas including web design, publication design, interactive design, animation, three-dimensional modeling, corporate identity, and narrative and sequential art. Faculty mentors assist Graphic Design and Illustration students with the development of a professional portfolio.

Students pursuing the Bachelor of Fine Arts - Graphic Design and Illustration Track receive substantial instruction in their area of study. All BFA - Graphic Design and Illustration Track students must participate in Annual Reviews with the faculty at the conclusion of their freshman, sophomore, and junior years of study and complete a design portfolio prior to graduation.

## Liberal Studies: 43-44

### Fine Arts: 3

ARHI 205 - Ancient to Medieval Art **Credits: 3**

### Mathematics: 3

### Liberal Studies Electives: 3

ARHI 207 - Renaissance to Modern Art **Credits: 3**

### Major:

### Foundation Required: 9

ART 111 - Figure Drawing **Credits: 3**

ART 112 - Fundamentals of Drawing **Credits: 3**

ART 114 - Color and Two-Dimensional Design **Credits: 3**

## Beginning Studio Required: 9

ART 218 - Introduction to Graphic Design **Credits: 3**

ART 221 - Principles of Illustration **Credits: 3**

ART 226 - Typography **Credits: 3**

## Beginning Studio Elective: 3

One of the following courses:

ART 211 - Painting **Credits: 3**

ART 213 - Woodworking: Function and Form **Credits: 3**

ART 214 - Ceramics **Credits: 3**

ART 215 - Sculpture **Credits: 3**

ART 216 - Jewelry and Metals **Credits: 3**

ART 217 - Print Media **Credits: 3**

ART 281 - Special Topics **Credits: 1-3**

## Art History Required: 6

ARHI 103 - How Design Changes the World **Credits: 3**

ARHI 4XX -- Any Upper Level Art History **Credits: 3**

## Intermediate/Advanced Studio Required: 30

ART 455 - 3D Modeling and Animation **Credits: 3-6**

ART 456 - Advanced Web and Interactive Design **Credits: 3-6**

ART 465 - Advanced Illustration **Credits: 3-6**

ART 466 - Digital Image Synthesis for the Designer and Illustrator **Credits: 3**

ART 478 - Career Practices for Designers and Illustrators **Credits: 3**

ART 423 - Drawing: Materials and Process **Credits: 3**

ART 424 - Drawing: Ideation and Concept **Credits: 3**

ART 448 - Brand Design **Credits: 3**

ART 355 - Intermediate Graphic Design and Illustration **Credits: 3**

ART 356 - Intermediate Layout and Composition for Print and Interactive Media **Credits: 3**

## Controlled Electives: 15

Five of the following courses:

ART 113 - 3D Design and Digital Fabrication **Credits: 3**

ART 211 - Painting **Credits: 3**

ART 213 - Woodworking: Function and Form **Credits: 3**

ART 214 - Ceramics **Credits: 3**

ART 215 - Sculpture **Credits: 3**

ART 216 - Jewelry and Metals **Credits: 3**

ART 217 - Print Media **Credits: 3**

ART 451 - Advanced Woodworking: Function and Form **Credits: 3**

ART 452 - Advanced Ceramics **Credits: 3**  
ART 453 - Advanced Sculpture **Credits: 3**  
ART 454 - Advanced Painting **Credits: 3**  
ART 460 - Advanced Jewelry and Metals **Credits: 3**  
ART 493 - Internship **Credits: 3-12**  
COMM 271 - Beginning Photography **Credits: 3**  
COMM 371 - Advanced Photography **Credits: 3**  
MKTG 320 - Principles of Marketing **Credits: 3**  
MKTG 321 - Consumer Behavior **Credits: 3**

## Free Electives: 4-5

## Total Degree Requirements: 120 (3, 4)

See advisory paragraph "Timely Completion of Degree Requirements" in the section on Requirements for Graduation

(1) ART 281 may be used only once.

(2) Inclusion of internship credits toward any portion of fulfillment of degree requirements must be approved by the departmental chair and student's major advisor. Approval must be obtained in writing before enrollment.

(3) Student must achieve a cumulative 2.5 GPA and earn a "C" or better in all ART and ARHI courses to graduate.

(4) See advisory paragraph "Timely Completion of Degree Requirements" in the section on Requirements for Graduation.

## Art/History, BA

Program Code: ARTAH-HIST

## Liberal Studies: 46-47

As outlined in the Liberal Studies Requirements with the following specifications:

### Mathematics: 3

### Liberal Studies Electives: 6

No courses with ARHI prefix

### Major:

### Foundation Required: 18

ARHI 205 - Ancient to Medieval Art **Credits: 3**  
ARHI 207 - Renaissance to Modern Art **Credits: 3**  
ARHI 224 - Introduction to Asian Art **Credits: 3**  
ARHI 413 - Senior Seminar **Credits: 3**  
ART 112 - Fundamentals of Drawing **Credits: 3**

ART 114 - Color and Two-Dimensional Design **Credits: 3**

## Controlled Electives: 27

Choose nine courses from the following:

Up to 6cr (two courses) of Art Studio, prefix ART

ARHI 100 - Arts of the 20th Century **Credits: 3**

ARHI 222

ARHI 300

ARHI 407 - Medieval Art **Credits: 3**

ARHI 408 - Italian Renaissance Art **Credits: 3**

ARHI 409 - Baroque and Rococo Art **Credits: 3**

ARHI 412 - Classical Art **Credits: 3**

ARHI 416

ARHI 417 - Byzantine Art **Credits: 3**

ARHI 423 - Art of Japan **Credits: 3**

ARHI 425 - Arts of China **Credits: 3**

ARHI 493 - Internship **Credits: 3-12**

## Foreign Language Required: 0-12

Foreign Language Intermediate Level (1)

## Free Electives: 16-29

## Total Degree Requirements: 120

(1) Intermediate-level foreign language may be included in Liberal Studies electives.

## **Art/Studio, BA**

Program Code: ARTAH-STUDIO

## Liberal Studies: 43-44

As outlined in the Liberal Studies Requirements with the following specifications:

### Fine Arts:

ARHI 205 - Ancient to Medieval Art **Credits: 3**

### Mathematics: 3

### Liberal Studies Elective: 3

ARHI 207 - Renaissance to Modern Art **Credits: 3**

## Major:

### Foundation Required: 12

ART 111 - Figure Drawing **Credits: 3**  
ART 112 - Fundamentals of Drawing **Credits: 3**  
ART 113 - 3D Design and Digital Fabrication **Credits: 3**  
ART 114 - Color and Two-Dimensional Design **Credits: 3**

### Beginning Studio Electives: 12

Four of the following nine courses:

ART 211 - Painting **Credits: 3**  
ART 213 - Woodworking: Function and Form **Credits: 3**  
ART 214 - Ceramics **Credits: 3**  
ART 215 - Sculpture **Credits: 3**  
ART 216 - Jewelry and Metals **Credits: 3**  
ART 217 - Print Media **Credits: 3**  
ART 218 - Introduction to Graphic Design **Credits: 3**  
ART 281 - Special Topics **Credits: 1-3**

### Art History Required: 6

ARHI 100 - Arts of the 20th Century **Credits: 3**  
Controlled ARHI Elective: One course from any 300-400 level ARHI prefix

### Intermediate/Advanced Studio Required: 12

Select 300-400 level courses from four different studio areas (1, 2)

ART 355 - Intermediate Graphic Design and Illustration **Credits: 3**  
ART 356 - Intermediate Layout and Composition for Print and Interactive Media **Credits: 3**  
ART 423 - Drawing: Materials and Process **Credits: 3**  
ART 424 - Drawing: Ideation and Concept **Credits: 3**  
ART 451 - Advanced Woodworking: Function and Form **Credits: 3**  
ART 452 - Advanced Ceramics **Credits: 3**  
ART 453 - Advanced Sculpture **Credits: 3**  
ART 454 - Advanced Painting **Credits: 3**  
ART 455 - 3D Modeling and Animation **Credits: 3-6**  
ART 456 - Advanced Web and Interactive Design **Credits: 3-6**  
ART 457 - Advanced Print Media **Credits: 3-6**  
ART 460 - Advanced Jewelry and Metals **Credits: 3**  
ART 481 - Special Topics **Credits: 1-3**  
ART 493 - Internship **Credits: 3-12**

### Free Electives: 34-35



## Total Degree Requirements: 120

See advisory paragraph "Timely Completion of Degree Requirements " in the section on Requirements for Graduation.

(1) Students must complete 3cr within an advanced studio before permission will be granted to enroll in the 6cr component of the advanced level. Permission of the instructor is a prerequisite to all 6cr advanced courses.

(2) Inclusion of internship credits toward any portion of fulfillment of degree requirements must be approved by the departmental chair and student's major advisor. Approval must be obtained in writing before enrollment. Students must complete the Sophomore Review.

## Asian Studies, BA

**Alan T. Baumler, Coordinator**

Program Code: ASIAAH

The Committee of Asian Studies offers an interdisciplinary major and a minor to provide students with the opportunity to increase their knowledge of the world's largest, most populous, and most diverse continent. Students enrolled in the Asian studies major or minor will find that the course offerings furnish excellent preparation for careers in business, government, journalism and public relations, and teaching.

To complete the Asian studies major, a student must take a minimum of 33 credits in courses dealing with Asia. All Asian studies majors must take ASIA 200 and must demonstrate at least an intermediate-level proficiency in an Asian language, doing so either by passing the intermediate sequence of one of the Asian languages offered at IUP or by demonstrating that they have acquired the equivalent proficiency level elsewhere. The remaining courses should come from "Category A: Exclusively Asia-Focused." Students may, but do not have to, apply up to three credits from "Category B: Substantially Asia-Focused" to their degree. It is highly recommended that students complement their Asian studies degree with a minor or second major, preferably in such fields as anthropology, economics, fine arts, geography, history, international business, international studies, journalism and public relations, political science, or religious studies.

## Liberal Studies: 43-44

As outlined in Liberal Studies Requirements with the following specifications:

**Mathematics: 3**

**Liberal Studies Elective: 3**

No courses with CHIN or JAPN prefixes

**Major: 33-34**

**Required Course: 3**

ASIA 200 - Introduction to Asian Studies **Credits: 3**

## Controlled Electives: 30cr

(1)

## Intermediate Asian language: 0-4cr

(2)

- CHIN 201 - Intermediate Chinese **Credits: 4**
- CRLG 251 - Arabic IV **Credits: 3**
- CRLG 255 - Hindi IV **Credits: 3**
- JAPN 201 - Intermediate Japanese **Credits: 4**
- KORE 201 - Intermediate Korean **Credits: 4**

## Category A: Exclusively Asia-Focused: 24-30cr

(3, 4)

At least 24cr earned through the following courses:

- ANTH 272 - Culture Area: China **Credits: 3**
- ANTH 333 - The Archaeology of Early China **Credits: 3**
- ARHI 224 - Introduction to Asian Art **Credits: 3**
- ARHI 423 - Art of Japan **Credits: 3**
- ARHI 425 - Arts of China **Credits: 3**
- GEOG 256 - Geography of East and Southeast Asia **Credits: 3**
- GEOG 257 - Geography of South and Southwest Asia **Credits: 3**
- HIST 244 - Samurai and Gongfu Heroes: Masculinity in East Asia **Credits: 3**
- or
- ASIA 244 - Samurai and Gongfu Heroes: Masculinity in East Asia **Credits: 3**
- HIST 206 - The History of East Asia **Credits: 3**
- HIST 331 - Modern Middle East **Credits: 3**
- HIST 332 - History of Early China **Credits: 3**
- HIST 333 - Vietnam in War and Revolution **Credits: 3**
- HIST 338 - The History of Iran **Credits: 3**
- HIST 339 - Jihad and the Origins of Islamist Movements in the Middle East **Credits: 3**
- or
- HIST 433 - China 1300-1800: The Late Imperial Age **Credits: 3**
- HIST 434 - Modern China 1800-present **Credits: 3**
- HIST 436 - Japan 1500-1850: Early Modern Japan **Credits: 3**
- HIST 437 - Modern Japan 1850-Present **Credits: 3**
- PLSC 383 - Political Systems: Asia **Credits: 3**
- PLSC 384 - Political Systems: Middle East **Credits: 3**
- RLST 311 - Eastern Philosophy **Credits: 3**
- RLST 374 - Buddhism **Credits: 3**
- RLST 380 - Islam **Credits: 3**
- RLST 402 - Topics in Asian Religions **Credits: 3**

## Category B: Substantially Asia-Focused 0-3cr

(3, 4, 5)

BCOM 342 - Intercultural Business Communication **Credits: 3**

ENGL 396 - Postcolonial Literature **Credits: 3**

or

FNLG 396 - The Literature of Emerging Nations **Credits: 3**

GEOG 104 - World Geography: Global Context **Credits: 3**

GEOG 254 - Geography of Russia, Central Eurasia, and Eastern Europe **Credits: 3**

MGMT 459 - Seminar in International Management **Credits: 3**

PLSC 101 - World Politics **Credits: 3**

PLSC 285 - Comparative Government II: Non-Western Political Systems **Credits: 3**

RLST 110 - World Religions **Credits: 3**

## Free Electives: 42-44

## Total Degree Requirements: 120

(1) At least 12cr must be at the 300 level or higher.

(2) A student who has acquired an intermediate level of proficiency in an Asian language, but not through an accredited college program, may apply to the Asian Studies Committee to be exempt from 3cr in intermediate language instruction. Such credits in these cases are to be replaced by taking one additional Category A class. Students who take advanced-level Asian language courses at IUP or another university may apply to the program director to have such credits partially fulfill the Category A requirements.

(3) Unless given special permission by the Asian Studies Committee, no more than 9cr of courses with the same departmental prefix may count toward the major.

(4) The subject matter varies in rotating topic courses (e.g., HIST 497, RLST 485 etc.); and special topics courses (i.e. classes numbered 281 and 481). When concerned with Asian Studies, these courses may be applied to either Category A or Category B with the approval of the Asian Studies Committee.

(5) Certain courses may require additional prerequisites

## Biochemistry, BS

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

Program Code: BIOC

Biochemistry is a dynamic and growing area in the sciences that integrates the understanding of chemical principles in living organisms. IUP's biochemistry program offers excellent training and coursework that combine the principles of chemistry and biology with the fundamentals of mathematics and physics. An exciting facet of the Biochemistry BS is the undergraduate research component. This aspect allows a student to work with a faculty member on a novel problem in biochemistry. Very often these students give presentations of their results at national and local scientific conferences.

The IUP Biochemistry degree prepares graduates to pursue various careers in medicine, science and technology, or advanced studies in biochemistry, bioengineering, biotechnology and other related fields. Students who pursue the Biochemistry major simultaneously fulfil all of the science coursework required by most medical schools. Additionally, many IUP Biochemistry graduates have continued their education to earn Ph.D. degrees at highly prestigious graduate programs.

## Liberal Studies: 44-45

As outlined in the Liberal Studies Requirements with the following specifications:

### Mathematics:

MATH 121 - Calculus I for Natural and Social Sciences **Credits: 4**

or

MATH 125 - Calculus I/Physics, Chemistry, Mathematics **Credits: 3**

### Natural Science:

PHYS 111 - Physics I Lecture **Credits: 3**

PHYS 121 - Physics I Lab **Credits: 1**

PHYS 112 - Physics II Lecture **Credits: 3**

PHYS 122 - Physics II Lab **Credits: 1**

or

PHYS 131 - Physics I-C Lecture **Credits: 3**

PHYS 141 - Physics I-C Lab **Credits: 1**

PHYS 132 - Physics II-C Lecture **Credits: 3**

PHYS 142 - Physics II-C Lab **Credits: 1**

### Liberal Studies Elective: 3

MATH 216 - Probability and Statistics for Natural Sciences **Credits: 3**

### Major: 57

### Required Core: 49

BIOC 290 - Biochemistry Seminar I **Credits: 1**

BIOC 301 - Foundations of Biochemistry **Credits: 3**

BIOC 311 - Biochemistry Laboratory I **Credits: 2**

BIOC 402 - Advanced Biochemistry **Credits: 3**

BIOC 412 - Advanced Biochemistry Laboratory II **Credits: 2**

BIOC 480 - Biochemistry Seminar II **Credits: 1**

BIOC 482 - Independent Research in Biochemistry **Credits: 1-3** (Minimum of 2 credits required.)

One additional BIOC course at the 400-level (1)

CHEM 111 - General Chemistry I **Credits: 4**

CHEM 112 - General Chemistry II **Credits: 4**

CHEM 231 - Organic Chemistry I **Credits: 4**

CHEM 325 - Analytical Chemistry I **Credits: 4**

CHEM 332 - Organic Chemistry II **Credits: 4**

BIOL 202 - Principles of Cell and Molecular Biology **Credits: 4**

BIOL 203 - Principles of Genetics and Development **Credits: 4**

## One course from the following: 4 (2,3)

CHEM 314 - Inorganic Chemistry **Credits: 4**  
CHEM 341 - Physical Chemistry I **Credits: 4**

## Controlled Electives: 8

8 credits from the following:

BIOL 241 - Introductory Medical Microbiology **Credits: 4**  
MATH 122 - Calculus II for Natural and Social Sciences **Credits: 4**  
MATH 126 - Calculus II/Physics, Chemistry, Mathematics **Credits: 3**  
MATH 171 - Introduction to Linear Algebra **Credits: 3**  
MATH 225 - Calculus III/Physics, Chemistry, Mathematics **Credits: 3**  
MATH 341 - Differential Equations **Credits: 3 (2)**  
Any additional BIOC, BIOL or CHEM course at the 300-level or above (4,5)

## Free Electives: 17-19

## Total Degree Requirements: 120

- (1) This requirement may be met with a 400-level CHEM course, with advisor permission.
- (2) If both CHEM 314 and CHEM 341 are taken, the second course satisfies 4cr of the controlled elective requirement.
- (3) CHEM 341 requires MATH 122 or MATH 126.
- (4) Students cannot count both MATH 122 and MATH 126.
- (5) For an American Chemical Society certified degree, Students need to take MATH 122 or MATH 126, and CHEM 314, CHEM 341 and one additional CHEM course at the 400-level.

## Biology, BA

Program Code: BIOL-BA

The Bachelor of Arts degree program in biology is designed for students who wish to combine a primary academic interest in biology with additional training in a complementary field. This curriculum allows the greatest overall flexibility in a student's program of study by providing them with the opportunity to earn a minor in their complementary field as well as a second minor through their free electives. The primary biology major combined with two minors can make an attractive educational package for the student and for potential employers. Examples of complementary fields that might enhance a student's competitiveness in the job market include anthropology, business administration, criminology, economics, foreign language, LGBT&Q, marketing, pre-law, psychology, safety sciences, sociology, sustainability, women and gender studies, or others of interest.

## Liberal Studies: 47-48

As outlined in the Liberal Studies Requirements with the following specifications:

## Mathematics:

MATH 105 - College Algebra **Credits: 3**

or

MATH 121 - Calculus I for Natural and Social Sciences **Credits: 4**

## Natural Science: (1)

CHEM 111 - General Chemistry I **Credits: 4**

CHEM 112 - General Chemistry II **Credits: 4**

## Social Science:

One course should also fulfill GMA requirement.

## Liberal Studies Elective: 6

MATH 217 - Probability and Statistics **Credits: 3**

Select an additional course from Humanities, Social Sciences or Fine Arts. **Credits: 3**

## Major: 33

## Required Core Courses: 12

BIOL 201 - Principles of Ecology and Evolution **Credits: 4**

BIOL 202 - Principles of Cell and Molecular Biology **Credits: 4**

BIOL 203 - Principles of Genetics and Development **Credits: 4**

## Controlled Electives: 21

Any BIOL course 200-level or above. (2, 3, 4, 5)

## Other Requirements:

PHYS 111 - Physics I Lecture **Credits: 3**

PHYS 121 - Physics I Lab **Credits: 1**

## Planned Minor in Complementary Field: 18-20

Select a second major or minor in consultation with your advisor. (4)

## Free Electives: 1-12

## Total Degree Requirements: 120

- (1) CHEM 101-102 or CHEM 103-255 sequences may be substituted for this requirement for transfer students or students declaring a double major.
- (2) At least 12 credits must be 300-level or higher.
- (3) No more than 8 credits can come from 100-level courses.
- (4) No more than two Controlled Elective courses can apply (excluding prerequisite, liberal studies, cognate or college core courses) towards complementary field.
- (5) No more than 6cr total from Independent Study, Special Topics, or Internship applies to major; excess applied as free electives.

## Biology, BS

Program Codes: BIOL-BS; BIOL+SSCH (Biology, BS w/Secondary Science Education Certificate)

Students may choose a general bachelor of science (BS) degree in biology or they may choose a specialized bachelor of science degree program that is referred to as a track. For Biology, our bachelor of science tracks include Cell and Molecular Biology; Ecology, Conservation, and Evolutionary Biology; Honors Biology; Pre-medical Biology; and Pre-veterinary Biology. Please refer to the specific Biology degree programs for detailed distribution of credits, curricular requirements, and interdisciplinary opportunities. Note that students who pursue the Pre-medical or Pre-veterinary Track must maintain a minimum cumulative GPA of 3.0 after their third semester in the program to continue in that concentration. All students, including transfer students, must have a cumulative GPA of 3.0 or higher to transfer into the Pre-medical or Pre-veterinary Track after their third semester. The general bachelor of science degree program in biology is designed to provide a flexible but in-depth survey of the biological sciences along with a strong background in chemistry and mathematics. This program allows the student (in consultation with their advisor) to mold their coursework in biology to match the student's goals while also allowing the pursuit of knowledge in other disciplines.

Within any track, students have the opportunity to apply up to six credits of controlled electives along with any of their free electives credits towards a minor. This minor could be within the Biology department or from a related field of interest. Note that free electives are applied to a student's overall degree, but not directly to the requirements of one's major whereas controlled electives are also required by the major. With proper selections from among controlled and free electives, a student could readily pursue a minor from a variety of fields such as: applied statistics, biochemistry, chemistry, geography, geoscience, mathematics, physics, psychology, public health, sustainability and more. Students should discuss the possibilities of pursuing a specific minor with their advisor as early as possible.

The department also offers a **Secondary Science Education Certificate\*** for students interested in teaching. Completion of the Certificate in Secondary Science Teaching requirements as part of their BS in Biology program prepares students to become certified middle- and high-school teachers in Pennsylvania and other states. Biology teachers in grades 7 to 12 teach subjects that require a broad and solid foundation in Biology, as well as other sciences and mathematics. Courses in the foundations of education and pedagogy complement the subject matter studies. Students create and present lessons, first in their courses and then in school classrooms, culminating in the student teaching experience in the final semester.

**Interdisciplinary Dual Baccalaureate: BS Biology/Pre-medical Track and BS Medical Technology** This dual baccalaureate is an interdisciplinary, collaborative program between two colleges to meet work force demands and provide viable career options to our post baccalaureate students. Allied Health Professions Programs Coordinator of the College of Health and Human Services will collaborate with Biology faculty and help academically to advise students in the dual baccalaureate program.

The curricular structure in the dual Bachelor of Science degree in BS Biology/Pre-medical Track and BS Medical Technology would be a natural fit for students seeking to work as a medical technologist in a clinical, laboratory, or biotechnology setting. This program would also benefit students seeking employment experience prior to medical or graduate school admissions.

Students with a GPA of 3.0 and above enrolled in the BS Medical Technology/BS Biology-Pre-medical dual degree programs would be eligible to apply for a one year of clinical experience with an affiliated, hospital-based schools of Medical Technology. Areas of instruction will be consistent with requirements of the National Accrediting Agency of Clinical

Laboratory Sciences. Following training the students will qualify for the national certification examination. Successful results on this examination will lead to certification as professionally qualified medical technologist/clinical laboratory scientist.

Upon completion of the clinical training at an articulated clinical affiliate, IUP will grant 30 credits that which will be applied to the student's transcript towards their Bachelor of Science degree in Medical Technology. Qualified students in this program would have completed a minimum of 150 credits, to receive a Dual Bachelor of Science in Biology/Pre-medical Concentration and Medical Technology along with Certification to work as a professionally qualified medical technologist.

**Emergency Medical Responder (EMR), Emergency Medical Technician (EMT), and Paramedic Certification:** The Department of Biology has entered into a collaborative credit transfer agreement to allow our students to obtain credit by completing the EMR, EMT, or Paramedic programs of the Institute for Rural Health and Safety and the Department of Kinesiology, Health, and Sport Science. Please contact the Biology office for details on course schedules, substituting Biology courses for these credits, and the certification criteria for these clock hour programs.

**Pre-medical and Pre-veterinary Advisory Committee:** Pre-medical and Pre-veterinary Track Biology students interested in applying to professional schools are generally required to submit a committee letter that addresses student skills and academic preparation. Biology committee members will perform mock interviews for Biology students pursuing professional training, and author committee recommendations and professional school evaluation letters on behalf of Biology students, with specific focus upon individual student achievements and curricular training. The goals of this advisory committee are as follows:

- Streamline and guide student undergraduate and professional preparation
- Improve communication, collaboration, and engagement among faculty advisors and students
- Build stronger relationships between current students, faculty, and alumni through mentorships, internships, and business partnerships.

## Liberal Studies: 45-48

As outlined in the Liberal Studies Requirements with the following specifications:

### Mathematics: (1)

MATH 105 - College Algebra **Credits:** 3

or

MATH 121 - Calculus I for Natural and Social Sciences **Credits:** 4

### Natural Science:

CHEM 111 - General Chemistry I **Credits:** 4

CHEM 112 - General Chemistry II **Credits:** 4

### Social Science:

One Social Science course should also fulfill GMA requirement.

### Liberal Studies Electives: (2)

GEOS 200 - Foundations of Geology **Credits:** 4

MATH 216 - Probability and Statistics for Natural Sciences **Credits:** 3

or



MATH 217 - Probability and Statistics **Credits: 3**

**Major: 60**

**Required Core Courses: 12**

BIOL 201 - Principles of Ecology and Evolution **Credits: 4**

BIOL 202 - Principles of Cell and Molecular Biology **Credits: 4**

BIOL 203 - Principles of Genetics and Development **Credits: 4**

**Controlled Biology Electives: 24**

**Biology electives** (major courses only) **Credits: 24 (3,4)**

A minimum of 12cr must be in courses at the 300-400 level.

**Biology Specialization -or- Secondary Science Education Certificate: 24**

**Biology Specialization:**

A minimum of 12 credits must be in courses at the 300-400 level.

CHEM 231 - Organic Chemistry I **Credits: 4**

CHEM 351 - Biochemistry **Credits: 4**

- OR -

BIOC 301 - Foundations of Biochemistry **Credits: 3**

**Controlled Electives: Credits: 16-17** (major courses only) (3,4)

An additional 16-17 credits from the following, requires advisor approval (5).

ANTH, BIOL majors courses only, CAAST, CHEM, CRIM, GEOG, GEOS, FDNT, LGBT&Q, MATH, MGMT, PHIL, PHYS, PLSC, PSYC, PUBH, RGPL, SAFE, SOC, SUST, WGS, or other courses of interest.

---OR---

**Secondary Science Education Certificate:**

EDSP 102 - Educational Psychology **Credits: 3**

EDSP 477 - Assessment of Student Learning: Design and Interpretation of Educational Measures **Credits: 3**

EDUC 242 - Pre-student Teaching Clinical Experience I **Credits: 1**

EDUC 441 - Student Teaching **Credits: 5-12** (A total of 12 credits is required.)

EDUC 442 - School Law **Credits: 1**

PHYS 151 - Physics for Life Sciences **Credits: 3**

PHYS 161 - Medical Physics Lab **Credits: 1**

**Other Requirements:**

Exit survey for assessment purposes

**Free Electives: 12-15 (6)**

## Total Degree Requirements: 120

(\*) See requirements leading to teacher certification, titled "3-Step Process for Teacher Education." In the College of Education and Communications section of this catalog.

(1) MATH 105 will fulfill the Liberal Studies Mathematics requirement for Secondary Science Education certificate students. MATH 121 will fulfill the Liberal Studies Mathematics requirement for BS Biology majors.

(2) 7cr of Liberal Studies Elective courses (GEOS 200 and MATH 217) are required for Secondary Science Education certificate students. MATH 216 or MATH 217 will fulfill the Liberal Studies Elective requirement for Biology majors.

(3) No more than 6cr total from Independent Study, Special Topics, or Internship applies to major; excess applied as free electives.

(4) No more than 4cr can come from 100-level courses. Excluding prerequisite, cognate, liberal studies, college core courses, no more than two majors' courses can be shared between a major and minor.

(5) For BS Biology majors, courses appropriate for a Minor of interest should be selected.

(6) Free Electives will be used toward Secondary Science Education Certificate courses; or a Minor such as Animal Behavior, Biomedical Science, Forensic Biosciences, Environmental Microbiology, Neurobiology, Wildlife and Conservation Biology, or other minors of interest.

## Biology/Cell and Molecular Biology, BS

Program Code: BIOL-CMBI

The Cell and Molecular Biology (CMB) track, with the proposed Minors (Biomedical Science, Environmental Microbiology, Forensic Biosciences), is a comprehensive track with a broad science background that prepares students and provides the flexibility to take advantage of a range of careers requiring a strong science related curriculum. For qualified and highly motivated CMB students, we also offer a pathway to graduate in three years.

By providing students with a strong foundation of knowledge, a carefully constructed laboratory course sequence, and an exciting set of unique upper-level course options, the CMB bioscience core and biomedical electives helps prepare students for entry into medical, dental, or other professional school programs (please refer to individual professional school programs for their specific requirements). All these experiences are contained within the single, comprehensive major in CMB that is designed to prepare graduates with knowledge and skills for immediate employment in biotechnology, biomedical engineering, genetic counseling, forensics, biopharmaceuticals, and various health fields. They also provide for an excellent preparation for students who seek admission into graduate (for example, biomedical engineering, genetic counseling, public health) and professional programs.

## Liberal Studies: 44-45

As outlined in the Liberal Studies Requirements with the following specifications:

### Mathematics:

MATH 105 - College Algebra **Credits: 3**

or

MATH 121 - Calculus I for Natural and Social Sciences **Credits: 4**

## Natural Science:

CHEM 111 - General Chemistry I **Credits: 4**  
CHEM 112 - General Chemistry II **Credits: 4**

## Social Science: 9

No course prefix may be used more than once. One course should also fulfill the Liberal Studies GMA requirement

## Liberal Studies Elective: 3

MATH 216 - Probability and Statistics for Natural Sciences **Credits: 3**  
or  
MATH 217 - Probability and Statistics **Credits: 3**

## Major: 48

### Required Core Courses:

BIOL 201 - Principles of Ecology and Evolution **Credits: 4**  
BIOL 202 - Principles of Cell and Molecular Biology **Credits: 4**  
BIOL 203 - Principles of Genetics and Development **Credits: 4**

### Required Biology Courses:

BIOL 241 - Introductory Medical Microbiology **Credits: 4**  
BIOL 331 - Developmental Biology **Credits: 3**  
BIOL 405 - The Biology of the Cell - Critical Thinking **Credits: 2**  
BIOL 410 - Molecular Biology Topics **Credits: 3**  
BIOL 411 - Forensic Biology Laboratory Operations **Credits: 4**

### Controlled Biology Electives: 16-17

(1,2)

BIOL 105 - Cell Biology **Credits: 3**  
BIOL 117 - Understanding HIV Biology and AIDS **Credits: 3**  
BIOL 200 - Medical Terminology **Credits: 2**  
BIOL 300 - Genetics in Medicine and Nutrition **Credits: 3**  
BIOL 301 - Fundamentals of Epidemiology **Credits: 3**  
BIOL 310 - Applied Entomology and Zoonoses **Credits: 3**  
BIOL 323 - Introduction to Toxicology and Risk Assessment **Credits: 3**  
BIOL 352 - Comparative Animal Physiology **Credits: 3**  
BIOL 364 - Immunology **Credits: 3**  
BIOL 409 - Pharmacology Principles and Applications **Credits: 3**  
BIOL 430 - Gene Editing Tools in Medicine and Biotechnology **Credits: 3**  
BIOL 462 - Vertebrate Endocrinology **Credits: 3**

BIOL 466 - Principles of Virology **Credits: 3**  
BIOL 469 - Circadian Rhythms and Sleep **Credits: 3**  
BIOL 477 - Neurobiology **Credits: 3**  
BIOL 479 - Neurobiology of Addiction **Credits: 3**  
BIOL 481 - Special Topics **Credits: 1-3**  
BIOL 482 - Independent Study **Credits: 1-3**  
BIOL 483 - Honors Thesis/Independent Study **Credits: 1-6**  
BIOL 484 - Honors Seminar **Credits: 2**  
BIOL 493 - Biology Internship **Credits: 3-12**  
or other biology major courses by permission of advisor and department chair

## Controlled Electives: 3-4

Any BIOL course at 300 level or above;  
-or-  
CHEM 332 - Organic Chemistry II **Credits: 4**  
-or-  
BIOC course

## Required Science Courses: 12

CHEM 231 - Organic Chemistry I **Credits: 4**  
CHEM 351 - Biochemistry **Credits: 4**  
PHYS 111 - Physics I Lecture **Credits: 3**  
PHYS 121 - Physics I Lab **Credits: 1**

## Other Requirements:

Exit survey for assessment purposes

## Free Electives: 15-16

(3)

## Total Degree Requirements: 120

(1) No more than 6cr total from Independent Study, Special Topics, or Internship applies to major; excess applied as free electives.

(2) No more than 4cr can come from 100-level courses. Excluding prerequisite, cognate, liberal studies, college core courses, no more than 2 Majors courses can be shared between a major and minor.

(3) Free electives may be used towards a Minor such as Animal Behavior, Biomedical Science, Forensic Biosciences, Environmental Microbiology, Neurobiology, Wildlife and Conservation Biology, or other minors of interest.

## **Biology/Ecology, Conservation, and Evolutionary Biology, BS**

Program Code: BIOL-ECEB

The Ecology, Conservation, and Evolutionary Biology (ECEB) Track includes all core biology courses and a selection of related courses that focus on ecological and environmental sciences. To achieve an environmental focus, the student must complete broad training in the sciences and mathematics. The track is designed to provide flexibility to allow pursuit of specialized interests within ECEB, including minors in other environmental disciplines (Applied Statistics, Geology, Geography, Regional Planning, and Sustainability). Course requirements for professional certification by the Ecological Society of America (Certified Associate Ecologist) and/or the Wildlife Society (Certified Wildlife Biologist) can be met within this track. This track prepares students for pursuing advanced degrees or employment in areas related to ecology and environmental sciences at universities, government, and private companies.

## Liberal Studies: 45

As outlined in the Liberal Studies Requirements with the following specifications:

### Mathematics: 4

MATH 121 - Calculus I for Natural and Social Sciences **Credits: 4**

### Natural Science: 8

CHEM 111 - General Chemistry I **Credits: 4**

CHEM 112 - General Chemistry II **Credits: 4**

or

CHEM 113 - Advanced General Chemistry I **Credits: 4**

CHEM 114 - Advanced General Chemistry II **Credits: 4**

### Liberal Studies Elective: 3

MATH 216 - Probability and Statistics for Natural Sciences **Credits: 3**

or

MATH 217 - Probability and Statistics **Credits: 3**

### Major: 42-43

### Required Core Courses: 12

BIOL 201 - Principles of Ecology and Evolution **Credits: 4**

BIOL 202 - Principles of Cell and Molecular Biology **Credits: 4**

BIOL 203 - Principles of Genetics and Development **Credits: 4**

### Required Biology Courses: 18

BIOL 205 - Ecological Methods **Credits: 3**

BIOL 210 - Plant Biology **Credits: 3**

BIOL 220 - General Zoology **Credits: 3**

BIOL 362 - Ecology **Credits: 3**

BIOL 372 - Conservation of Plant and Animal Resources **Credits: 3**

BIOL 451 - Evolutionary Biology **Credits: 3**

## Biology Capstone Experience: 3-6 (1)

Select one course from the following:

BIOL 450 - Field Biology at Pymatuning Laboratory of Ecology **Credits: 4**

BIOL 470 - Ecology Capstone **Credits: 3**

BIOL 482 - Independent Study **Credits: 1-3**

BIOL 483 - Honors Thesis/Independent Study **Credits: 1-6**

BIOL 490 - Field Studies in Biology **Credits: 1-4**

## Controlled Biology Electives: 9 (1, 2)

Select three courses (9 credits) from the following:

BIOL 261 - Ornithology **Credits: 3**

BIOL 310 - Applied Entomology and Zoonoses **Credits: 3**

BIOL 342 - Comparative Vertebrate Anatomy **Credits: 3**

BIOL 404 - Forest Ecosystem Restoration **Credits: 3**

BIOL 420 - Entomology Principles and Practice **Credits: 3**

BIOL 425 - Herpetology **Credits: 3**

BIOL 431 - Ichthyology **Credits: 3**

BIOL 456 - Ecological Toxicology **Credits: 3**

BIOL 463 - Freshwater Ecology **Credits: 3**

BIOL 471 - Identification of Trees and Shrubs **Credits: 3**

BIOL 473 **Credits: 3**

BIOL 474 - Wild Flora of the Northeastern US **Credits: 3**

BIOL 475 - Mammalogy **Credits: 3**

BIOL 476 - Parasitology **Credits: 3**

BIOL 478 **Credits: 3**

## Other Science Requirements: 7

GEOS 200 - Foundations of Geology **Credits: 4**

GEOG 316 - Introduction to Geographic Information Systems **Credits: 3**

## Controlled Electives: 10

Select 10 credits from the following (cannot include Liberal Studies Elective, or courses counting toward Other Science Requirements)

ANTH 200-499

BIOC 200-499

BIOL 200-499

CHEM 200-499

COSC 110 - Problem Solving and Structured Programming **Credits: 3**

COSC 200-499

CRIM 374 - Environmental Crime and Justice **Credits: 3**

ECON 121 - Principles of Macroeconomics **Credits: 3**

ECON 122 - Principles of Microeconomics **Credits: 3**

ENVE 101 - Introduction to Environmental Engineering **Credits: 3**  
ENVE 200-499  
FDNT 370 - Human Food Consumption Patterns **Credits: 3**  
GEOG 200-499  
GEOS 200-499  
MATH 122 - Calculus II for Natural and Social Sciences **Credits: 4**  
MATH 171 - Introduction to Linear Algebra **Credits: 3**  
MATH 200-499  
PHIL 270 - Ethics and the Environment **Credits: 3**  
PHIL 330 - Philosophy of Science **Credits: 3**  
PHYS 111 - Physics I Lecture **Credits: 3**  
PHYS 112 - Physics II Lecture **Credits: 3**  
PHYS 121 - Physics I Lab **Credits: 1**  
PHYS 122 - Physics II Lab **Credits: 1**  
PHYS 200-499  
PSYC 200-499  
PUBH 122 - Foundations of Public Health **Credits: 3**  
RGPL 200-499  
SAFE 310 - Environmental Safety and Health Regulations and Sustainability **Credits: 3**  
SUST 200-499

**Free Electives: 15-16 (3, 4)**

**Total Degree Requirements: 120**

- (1) No more than 6cr total from Independent Study (482), Special Topics (281 and 481), or Internship (493) applies to major; excess applied as free electives.
- (2) Other appropriate BIOL courses at 200- level and above (excluding Liberal Studies courses) may be substituted with permission of the advisor and the Biology Department chair in advance of taking the course.
- (3) Free electives may be used towards a minor or certificate in Geography/Regional Planning, Sustainability, Applied Statistics, Chemistry, Forensic Biosciences, Environmental Microbiology, Foreign Language, or other areas of interest.
- (4) Excluding prerequisite, cognate, liberal studies, college core courses, no more than 2 Majors courses can be shared between a major and minor.

## **Biology/Pre-medical, BS**

Program Code: BIOL-PMED

**Liberal Studies: 45**

As outlined in the Liberal Studies Requirements with the following specifications:

### **Mathematics:**

MATH 121 - Calculus I for Natural and Social Sciences **Credits: 4**

### **Natural Science:**

CHEM 111 - General Chemistry I **Credits: 4**

CHEM 112 - General Chemistry II **Credits: 4**

### Social Science:

PSYC 101 - General Psychology **Credits: 3**

SOC 151 - Principles of Sociology **Credits: 3**

or

SOC 161 - Foundations of Sociology: Social Relations in Groups and Organizations **Credits: 3 (1)**

### Liberal Studies Elective: 3

MATH 216 - Probability and Statistics for Natural Sciences **Credits: 3**

or

MATH 217 - Probability and Statistics **Credits: 3**

### Major: 44-45

### Required Core Courses:

BIOL 201 - Principles of Ecology and Evolution **Credits: 4**

BIOL 202 - Principles of Cell and Molecular Biology **Credits: 4**

BIOL 203 - Principles of Genetics and Development **Credits: 4**

### Required Biology Courses:

BIOL 240 - Human Physiology **Credits: 4**

BIOL 241 - Introductory Medical Microbiology **Credits: 4**

BIOL 331 - Developmental Biology **Credits: 3**

BIOL 402 - Advanced Human Anatomy **Credits: 4**

### Controlled Biology Electives: 14

(2,3)

BIOL 105 - Cell Biology **Credits: 3**

BIOL 200 - Medical Terminology **Credits: 2**

BIOL 221 - Environmental Health and Protection **Credits: 4**

BIOL 300 - Genetics in Medicine and Nutrition **Credits: 3**

BIOL 301 - Fundamentals of Epidemiology **Credits: 3**

BIOL 310 - Applied Entomology and Zoonoses **Credits: 3**

BIOL 323 - Introduction to Toxicology and Risk Assessment **Credits: 3**

BIOL 342 - Comparative Vertebrate Anatomy **Credits: 3**

BIOL 352 - Comparative Animal Physiology **Credits: 3**

BIOL 364 - Immunology **Credits: 3**

BIOL 405 - The Biology of the Cell - Critical Thinking **Credits: 2**

BIOL 409 - Pharmacology Principles and Applications **Credits: 3**

BIOL 410 - Molecular Biology Topics **Credits: 3**

BIOL 420 - Entomology Principles and Practice **Credits: 3**



BIOL 430 - Gene Editing Tools in Medicine and Biotechnology **Credits: 3**  
BIOL 455 - Animal Behavior **Credits: 3**  
BIOL 456 - Ecological Toxicology **Credits: 3**  
BIOL 462 - Vertebrate Endocrinology **Credits: 3**  
BIOL 466 - Principles of Virology **Credits: 3**  
BIOL 469 - Circadian Rhythms and Sleep **Credits: 3**  
BIOL 476 - Parasitology **Credits: 3**  
BIOL 477 - Neurobiology **Credits: 3**  
BIOL 479 - Neurobiology of Addiction **Credits: 3**  
BIOL 480 - Biology Seminar **Credits: 1**  
BIOL 481 - Special Topics **Credits: 1-3**  
BIOL 482 - Independent Study **Credits: 1-3**  
BIOL 483 - Honors Thesis/Independent Study **Credits: 1-6**  
BIOL 484 - Honors Seminar **Credits: 2**  
BIOL 493 - Biology Internship **Credits: 3-12**  
other biology major courses by permission of advisor and department chair

## Controlled Electives: 3-4cr

Any BIOL course at 300 level or above; or CHEM 332 or BIOC 311 or BIOC 402 or BIOC 412

## Ancillary Science Requirements: 15-16

CHEM 231 - Organic Chemistry I **Credits: 4**

CHEM 351 - Biochemistry **Credits: 4**

or

BIOC 301 - Foundations of Biochemistry **Credits: 3**

PHYS 111 - Physics I Lecture **Credits: 3**

PHYS 121 - Physics I Lab **Credits: 1**

PHYS 112 - Physics II Lecture **Credits: 3**

PHYS 122 - Physics II Lab **Credits: 1**

## Other Requirements:

Exit survey for assessment purposes

## Free Electives: 15

(4,5)

## Total Degree Requirements: 120

(1) If students enroll for SOC 151, then third Social Science course should also fulfill the GMA requirement.

(2) A minimum of 12 credits must be in courses at 300-400 level.

(3) No more than 4 credits can come from 100-level courses. No more than 6 credits total from independent study, Special Topics, or internship applies to major.

(4) Free electives may be used towards an Animal Behavior, Chemistry, Child and Adult Advocacy Studies (CAAST), Environmental Microbiology, Forensic Biosciences Minor, Global Health, Neurobiology, Psychology, or other minors of interest.

(5) Excluding prerequisite, cognate, liberal studies, college core courses, no more than two major's courses can be shared between a major and minor.

## **Biology/Pre-veterinary, BS**

Program Code: BIOL-PVET

### **Liberal Studies: 45**

As outlined in the Liberal Studies Requirements with the following specifications:

#### **Mathematics:**

MATH 121 - Calculus I for Natural and Social Sciences **Credits: 4**

#### **Natural Science:**

CHEM 111 - General Chemistry I **Credits: 4** and

CHEM 112 - General Chemistry II **Credits: 4**

#### **Social Science:**

one course should also fulfill GMA requirement

### **Liberal Studies Elective: 3**

MATH 216 - Probability and Statistics for Natural Sciences **Credits: 3**

or

MATH 217 - Probability and Statistics **Credits: 3**

### **Major: 44-45**

#### **Required Core Courses:**

BIOL 201 - Principles of Ecology and Evolution **Credits: 4**

BIOL 202 - Principles of Cell and Molecular Biology **Credits: 4**

BIOL 203 - Principles of Genetics and Development **Credits: 4**

## Required Biology Courses:

BIOL 220 - General Zoology **Credits: 3**  
BIOL 241 - Introductory Medical Microbiology **Credits: 4**  
BIOL 331 - Developmental Biology **Credits: 3**  
BIOL 342 - Comparative Vertebrate Anatomy **Credits: 3**  
BIOL 352 - Comparative Animal Physiology **Credits: 3**

## Controlled Biology Electives: 13

Biology major courses only (1,2)

## Controlled Electives: 3-4

Any BIOL course at 300 level or above; or  
CHEM 332 - Organic Chemistry II **Credits: 4**  
or  
BIOC 311 - Biochemistry Laboratory I **Credits: 2**  
or  
BIOC 402 - Advanced Biochemistry **Credits: 3**  
or  
BIOC 412 - Advanced Biochemistry Laboratory II **Credits: 2**

## Ancillary Science Requirements: 15-16

CHEM 231 - Organic Chemistry I **Credits: 4**  
  
CHEM 351 - Biochemistry **Credits: 4**  
or  
BIOC 301 - Foundations of Biochemistry **Credits: 3**  
  
PHYS 111 - Physics I Lecture **Credits: 3**  
PHYS 121 - Physics I Lab **Credits: 1**  
PHYS 112 - Physics II Lecture **Credits: 3**  
PHYS 122 - Physics II Lab **Credits: 1**

## Other Requirements:

Exit survey for assessment purposes (3)

## Free Electives: 15

(4)

## Total Degree Requirements: 120

(1) No more than 6cr total from Independent Study, Special Topics, or Internship applies to major; excess applied as free electives.

(2) No more than 4crs can come from 100-level courses. Excluding prerequisite, cognate, liberal studies, college core courses, no more than two major's courses can be shared between a major and minor.

(3) With input from academic advisor, completion of at least four CITI modules in animal biology.

(4) Free electives may be used towards a Biology department Minor such as Animal Behavior, Biomedical Science, Environmental Microbiology, Forensic Biosciences, Neurobiology, Wildlife and Conservation Biology, or other minors of interest.

## Chemistry, BS

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

Program Code: CHEM-BS; CHEM+SSCH (Chemistry, BS w/Secondary Science Education Certificate)

Chemistry is a field that has historically enjoyed very strong career possibilities. Many students are employed directly after their undergraduate education by the chemical, or related industries, in jobs that have excellent career prospects. Graduate school in chemistry or biochemistry usually includes very generous financial support, and can lead to outstanding career paths in industry, government or academic areas. These opportunities are available to students completing any of the concentrations in the Chemistry B.S., and graduates of these programs have gone on to industrial leadership positions, and some of the most prestigious graduate programs in the country.

The **Traditional Chemistry** specialization is designed for students intending a career in chemistry and is certified by the American Chemical Society. The advanced courses in the Traditional Chemistry specialization reflect trends in the modern field of chemistry, and the requirements are flexible enough to allow students to tailor the degree program to their specific needs and interests. There is also a strong laboratory component in the Traditional Chemistry specialization, which gives the student excellent hands-on preparation for the challenges of employment or graduate school. An internship program with local chemical companies is available, and the credits from this internship can be counted to meet some of the program requirements.

The **Applied Chemistry** specialization is designed not only for students intending a career in chemistry, but also for those students interested in cross-disciplinary fields that involve chemistry. Students intending to follow a dual-degree program should work with their Chemistry adviser, as courses from their other major can count for many of the requirements in the Applied Chemistry concentration.

The **Pre-medical** specialization of the BS degree allow students to take all courses required for entrance into their intended professional health program. Students in this program retain the option of: (a) attending medical school, (b) attending graduate school in chemistry, biochemistry, or a variety of medically-related PhD programs, (c) employment in the chemistry industry. Additionally, the flexibility of the programs in the Chemistry BS degree allows students to change the focus of their degree during their undergraduate experience.

The **Chemistry Education** specialization is a professional degree that allows students to be certified by the Pennsylvania Department of Education as high school chemistry teachers. However, this degree still retains the essential coursework of a chemistry degree, so these graduates will be well prepared for the demands of teaching or employment as a chemist.

## Liberal Studies: 44-46

As outlined in Liberal Studies Requirements section with the following specifications:

## Mathematics: 3-4

MATH 121 - Calculus I for Natural and Social Sciences **Credits: 4**

or

MATH 125 - Calculus I/Physics, Chemistry, Mathematics **Credits: 3**

## Natural Science:

PHYS 111 - Physics I Lecture **Credits: 3**

PHYS 121 - Physics I Lab **Credits: 1**

PHYS 112 - Physics II Lecture **Credits: 3**

PHYS 122 - Physics II Lab **Credits: 1**

or

PHYS 131 - Physics I-C Lecture **Credits: 3**

PHYS 141 - Physics I-C Lab **Credits: 1**

PHYS 132 - Physics II-C Lecture **Credits: 3**

PHYS 142 - Physics II-C Lab **Credits: 1**

## Liberal Studies Elective: 3-4

MATH 122 - Calculus II for Natural and Social Sciences **Credits: 4**

or

MATH 126 - Calculus II/Physics, Chemistry, Mathematics **Credits: 3**

## Major: 57-74 (1)

### Required Courses:

CHEM 111 - General Chemistry I **Credits: 4**

CHEM 112 - General Chemistry II **Credits: 4**

CHEM 231 - Organic Chemistry I **Credits: 4**

CHEM 290 - Chemistry Seminar I **Credits: 1**

CHEM 314 - Inorganic Chemistry **Credits: 4**

CHEM 325 - Analytical Chemistry I **Credits: 4**

CHEM 332 - Organic Chemistry II **Credits: 4**

CHEM 341 - Physical Chemistry I **Credits: 4**

## Controlled Electives: 20-45 (2)

Select one of the following specializations:

### Traditional Chemistry Specialization: 30

*(earns American Chemical Society certification):*

BIOC 301 - Foundations of Biochemistry **Credits: 3**

CHEM 343 - Physical Chemistry Laboratory I **Credits: 1**

CHEM 390 - Chemistry Seminar II **Credits: 1**

CHEM 498 - Problems in Chemistry **Credits: 3**

BIOL 201 - Principles of Ecology and Evolution **Credits: 4**

or

BIOL 202 - Principles of Cell and Molecular Biology **Credits: 4**

Three additional CHEM or BIOC courses (other than 498) at the 400-level, credits: (3)

6cr from the following, including 3cr from MATH:

COSC 110 - Problem Solving and Structured Programming **Credits: 3**

GEOS 200 - Foundations of Geology **Credits: 4**

MATH 171 - Introduction to Linear Algebra **Credits: 3**

MATH 216 - Probability and Statistics for Natural Sciences **Credits: 3**

MATH 225 - Calculus III/Physics, Chemistry, Mathematics **Credits: 3**

MATH 341 - Differential Equations **Credits: 3**

MATH 342 - Advanced Mathematics for Applications **Credits: 4**

MATH 343 - Introduction to Numerical Methods **Credits: 3**

additional BIOL course at the 200-level or above

or

additional CHEM course at 400-level

**Applied Chemistry Specialization: 28-35**

BIOC 301 - Foundations of Biochemistry **Credits: 3**

or

CHEM 351 - Biochemistry **Credits: 4**

CHEM 343 - Physical Chemistry Laboratory I **Credits: 1**

CHEM 390 - Chemistry Seminar II **Credits: 1**

BIOL 201 - Principles of Ecology and Evolution **Credits: 4**

BIOL 202 - Principles of Cell and Molecular Biology **Credits: 4**

3 additional credits of CHEM or BIOC courses at the 400-level

A minor or customized program in a complimentary field (4), possibilities include Art, Business, HR, Economics, Food and Nutrition, Marketing, Pre-Law, Political Science, Sustainability, Leadership Studies, Biology, Computer Science, Geoscience, Math, Physics (12-18cr)

**Pre-Medical Specialization: 31 (omitting LS)**

**Liberal Studies:**

**Philosophy or Religious Studies:**

PHIL 122 - Contemporary Moral Issues **Credits: 3**

or

PHIL 130 - Introduction to Biomedical Ethics **Credits: 3**

**Social Science:**

PSYC 101 - General Psychology **Credits: 3**

SOC 151 - Principles of Sociology **Credits: 3**

or

SOC 161 - Foundations of Sociology: Social Relations in Groups and Organizations **Credits: 3**

or

ANTH 110 - Contemporary Anthropology **Credits: 3**

or

ANTH 211 - Cultural Anthropology **Credits: 3**

CHEM 390 - Chemistry Seminar II **Credits: 1**

or

BIOC 480 - Biochemistry Seminar II **Credits: 1**

CHEM 498 - Problems in Chemistry **Credits: 3**

BIOL 202 - Principles of Cell and Molecular Biology **Credits: 4**

BIOL 203 - Principles of Genetics and Development **Credits: 4**

MATH 216 - Probability and Statistics for Natural Sciences **Credits: 3**

One of the following (6 credits)

BIOC 301 - Foundations of Biochemistry **Credits: 3**

BIOC 402 - Advanced Biochemistry **Credits: 3**

or

CHEM 351 - Biochemistry **Credits: 4**

BIOC 311 - Biochemistry Laboratory I **Credits: 2**

11 credits from the following:

BIOL 150 - Human Anatomy **Credits: 4**

BIOL 240 - Human Physiology **Credits: 4**

BIOL 241 - Introductory Medical Microbiology **Credits: 4**

Any additional BIOC, BIOL or CHEM courses at the 300-level or above.

## Chemistry Education Specialization/Certificate: 44-45

*(earns Secondary Science Education Certificate)*

CHEM 343 - Physical Chemistry Laboratory I **Credits: 1**

CHEM 390 - Chemistry Seminar II **Credits: 1**

BIOC 301 - Foundations of Biochemistry **Credits: 3**

or

CHEM 351 - Biochemistry **Credits: 4**

BIOL 201 - Principles of Ecology and Evolution **Credits: 4**

or

BIOL 202 - Principles of Cell and Molecular Biology **Credits: 4**

GEOS 200 - Foundations of Geology **Credits: 4**

## Free Electives: 0-18

## Total Degree Requirements: 120

- (1) Students are required to complete the DUCK exam during their last semester at IUP.
- (2) Any specialization can qualify for the Chemistry Honors Certificate.
- (3) CHEM 493 Internship in Chemistry may be used to satisfy 3cr of controlled elective or 2cr of CHEM 498.
- (4) Students may wish to design a customized complimentary field program. Many combinations of the applied chemistry B.S. curriculum with complementary courses are possible. A customized program must contain a minimum of 15 credits. Also, any customized program must be approved by the student's advisor and the department chair.
- (5) See requirements leading to teacher certification, titled "3-Step Process for Teacher Education." In the College of Education and Communications section of this catalog.

## Chemistry/Pre-pharmacy, BS

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

Program code: CHEM-PPHR

The Pre-pharmacy Track of the BS degree gives students a solid chemistry education while including all courses required for entrance into pharmacy school. Students in this track retain the option of: (a) attending pharmacy school, (b) attending graduate school in chemistry, biochemistry, pharmacology, or a variety of medically-related PhD programs, (c) employment in the chemistry or pharmaceutical industry. This program has a very high percentage of graduates accepted into pharmacy school and has the flexibility to allow students to change the focus of their degree program during their undergraduate experience.

## Liberal Studies: 44-46cr

As Outlined in the Liberal Studies Requirements with the following specifications.

### Liberal Studies Mathematics: 3-4cr

MATH 121 - Calculus I for Natural and Social Sciences **Credits: 4**

- or -

MATH 125 - Calculus I/Physics, Chemistry, Mathematics **Credits: 3**

### Liberal Studies Philosophy or Religious Studies: 3cr

One PHIL/RLST course from the following:

PHIL 122 - Contemporary Moral Issues **Credits: 3**

PHIL 130 - Introduction to Biomedical Ethics **Credits: 3**

RLST 120 - Comparative Religious Ethics **Credits: 3**

### Liberal Studies Natural Science: 8cr



PHYS 111, 112, 121, and 122:  
PHYS 111 - Physics I Lecture **Credits: 3**  
PHYS 112 - Physics II Lecture **Credits: 3**  
PHYS 121 - Physics I Lab **Credits: 1**  
PHYS 122 - Physics II Lab **Credits: 1**  
- or -  
PHYS 131, 132, 141, and 142:  
PHYS 131 - Physics I-C Lecture **Credits: 3**  
PHYS 132 - Physics II-C Lecture **Credits: 3**  
PHYS 141 - Physics I-C Lab **Credits: 1**  
PHYS 142 - Physics II-C Lab **Credits: 1**

## Liberal Studies Social Science: 9cr

PSYC 101 - General Psychology **Credits: 3**  
  
ECON 101 - Basic Economics **Credits: 3**  
- or -  
ECON 121 - Principles of Macroeconomics **Credits: 3**

One additional Social Science course with any prefix except PSYC or ECON.

## Liberal Studies Electives: 3-4cr

MATH 122 - Calculus II for Natural and Social Sciences **Credits: 4**  
- or -  
MATH 126 - Calculus II/Physics, Chemistry, Mathematics **Credits: 3**

## Major: 45cr

BIOL 202 - Principles of Cell and Molecular Biology **Credits: 4**  
BIOL 241 - Introductory Medical Microbiology **Credits: 4**  
CHEM 111 - General Chemistry I **Credits: 4**  
CHEM 112 - General Chemistry II **Credits: 4**  
CHEM 231 - Organic Chemistry I **Credits: 4**  
CHEM 290 - Chemistry Seminar I **Credits: 1**  
CHEM 332 - Organic Chemistry II **Credits: 4**  
CHEM 351 - Biochemistry **Credits: 4**  
CHEM 390 - Chemistry Seminar II **Credits: 1**  
MATH 216 - Probability and Statistics for Natural Sciences **Credits: 3**

Additional Required Courses: 12cr (3)  
CHEM 314 - Inorganic Chemistry **Credits: 4**  
CHEM 325 - Analytical Chemistry I **Credits: 4**  
CHEM 341 - Physical Chemistry I **Credits: 4**

## Controlled Electives: 14-15cr

BCOM 321 or ENGL 310:  
BCOM 321 - Business and Interpersonal Communications **Credits: 3**

ENGL 310 - Public Speaking **Credits: 3**

BIOL 150 or BIOL 402:

BIOL 150 - Human Anatomy **Credits: 4**

BIOL 402 - Advanced Human Anatomy **Credits: 4**

BIOL 201 or BIOL 203:

BIOL 201 - Principles of Ecology and Evolution **Credits: 4**

BIOL 203 - Principles of Genetics and Development **Credits: 4**

BIOL 240 or BIOL 409:

BIOL 240 - Human Physiology **Credits: 4**

BIOL 409 - Pharmacology Principles and Applications **Credits: 3**

**Free Electives: 14-17cr (1,3)**

**Total Required Credits: 120**

(1) The application requirements of specific schools of pharmacy may result in the need to take additional courses. Students should be aware of the requirements at each program in which they are interested, and plan to take courses accordingly to meet these requirements.

(2) Students are required to complete the DUCK exam during their last semester at IUP.

(3) Students enrolled at an accredited School of Pharmacy after three years at IUP may use their first-year pharmacy courses to meet the requirement for CHEM 314, CHEM 325 and CHEM 341. These students may also count up to 30 credits from pharmacy school toward their IUP degree.

## **Communications Media/Media Marketing, BS**

Program Code: COMM-MDMK

The **Media Marketing Track** encourages students to develop skills in media promotion, communication consulting, media sales, and media management. This track includes courses from the Department of Marketing. These required marketing courses introduce students to broader marketing concepts in skill-based marketing courses.

**Liberal Studies: 46-47**

As outlined in the Liberal Studies Requirements with the following specifications:

**Mathematics: 3**

**Social Science:**

PSYC 101 - General Psychology **Credits: 3**

**Liberal Studies Electives: 6**

no COMM courses or courses cross-listed with COMM

## Major: 45

### Required Courses:

COMM 101 - Introduction to Communications, Media, and Culture **Credits: 3**  
COMM 150 - Media Aesthetics **Credits: 3**  
COMM 400 - Professional Preparation **Credits: 3**  
COMM 493 - Internship **Credits: 9** (summer only)

### Writing Intensive:

COMM 315 - Persuasive Media Writing **Credits: 3**

## Media Marketing Courses

12 credits from the following list:

COMM 201 - Internet and Multimedia **Credits: 3**

COMM 205 - Making Presentations with Media **Credits: 3**

or

COMM 261 - Teamwork and Communication Skills for College and Career **Credits: 3**

COMM 207 - Online Media Production **Credits: 3**

COMM 401 - Media Programming and Promotion **Credits: 3**

COMM 460 - Disturbing Trends in Communication Technology **Credits: 3**

COMM 470 - Media Management and Sales **Credits: 3**

or

COMM 477 - Freelancing and Entrepreneurship in Media **Credits: 3**

## Media Production:

Minimum of two courses from the following list:

COMM 207 - Online Media Production **Credits: 3**

COMM 240 - Communications Graphics **Credits: 3**

COMM 249 - Basic Audio Production **Credits: 3**

COMM 251 - Television Production **Credits: 3**

COMM 271 - Beginning Photography **Credits: 3**

COMM 306 - 2-D Digital Game Development **Credits: 3**

COMM 340 - Advanced Communication Graphics **Credits: 3**

COMM 348 - Animation **Credits: 3**

COMM 349 - Radio Production **Credits: 3**

COMM 350 - Digital Storytelling **Credits: 3**

COMM 351 - Advanced Video Production **Credits: 3**

COMM 355 - Editing for Video and Film **Credits: 3**

COMM 360 - Digital Sports Production **Credits: 3**

COMM 371 - Advanced Photography **Credits: 3**  
COMM 374 - Documentary Photography **Credits: 3**  
COMM 406 - 3-D Game and Simulation Design and Development **Credits: 3**  
COMM 407 - Television Feature Production **Credits: 3**  
COMM 408 - Media Field Studies **Credits: 3**  
COMM 440 - Multimedia Production **Credits: 3**  
COMM 449 - Advanced Audio Recording Techniques **Credits: 3**  
COMM 451 - Multimedia News Production **Credits: 3**  
COMM 471 - Advanced Image Editing **Credits: 3**  
COMM 474 - Commercial Photography **Credits: 3**

## Controlled Electives:

Other COMM elective courses including COMM production courses **Credits: 6**

## Marketing Requirements: 12

(1)

MKTG 320 - Principles of Marketing **Credits: 3**

**An additional 9 credits of MKTG courses from the following list:**

MKTG 430 - International Marketing **Credits: 3**  
MKTG 431 - Business-to-Business Marketing **Credits: 3**  
MKTG 433 - Advertising **Credits: 3**  
MKTG 435 - Professional Selling and Sales Management **Credits: 3**  
MKTG 436 - Retail and Omnichannel Management **Credits: 3**  
MKTG 439 - Internet Marketing **Credits: 3**  
MKTG 440 - Direct Interactive Database Marketing **Credits: 3**  
MKTG 445 - Social Media Marketing **Credits: 3**

MKTG 448 - Brand Design **Credits: 3**

or

MKTG 450 - Marketing Strategy **Credits: 3**

## Other Requirements: 9

Additional courses outside Communications Media

## Free Electives: 7-8

## Total Degree Requirements: 120

(1) Students taking an additional 6cr of MKTG courses may also seek a minor in marketing.

## Communications Media/Media Production, BS

Program Code: COMM-PROG

Students who seek a more rigorous production experience will find it in the **Media Production Track**. In this track, students will take a set of five COMM production courses that will help them acquire higher-level production skills. Students will learn the foundational skills associated with their chosen production area and learn to use contemporary post-production software and equipment. This more specialized track will prepare students for employment in various production fields, including video, audio, radio, graphics, photography and games.

## Liberal Studies: 46-47

As outlined in the Liberal Studies Requirements with the following specifications:

### Mathematics: 3

### Social Science:

PSYC 101 - General Psychology **Credits: 3**

### Liberal Studies Electives: 6

no COMM courses or courses cross-listed with COMM

### Major: 45

### Required Courses:

COMM 101 - Introduction to Communications, Media, and Culture **Credits: 3**

COMM 150 - Media Aesthetics **Credits: 3**

COMM 400 - Professional Preparation **Credits: 3**

COMM 493 - Internship **Credits: 9** (summer only)

### Writing-Intensive Course:

One writing-intensive COMM course **Credits: 3**

### Media Production:

15 credits of course work from the following list. At least 9 credits must be 300 level or higher.

COMM 207 - Online Media Production **Credits: 3**

COMM 240 - Communications Graphics **Credits: 3**

COMM 249 - Basic Audio Production **Credits: 3**

COMM 251 - Television Production **Credits: 3**

COMM 271 - Beginning Photography **Credits: 3**

COMM 306 - 2-D Digital Game Development **Credits: 3**

COMM 349 - Radio Production **Credits: 3**

COMM 340 - Advanced Communication Graphics **Credits: 3**

COMM 348 - Animation **Credits: 3**

COMM 350 - Digital Storytelling **Credits: 3**

COMM 351 - Advanced Video Production **Credits: 3**

COMM 355 - Editing for Video and Film **Credits: 3**  
COMM 360 - Digital Sports Production **Credits: 3**  
COMM 371 - Advanced Photography **Credits: 3**  
COMM 374 - Documentary Photography **Credits: 3**  
COMM 406 - 3-D Game and Simulation Design and Development **Credits: 3**  
COMM 407 - Television Feature Production **Credits: 3**  
COMM 408 - Media Field Studies **Credits: 3**  
COMM 440 - Multimedia Production **Credits: 3**  
COMM 449 - Advanced Audio Recording Techniques **Credits: 3**  
COMM 451 - Multimedia News Production **Credits: 3**  
COMM 471 - Advanced Image Editing **Credits: 3**  
COMM 474 - Commercial Photography **Credits: 3**

## Controlled Electives: 9

Other COMM elective courses. May include additional production courses.

## Other Requirements: 21

Only courses outside Communications Media. At least 9 credits must be 300 level or higher. A minor is strongly encouraged.

## Free Electives: 7-8

## Total Degree Requirements: 120

# Communications Media/Media Studies, BS

Program Code: COMM-MDST

The **Media Studies Track** seeks to broadly educate students in communications media by encouraging them to develop their communication skills, written, oral, and visual. Courses include components to develop critical thinking, collaboration, and research skills. The flexibility of the program allows students to explore a range of courses in media theory, criticism, culture, and current media issues. Beginning level production courses introduce concepts of producing media messages.

With 21 credits of required out of department electives, Communications Media students in the Media Studies and Media Production Tracks are highly encouraged to pursue a minor in another program that complements their degree in Communications Media.

## Liberal Studies: 46-47

As outlined in the Liberal Studies Requirements with the following specifications:

**Mathematics: 3**

**Social Science:**

PSYC 101 - General Psychology **Credits: 3**

## Liberal Studies Electives: 6

no COMM courses or courses cross-listed with COMM

## Major: 45

### Required Courses: 9 credits

COMM 101 - Introduction to Communications, Media, and Culture **Credits: 3**

COMM 150 - Media Aesthetics **Credits: 3**

COMM 400 - Professional Preparation **Credits: 3**

### Writing-Intensive Course: 3

One writing-intensive COMM course **Credits: 3**

## Media Studies: 12

Minimum of four courses from the following:

COMM 205 - Making Presentations with Media **Credits: 3**

COMM 206 - History and Theory of Making Games **Credits: 3**

COMM 230 - Global Media and Communication **Credits: 3**

COMM 261 - Teamwork and Communication Skills for College and Career **Credits: 3**

COMM 302 - Research in Communications Media **Credits: 3**

COMM 303 - Scriptwriting **Credits: 3**

COMM 315 - Persuasive Media Writing **Credits: 3**

COMM 325 - Gender in Media **Credits: 3**

COMM 335 - Communications Consulting and Project Management **Credits: 3**

COMM 345 - Television Criticism **Credits: 3**

COMM 354 - Media Law and Policy **Credits: 3**

COMM 375 - Mass Media and Behavior **Credits: 3**

COMM 401 - Media Programming and Promotion **Credits: 3**

COMM 403 - Multimedia News Writing **Credits: 3**

COMM 414 - Music, Media, and Culture **Credits: 3**

COMM 420 - Media Portrayal of Crime **Credits: 3**

COMM 445 - Cinematic Directors **Credits: 3**

COMM 460 - Disturbing Trends in Communication Technology **Credits: 3**

COMM 470 - Media Management and Sales **Credits: 3**

COMM 477 - Freelancing and Entrepreneurship in Media **Credits: 3**

COMM 480 - Seminar in Communications Media **Credits: 3**

### Minimum of Two Production Courses from the Following: 6

COMM 207 - Online Media Production **Credits: 3**

COMM 240 - Communications Graphics **Credits: 3**

COMM 249 - Basic Audio Production **Credits: 3**

COMM 251 - Television Production **Credits: 3**  
COMM 271 - Beginning Photography **Credits: 3**  
COMM 306 - 2-D Digital Game Development **Credits: 3**  
COMM 340 - Advanced Communication Graphics **Credits: 3**  
COMM 348 - Animation **Credits: 3**  
COMM 349 - Radio Production **Credits: 3**  
COMM 350 - Digital Storytelling **Credits: 3**  
COMM 351 - Advanced Video Production **Credits: 3**  
COMM 355 - Editing for Video and Film **Credits: 3**  
COMM 360 - Digital Sports Production **Credits: 3**  
COMM 371 - Advanced Photography **Credits: 3**  
COMM 374 - Documentary Photography **Credits: 3**  
COMM 406 - 3-D Game and Simulation Design and Development **Credits: 3**  
COMM 407 - Television Feature Production **Credits: 3**  
COMM 408 - Media Field Studies **Credits: 3**  
COMM 440 - Multimedia Production **Credits: 3**  
COMM 449 - Advanced Audio Recording Techniques **Credits: 3**  
COMM 451 - Multimedia News Production **Credits: 3**  
COMM 471 - Advanced Image Editing **Credits: 3**  
COMM 474 - Commercial Photography **Credits: 3**

## Controlled Electives: 15

Other COMM elective courses including courses from the above lists not taken as part of those requirements. At least 9 credits must be of 300 level or higher. COMM 493 -Internship may be taken for 9 credits.

## Other Requirements: 21

Only courses outside Communications Media. At least 9 credits must be of 300 level or higher. A minor is strongly encouraged.

## Free Electives: 7-8

## Total Degree Requirements: 120

# Communications Media/News Media, BS

Program Code: COMM-NWSM

The **News Media Track** encourages students to develop writing and production skills needed to work in the news industry. Students in this track will take courses in writing, media law, and global media. Additionally, students will also learn basic production skills. The flexibility of this track allows them to select the production field they wish to pursue.

## Liberal Studies: 46-47

## Mathematics: 3



## Social Science: 3

PSYC 101 - General Psychology **Credits: 3**

## Liberal Studies Electives: 6

No courses with COMM prefix.

## Major:

## Required Courses: 18

COMM 101 - Introduction to Communications, Media, and Culture **Credits: 3**

COMM 150 - Media Aesthetics **Credits: 3**

COMM 400 - Professional Preparation **Credits: 3**

COMM 493 - Internship **Credits: 9** (summer only)

## News Media Courses: 12

COMM 102 - Skills for Media Writing **Credits: 3**

COMM 230 - Global Media and Communication **Credits: 3**

COMM 354 - Media Law and Policy **Credits: 3**

COMM 403 - Multimedia News Writing **Credits: 3**

## Media Production: 6

Minimum of two courses from this list.

COMM 207 - Online Media Production **Credits: 3**

COMM 240 - Communications Graphics **Credits: 3**

COMM 249 - Basic Audio Production **Credits: 3**

COMM 251 - Television Production **Credits: 3**

COMM 271 - Beginning Photography **Credits: 3**

COMM 349 - Radio Production **Credits: 3**

COMM 350 - Digital Storytelling **Credits: 3**

COMM 351 - Advanced Video Production **Credits: 3**

COMM 355 - Editing for Video and Film **Credits: 3**

COMM 360 - Digital Sports Production **Credits: 3**

COMM 371 - Advanced Photography **Credits: 3**

COMM 374 - Documentary Photography **Credits: 3**

COMM 407 - Television Feature Production **Credits: 3**

COMM 408 - Media Field Studies **Credits: 3**

COMM 449 - Advanced Audio Recording Techniques **Credits: 3**

COMM 451 - Multimedia News Production **Credits: 3**

COMM 471 - Advanced Image Editing **Credits: 3**

COMM 474 - Commercial Photography **Credits: 3**

## Controlled Electives: 9

Other COMM elective courses (advisor approved).

## Other Requirements: 21

Additional courses outside Communications Media that augment the student's major course of study (advisor approval). At least 9 credits must be at the 300 level or above.

## Free Electives: 7-8

## Total Degree Requirements: 120

# Computer Science, BA

Program Code: COSC-BA

IUP's computer science programs share a curricular core covering fundamental concepts, programming, problem solving, data structures, algorithms, software engineering, database, and seminars on technical topics and the profession. The department focuses on providing a broad foundation to create agile graduates who can adapt to the rapidly changing trends in the computer science field. Upper-level courses are designed to provide depth of theory and build career skills. Courses held in computer classrooms offer hands-on learning that blends theory with supervised practice to train workforce ready graduates. The Bachelor of Arts in Computer Science program allows greater flexibility by having fewer required courses. Students often choose this track when planning to double major or if they want to tailor their degree program meet specific interests. Graduates leverage their wide scope of knowledge by applying computing skills to fields outside of computer science and are effective in communicating across disciplines and cultural backgrounds.

Students completing the program are prepared to work in computer-dependent areas of business, government, and industry. Recent graduates have started their careers with positions in programming and systems analysis, business applications, computer software development, applied scientific programming, and other computer-related areas.

## Liberal Studies: 43-44

As outlined in the Liberal Studies Requirements with the following specifications:

### Mathematics: 3

MATH 125 - Calculus I/Physics, Chemistry, Mathematics **Credits:** 3 (1)

### Liberal Studies Elective: 3

MATH 216 - Probability and Statistics for Natural Sciences **Credits:** 3

No courses with COSC prefix

## Major: 39

### Core Courses:

COSC 105 - Fundamentals of Computer Science **Credits: 3**  
COSC 110 - Problem Solving and Structured Programming **Credits: 3**  
COSC 210 - Object-Oriented and GUI Programming **Credits: 3**  
COSC 300 - Computer Organization and Assembly Language **Credits: 3**  
COSC 310 - Data Structures and Algorithms **Credits: 3**  
COSC 319 - Software Engineering Concepts **Credits: 3**  
COSC 341 - Introduction to Database Management Systems **Credits: 3**  
COSC 380 - Seminar on the Computer Profession and Ethics **Credits: 2**  
COSC 480 - Seminar on Technical Topics **Credits: 1**

### Controlled Electives:

9cr from the following: (2)

COSC 343 - Introduction to Numerical Methods **Credits: 3**  
or  
MATH 343 - Introduction to Numerical Methods **Credits: 3**

COSC 216 - Introduction to Cyber Security **Credits: 3 (3)**  
COSC 220 - Enterprise Computing **Credits: 3**  
COSC 345 - Computer Networks **Credits: 3**  
COSC 355 - Computer Graphics **Credits: 3**  
COSC 356 - Network Security **Credits: 3**  
COSC 362 - Unix Systems **Credits: 3**  
COSC 365 - Web Application Development **Credits: 3**  
COSC 473 - Software Engineering Practice **Credits: 3 (4)**  
COSC 493 - Internship in Computer Science **Credits: 3-12 (4)**  
IFMG 455 - Business Data Mining **Credits: 3**

### Upper-Level Electives: 6

COSC 405 - Artificial Intelligence **Credits: 3**  
COSC 410 - Computer Architecture **Credits: 3**  
COSC 420 - Modern Programming Languages **Credits: 3**  
COSC 424 - Compiler Construction **Credits: 3**  
COSC 427 - Introduction to Cryptography **Credits: 3**  
COSC 430 - Introduction to Systems Programming **Credits: 3**  
COSC 432 - Introduction to Operating Systems **Credits: 3**  
COSC 460 - Theory of Computation **Credits: 3**  
COSC 465 - Web Services **Credits: 3**

### Other Requirements: 3

## Additional Mathematics:

MATH 309 - Discrete Mathematics **Credits: 3**

## Free Electives: 34-35

## Total Degree Requirements: 120

(1) MATH 125 can be substituted by MATH 121.

(2) Upper-level electives may be counted as controlled electives. 3cr of Intermediate Level foreign language may be applied toward controlled electives.

(3) COSC 216 cannot be counted for major credit if a student does a Cyber Security minor.

(4) Credit for both COSC 473 and COSC 493 may be counted toward the degree, but only one will be counted toward the major requirements. **Note:** Only 3cr of first 6cr of COSC 493 or 6cr of a total 12cr of COSC 493 can be counted toward major. COSC 493 may be selected after completion of sophomore year.

## Computer Science/Cyber Security, BS

Program Code: COSC-CYBR

IUP's computer science programs share a curricular core covering fundamental concepts, programming, problem solving, data structures, algorithms, software engineering, database, and seminars on technical topics and the profession. The department focuses on providing a broad foundation to create agile graduates who can adapt to the rapidly changing trends in the computer science and cybersecurity fields. Every student in the B.S. in Cyber Security track also completes a minor in criminology. Based on this program, IUP was awarded recognition as a National Center of Academic Excellence in Information Assurance Education by the National Security Agency and the Department of Homeland Security. Students get hands-on training and opportunities to delve into penetration testing and ethical hacking while completing theoretical and applied upper-level coursework in computer networking, cryptography, and information security. Courses from the Department of Criminology in loss prevention, cybersecurity, and legal aspects enable graduates to coordinate with law enforcement on cyber-crime investigations.

Cybersecurity graduates work in computing and information-related areas of law enforcement, business, industry, and government agencies. Recent graduates have found careers as cyber security analysts, information security analysts and forensic computer analysts, as well as being more traditional programmers for business applications and software developers.

## Liberal Studies: 43-44

As outlined in the Liberal Studies Requirements with the following specifications:

### Mathematics: 3

MATH 125 - Calculus I/Physics, Chemistry, Mathematics **Credits: 3 (1)**

### Social Science:

CRIM 101 - Crime and Justice Systems **Credits: 3 (2)**

## Liberal Studies Elective: 3

MATH 216 - Probability and Statistics for Natural Sciences **Credits: 3**

## Major: 48

### Core Courses:

COSC 105 - Fundamentals of Computer Science **Credits: 3**  
COSC 110 - Problem Solving and Structured Programming **Credits: 3**  
COSC 210 - Object-Oriented and GUI Programming **Credits: 3**  
COSC 300 - Computer Organization and Assembly Language **Credits: 3**  
COSC 310 - Data Structures and Algorithms **Credits: 3**  
COSC 319 - Software Engineering Concepts **Credits: 3**  
COSC 341 - Introduction to Database Management Systems **Credits: 3**  
COSC 380 - Seminar on the Computer Profession and Ethics **Credits: 2**  
COSC 480 - Seminar on Technical Topics **Credits: 1**

### Cyber Security Required Courses:

COSC 216 - Introduction to Cyber Security **Credits: 3**  
COSC 345 - Computer Networks **Credits: 3**  
COSC 356 - Network Security **Credits: 3**  
COSC 432 - Introduction to Operating Systems **Credits: 3**  
COSC 473 - Software Engineering Practice **Credits: 3**

### Controlled Electives:

6cr from the following: (4, 5, 6)

COSC 220 - Enterprise Computing **Credits: 3**  
COSC 362 - Unix Systems **Credits: 3**  
COSC 365 - Web Application Development **Credits: 3**  
IFMG 468 - Information Technology (IT) Security **Credits: 3**

### Upper-Level Electives:

3cr from the following: (5)

COSC 410 - Computer Architecture **Credits: 3**  
COSC 427 - Introduction to Cryptography **Credits: 3**  
COSC 429 - Digital Forensics **Credits: 3**  
COSC 430 - Introduction to Systems Programming **Credits: 3**  
COSC 454 - Information Assurance Administration **Credits: 3**  
COSC 465 - Web Services **Credits: 3**  
COSC 493 - Internship in Computer Science **Credits: 3-12**

## Minor in Criminology: 15

(2)

## Other Requirements: 3

## Additional Mathematics:

MATH 309 - Discrete Mathematics Credits: 3

## Free Electives: 10-11

## Total Degree Requirements: 120

(1) MATH 125 can be substituted by MATH 121.

(2) CRIM 101 (taken as part of the social science requirement) is counted as part of the 18cr Criminology minor. Fifteen additional credits of CRIM are required.

(3) Students with 6 or more credits in COSC 493 may petition the department to substitute COSC 493 for COSC 473. This petition must be completed prior to commencement of the internship to ensure approval of the substitution. Note: If a 6cr COSC 493 is taken and not substituted for COSC 473, 3cr are applied toward COSC Upper-level Electives. If a 12cr COSC 493 is taken and substituted for COSC 473, 3cr are applied toward the Required Courses and 3cr toward COSC Upper-level Electives.

(4) Upper-level electives may be counted as controlled electives. 3cr of Intermediate Level foreign language may be applied toward controlled electives.

(5) Controlled and upper level electives may not be applied toward more than one track in Computer Science.

## Computer Science/Languages and Systems, BS

Program Code: COSC-LGSY

IUP's computer science programs share a curricular core covering fundamental concepts, programming, problem solving, data structures, algorithms, software engineering, database, and seminars on technical topics and the profession. The department focuses on providing a broad foundation to create agile graduates who can adapt to the rapidly changing trends in the computer science field. Every student in the B.S. in Languages and Systems track also completes a minor in mathematics. This program is accredited by ABET, the nationwide board for accreditation of computing, engineering technology, and applied and natural science programs. Courses held in computer classrooms offer hands-on learning that blends theory with supervised practice to train work-force ready graduates. Selected theoretical and applied upper-level courses reflect the technical nature of this track and provide students with in-depth skills to analyze complex problems, to identify interdisciplinary solutions, and to manage software implementations.

Graduates leverage the widely recognized ABET credential when entering the workforce or applying to graduate programs. Many of the Languages and Systems track students continue with graduate school or work in analytical and computer-dependent areas of business, government, and industry. Recent graduates have started their careers with positions in systems analysis, programming or business applications, software development, scientific and applied mathematical programming, and other computer-related areas.

## Liberal Studies: 43-44

As outlined in the Liberal Studies Requirements with the following specifications:

### Mathematics: 3

MATH 125 - Calculus I/Physics, Chemistry, Mathematics **Credits: 3 (1)**

### Natural Science: Option I

See requirements for **Natural Science: Option I** of the Liberal Studies Requirements **Knowledge Area: Natural Science: One Option** in the *Graduation Requirements* section of this catalog.

### Liberal Studies Elective: 3

MATH 216 - Probability and Statistics for Natural Sciences **Credits: 3 (6)**  
no course with COSC prefix

## Major: 48

### Core Courses:

COSC 105 - Fundamentals of Computer Science **Credits: 3**  
COSC 110 - Problem Solving and Structured Programming **Credits: 3**  
COSC 210 - Object-Oriented and GUI Programming **Credits: 3**  
COSC 300 - Computer Organization and Assembly Language **Credits: 3**  
COSC 310 - Data Structures and Algorithms **Credits: 3**  
COSC 319 - Software Engineering Concepts **Credits: 3**  
COSC 341 - Introduction to Database Management Systems **Credits: 3**  
COSC 380 - Seminar on the Computer Profession and Ethics **Credits: 2**  
COSC 480 - Seminar on Technical Topics **Credits: 1**

### Languages and Systems Required Courses:

COSC 460 - Theory of Computation **Credits: 3**

COSC 420 - Modern Programming Languages **Credits: 3**  
or  
COSC 424 - Compiler Construction **Credits: 3**

COSC 473 - Software Engineering Practice **Credits: 3**  
or  
COSC 493 - Internship in Computer Science **Credits: 3-12 (2)**

### Controlled Electives:

9 cr from the following: (3, 4)

COSC 220 - Enterprise Computing **Credits: 3**

COSC 343 - Introduction to Numerical Methods **Credits: 3 (5)**

or

MATH 343 - Introduction to Numerical Methods **Credits: 3 (5)**

COSC 345 - Computer Networks **Credits: 3**

COSC 355 - Computer Graphics **Credits: 3**

COSC 362 - Unix Systems **Credits: 3**

COSC 365 - Web Application Development **Credits: 3**

## Upper-Level Electives:

6cr from the following: (4)

COSC 405 - Artificial Intelligence **Credits: 3**

COSC 410 - Computer Architecture **Credits: 3**

COSC 430 - Introduction to Systems Programming **Credits: 3**

COSC 432 - Introduction to Operating Systems **Credits: 3**

COSC 465 - Web Services **Credits: 3**

COSC 493 - Internship in Computer Science **Credits: 3-12**

(2)

## Other Requirements: 12

### Mathematics:

A minor in mathematics which must include: (6)

MATH 171 - Introduction to Linear Algebra **Credits: 3**

MATH 309 - Discrete Mathematics **Credits: 3**

## Free Electives: 15-16

## Total Degree Requirements: 120

(1) MATH 125 can be substituted by MATH 121.

(2) COSC 493 may be selected after completion of sophomore year. Note: If a 6cr COSC 493 is taken, 3cr are applied toward COSC required courses. If a 12cr COSC 493 is taken, 3cr are applied toward required courses and 3cr toward COSC upper-level electives.

(3) Upper-level electives may be counted as controlled electives. 3cr of Intermediate Level foreign language may be applied toward controlled electives.

(4) Controlled and upper level electives may not be applied toward more than one track in computer science.

(5) COSC 343 or MATH 343 may be counted as a computer science elective or as a part of the mathematics minor, but not both.



(6) MATH 125 and MATH 216 (taken as liberal studies requirements) are also counted towards the minor. Mathematics minor requires at least 6cr of 300-level or higher MATH courses.

## Computer Science/Software Engineering, BS

Program Code: COSC-SWEN

IUP's computer science programs share a curricular core covering fundamental concepts, programming, problem solving, data structures, algorithms, software engineering, database, and seminars on technical topics and the profession. The department focuses on providing a broad foundation to create agile graduates who can adapt to the rapidly changing trends in the computer science field. Upper-level courses are designed to provide depth of theory and build career skills. Every student in the B.S. in Software Engineering track also completes a minor (or double major) in a complementary field. The program trains students to analyze complex computing problems and to identify solutions by applying software engineering principles and by leveraging their skills from other disciplines. The curriculum includes courses held in computer classrooms and offers hands-on learning that blends theory with supervised practice. The track prepares work-force ready graduates who function effectively as a team members or leaders while engaged in software engineering activities.

Students completing the program are prepared to work in computer-dependent areas of business, government, and industry. Recent graduates have started their careers with positions in programming and systems analysis, business applications, computer software development, scientific and applied mathematical programming, and other computer-related areas or have continued with graduate school.

### Liberal Studies: 43-44

As outlined in the Liberal Studies Requirements with the following specifications:

#### Mathematics: 3

MATH 125 - Calculus I/Physics, Chemistry, Mathematics **Credits:** 3 (1)

#### Liberal Studies Elective: 3

MATH 216 - Probability and Statistics for Natural Sciences **Credits:** 3

#### Major: 45

#### Core Courses:

COSC 105 - Fundamentals of Computer Science **Credits:** 3  
COSC 110 - Problem Solving and Structured Programming **Credits:** 3  
COSC 210 - Object-Oriented and GUI Programming **Credits:** 3  
COSC 300 - Computer Organization and Assembly Language **Credits:** 3  
COSC 310 - Data Structures and Algorithms **Credits:** 3  
COSC 319 - Software Engineering Concepts **Credits:** 3  
COSC 341 - Introduction to Database Management Systems **Credits:** 3  
COSC 380 - Seminar on the Computer Profession and Ethics **Credits:** 2  
COSC 480 - Seminar on Technical Topics **Credits:** 1

## Software Engineering Required Courses:

COSC 365 - Web Application Development **Credits: 3**  
COSC 473 - Software Engineering Practice **Credits: 3 (2)**

## Controlled Electives:

12cr from the following: (3, 4, 5, 6)

COSC 343 - Introduction to Numerical Methods **Credits: 3**  
or  
MATH 343 - Introduction to Numerical Methods **Credits: 3**

COSC 216 - Introduction to Cyber Security **Credits: 3**  
COSC 220 - Enterprise Computing **Credits: 3**  
COSC 345 - Computer Networks **Credits: 3**  
COSC 355 - Computer Graphics **Credits: 3**  
COSC 356 - Network Security **Credits: 3**  
COSC 362 - Unix Systems **Credits: 3**  
IFMG 455 - Business Data Mining **Credits: 3**

## Upper-Level Electives:

3cr from the following: (5, 6)

COSC 405 - Artificial Intelligence **Credits: 3**  
COSC 410 - Computer Architecture **Credits: 3**  
COSC 420 - Modern Programming Languages **Credits: 3**  
COSC 424 - Compiler Construction **Credits: 3**  
COSC 430 - Introduction to Systems Programming **Credits: 3**  
COSC 460 - Theory of Computation **Credits: 3**  
COSC 465 - Web Services **Credits: 3**  
COSC 493 - Internship in Computer Science **Credits: 3-12 (2)**

## Other Requirements: 3

## Additional Mathematics:

MATH 309 - Discrete Mathematics **Credits: 3**

## Minor: 9-20

Complete a minor from one of the following areas:

Cyber Security **Credits: 12-18**  
Any department in the Kopchick College of Natural Sciences and Mathematics (6) **Credits: 9-20**  
Business **Credits: 18**  
Economics **Credits: 12-15**

Communications Media **Credits:** 18  
Geography or Regional Planning **Credits:** 15-18  
Other minors or concentrations approved by the department chair

## Free Electives: 8-20

## Total Degree Requirements: 120

(1) MATH 125 can be substituted by MATH 121.

(2) Students with 6 or more credits in COSC 493 may petition the department to substitute COSC 493 for COSC 473. This petition must be completed prior to commencement of the internship to ensure approval of the substitution. Note: If a 6cr COSC 493 is taken and not substituted for COSC 473, 3cr are applied toward COSC Upper-level Electives. If a 12cr COSC 493 is taken and substituted for COSC 473, 3cr are applied toward the Required Courses and 3cr toward COSC Upper-level Electives.

(3) Upper-level electives may be counted as controlled electives. 3cr of Intermediate Level foreign language may be applied toward controlled electives.

(4) COSC 216 cannot be counted for major credit if a student does a Cyber Security minor.

(5) Controlled and upper level electives may not be applied toward more than one track in computer science.

(6) No more than 6credits of overlap can be used for computer science majors and cyber security minor

## Criminology, BA

Program Code: CRIM-HH

## Liberal Studies: 46-47

As outlined in the Liberal Studies Requirements with the following specifications:

### Mathematics:

MATH 217 - Probability and Statistics **Credits:** 3

### Natural Science:

Recommended:

SCI 107 - Chemistry for Everyone **Credits:** 3

SCI 117 - Chemistry for Everyone Laboratory **Credits:** 1

CHEM 105 - The Forensic Chemistry of CSI **Credits:** 3

or

BIOL 106 - Human Genetics and Health **Credits:** 3

BIOL 116 - Human Genetics and Health Laboratory **Credits:** 1

and

BIOL 107 - Introduction to Forensic Biology **Credits:** 3

## Social Science:

CRIM 101 - Crime and Justice Systems **Credits: 3**

## Liberal Studies Electives: 6

No courses with CRIM prefix

## Major: 33

### Required Courses:

CRIM 102 - Survey of Criminology **Credits: 3**

CRIM 306 - Criminological Research Methods **Credits: 3**

CRIM 400 - Theoretical Criminology **Credits: 3**

CRIM 401 - Contemporary Issues in Criminology **Credits: 3**

CRIM 403 - Dilemmas in Criminology and Criminal Justice **Credits: 3**

### Controlled Electives:

Two courses from each group:

#### Group A: The Criminal Justice System: 6

CRIM 205 - Policing and the Community **Credits: 3**

CRIM 210 - Criminal Law **Credits: 3**

CRIM 215 - Survey of Courts and the Criminal Justice System **Credits: 3**

CRIM 225 - Survey of Corrections **Credits: 3**

CRIM 235 - Survey of Juvenile Justice and Juvenile Law **Credits: 3**

CRIM 255 - Law, Social Control, and Society **Credits: 3**

#### Group B: Critical Issues in Criminology 6

CRIM 344 - Terrorism **Credits: 3**

CRIM 354 - White-Collar Crime **Credits: 3**

CRIM 374 - Environmental Crime and Justice **Credits: 3**

CRIM 384 - Violence and Victimology **Credits: 3**

CRIM 391 - Substance Use and Abuse in Criminal Justice **Credits: 3**

CRIM 394 - Crime and Delinquency Prevention **Credits: 3**

#### Group C: Diversity Issues in Criminology 6

CRIM 410 - Race, Ethnicity, Social Structure, and Crime **Credits: 3**

CRIM 420 - Media Portrayal of Crime **Credits: 3**

CRIM 450 - Women and Crime **Credits: 3**

CRIM 470 - Comparative Study of Justice **Credits: 3**

## Free Electives: 40-41

(1)

## Total Degree Requirements: 120

(1) Completion of a minor is strongly recommended.

## Criminology/Pre-law, BA

Program Code: CRIM-HH-PLAW

## Liberal Studies: 46-47

As outlined in the Liberal Studies Requirements with the following specifications:

### Mathematics:

MATH 217 - Probability and Statistics **Credits: 3**

### Natural Science:

recommended:

CHEM 111 - General Chemistry I **Credits: 4**

CHEM 112 - General Chemistry II **Credits: 4**

or

BIOL 103 - Life on Earth **Credits: 4**

BIOL 104 - Human Biology: How the Human Body Works **Credits: 4**

### Social Science:

CRIM 101 - Crime and Justice Systems **Credits: 3**

## Liberal Studies Electives: 6

No courses with CRIM prefix

## Major: 33

### Required Courses:

CRIM 102 - Survey of Criminology **Credits: 3**

CRIM 306 - Criminological Research Methods **Credits: 3**

CRIM 400 - Theoretical Criminology **Credits: 3**

CRIM 401 - Contemporary Issues in Criminology **Credits: 3**

CRIM 403 - Dilemmas in Criminology and Criminal Justice **Credits: 3**

## Controlled Electives:

Two courses from each group:

### Group A: The Criminal Justice System: 6

CRIM 205 - Policing and the Community **Credits: 3**

CRIM 210 - Criminal Law **Credits: 3**

CRIM 215 - Survey of Courts and the Criminal Justice System **Credits: 3**

CRIM 225 - Survey of Corrections **Credits: 3**

CRIM 235 - Survey of Juvenile Justice and Juvenile Law **Credits: 3**

CRIM 255 - Law, Social Control, and Society **Credits: 3**

### Group B: Critical Issues in Criminology 6

CRIM 344 - Terrorism **Credits: 3**

CRIM 354 - White-Collar Crime **Credits: 3**

CRIM 374 - Environmental Crime and Justice **Credits: 3**

CRIM 384 - Violence and Victimology **Credits: 3**

CRIM 391 - Substance Use and Abuse in Criminal Justice **Credits: 3**

CRIM 394 - Crime and Delinquency Prevention **Credits: 3**

### Group C: Diversity Issues in Criminology 6

CRIM 410 - Race, Ethnicity, Social Structure, and Crime **Credits: 3**

CRIM 420 - Media Portrayal of Crime **Credits: 3**

CRIM 450 - Women and Crime **Credits: 3**

CRIM 470 - Comparative Study of Justice **Credits: 3**

## Other Requirements: Pre-law Interdisciplinary Track: 15-21

Seven courses, including at least one from each of six areas:

### Business:

ACCT 201 - Accounting Principles I **Credits: 3**

ACCT 202 - Accounting Principles II **Credits: 3**

BLAW 235 - Legal Environment of Business **Credits: 3**

### Economics:

ECON 121 - Principles of Macroeconomics **Credits: 3**

ECON 122 - Principles of Microeconomics **Credits: 3**

## English:

- ENGL 212 - American Literature: Beginnings to 1900 **Credits: 3**
- ENGL 227 - Introduction to Legal Writing **Credits: 3**
- ENGL 265 - Law and Literature **Credits: 3**
- ENGL 310 - Public Speaking **Credits: 3**
- ENGL 321 - Persuasive Speech and Writing **Credits: 3**

## History:

- HIST 320 - History of England to 1688 **Credits: 3**
- HIST 342 - The Early Republic **Credits: 3**
- HIST 346 - Recent United States History **Credits: 3**
- HIST 475 - History of American Constitutionalism **Credits: 3**

## Philosophy:

- PHIL 101 - Critical Thinking **Credits: 3**
- PHIL 122 - Contemporary Moral Issues **Credits: 3**
- PHIL 130 - Introduction to Biomedical Ethics **Credits: 3**
- PHIL 221 - Symbolic Logic I **Credits: 3**
- PHIL 270 - Ethics and the Environment **Credits: 3**
- PHIL 320 - Ethical Theory **Credits: 3**
- PHIL 450 - Philosophy of Law **Credits: 3**

## Political Science:

- PLSC 358 - Judicial Process **Credits: 3**
- PLSC 359 - Constitutional Law and Civil Liberties **Credits: 3**
- PLSC 361 - Modern Political Thought **Credits: 3**
- PLSC 405 - Sexuality and Law **Credits: 3**

## Free Electives: 19-26

## Total Degree Requirements: 120

## Early Childhood Education, BSED

Program code: ECED

This program is designed to assist undergraduate students in becoming highly competent and effective teachers of children in prekindergarten through grade 4. This program prepares students to become professional educators who are well-qualified to utilize appropriate techniques and strategies to expand children's cognitive, language, social, emotional, and physical development.

See requirements leading to teacher certification, titled "3-Step Process for Teacher Education," in the College of Education and Communications section of this catalog.

## Liberal Studies: 41-43

As outlined in the Liberal Studies Requirements with the following specifications:

### Learning Skills: 6 (1)

### Humanities:

HIST 196 - Explorations in US History **Credits: 3**

### Mathematics:

MATH 151 - Elements of Mathematics I **Credits: 3**

### Natural Science:

SCI 104 - Fundamentals of Environmental Biology **Credits: 4**

One of three required:

SCI 101 - Fundamentals of Physics **Credits: 3**

SCI 102 - Fundamentals of Chemistry **Credits: 3**

SCI 103 - Fundamentals of Earth and Space Science **Credits: 3**

### Social Science:

GEOG 104 - World Geography: Global Context **Credits: 3**

PSYC 101 - General Psychology **Credits: 3**

### Liberal Studies Electives: 3

MATH 152 - Elements of Mathematics II **Credits: 3**

## College: 24

### Preprofessional Education Sequence:

ETIT 103 - Digital Instructional Technology **Credits: 3**

EDSP 102 - Educational Psychology **Credits: 3**

### Professional Education Sequence:

EDSP 477 - Assessment of Student Learning: Design and Interpretation of Educational Measures **Credits: 3**

EDUC 242 - Pre-student Teaching Clinical Experience I **Credits: 1**



EDUC 342 - Pre-student Teaching Clinical Experience II **Credits: 1**  
EDUC 441 - Student Teaching **Credits: 5-12**  
EDUC 442 - School Law **Credits: 1**

## Major Required Courses: 50 (2)

HDFS 310 - Child Observation and Assessment **Credits: 3 (3)**  
ECED 112 - Childhood Development Birth–Age 5 **Credits: 3**  
ECED 117 - Family, Community, and School Relationships in a Diverse Society **Credits: 3**  
ECED 200 - Introduction to Early Childhood Education **Credits: 3**  
ECED 215 - The Developing Child: K-4th Grade **Credits: 3**  
ECED 250 - Language Development **Credits: 3**  
ECED 280 - Maximizing Learning: Engaging All Learners **Credits: 3**  
ECED 310 - Science, Health, and Safety for All PreK to Grade 4 Learners **Credits: 3**  
ECED 314 - Creative Experiences and Play for All PreK to Grade 4 Learners **Credits: 3**  
ECED 351 - Literacy for the Emergent Reader: PreK to Grade 1 Learners **Credits: 3**  
ECED 411 - Social Studies for All PreK to Grade 4 Learners **Credits: 3**  
ECED 425 - Methods of Teaching and Assessing Language Arts: Pre-K to Grade 4 Learners **Credits: 3**  
ECED 451 - Literacy for the Developing Reader: Grades 2-4 Learners **Credits: 3**  
EDEX 111 - Introduction to Exceptional Persons **Credits: 3**  
EDEX 323 - Instruction of English Language Learners with Special Needs **Credits: 2**  
MATH 330 - Teaching Mathematics in the Elementary School **Credits: 3**

## Free Electives: 3-5

## Total Degree Requirements: 120

- (1) ENGL 202 Composition II requirements are fulfilled by the department's Writing Plan.
- (2) A 3.0 cumulative GPA is required to apply for teacher certification, register for major courses, and student teach.
- (3) Students must have a grade of "C" or better in PSYC 101 and HDFS 218 or a grade of "C" or better in PSYC 101 and ECED 112 to register for this course.

## Early Childhood Education/Special Education, BSED

Program Code: ECSP

This Early Childhood Education/Special Education (ECSP) program is designed to assist students in becoming highly qualified, competent, and effective teachers of all learners. The program has an emphasis on best practices in both early childhood education (preK to grade 4) and special education (preK to grade 12). Students in this program will meet the academic requirements for Pennsylvania certification in preK to grade 4, as well as special education preK to grade 12.

This program, combining course work in both early childhood education and special education with extensive field experiences, prepares students to be professional educators who are well qualified to utilize appropriate techniques and strategies to expand all children's cognitive, social, emotional, and physical development. Field experiences will take place in a variety of settings encompassing diverse learning needs as well as learners in birth to grade 3 classrooms, preschool classrooms, K-1 classrooms, and classrooms in grades 2-4 and special education experiences preK to grade 12.

Admission to this program requires entering students to meet the guidelines for admission to the College of Education and Communications. Additionally, students must achieve a 3.0 GPA to apply for Step 1 of the Teacher Education process to enroll

in major courses, to student teach, and to be recommended for certification. Students must meet the requirements leading to teacher certification as outlined in this catalog.

## Liberal Studies: 40

As outlined in the Liberal Studies Requirements with the following specifications:

### Learning Skills: 6 (1)

### Humanities:

HIST 196 - Explorations in US History **Credits: 3**

### Mathematics:

MATH 151 - Elements of Mathematics I **Credits: 3**

### Natural Science:

SCI 104 - Fundamentals of Environmental Biology **Credits: 4**

One of three required:

SCI 101 - Fundamentals of Physics **Credits: 3**

SCI 102 - Fundamentals of Chemistry **Credits: 3**

SCI 103 - Fundamentals of Earth and Space Science **Credits: 3**

### Social Science:

GEOG 104 - World Geography: Global Context **Credits: 3**

PSYC 101 - General Psychology **Credits: 3**

### Liberal Studies Elective: 3

MATH 152 - Elements of Mathematics II **Credits: 3**

## College: 25

### Preprofessional Education Sequence:

EDEX 103 - Special Education Technology **Credits: 3**

EDSP 102 - Educational Psychology **Credits: 3**

### Professional Education Sequence:

EDSP 477 - Assessment of Student Learning: Design and Interpretation of Educational Measures **Credits: 3**

EDUC 242 - Pre-student Teaching Clinical Experience I **Credits: 1**

EDUC 342 - Pre-student Teaching Clinical Experience II **Credits: 1** (ECED)

EDUC 342 - Pre-student Teaching Clinical Experience II **Credits: 1** (EDEX)

EDUC 442 - School Law **Credits: 1**

EDUC 461 - Student Teaching **Credits: 6**

EDUC 471 - Student Teaching **Credits: 6**

## Major Required Courses: 61 (2)

ECED 117 - Family, Community, and School Relationships in a Diverse Society **Credits: 3**

ECED 200 - Introduction to Early Childhood Education **Credits: 3**

ECED 250 - Language Development **Credits: 3**

ECED 280 - Maximizing Learning: Engaging All Learners **Credits: 3**

ECED 310 - Science, Health, and Safety for All PreK to Grade 4 Learners **Credits: 3**

ECED 351 - Literacy for the Emergent Reader: PreK to Grade 1 Learners **Credits: 3**

ECED 411 - Social Studies for All PreK to Grade 4 Learners **Credits: 3**

ECED 451 - Literacy for the Developing Reader: Grades 2-4 Learners **Credits: 3**

ECED 314 - Creative Experiences and Play for All PreK to Grade 4 Learners **Credits: 3**

EDEX 111 - Introduction to Exceptional Persons **Credits: 3**

EDEX 114 - Atypical Development in Infants, Children, and Adolescents **Credits: 3**

EDEX 223 - Reading Methods and Strategies for Students with Disabilities **Credits: 3**

EDEX 323 - Instruction of English Language Learners with Special Needs **Credits: 2**

EDEX 340 - Introduction to Behavior Management in Special Education **Credits: 3**

EDEX 369 - Education of Persons with Emotional/Behavioral Disorders, Learning Disabilities or Brain Injury  
**Credits: 3**

EDEX 378 - Education of Persons with Intellectual/Developmental Disabilities and Physical/Multiple Disabilities  
**Credits: 3**

EDEX 424 - Strategic Assessment and Instruction in Expository Texts **Credits: 3**

EDEX 435 - Methods and Curriculum—Severe Cognitive Disabilities **Credits: 3**

EDEX 458 - Transition Assessment and Planning for Youth with Disabilities **Credits: 3**

MATH 330 - Teaching Mathematics in the Elementary School **Credits: 3**

MATH 335 - Teaching Mathematics in Special Education **Credits: 2**

## Total Degree Requirements: 126

(1) ENGL 202 Composition II requirements are fulfilled by the department's Writing Plan.

(2) A 3.0 cumulative GPA is required to register in the Teacher Certification Sequence courses.

(\*) See requirements leading to teacher certification, titled "3-Step Process for Teacher Education," in the College of Education and Communications section of this catalog.

## Economics, BA

Program Code: ECONBU

Economics provides a background and educational base that open a broad range of professional, educational, and vocational opportunities. A bachelor of arts degree program in economics provides a liberal arts education, as well as professional and technical training. Indeed, many students completing an undergraduate major in economics do not pursue careers as professional economists; they enter such fields as law, management, finance, and labor relations. By helping to develop a

student's ability to think and communicate, economics provides a firm foundation upon which the student can build any one of a large number of possible careers.

The bachelor of arts program in economics prepares students for immediate employment or graduate school in economics, business, policy analysis, and law. Students interested in law are encouraged to complete the Pre-law Interdisciplinary Minor

Either ECON 101 or ECON 121 counts as a Liberal Studies social science course. However, ECON 101 is intended for students who will take only one course in the field. Students who anticipate taking more than one economics course should schedule ECON 121. ECON 101 will not count toward either a major or minor in economics and may not be taken after the successful completion of, or in concurrent registrations with, any other economics course.

Economics majors are encouraged to minor in one of the other business fields, social sciences, mathematics, or applied statistics.

## Liberal Studies: 47-48

As outlined in the Liberal Studies Requirements with the following specifications:

### Mathematics:

(1)

MATH 107 - Business Mathematics **Credits: 3**

and

MATH 108 - Applications of Business Mathematics **Credits: 1**

### Social Science:

ECON 121 - Principles of Macroeconomics **Credits: 3**

## Liberal Studies Electives: 6

No courses with ECON prefix

## Major: 30

### Required Courses:

ECON 122 - Principles of Microeconomics **Credits: 3**

ECON 355 - Statistics for Economists **Credits: 3 (2)**

ECON 421 - Macroeconomic Analysis **Credits: 3**

ECON 434 - Managerial Economics **Credits: 3**

## Controlled Electives: 18

Six other ECON 200-499 courses (3,4,5,6)

## Free Electives: 45-46

## Total Degree Requirements: 120

- (1) MATH 121 or MATH 125 may be substituted for MATH 107/MATH 108.
- (2) MATH 214, MATH 216, MATH 217, or MATH 363 may be substituted for ECON 355.
- (3) No more than 6cr of internship credit may be applied toward major.
- (4) No more than two ECON controlled electives may be 200- level courses.
- (5) FIN 310 is accepted as an ECON controlled elective.
- (6) FIN 410 may be substituted for ECON 325 .

## English Studies, BA

Program Codes: ENGS-BA or ENGS+SENG (English, BA w/Secondary English Education Certificate)

The English Studies BA focuses on developing students' advanced skills in writing and reading as well as teaching creative and critical thinking skills. English majors study a wide variety of subjects ranging from literary theory to practical pedagogy in an atmosphere that encourages and fosters a high degree of professional competence and commitment. English Studies majors choose one of three specializations or Secondary English Education Certificate.

**Literature & Culture Specialization:** The Literature & Culture Specialization enables students to design a course of study in the history, meaning, function, and aesthetics of texts of all kinds. A student who completes this specialization will be able to identify the unique aesthetic, formal, material, and symbolic qualities of literary and other texts

**New Media Literacy Specialization:** The New Media Literacy Specialization allows students to design a course of study with a particular focus on the study of interactive digital writing, media, and film. A student who completes this specialization will be able to identify the unique aesthetic, formal, material, and symbolic qualities of new media and digital texts.

**Writing Studies Specialization:** The Writing Studies Specialization enables students to design a course of study in the theory and practice of writing in a variety of genres. A student who completes this specialization will be able to demonstrate skills in the analysis, writing, and presentation of texts.

**Secondary English Education Certificate:** The Secondary English Education Certificate is designed for students interested in earning Pennsylvania state certification to teach English Language Arts for 7th-12th grades. A student who completes this certificate will gain a broad and solid foundation in English Studies, including pedagogy, literature, language, composition, and literacy.

## Liberal Studies: 46

### Humanities-Literature:

ENGL 122 - Introduction to English Studies **Credits:** 3

## Social Science:

One course should also fulfill GMA requirement.

PSYC 101 - General Psychology **Credits: 3 (1)**

## Liberal Studies Electives: 6

No courses with ENGL prefix. Foreign Language 6-8 (2, 3)

EDSP 102 - Educational Psychology **Credits: 3 (1)**

MATH 217 - Probability and Statistics **Credits: 3 (1)**

## Major: 36

## English Core Courses: 21-24

## Literary Studies--American: 3

One course (3 cr) from the following.

ENGL 212 - American Literature: Beginnings to 1900 **Credits: 3**

ENGL 213 - British and American Literature Since 1900 **Credits: 3**

ENGL 344 - Ethnic American Literature **Credits: 3**

ENGL 348 - African American Literature **Credits: 3**

ENGL 436 - Major American Authors **Credits: 3**

## Literary Studies--British: 3

One course (3 cr) from the following.

ENGL 210 - British Literature to 1660 **Credits: 3**

ENGL 211 - British Literature to 1660-1900 **Credits: 3**

ENGL 213 - British and American Literature Since 1900 **Credits: 3**

ENGL 434 - Shakespeare **Credits: 3 (1, 4)**

## Literary Studies--Global: 3

One course (3 cr) from the following.

ENGL 226 - Survey of Global Literature Since 1900 **Credits: 3**

ENGL 337 - Myth **Credits: 3**

ENGL 396 - Postcolonial Literature **Credits: 3**

ENGL 398 - Global Genres **Credits: 3**

## Genres and Theories: 3

One course (3 cr) from the following.

- ENGL 225 - Introduction to Literature by Women **Credits: 3**
- ENGL 265 - Law and Literature **Credits: 3**
- ENGL 308 - Critical Theory **Credits: 3**
- ENGL 335 - Literary Nonfiction **Credits: 3**
- ENGL 337 - Myth **Credits: 3**
- ENGL 341 - Poetry **Credits: 3**
- ENGL 342 - Short Fiction **Credits: 3**
- ENGL 350 - LGBTQ Literature, Theory, and Film **Credits: 3**
- ENGL 361 - Environmental Literature **Credits: 3**
- ENGL 418 - Young Adult Literature **Credits: 3 (1)**
- ENGL 466 - Topics in Theory **Credits: 3**

## Writing: 3

One course (3 cr) from the following.

- ENGL 220 - Advanced Composition **Credits: 3**
- ENGL 222 - Technical Writing **Credits: 3**
- ENGL 221 - Creative Writing **Credits: 3**
- ENGL 227 - Introduction to Legal Writing **Credits: 3**
- ENGL 325 - Writing Poetry **Credits: 3**
- ENGL 326 - Writing Fiction **Credits: 3**
- ENGL 327 - Writing Creative Nonfiction **Credits: 3**
- ENGL 347 - Playwriting **Credits: 3**
- ENGL 360 - Editing and Publishing **Credits: 3**
- ENGL 420 - Writers' Studio **Credits: 3**
- ENGL 421 - Digital Writing **Credits: 3**

## Pedagogy and Language: 3

One course (3 cr) from the following.

- ENGL 310 - Public Speaking **Credits: 3 (1, 5)**
- ENGL 313 - Rhetorical Trends and Traditions **Credits: 3**
- ENGL 314 - Speech and Communication in the Secondary English Classroom **Credits: 3 (1, 5)**
- ENGL 323 - Teaching Literature and Reading in the Secondary School **Credits: 3 (1)**
- ENGL 324 - Teaching and Evaluating Writing **Credits: 3**
- ENGL 336 - Language, Gender, and Society **Credits: 3**
- ENGL 415 - English Language Study for Teachers **Credits: 3**
- ENGL 418 - Young Adult Literature **Credits: 3 (6)**
- ENGL 424 - Second Language Acquisition **Credits: 3**
- ENGL 426 - ESL Methods and Materials **Credits: 3 (1, 6)**
- ENGL 442 - Cross Cultural Communication **Credits: 3**

## New Media Literacy: 3

One course (3 cr) from the following.

- ENGL 208 - Introduction to Film Studies **Credits: 3**
- ENGL 256 - Videogames and Digital Literature **Credits: 3**

ENGL 350 - LGBTQ Literature, Theory, and Film **Credits: 3**

ENGL 421 - Digital Writing **Credits: 3 (7)**

ENGL 450 - Film Theory **Credits: 3**

ENGL 460 - Topics in Film **Credits: 3**

## English Capstone Course: 3

ENGL 484 - Topics in English Studies **Credits: 3 (8)**

## English Specialization: 12-15

Complete one specialization or the Secondary English Education Certificate.

### Literature and Culture Specialization: 12

Literary Studies-- American , British, global, or Genres and Theories categories. **Credits: 9**

Any English Core category: **Credits: 3**

- OR -

ENGL 493 - Internship **Credits: 3-12**

### New Media Literacy Specialization: 12

New Media Literacy category. **Credits: 6**

Any English Core category. **Credits: 3**

- OR -

ENGL 493 - Internship **Credits: 3-12**

### Writing Studies Specialization: 12

#### **Writing Courses: 6**

ENGL 220 - Advanced Composition **Credits: 3**

ENGL 221 - Creative Writing **Credits: 3**

ENGL 222 - Technical Writing **Credits: 3**

ENGL 227 - Introduction to Legal Writing **Credits: 3**

ENGL 325 - Writing Poetry **Credits: 3**

ENGL 326 - Writing Fiction **Credits: 3**

ENGL 327 - Writing Creative Nonfiction **Credits: 3**

ENGL 347 - Playwriting **Credits: 3**

#### **Professional Courses: 6**

ENGL 360 - Editing and Publishing **Credits: 3**

ENGL 420 - Writers' Studio **Credits: 3**

ENGL 421 - Digital Writing **Credits: 3**

ENGL 493 - Internship **Credits: 3-12**

## Secondary English Education Certificate: 15

Please refer to the Secondary English Education Certificate for additional Professional Sequence requirements.

Literary Studies--American, British, Global, or Genres and Theories categories. **Credits: 3**



ENGL 323 - Teaching Literature and Reading in the Secondary School **Credits: 3**

ENGL 324 - Teaching and Evaluating Writing **Credits: 3**

ENGL 415 - English Language Study for Teachers **Credits: 3**

ENGL 434 - Shakespeare **Credits: 3**

## Free Electives: 2-23 (10)

## Total Requirements: 120 Credits

- (1) Required for Secondary English Education Certificate.
- (2) Students are required to take any 2 courses of CHIN, CRLG, FRNC, GRMN, JAPN, KORE, SPAN, and/or EDHL 115 and EDHL 215.
- (3) Secondary English Education Certificate students will take foreign language as part of their free electives.
- (4) Not permitted for Secondary English Education Certificate for Literary Studies British.
- (5) ENGL 310 OR ENGL 314.
- (6) Not permitted for Secondary English Education Certificate for Language and Pedagogy category.
- (7) Not permitted for Secondary English Education Certificate for New Media category.
- (8) Capstone outcomes for Secondary English Education Certificate students will be met in the Professional Sequence.
- (9) Free electives will be used towards the Professional Sequence for Secondary English Education Certificate students.
- (10) For the Secondary English Education Certificate, see requirements leading to teacher certification titled Three Step Process for Teacher Education in the College of Education and Communications section of this catalog.

## Environmental Engineering, BS

**Advisor:** Hau Tang

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

Program Code: ENVE

Environmental Engineering is a multi-disciplinary program that prepares students to work to minimize the impact of human development and technology on the natural world. Their interests include water purification, pollution control, public health, recycling, waste disposal, and sustainable design and manufacturing. Graduates trained in basic sciences and mathematics will use the principles of engineering, geosciences, chemistry, biology, and physics to develop solutions to environmental problems. This degree program combines a solid grounding in college-level basic sciences and mathematics with environmental engineering and technical courses.

Graduates of the BS program in Environmental Engineering will be qualified to enter the workforce immediately or to further their educations in master's or doctoral programs. The degree program will prepare students to apply mathematical and scientific principles to the design, development, and operational evaluation of systems for controlling contained living environments and for monitoring and controlling factors in the external natural environment, including pollution control, waste

and hazardous material disposal, health and safety protection, conservation, life support, and requirements for protection of special materials and related work environments.

Graduates of this program will possess the technical expertise required to maintain a healthy balance between societal welfare, economic growth, and the environment surrounding us, and will be in demand in the Pennsylvania workforce where the need for environmental engineers is projected to grow faster than other occupations.

## Liberal Studies: 44

As outlined in the Liberal Studies Requirements with the following specifications:

### Humanities:

PHIL 122 - Contemporary Moral Issues **Credits: 3**

### Mathematics:

MATH 125 - Calculus I/Physics, Chemistry, Mathematics **Credits: 3**

### Natural Science:

CHEM 111 - General Chemistry I **Credits: 4**

CHEM 112 - General Chemistry II **Credits: 4**

or

CHEM 113 - Advanced General Chemistry I **Credits: 4**

CHEM 114 - Advanced General Chemistry II **Credits: 4**

### Social Science:

ECON 101 - Basic Economics **Credits: 3**

RGPL 103 - Global Cities: Planning and Development **Credits: 3**

or

GEOG 104 - World Geography: Global Context **Credits: 3**

### Liberal Studies Electives: 3

MATH 126 - Calculus II/Physics, Chemistry, Mathematics **Credits: 3**

## Major: 58

### Required Courses:

BIOL 202 - Principles of Cell and Molecular Biology **Credits: 4**

GEOS 200 - Foundations of Geology **Credits: 4**

MATH 171 - Introduction to Linear Algebra **Credits: 3**

MATH 216 - Probability and Statistics for Natural Sciences **Credits: 3**

MATH 225 - Calculus III/Physics, Chemistry, Mathematics **Credits: 3**

MATH 341 - Differential Equations **Credits: 3**  
PHYS 131 - Physics I-C Lecture **Credits: 3**  
PHYS 132 - Physics II-C Lecture **Credits: 3**  
PHYS 141 - Physics I-C Lab **Credits: 1**  
PHYS 142 - Physics II-C Lab **Credits: 1**

## Environmental Engineering Core:

ECON 361 - Environmental Economics **Credits: 3**  
ENVE 101 - Introduction to Environmental Engineering **Credits: 3**  
ENVE 300 - Fluid Mechanics **Credits: 3**  
ENVE 211 - Statics and Solid Mechanics **Credits: 3**  
ENVE 301 - Environmental Aquatic Chemistry **Credits: 4**  
ENVE 461 - Water and Wastewater Treatment **Credits: 3**  
ENVE 471 - Solid and Hazardous Waste Management **Credits: 3**  
ENVE 498 - Environmental Engineering **Credits: 3**  
SAFE 435 - Ethics and Professionalism **Credits: 1**

## Free Electives: 18

### Recommended

BIOL 221 - Environmental Health and Protection **Credits: 4**  
BIOL 250 - Principles of Microbiology **Credits: 4**  
BIOL 323 - Introduction to Toxicology and Risk Assessment **Credits: 3**  
CHEM 231 - Organic Chemistry I **Credits: 4**  
CHEM 325 - Analytical Chemistry I **Credits: 4**  
CHEM 351 - Biochemistry **Credits: 4**  
COSC 110 - Problem Solving and Structured Programming **Credits: 3**  
GEOG 316 - Introduction to Geographic Information Systems **Credits: 3**  
GEOG 415 - Introduction to Remote Sensing **Credits: 3**  
GEOS 312 - Hydrogeology **Credits: 4**  
IFMG 110 - Business Spreadsheet Computing **Credits: 3**  
IFMG 250 - Business Systems Technology **Credits: 3**  
MATH 342 - Advanced Mathematics for Applications **Credits: 4**  
SAFE 310 - Environmental Safety and Health Regulations and Sustainability **Credits: 3**  
SAFE 361 - Air and Water Pollution **Credits: 2**  
Foreign language intermediate sequence **Credits: 6**

## Total Degree Requirements: 120

## Family and Consumer Sciences Education PK-12, BSED

Program Code: FCSEED

The K-12 Family and Consumer Sciences Education program prepares students for the teaching of family and consumer sciences-related subjects in the public schools. Course work is required in all areas of family and consumer services, including child development and family relations, consumer economics, clothing, foods, and interior design. Professional education courses also are required.

See requirements leading to teacher certification, titled "3-Step Process for Teacher Education," in the College of Education and Communications section of this catalog.

## Liberal Studies: 46-47

As outlined in the Liberal Studies Requirements with the following specifications:

### Mathematics:

MATH 151 - Elements of Mathematics I **Credits: 3**  
or  
MATH 101 - Foundations of Mathematics **Credits: 3**

### Natural Science:

BIOL 104 - Human Biology: How the Human Body Works **Credits: 4**  
BIOL 106 - Human Genetics and Health **Credits: 3**  
or  
CHEM 101 - College Chemistry I **Credits: 4**  
CHEM 102 - College Chemistry II **Credits: 4**  
or  
CHEM 111 - General Chemistry I **Credits: 4**  
CHEM 112 - General Chemistry II **Credits: 4**

### Social Science:

PSYC 101 - General Psychology **Credits: 3**  
SOC 151 - Principles of Sociology **Credits: 3**  
or  
SOC 161 - Foundations of Sociology: Social Relations in Groups and Organizations **Credits: 3**  
  
ANTH 110 - Contemporary Anthropology **Credits: 3**  
or  
Any global or multicultural social science

## Liberal Studies Electives: 6

HDFS 218 - Child Development **Credits: 3**  
MATH 152 - Elements of Mathematics II **Credits: 3**  
or  
MATH 217 - Probability and Statistics **Credits: 3**  
No courses with FCSE prefix

## College: 34

### Preprofessional Education Sequence:

EDSP 102 - Educational Psychology **Credits: 3**

ETIT 103 - Digital Instructional Technology **Credits: 3**

## Professional Education Sequence:

EDEX 301 - Education of Students with Disabilities in Inclusive Secondary Settings **Credits: 2**

EDEX 323 - Instruction of English Language Learners with Special Needs **Credits: 2**

EDSP 477 - Assessment of Student Learning: Design and Interpretation of Educational Measures **Credits: 3**

EDUC 242 - Pre-student Teaching Clinical Experience I **Credits: 1**

EDUC 342 - Pre-student Teaching Clinical Experience II **Credits: 1**

EDUC 441 - Student Teaching **Credits: 5-12**

EDUC 442 - School Law **Credits: 1**

FCSE 450 - Teaching Vocational and Family Consumer Science Education **Credits: 3**

or

VOED 103 - Strategies for Teaching Career and Technical Education **Credits: 3**

HDFS 350 - Teaching Family Life Education **Credits: 3**

or

ECED 280 - Maximizing Learning: Engaging All Learners **Credits: 3**

**Major: 28**

## Required Courses:

FDNT 150 - Foods **Credits: 3**

FDNT 151 - Foods Laboratory **Credits: 1**

FDNT 212 - Nutrition **Credits: 3**

FASH 112 - Fundamentals of Clothing Construction **Credits: 3**

FASH 215 - Textiles **Credits: 3**

HDFS 224 - Marriage and Family Relations **Credits: 3**

HDFS 321 - Preschool Education: Play and Developmentally Appropriate Practices **Credits: 3**

HDFS 330 - Consumer Economics and Family Finance **Credits: 3**

HDFS 429 - Teaching in Community Settings **Credits: 3**

INDS 105 - Introduction to Interior Design **Credits: 3**

**Free Electives: 11-12**

**Total Degree Requirements: 120 (1)**

(1) See advisory paragraph "Timely Completion of Degree Requirements" in the section on Requirements for Graduation.

## **Fashion Studies, BS**

Program Code: FASH

The Fashion Studies program emphasizes the multi-faceted nature of the apparel industry from pre- design to post-consumer and beyond. Students gain a holistic view of Fashion through required coursework then choose one or more of three Fashion Studies specializations (Merchandising, Design, or Styling and Promotion) based upon their interests, skills, and career goals. Communications, problem solving, group project organization, professional presentation, and analytical and critical thinking skills are incorporated into course content.

Students pursue a minor or track concentration in a complementary subject area of interest to fulfill graduation credit requirements. This could include, but not limited to, minors in Business Administration, Marketing, Economics, Theatre, Studio Art, Communications Media, Sustainability, Small Business Management track or an additional Fashion Studies track.

Graduates of this program are prepared for such positions as an assistant buyer, assistant designer, manufacturer's sales representative, merchandise manager, custom clothier, costume technician, production assistant, ready-to-wear quality control analyst, textile testing laboratory technician, trend forecaster, store manager, stylist, visual merchandiser, museum curator assistant, personal color consultant, fashion design entrepreneur, personalized shopping specialist, manufacturing manager, internet sales entrepreneur, and social media fashion consultant.

## Liberal Studies: 46-48

As outlined in the Liberal Studies Requirements with the following specifications:

### Mathematics:

MATH 217 - Probability and Statistics **Credits: 3**

### Social Science:

ECON 121 - Principles of Macroeconomics **Credits: 3**

PSYC 101 - General Psychology **Credits: 3**

FASH 125 - Cultural Studies of Dress and Appearance **Credits: 3**

or

ANTH 110 - Contemporary Anthropology **Credits: 3**

or

ANTH 211 - Cultural Anthropology **Credits: 3**

### Liberal Studies Electives: 6

COSC 101 - Computer Literacy **Credits: 3**

or

IFMG 101 - Computer Literacy **Credits: 3**

or

IFMG 110 - Business Spreadsheet Computing **Credits: 3**

ECON 122 - Principles of Microeconomics **Credits: 3**

## Major: 30

### Required Courses:

FASH 112 - Fundamentals of Clothing Construction **Credits: 3**

FASH 180 - Introduction to Fashion **Credits: 3**

FASH 195 - Computer Aided Design for Fashion Professionals **Credits: 3**

FASH 215 - Textiles **Credits: 3**

FASH 262 - Fashion Forecasting **Credits: 3**

FASH 280 - Introduction to Apparel Buying **Credits: 3**

FASH 357 - Global Fashion Sourcing and Trade **Credits: 3**

FASH 434 - Quality Analysis **Credits: 3**

FASH 456 - Historic Costume **Credits: 3**

FASH 480 - Fashion Portfolio **Credits: 3**

## Merchandising Specialization: 21

FASH 258 - Fashion Brand Merchandising **Credits: 3**

FASH 290 - Advanced Principles in Apparel Buying **Credits: 3**

FASH 359 - E-Commerce for Fashion **Credits: 3**

FASH 380 - Applications in Apparel Buying **Credits: 3**

9 Credits Controlled Electives

## Design Specialization: 21

FASH 212 - Advanced Clothing Construction **Credits: 3**

FASH 252 - Fashion Design and Styling **Credits: 3**

FASH 453 - Flat Pattern Design **Credits: 3**

FASH 455 - Draping **Credits: 3**

9 Credits Controlled Electives

## Styling and Promotion Specialization: 21

FASH 158 - Fashion Show Production **Credits: 3**

FASH 252 - Fashion Design and Styling **Credits: 3**

FASH 258 - Fashion Brand Merchandising **Credits: 3**

FASH 303 - Visual Merchandising **Credits: 3**

9 Credits Controlled Electives

## Controlled Elective Options:

FASH 158 - Fashion Show Production **Credits: 3**

FASH 212 - Advanced Clothing Construction **Credits: 3**

FASH 252 - Fashion Design and Styling **Credits: 3**

FASH 258 - Fashion Brand Merchandising **Credits: 3**

FASH 281 - Special Topics **Credits: 1-3**

FASH 290 - Advanced Principles in Apparel Buying **Credits: 3**

FASH 303 - Visual Merchandising **Credits: 3**

FASH 356 - Historic Textiles **Credits: 3**

FASH 359 - E-Commerce for Fashion **Credits: 3**

FASH 380 - Applications in Apparel Buying **Credits: 3**

FASH 433 - Study Tour **Credits: 6**

FASH 453 - Flat Pattern Design **Credits: 3**

FASH 454 - Tailoring **Credits: 3**

FASH 455 - Draping **Credits: 3**

FASH 481 - Special Topics **Credits: 1-3**

FASH 482 - Independent Study **Credits: 1-3**

FASH 493 - Internship **Credits: 1-12**

INDS 110 - Color and Light **Credits: 3**

ART 111 - Figure Drawing **Credits: 3**

ART 113 - 3D Design and Digital Fabrication **Credits: 3**

ART 216 - Jewelry and Metals **Credits: 3**

ART 448 - Brand Design Credits: 3  
THTR 122 - Costume Technology Credits: 3  
THTR 223 - Makeup for the Stage Credits: 3  
THTR 321 - Stage Lighting Design Credits: 3  
THTR 322 - Costume Design Credits: 3

## Free Electives: 21-23

(1)

## Total Degree Requirements: 120

(1) Students should use their Free Elective credits to expand their coursework in Fashion Studies or to earn a minor or concentration in a complementary subject area.

## Finance, BS

Program Code: FIN

The Finance program, leading to a degree of bachelor of science, is designed to educate students who are interested in pursuing one of the many career opportunities within the areas of corporate and personal financial management, banking, insurance, other financial institutions, and investments. The objective of the Finance program is to provide students with a broad base of knowledge, both theoretical and practical, as well as the analytical and technical skills necessary to build a successful career in an exciting and rapidly changing field.

**Corporate Finance Specialization** The corporate finance specialization provides a foundation in financial concepts, analytics, and decision-making skills essential for success in a wide variety of careers in financial management, banking, insurance, other financial institutions, and investments.

## Liberal Studies: 47-48

As outlined in the Liberal Studies Requirements with the following specifications:

### Mathematics:

MATH 107 - Business Mathematics Credits: 3  
MATH 108 - Applications of Business Mathematics Credits: 1

### Natural Science: Option II

See requirements for **Natural Science: Option II** of the Liberal Studies Requirements **Knowledge Area: Natural Science: One Option** in the *Graduation Requirements* section of this catalog.

### Social Science:

ECON 121 - Principles of Macroeconomics Credits: 3  
PSYC 101 - General Psychology Credits: 3



## Liberal Studies Electives: 6

ECON 122 - Principles of Microeconomics **Credits: 3**

MATH 214 - Probability and Statistics for Business Majors **Credits: 3 (1)**

## College: Business Administration Core: 36

### Required Courses:

ACCT 201 - Accounting Principles I **Credits: 3**

ACCT 202 - Accounting Principles II **Credits: 3**

BCOM 321 - Business and Interpersonal Communications **Credits: 3**

BLAW 235 - Legal Environment of Business **Credits: 3**

COSC 101 - Computer Literacy **Credits: 3**

or

IFMG 101 - Computer Literacy **Credits: 3**

or

IFMG 110 - Business Spreadsheet Computing **Credits: 3 (2)**

FIN 310 - Fundamentals of Finance **Credits: 3**

IFMG 300 - Information Systems: Theory and Practice **Credits: 3**

MGMT 310 - Principles of Management **Credits: 3**

MGMT 330 - Operations Management **Credits: 3**

MGMT 495 - Business Policy **Credits: 3**

MKTG 320 - Principles of Marketing **Credits: 3**

QBUS 215 - Business Statistics **Credits: 3**

## Finance Major: Corporate Finance Specialization: 24

### Required Courses: 18

FIN 320 - Corporate Finance **Credits: 3**

FIN 324 - Principles of Investments **Credits: 3**

FIN 360 - Insurance and Risk Management **Credits: 3**

FIN 422 - Seminar in Finance **Credits: 3**

-OR-

FIN 424 - International Financial Management **Credits: 3**

FIN 425 - Financial Derivatives **Credits: 3**

**Choose one other course or pair from the following: 3 (4)**

ECON 325 - Monetary Economics I **Credits: 3**

FIN 315 - Financial Analysis Using Electronic Spreadsheets **Credits: 3**

FIN 365 - Student Managed Investment Portfolio I—Valuation **Credits: 1.5 (3)**

-AND-

FIN 366 - Student Managed Investment Portfolio II—Performance **Credits: 1.5 (3)**

FIN 410 - Financial Institutions and Markets **Credits: 3**

## Controlled Electives: 6 (4)

### Two courses (6 credits) from the following:

ECON 325, FIN 315, 365, 366, 410, 422, and 424 may be used as controlled electives ONLY if NOT taken to meet a required course requirement.

- ACCT 305 - Intermediate Accounting II **Credits: 3**
- ACCT 421 - Federal Tax I **Credits: 3**
- BLAW 336 - Law of Business Organizations **Credits: 3**
- ECON 325 - Monetary Economics I **Credits: 3**
- ECON 345 - International Trade **Credits: 3**
- ECON 346 - International Finance **Credits: 3**
- ECON 356 - Introduction to Econometrics **Credits: 3**
- ECON 434 - Managerial Economics **Credits: 3**
- FIN 315 - Financial Analysis Using Electronic Spreadsheets **Credits: 3**
  
- FIN 365 - Student Managed Investment Portfolio I—Valuation **Credits: 1.5**  
and
- FIN 366 - Student Managed Investment Portfolio II—Performance **Credits: 1.5 (3)**
  
- FIN 410 - Financial Institutions and Markets **Credits: 3**
- FIN 422 - Seminar in Finance **Credits: 3**
- FIN 424 - International Financial Management **Credits: 3**
- FIN 481 - Special Topics **Credits: 3**
- FIN 493 - Finance Internship **Credits: 3-12**

## Free Electives: 12-13

## Total Degree Requirements: 120

- (1) MATH 214 or MATH 216 or MATH 217.
- (2) IFMG 110 cannot be used as a D/F repeat for COSC 101/IFMG 101.
- (3) If selected, students must take both FIN 365 and FIN 366.
- (4) A maximum of two non-FIN prefix courses can count toward the Finance major.

## General Studies, BA

Program code: GNSTUC-BA

The bachelor of arts degree program in general studies is designed for adult learners with prior college experience but who lack a four-year degree. Under faculty advisement, the student will develop an individualized plan of study that does not duplicate any existing IUP major. The student's plan of study must be based on a specific theme that incorporates basic, applied, and professional course work within a theoretical framework. At the time of application for degree candidacy or transfer from another institution, a faculty member will be assigned to assist with the plan of study before acceptance.

## Liberal Studies: 43

As outlined in the Liberal Studies Requirements with the following specifications:

## College Concentration ("Theme"): 30

Complete all requirements for a recognized minor or a concentration approved by an advisor, plus additional courses offered within the same academic college (1). No less than 15 of these credits should be 300-level or above.

## Special Interest Area ("Cognate Area"): 12

With approval of an advisor, the student will select additional courses that focus on a particular need, interest, or specialty that complements the college concentration.

## Free Electives: 35

## Total Degree Requirements: 120

A minimum of 42 credits of advanced course work is required for graduation in the program.

Individually planned themes may not duplicate any existing degree programs that are otherwise available at IUP, nor may they be used to circumvent specific requirements within an existing major.

(1) An advisor may provide pre-approval for course work outside of the college if it's closely related to the concentration. An example may be an HOSP course in an ECOB concentration or an IFMG course in a NSM college concentration.

## Geography and Geographic Information Science, BA

Program Code: GGISNM-BA

Geography has several traditions of study. Three of the most significant are the study of relationships between humans and environment (human-environment interaction), the study of places (their characteristics and structure), and the study of spatial organization (the way people use and organize space on earth, and the distribution of natural phenomena on the earth's surface). All three traditions focus on understanding distributions of human and natural phenomena at global, regional and local scales, by building knowledge regarding the phenomena under investigation (for examples, cities, watersheds, business/industry location, habitats, cultural patterns, transportation, land use, resource management, the built environment, and energy production and use) and applying relevant methods and technologies (including geographic information systems (GIS), small unmanned aerial systems (sUAS), remote sensing, global positioning systems (GPS) and geovisualization) to analyze them. The Geography program is organized into two specializations to allow students to build knowledge and skills to pursue their interests and gain employment: Environment and Geospatial Information Science & Technology.

### Environment Specialization

The Environment Specialization prepares students for careers in environmental fields or graduate study. Students who elect this specialization acquire knowledge of the physical and human processes that shape the environment, strategies/techniques for analyzing the environment, at the federal and state levels, mitigation strategies for environmental problems, and conceptual and technical aspects of geospatial techniques implemented in environmental analyses and applications. The knowledge and skills acquired in this specialization prepare students to analyze, manage, and understand land resources, water resources, and habitats using industry-standard methods and technology. Students mastering the environmental knowledge and spatial techniques in

this specialization will be well prepared to obtain employment as environmental analysts/ scientists, environmental compliance specialists, environmental managers, or environmental engineering specialists.

### **Geospatial Information Science and Technology Specialization**

The Geospatial Information Science and Technology Specialization provides preparation for employment as geographic information systems (GIS) analysts and specialists, remote-sensing specialists, geospatial techniques specialists (including GPS and sUAS), cartographers, and geospatial intelligence analysts. Students are exposed to core geospatial information science concepts (GISc) that underlie emerging and fast-changing geospatial hardware, software, and infrastructure in our society such as geographic information systems (GIS), global-positioning systems (GPS), remote sensing, small unmanned aerial systems (sUAS or drones), and mobile spatial technologies, as well as opportunities to apply these concepts. The curriculum for this specialization is referenced to competencies identified in the U.S. Department of Labor Geospatial Competency Model, as well as the University Consortium for Geographic Information Science (UCGIS) Geographic Information Science and Technology Body of Knowledge. Students completing the Geospatial Information Science and Technology Specialization will be well prepared to be employed in the rapidly-growing geospatial fields as GIS, remote sensing, and geointelligence professionals.

## **Liberal Studies: 43-44**

As outlined in the Liberal Studies Requirements with the following specifications:

### **Learning Skills: 6 (1)**

#### **Mathematics:**

MATH 217 - Probability and Statistics **Credits: 3** (recommended)

#### **Natural Science:**

Recommended:

GEOS 101 - The Dynamic Earth **Credits: 3**

GEOS 102 - The Dynamic Earth Lab **Credits: 1**

and

GEOS 103 - Oceans and Atmospheres **Credits: 3**

GEOS 104 - Oceans and Atmospheres Lab **Credits: 1**

### **Liberal Studies Electives: 6**

No courses with GEOG prefix

## **Major Required Courses: 41**

GEOG 213 - Cartography and Map Design **Credits: 3**

GEOG 230 - Human Geography **Credits: 3**

GEOG 232 - Urban Landscapes **Credits: 3**

GEOG 316 - Introduction to Geographic Information Systems **Credits: 3**

GEOG 341 - Climatology **Credits: 3**

GEOG 342 - Physiography **Credits: 3**

GEOG 498 - Research Seminar **Credits: 3**  
GEOS 470 - Research Planning **Credits: 2**  
RGPL 350 - Introduction to Community Planning **Credits: 3**

## Controlled Electives:

One course from:

GEOG 251 - Geography of Pennsylvania **Credits: 3**  
GEOG 255 - Geography of Africa **Credits: 3**  
GEOG 256 - Geography of East and Southeast Asia **Credits: 3**  
GEOG 257 - Geography of South and Southwest Asia **Credits: 3**

## Select one of the following Specializations:

### Environment Specialization:

Four courses from the following:

GEOG 222 - Geography of National Parks **Credits: 3**  
GEOG 343 - Fresh Water Resources **Credits: 3**  
GEOG 345 - Biogeography for Environmental Managers **Credits: 3**  
GEOG 415 - Introduction to Remote Sensing **Credits: 3**  
GEOG 425 - Global Positioning Systems (GPS) Concepts and Techniques **Credits: 3**  
GEOG 435 - Geography of Energy **Credits: 3**  
GEOG 440 - Conservation: Environmental Analysis **Credits: 3**  
GEOG 455 - Advanced Remote Sensing **Credits: 3**  
RGPL 426 - Environmental Land Use Planning **Credits: 3**

### Geospatial Information Science and Technology Specialization:

Four courses from the following:

GEOG 415 - Introduction to Remote Sensing **Credits: 3**  
GEOG 424 - Technical Issues in Geographic Information Systems **Credits: 3**  
GEOG 425 - Global Positioning Systems (GPS) Concepts and Techniques **Credits: 3**  
GEOG 427 - GeoDesign **Credits: 3**  
GEOG 455 - Advanced Remote Sensing **Credits: 3**  
GEOG 460 - Foundations of Unmanned Aerial Systems Science and Applications **Credits: 3**  
GEOG 475 - Spatial Analysis Techniques **Credits: 3**  
GEOG 485 - GIS Application Development **Credits: 3**

## Free Electives: 35-36

### Strongly recommended for all majors:

GEOG 493 - Internship **Credits: 3-12**

## Recommended for Environment Specialization:

BIOL 210 - Plant Biology **Credits: 3**

BIOL 362 - Ecology **Credits: 3**

GEOG 462 - Planning Policy, Implementation, and Administration **Credits: 3**

or

RGPL 462 - Planning Policy, Implementation, and Administration **Credits: 3**

GEOS 150 - Geology of National Parks **Credits: 3**

GEOS 155 - Geology of Climate Change **Credits: 3**

GEOS 156 - Geology of Natural Disasters **Credits: 3**

GEOS 200 - Foundations of Geology **Credits: 4**

## Total Degree Requirements: 120

(1) ENGL 202 - Composition II requirements are fulfilled by the department's Writing Plan.

## Geology, BS

Program Codes: GEOL; GEOL+SSCH (Geology, BS w/Secondary Science Education Certificate)

Geology is the broad science that encompasses all aspects of the Earth system. In addition to the solid Earth, this system includes the oceans and atmosphere, climate change, and most aspects of our immediate environment. Professional geologists are thus engaged in a wide range of activities, depending on their interests. Scientific questions addressed by geologists include the evolution of life, the origin of volcanic activity, the assessment of volcanic and earthquake hazards, the evolution of our planetary neighbors, climate change, mineral and energy resources, and the human impact on the environment. The Geoscience Department offers a BS degree that gives students the necessary foundation to pursue a wide variety of career goals. In addition, the department offers a Certificate in Secondary Science Education that can be added to the BS degree for students who are interested in teaching. The degrees and courses in the program emphasize hands-on learning, including outdoor instruction, student-oriented research, and professional experiential learning opportunities. In addition to on-campus instruction and class-related field trips, the department also offers several regional geology field workshops, which take place in Newfoundland, Colorado, Florida, and the American Southwest.

Students complete a set of core foundational geoscience coursework that provides a basis for understanding concepts used for a variety of subdisciplines including oceanography/marine geology, climate change, volcanology, paleontology, astronomy and geophysics. Working closely with academic advisors, students also select a series of coursework tailored specifically to meet individual career goals that include professional teaching certification, research and graduate studies, or working as professional geologists for energy resource companies, environmental consulting firms, or federal and state regulatory agencies.

### Secondary Science Education Teaching Certificate

Completion of the Certificate in Secondary Science Teaching in addition to the BS in Geology prepares students to become certified middle- and high-school teachers in Pennsylvania and other states. Earth and space science teachers in grades 7 to 12 teach subjects that require a broad and solid foundation in the geosciences and astronomy, as well as the cognate sciences and mathematics. Courses in the foundations of education and pedagogy complement the subject matter studies. Students create and present lessons, first in their courses and then in school classrooms, culminating in the student teaching experience in the final semester.

## Liberal Studies: 41-43

As outlined in the Liberal Studies Requirements with the following specifications: (1)

## Learning Skills: (2)

## Natural Science:

CHEM 111 - General Chemistry I **Credits: 4**

CHEM 112 - General Chemistry II **Credits: 4**

or

CHEM 113 - Advanced General Chemistry I **Credits: 4**

CHEM 114 - Advanced General Chemistry II **Credits: 4**

## Mathematics:

MATH 121 - Calculus I for Natural and Social Sciences **Credits: 4**

or

MATH 125 - Calculus I/Physics, Chemistry, Mathematics **Credits: 3**

## Liberal Studies Elective: 3-4

MATH 122 - Calculus II for Natural and Social Sciences **Credits: 4**

or

MATH 126 - Calculus II/Physics, Chemistry, Mathematics **Credits: 3 (1)**

## Major: 58

## Required Courses:

GEOS 200 - Foundations of Geology **Credits: 4**

GEOS 203 - Surficial Processes **Credits: 4**

GEOS 204 - Historical Geology **Credits: 4**

GEOS 301 - Mineralogy **Credits: 4**

GEOS 302 - Structural Geology **Credits: 4 (1)**

GEOS 470 - Research Planning **Credits: 2**

GEOS 475 - Data Interpretation **Credits: 2**

GEOS 480 - Senior Research **Credits: 2**

## Minimum of 4 credits of field courses from the following: (1)

GEOS 303 - Field Geology **Credits: 4**

GEOS 403

-AND-

GEOS 404

GEOS 405 - American Southwest Seminar **Credits: 1**  
and  
GEOS 406 - American Southwest Field Workshop **Credits: 3**  
GEOS 407 - Carbonate Geology Seminar **Credits: 1**  
-AND-  
GEOS 408 Credits: 3  
  
GEOS 490 Credits: 1-6

## Ancillary Sciences: 6

Select two courses from the following:

PHYS 111 - Physics I Lecture **Credits: 3**  
or  
PHYS 131 - Physics I-C Lecture **Credits: 3**  
PHYS 112 - Physics II Lecture **Credits: 3**  
or  
PHYS 132 - Physics II-C Lecture **Credits: 3**  
MATH 216 - Probability and Statistics for Natural Sciences **Credits: 3**  
or  
MATH 217 - Probability and Statistics **Credits: 3**

## Controlled Electives: 22

Select 22cr from the following: (1,4)

One 100-level GEOS course (5)  
Any 300-level GEOS course(s)  
Any 400-level GEOS course(s)

Students interested in pursuing a more generalized career in **Geology** or considering graduate school are encouraged to take three from the following: GEOS 323, GEOS 345, GEOS 352, GEOS 353, GEOS 355, GEOS 362, GEOS 481 (with departmental approval)

Students interested in **Environmental Geosciences** are encouraged to take three from the following: GEOS 310, GEOS 311, GEOS 312, GEOS 323, GEOS 352, GEOS 356, GEOS 481 (with departmental approval)

Students interested in careers in **Energy** are encouraged to take three from the following: GEOS 323, GEOS 324, GEOS 352, GEOS 353, GEOS 355, GEOS 481 (with departmental approval)

Students interested in becoming certified classroom teachers (**Earth and Space science grades 7-12**) are encouraged to take three from the following: GEOS 203(1), GEOS 341, GEOS 342, GEOS 353, GEOS 370, GEOS 371, BIOL 201

Foreign Language Intermediate Level

BIOL 201 - Principles of Ecology and Evolution **Credits: 4**  
BIOL 202 - Principles of Cell and Molecular Biology **Credits: 4**  
BIOL 221 - Environmental Health and Protection **Credits: 4**

CHEM 231 - Organic Chemistry I **Credits: 4**  
CHEM 325 - Analytical Chemistry I **Credits: 4**  
CHEM 332 - Organic Chemistry II **Credits: 4**  
CHEM 341 - Physical Chemistry I **Credits: 4**  
CHEM 426 - Advanced Analytical Chemistry **Credits: 3**

COSC 110 - Problem Solving and Structured Programming **Credits: 3**



COSC 210 - Object-Oriented and GUI Programming **Credits: 3**  
COSC 310 - Data Structures and Algorithms **Credits: 3**  
COSC 341 - Introduction to Database Management Systems **Credits: 3**  
COSC 362 - Unix Systems **Credits: 3**

ENVE 101 - Introduction to Environmental Engineering **Credits: 3**

GEOG 316 - Introduction to Geographic Information Systems **Credits: 3**  
GEOG 341 - Climatology **Credits: 3**  
GEOG 343 - Fresh Water Resources **Credits: 3**  
GEOG 415 - Introduction to Remote Sensing **Credits: 3**  
GEOG 435 - Geography of Energy **Credits: 3**

IFMG 390 - Database Theory and Practice **Credits: 3**

MATH 216 - Probability and Statistics for Natural Sciences **Credits: 3**

or

MATH 217 - Probability and Statistics **Credits: 3 (6)**

MATH 341 - Differential Equations **Credits: 3**

COSC 343 - Introduction to Numerical Methods **Credits: 3**

or

MATH 343 - Introduction to Numerical Methods **Credits: 3**

PHYS 121 - Physics I Lab **Credits: 1**

or

PHYS 141 - Physics I-C Lab **Credits: 1**

PHYS 122 - Physics II Lab **Credits: 1**

or

PHYS 142 - Physics II-C Lab **Credits: 1**

PHYS 342 - Thermal and Statistical Physics **Credits: 3**

## Free Electives: 19-21

## Total Degree Requirements: 120

(1) Students in Teacher Education use the above program, but with the following specifications:

- a) Liberal Studies social science: PSYC 101;
- b) EDSP 102 for Liberal Studies elective instead of MATH 122 or MATH 126;
- c) EDUC 451 instead of GEOS 302;
- d) EDUC 451 may be counted for 9cr of Controlled Electives;
- e) completion of Certificate in Secondary Science Education.

(2) ENGL 202 - Composition II requirements are fulfilled by the department's Writing Plan.

(3) Up to 4cr of a summer field camp, internship, field research study, or independent study, all of which must be approved by the department, may substitute for GEOS 303 or a Geoscience Field Workshop.

(4) No more than 12cr of Controlled Electives may be fulfilled by non-GEOS classes. Only one Geoscience Field Workshop (including prerequisite 1cr Seminar) may be applied toward controlled electives. Six credits of foreign language may count toward controlled electives provided intermediate level is successfully obtained.

(5) When taken before declaring the major or when specifically recommended during freshmen orientation/transfer advising for students who must take preparatory math courses before enrolling in GEOS 200.

(6) Cannot be counted as a controlled elective if MATH 216 is applied toward ancillary science requirements.

## **Health and Physical Education/Community Health Education (non-teacher certification), BSED**

Program Code: HPED-CMHE

This program of study focuses on health promotion and disease prevention through community educational services. This track prepares individuals to develop trainings and implement curriculum focused on better health and educational outcomes. Graduates of this program can seek employment with health and education agencies involved in community-based training and prevention related to HIV/STI/AIDS, obesity, dating violence and bullying, communicable diseases, tobacco, drugs and alcohol, sexual health and/or pregnancy prevention. Students can specialize in several emphasis areas, including Communications, Aging Populations, Nutrition, Lifetime Physical Activity, Human Service, Child Studies, and Women's and Gender Studies. Graduates will be eligible to sit for the NCHES's Certified Health Education Specialist (CHES) exam. This track does not lead to K-12 teacher certification. Requirements for the Community Health Education Track include the university's Liberal Studies requirements, the departmental core courses, and the Community Health Education required courses. Students must also maintain a cumulative GPA of 2.7 and a "C" or better in all of the required core courses within this track.

### **Liberal Studies: 43**

As outlined in Liberal Studies Requirements section with the following specifications:

#### **Mathematics:**

MATH 101 - Foundations of Mathematics **Credits: 3** or higher (must be approved as Liberal Studies Mathematics courses)

#### **Natural Science: Option II**

See requirements for **Natural Science: Option II** of the Liberal Studies Requirements **Knowledge Area: Natural Science: One Option** in the *Graduation Requirements* section of this catalog

BIOL 104 - Human Biology: How the Human Body Works **Credits: 4**  
and a three credit non-laboratory course

#### **Social Science:**

PSYC 101 - General Psychology **Credits: 3**

#### **Liberal Studies Elective: 3**

MATH 217 - Probability and Statistics **Credits: 3**

## Major: 18

### Required Courses:

- KHSS 135 - Careers in Kinesiology, Health, and Sport **Credits: 1**
- KHSS 175 - Prevention and Care of Injuries to the Physically Active **Credits: 2**
- KHSS 209 - Motor Behavior **Credits: 3**
- KHSS 256 - Applied Human Structure and Conditioning **Credits: 3**
- KHSS 341 - Evaluations and Analytics in Kinesiology **Credits: 3**
- KHSS 441 - Psychosocial Implications for Health and Physical Education **Credits: 3**
- KHSS 442 - Senior Seminar: Professional Development in Health, Physical Education, and Sport **Credits: 3**

### Professional Requirements: 24

### Community Health Education Requirements:

- EDSP 102 - Educational Psychology **Credits: 3**
- KHSS 316 - Instruction of Child Health Concepts **Credits: 3**
- KHSS 318 - Preprofessional Experience I **Credits: 3**
- KHSS 325 - School and Community Health **Credits: 3**
- KHSS 370 - Adapted Health and Physical Education **Credits: 3**
- KHSS 417 - Contemporary Issues in School and Community Health **Credits: 3**
- KHSS 420 - Health Education and Promotion at the Workplace **Credits: 3**
- KHSS 426 - Health Science Instruction **Credits: 3**
- KHSS 493 - Internship **Credits: 1-12**

### Controlled Electives: 9-12

(Must choose one emphasis area from A-G)

#### A. Communications (9)

- COMM 101 - Introduction to Communications, Media, and Culture **Credits: 3**
- COMM 205 - Making Presentations with Media **Credits: 3**
- COMM 230 - Global Media and Communication **Credits: 3**

#### B. Nutrition (12)

- FDNT 212 - Nutrition **Credits: 3**
- FDNT 213 - Life Cycle Nutrition **Credits: 3**
- FDNT 245 - Sports Nutrition **Credits: 3**
- FDNT 402 - Community Nutrition **Credits: 3**

#### C. Lifetime Physical Activity (12)

- FDNT 245 - Sports Nutrition **Credits: 3**
- KHSS 213 - Recreational Sports and Lifetime Activities **Credits: 3**

KHSS 413 - Physical Activity and Aging Across the Lifespan **Credits: 3**

#### D. Aging Populations (12)

KHSS 413 - Physical Activity and Aging Across the Lifespan **Credits: 3**

PSYC 312 - Adult Development and Aging **Credits: 3**

SOC 357 - Sociology of Aging and the Life-course **Credits: 3**

#### E. Human Service (12)

PSYC 235 - Social Psychology **Credits: 3**

SOC 320 - Sociological Theory **Credits: 3**

SOC 336 - Sociology of the Family **Credits: 3**

SOC 391 - Foundations of Sociological Practice **Credits: 3**

#### F. Women's Studies (12)

PSYC 379 - Psychology of Human Sexuality **Credits: 3**

SOC 251 - Sociology of Human Sexuality **Credits: 3**

SOC 427 - Social Perspectives on Intimate Partner Violence **Credits: 3**

WGS 200 - Introduction to Women's and Gender Studies **Credits: 3**

#### G. Child Studies (9)

SOC 231 - Contemporary Social Problems **Credits: 3**

SOC 333 - Delinquency and Youth **Credits: 3**

SOC 428 - Child Abuse **Credits: 3**

Free Electives: 17-20

Total Degree Requirements: 120

## Health and Physical Education/K-12 Teacher Education, BSED

Program Code: HPED-K12E

The Bachelor of Science in Education–Health and Physical Education provides emphasis on pedagogical content and application. This program prepares students with the knowledge and experience to instruct in various learning environments. Two specialty programs of study have been developed for this degree program, including the K-12 Teacher Education Certification Track and two non-teacher certification tracks, Community Health Education and Recreation and Leisure Studies. These programs provide students with the theory, strategy, and application necessary to work with individuals in various instructional settings. Each program provides an interdisciplinary experience that prepares students for specific career paths as well as multiple credentialing options.

### K-12 Teacher Education

The Health and Physical Education Teacher Education program is accredited by the Council for the Accreditation of Educator Preparation. Requirements for the bachelor of science in education degree program in health and physical education include the university's Liberal Studies requirements, Professional Education requirements, and the Health and Physical Education core

requirements. Upon completion of the degree program and successfully passing the Praxis exam, the student is qualified for an Instructional I Certificate in Health and Physical Education, issued by the Pennsylvania Department of Education in Harrisburg. This certificate is valid for teaching health and physical education in grades K-12 for three years in the public schools of Pennsylvania. All students seeking Pennsylvania certification must follow the 3-Step Process described in the section "Admission to Teacher Education and Certification" found in the College of Education and Communications section of this catalog.

The Health and Physical Education curriculum identifies a required core of studies that emphasizes a body of knowledge relevant to the study of professional health and physical education, as well as the study of physical education and sport. Courses contained in the core are those that are intended to enable students to identify and solve problems by applying relevant knowledge and also to engage in self-directed learning.

Candidates for degree programs in health and physical education must demonstrate acceptable cognitive and psychomotor qualifications as well as desirable character and personality traits. The professional programs seek to foster those qualities of individual character and competence that are inherent in personal and professional maturity. Specific competencies and curriculum requirements are defined within each degree-specific program, and student progress is supervised by the academic advisor.

See requirements leading to teacher certification, titled "3-Step Process for Teacher Education," in the College of Education and Communications section of this catalog.

## Liberal Studies: 43

As outlined in the Liberal Studies Requirements with the following specifications:

### Mathematics:

MATH 101 - Foundations of Mathematics **Credits: 3** or higher (must be approved as Liberal Studies Mathematics courses)

### Natural Science: 7

one lab science  
one non-lab science

### Social Science:

PSYC 101 - General Psychology **Credits: 3**

### Liberal Studies Elective: 3

MATH 217 - Probability and Statistics **Credits: 3**

## Major: 19

### Required Courses:

KHSS 135 - Careers in Kinesiology, Health, and Sport **Credits: 1**  
KHSS 209 - Motor Behavior **Credits: 3**

- KHSS 221 - Human Structure and Function **Credits: 3**
- KHSS 315 - Biomechanics **Credits: 3**
- KHSS 341 - Evaluations and Analytics in Kinesiology **Credits: 3**
- KHSS 343 - Physiology of Exercise **Credits: 3**
- KHSS 442 - Senior Seminar: Professional Development in Health, Physical Education, and Sport **Credits: 3**

## Professional Requirements: 27

- KHSS 213 - Recreational Sports and Lifetime Activities **Credits: 3**
- KHSS 216 - Instruction of Fundamental Movement Skills **Credits: 3**
- KHSS 218 - Instruction of Tactical Skills and Fitness Concepts **Credits: 3**
- KHSS 316 - Instruction of Child Health Concepts **Credits: 3**
- KHSS 325 - School and Community Health **Credits: 3**
- KHSS 344 - Adapted Physical Activity and Sport **Credits: 3**
- KHSS 417 - Contemporary Issues in School and Community Health **Credits: 3**
- KHSS 419 - Emergency Care and Water Safety **Credits: 3**
- KHSS 426 - Health Science Instruction **Credits: 3**

## College: 23

### Preprofessional Education Requirements:

- EDSP 102 - Educational Psychology **Credits: 3**
- ETIT 103 - Digital Instructional Technology **Credits: 3**

### Professional Education Requirements:

- EDEX 323 - Instruction of English Language Learners with Special Needs **Credits: 2**
- EDUC 242 - Pre-student Teaching Clinical Experience I **Credits: 1**
- EDUC 342 - Pre-student Teaching Clinical Experience II **Credits: 1**
- EDUC 421 - Student Teaching **Credits: 5-6** (6 credits required)
- EDUC 441 - Student Teaching **Credits: 5-12** (6 credits required)
- EDUC 442 - School Law **Credits: 1**

## Free Electives: 8

## Total Degree Requirements: 120

## History, BA

Program Code: HISTAH

History is a critical study of the past that examines how societies have been shaped by cultural, political, social, and economic influences across time and space. Degree programs offered by the History Department are the bachelor of arts degree program in history, and the bachelor of science in education degree program in social studies education, concentrating in history. The Social Studies Education program prepares students to teach at the junior- and senior-high school levels. The Bachelor of Arts program can prepare students for careers in law, government service, public history, and broad business opportunities.

History is the study of change in human societies over time, and thus it is of broad applicability. The many careers in teaching and in Public History (including work in museums, archives and the park service) attest to the continued importance of history to communities everywhere. Governments, non-government organizations and businesses all value the understanding of social change and the research skills the study of history is based on. All of us are living through the process of historical change and studying the discipline of history is the best way to understand these changes

## Liberal Studies: 46-47

As outlined in the Liberal Studies Requirements with the following specifications:

### Learning Skills: 3 (1)

### Humanities-History:

Fulfilled by required courses in major

### Liberal Studies Electives: 9

No courses with HIST prefix

### Major: 36

### Research Courses: 6

HIST 295 - Introduction to Historical Studies **Credits: 3**

HIST 495 - History Capstone **Credits: 3**

### Foundation Courses: 12

Choose 2 from the following

HIST 201 - Western Civilization before 1600 **Credits: 3**

HIST 202 - Western Civilization since 1600 **Credits: 3**

HIST 204 - United States History to 1877 **Credits: 3**

HIST 205 - United States History since 1877 **Credits: 3**

HIST 206 - The History of East Asia **Credits: 3**

HIST 211 - World History to 1500 **Credits: 3**

HIST 212 - World History Since 1500 **Credits: 3**

**Choose 2 from:**

Any 3 credit HIST course numbered 201-294.

### Controlled Electives: 18

Any 6 HIST courses numbered 301-494 with at least one being a US History course and at least one being a non-US History course

## Other Requirements: 0-8

Foreign Language Elementary Level II (2)

## Free Electives: 30-38

## Total Degree Requirements: 120

(1) English Composition II requirements are fulfilled by the department's Writing Plan

(2) Students are required to meet Elementary II foreign language proficiency through classwork, placement exam, or tested proficiency.

## Hotel, Restaurant, Tourism, and Event Management, BS

Program Code: HOSPBU

Hotel, Restaurant, Tourism, and Event Management prepares students for professional management careers within the hospitality industry, a global service industry comprising diverse and exciting employment opportunities. Program graduates obtain general and specialized hospitality skill sets and knowledge in preparation for management employment in hotels, resorts, restaurants, clubs and beverage operations, theme parks, contract food services, special events, catering, cruise lines, and other travel and tourism venues and operations. The program is accredited by the Accreditation Commission for Programs in Hospitality Administration.

## Liberal Studies: 43

As outlined in Liberal Studies Requirements section with the following specifications:

### Mathematics:

MATH 101 - Foundations of Mathematics **Credits: 3** (or higher)

### Natural Science: Option II

See requirements for **Natural Science: Option II** of the Liberal Studies Requirements Knowledge Area: **Natural Science: One Option** in the *Liberal Studies and Requirements for Graduation* section of this catalog

### Social Science:

ECON 101 - Basic Economics **Credits: 3**

or

ECON 121 - Principles of Macroeconomics **Credits: 3** (1)

## Liberal Studies Elective: 3



No course with HOSP prefix

## Major: 59

### Required Courses: 47

HOSP 101 - Introduction to the Hospitality Industry **Credits: 3**  
HOSP 150 - Principles of Hospitality Management **Credits: 3**  
HOSP 220 - Food Service Operations **Credits: 3**  
HOSP 256 - Human Resources in the Hospitality Industry **Credits: 3**  
HOSP 259 - Hospitality Purchasing **Credits: 3**  
HOSP 260 - Hotel Operations Management **Credits: 3**  
HOSP 265 - Hospitality Cost Management **Credits: 3**  
HOSP 310 - Professional Development in the Hospitality Industry **Credits: 3**  
HOSP 320 - Hospitality Marketing **Credits: 3**  
HOSP 330 - Applications of Food Production and Service **Credits: 4 (2)**  
HOSP 335 - Legal Issues in Hospitality **Credits: 3**  
HOSP 393 - Exploratory Hospitality Field Experience **Credits: 3-12 (3)**  
HOSP 413 - Restaurant Food Production and Service **Credits: 4 (2)**  
HOSP 470 - Hospitality Business Model **Credits: 3**  
HOSP 494 - Internship **Credits: 3-12 (3)**

### Controlled Electives: 12

Four HOSP career-focused major electives (4)

### Other Requirements: 3

ACCT 201 - Accounting Principles I **Credits: 3**

### Free Electives: 15

### Total Degree Requirements: 120

- (1) ECON 121 is required for those students completing a Business Minor.
- (2) Department-specified kitchen food preparation uniform, knife kit, and proof of ServSafe certification are required for major lab courses.
- (3) Each student must complete a minimum of 120 hours in each of the two supervised internship experiences (HOSP 393 and HOSP 494). See department internship coordinator for detailed information.
- (4) Students will design, with their academic advisor, an individualized hospitality management career-focused concentration. Recommended courses based on concentration:

**Special Event/Tourism Management:** HOSP 212, HOSP 326, HOSP 235, HOSP 245, HOSP 280, HOSP 341, HOSP 343, HOSP 346, HOSP 347, HOSP 350, HOSP 352, HOSP 367, or HOSP 382.

**Lodging Management:** HOSP 212, HOSP 235, HOSP 245, HOSP 325, HOSP 347, HOSP 350, HOSP 352, HOSP 372, or HOSP 400.

**Food and Beverage Management:** HOSP 285, HOSP 300, HOSP 346, HOSP 358, HOSP 402, HOSP 403, or HOSP 404.

## Human Development and Family Science, BS

Program Code: HDFSED-BS

The Human Development and Family Science program leads to a bachelor of science degree. Primary objectives of the program are to prepare professionals to work in, or supervise, human service agencies that serve children, youth, and/or families. The program also provides preparation for students who want to pursue graduate study in applied programs such as social work, counseling, or education.

Students who major in Human Development and Family Science must maintain a 2.0 major GPA to graduate from the program.

The Child Development and Family Science minor, consisting of 18 credits, is for students who desire to work in programs that entail all aspects of child development and family relationships and administration in human service agencies at federal, state, and local levels, but who have their major coursework in a related field. The Child Development and Family Science minor is appropriate for all majors who wish to pursue careers working with children and families. The minor includes three required courses and three elective courses.

### Liberal Studies: 46-47

As outlined in Liberal Studies Requirements section with the following specifications:

#### Mathematics: 3

#### Social Science:

ANTH 110 - Contemporary Anthropology **Credits: 3**  
or any global or multicultural social science course

PSYC 101 - General Psychology **Credits: 3**  
SOC 151 - Principles of Sociology **Credits: 3**  
or

SOC 161 - Foundations of Sociology: Social Relations in Groups and Organizations **Credits: 3**

#### Liberal Studies Electives: 6

HDFS 330 - Consumer Economics and Family Finance **Credits: 3**  
FDNT 145 - Personal Nutrition **Credits: 3**

#### Major: 45-46

#### Required Courses:

HDFS 218 - Child Development **Credits: 3**  
HDFS 224 - Marriage and Family Relations **Credits: 3**  
HDFS 310 - Child Observation and Assessment **Credits: 3**  
HDFS 321 - Preschool Education: Play and Developmentally Appropriate Practices **Credits: 3**

HDFS 323 - Family Issues **Credits: 3**  
HDFS 410 - Infant and Toddler Development **Credits: 3**  
HDFS 411 - Family and Community **Credits: 3**  
HDFS 425 - Adolescence: Risk and Resiliency **Credits: 3**  
HDFS 426 - Techniques of Parent Education **Credits: 3**  
HDFS 427 - Administration of Human Service Programs **Credits: 3**  
HDFS 428 - Family Dynamics **Credits: 3**  
HDFS 429 - Teaching in Community Settings **Credits: 3**  
One HDFS Elective course **Credits: 3**

## Other Requirements:

### Outside Courses:

NURS 202 - Foundations of Child Health **Credits: 3**  
or  
BIOL 150 - Human Anatomy **Credits: 4**  
  
SOC 428 - Child Abuse **Credits: 3**  
or  
PSYC 313 - Elder Abuse (CAAST) **Credits: 3**  
or  
PSYC 322 - Violence Across the Life Span **Credits: 3**

## Free Electives: 27-29

(1,2)

## Three Optional Concentrations:

### Early Intervention: 18

HDFS 315 - Introduction to Early Intervention **Credits: 3**  
EDEX 111 - Introduction to Exceptional Persons **Credits: 3**  
  
EDEX 114 - Atypical Development in Infants, Children, and Adolescents **Credits: 3**  
or  
EDEX 415 - Preschool Education for Children with Disabilities **Credits: 3**  
  
EDEX 460 - Family Perspectives on Disability **Credits: 3**  
KHSS 209 - Motor Behavior **Credits: 3**  
KHSS 370 - Adapted Health and Physical Education **Credits: 3**

### Infant/Toddler Mental Health: 15

HDFS 315 - Introduction to Early Intervention **Credits: 3**  
HDFS 420 - Infant Toddler Mental Health **Credits: 3 (2)**  
HDFS 430 - Poverty and Human Development **Credits: 3**  
EDEX 111 - Introduction to Exceptional Persons **Credits: 3**

EDEX 460 - Family Perspectives on Disability **Credits: 3**

## Youth and Families: 18

(3)

HDFS 430 - Poverty and Human Development **Credits: 3**

HDFS 493 - Internship **Credits: 6-12**

EDEX 460 - Family Perspectives on Disability **Credits: 3**

HDFS 350 - Teaching Family Life Education **Credits: 3**

PSYC 312 - Adult Development and Aging **Credits: 3**

SOC 251 - Sociology of Human Sexuality **Credits: 3**

## Total Degree Requirements: 120

(1) Courses can count as either a HDFS elective or as part of the concentration but not in multiple places.

(2) Student are encouraged to declare a minor OR complete one of three concentrations.

(3) Students that complete the Youth and Families concentration will be eligible for the National Council on Family Relations Certified Family Educator credential.

## Human Resource Management, BS

Program Code: HRMG

The bachelor of science degree program in human resource management prepares individuals in both the theoretical and applied aspects of managing the human resources function in organizations as a generalist or specialist. Students will gain expertise in areas such as job design, staffing, training, compensation, and performance appraisal.

## Liberal Studies: 47-48

As outlined in Liberal Studies Requirements section with the following specifications:

### Mathematics:

MATH 107 - Business Mathematics **Credits: 3**

MATH 108 - Applications of Business Mathematics **Credits: 1**

### Natural Science: Option II

See requirements for **Natural Science: Option II** of the Liberal Studies Requirements **Knowledge Area: Natural Science: One Option** in the *Graduation Requirements* section of this catalog.

### Social Science:

ECON 121 - Principles of Macroeconomics **Credits: 3**

PSYC 101 - General Psychology **Credits: 3**

a Global and Multicultural Awareness course (recommended)

## Liberal Studies Electives: 6

ECON 122 - Principles of Microeconomics **Credits: 3**

MATH 214 - Probability and Statistics for Business Majors **Credits: 3 (1)**

## College: Business Administration Core: 36

### Required Courses:

ACCT 201 - Accounting Principles I **Credits: 3**

ACCT 202 - Accounting Principles II **Credits: 3**

BCOM 321 - Business and Interpersonal Communications **Credits: 3**

BLAW 235 - Legal Environment of Business **Credits: 3**

COSC 101 - Computer Literacy **Credits: 3**

or

IFMG 101 - Computer Literacy **Credits: 3**

or

IFMG 110 - Business Spreadsheet Computing **Credits: 3 (2)**

FIN 310 - Fundamentals of Finance **Credits: 3**

IFMG 300 - Information Systems: Theory and Practice **Credits: 3**

MGMT 310 - Principles of Management **Credits: 3**

MGMT 330 - Operations Management **Credits: 3**

MGMT 495 - Business Policy **Credits: 3**

MKTG 320 - Principles of Marketing **Credits: 3**

QBUS 215 - Business Statistics **Credits: 3**

## Major: Human Resource Management: 24

### Required Courses:

ECON 330 - Labor Economics **Credits: 3**

MGMT 300 - Human Resource Management **Credits: 3**

MGMT 400 - Compensation Management **Credits: 3**

MGMT 401 - Management Development and Training **Credits: 3**

MGMT 402 - Seminar in Human Resource Management **Credits: 3**

or

MGMT 428 - Seminar in Management **Credits: 3**

MGMT 405 - Organizational Staffing **Credits: 3**

## Controlled Electives: 6

Two courses from the following:

ACCT 300

BCOM 342 - Intercultural Business Communication **Credits: 3**

ELR 480 - Introduction to Negotiations and Conflict Resolution **Credits: 3**

MGMT 311 - Human Behavior in Organizations **Credits: 3**

MGMT 406

MGMT 434 - Industrial Quality: Statistical Tools and Management **Credits: 3**  
MGMT 451 - International Management **Credits: 3**  
MGMT 493 - Management Internship **Credits: 3-12**  
PSYC 390 - Industrial-Organizational Psychology **Credits: 3**  
PSYC 411 - Psychology of Women **Credits: 3**  
SAFE 101 - Introduction to Occupational Safety and Health **Credits: 3**  
SOC 362 - Racial and Ethnic Minorities **Credits: 3**

## Free Electives: 12-13

## Total Degree Requirements: 120

- (1) MATH 214 or MATH 216 or MATH 217.
- (2) IFMG 110 cannot be used as a D/F repeat for COSC 101/IFMG 101.

## Interdisciplinary Forensic Sciences, Applied Crime Scene Track, BS

The Interdisciplinary Forensic Sciences program emphasizes the methodological and analytical techniques used in medicolegal investigations. Students receive an overview of general forensic sciences then specialize in one of three tracks

Applied Crime Scene Forensics  
Laboratory Forensics  
Digital Forensics

Within each track, students gain a deeper understanding of the forensic sciences, supplemented by a wide variety of relevant research or internship opportunities to provide hands-on training in their selected areas. This program prepares students to work in medicolegal contexts or pursue related graduate-level studies.

## Interior Design, BS

Program Code: INDSAH

The Interior Design program offers students opportunities in analyzing problems, synthesizing information, and implementing design solutions supportive of the needs of people and the environment. The program emphasizes creative problem solving through interdisciplinary experiences and communicating solutions. It enables graduates to adapt to a changing world by drawing on history while applying the principles of informed design and research. This program is accredited by the National Association of Schools of Art and Design.

The core of the program includes courses addressing space planning, hand drafting, design graphics and presentation techniques, color theory, building systems, materials and finishes, human factors, computer-aided drafting techniques, history of design, 3-D design, textiles, lighting, residential and commercial design, and professional practice. Detailed information is available from instructors regarding equipment and supplies to be purchased by students for individual courses in this program. Internships present an excellent opportunity for students to gain practical, on-the-job training and are highly recommended. Experiential learning opportunities in the community augment the program. Students tour a variety of settings including offices, museums, factories, showrooms, retail outlets, and construction sites. Supportive courses are offered in art, theater, communications media, and business. Graduates are prepared for entry-level positions in commercial and residential design, sales, historical preservation, kitchen and bath design, and showroom management.

## Liberal Studies: 46-48

As outlined in the Liberal Studies Requirements with the following specifications:

### Fine Arts:

ARHI 205 - Ancient to Medieval Art **Credits: 3** recommended

### Mathematics:

MATH 101 - Foundations of Mathematics **Credits: 3** or higher

### Natural Science:

Option I or Option II

#### Option I:

SCI 105 - Physical Science **Credits: 3**  
SCI 107 - Chemistry for Everyone **Credits: 3**  
and  
SCI 117 - Chemistry for Everyone Laboratory **Credits: 1**

#### Option II:

SCI 105 - Physical Science **Credits: 3**  
SCI 107 - Chemistry for Everyone **Credits: 3**

### Social Science:

PSYC 101 - General Psychology **Credits: 3**  
SOC 151 - Principles of Sociology **Credits: 3**  
or  
SOC 161 - Foundations of Sociology: Social Relations in Groups and Organizations **Credits: 3**  
Global and Multicultural Awareness course

### Liberal Studies Electives: 6

ARHI 207 - Renaissance to Modern Art **Credits: 3**  
ECON 122 - Principles of Microeconomics **Credits: 3**  
No courses with INDS prefix

## Major: 54

### Required Courses:

INDS 105 - Introduction to Interior Design **Credits: 3**  
INDS 110 - Color and Light **Credits: 3**  
INDS 118 - Interior Design Graphics **Credits: 3**  
INDS 210 - Human Factors in Interior Design **Credits: 3**  
INDS 218 - Computer Technology for Interior Design **Credits: 3**  
INDS 219 - Kitchen and Bath Design **Credits: 3**  
INDS 230 - Presentation for Interior Design **Credits: 3**  
INDS 240 - Three-Dimensional Design for Interior Design **Credits: 3**  
INDS 313 - Building Systems I: Materials and Finishes **Credits: 3**  
INDS 315 - Residential Design Studio **Credits: 3**  
INDS 323 - Building Systems II: Mechanicals **Credits: 3**  
INDS 370 - History of Interior Design and Architecture I **Credits: 3**  
INDS 380 - History of Interior Design and Architecture II **Credits: 3**  
INDS 405 - Interior Design Professional Practice **Credits: 3**  
INDS 460 - Portfolio **Credits: 3**  
INDS 464 - Commercial Design Studio I **Credits: 3**  
INDS 465 - Commercial Design Studio II **Credits: 3**  
INDS 470 - Interior Design Capstone **Credits: 3**

## Other Requirements: 15

### Outside Concentration:

#### Business: 6

BCOM 321 - Business and Interpersonal Communications **Credits: 3**  
MKTG 320 - Principles of Marketing **Credits: 3**

#### Art: 9

ART 114 - Color and Two-Dimensional Design **Credits: 3**

### Two Courses from the Following:

ART 213 - Woodworking: Function and Form **Credits: 3**  
ART 214 - Ceramics **Credits: 3**  
ART 215 - Sculpture **Credits: 3**  
ART 216 - Jewelry and Metals **Credits: 3**  
ART 218 - Introduction to Graphic Design **Credits: 3**  
COMM 271 - Beginning Photography **Credits: 3**  
COMM 371 - Advanced Photography **Credits: 3**  
COMM 471 - Advanced Image Editing **Credits: 3**  
THTR 216 - Fundamentals of Theatrical Design **Credits: 3**  
THTR 120 - Stagecraft **Credits: 3**  
THTR 221 - Performance Lighting **Credits: 3**  
THTR 320 - Scene Design **Credits: 3**  
THTR 321 - Stage Lighting Design **Credits: 3**  
THTR 489 - Design/Technology/Management Studio **Credits: 3**



## Free Electives: 3-5

(1)

## Total Degree Requirements: 120

(1) Students are encouraged to complete an internship.

## International Business, BS

Program Code: INTB

The bachelor of science degree program in international business offers students an opportunity to acquire a thorough understanding of managing global operations in the contemporary business environment. In addition, students develop skills in a traditional functional area (finance, human resources, marketing). The combination of these two objectives enables students to successfully perform in today's competitive global economy.

## Liberal Studies: 47-48

As outlined in the Liberal Studies Requirements with the following specifications:

### Humanities:

PHIL 122 - Contemporary Moral Issues **Credits: 3**

### Mathematics:

MATH 107 - Business Mathematics **Credits: 3**

MATH 108 - Applications of Business Mathematics **Credits: 1**

### Natural Science: Option II

See requirements for **Natural Science: Option II** of the Liberal Studies Requirements **Knowledge Area: Natural Science: One Option** in the *Graduation Requirements* section of this catalog.

### Social Science:

ECON 121 - Principles of Macroeconomics **Credits: 3**

PSYC 101 - General Psychology **Credits: 3**

One additional social science course. Selecting one from the Global and Multicultural Awareness list is recommended.

### Liberal Studies Electives: 6

ECON 122 - Principles of Microeconomics **Credits: 3**

MATH 214 - Probability and Statistics for Business Majors **Credits: 3 (1)**

No courses with MGMT prefix

## College: Business Administration Core: 36

### Required Courses:

ACCT 201 - Accounting Principles I **Credits: 3**  
ACCT 202 - Accounting Principles II **Credits: 3**  
BCOM 321 - Business and Interpersonal Communications **Credits: 3**  
BLAW 235 - Legal Environment of Business **Credits: 3**  
COSC 101 - Computer Literacy **Credits: 3**  
or  
IFMG 101 - Computer Literacy **Credits: 3**  
or  
IFMG 110 - Business Spreadsheet Computing **Credits: 3 (2)**  
FIN 310 - Fundamentals of Finance **Credits: 3**  
IFMG 300 - Information Systems: Theory and Practice **Credits: 3**  
MGMT 310 - Principles of Management **Credits: 3**  
MGMT 330 - Operations Management **Credits: 3**  
MGMT 495 - Business Policy **Credits: 3**  
MKTG 320 - Principles of Marketing **Credits: 3**  
QBUS 215 - Business Statistics **Credits: 3**

### Foreign Language Requirement: 0-9

(3)

### Foreign Residency Requirement

(4)

## Major: International Business: 21

### Required Courses:

ECON 345 - International Trade **Credits: 3**  
MGMT 350 - International Business **Credits: 3**  
or  
MKTG 350 - International Business **Credits: 3**  
MGMT 459 - Seminar in International Management **Credits: 3**

### Specialization Area Courses: 9

(select one specialization; choose three of the four courses in the chosen area)

#### Finance Specialization:

FIN 320 - Corporate Finance **Credits: 3**

FIN 324 - Principles of Investments **Credits: 3**  
FIN 410 - Financial Institutions and Markets **Credits: 3**  
FIN 424 - International Financial Management **Credits: 3**

### Human Resources Management Specialization:

MGMT 300 - Human Resource Management **Credits: 3**  
MGMT 400 - Compensation Management **Credits: 3**  
MGMT 402 - Seminar in Human Resource Management **Credits: 3**

### Marketing Specialization:

MKTG 321 - Consumer Behavior **Credits: 3**  
MKTG 420 - Marketing Management **Credits: 3**  
MKTG 421 - Marketing Research and Analytics **Credits: 3**  
MKTG 430 - International Marketing **Credits: 3**

### Free Electives: 12-13

### Total Degree Requirements: 120

(1) MATH 214 or MATH 216 or MATH 217.

(2) IFMG 110 cannot be used as a D/F repeat for COSC 101/IFMG 101.

(3) Candidates must demonstrate a conversational proficiency in a foreign language. This requirement may be met by (a) successful completion of 9 intermediate-level credits in a specific language, or (b) successful completion of an exemption or credit examination in lieu of the above. A foreign student, registered as such at IUP, whose acquired native language is other than English and who demonstrates an acceptable proficiency in English, can meet the foreign language requirement by successful completion of an exemption examination in the acquired native language.

(4) Candidates must document one semester of foreign residence (minimum of three months). Normally, the foreign residency requirement will be met in conjunction with a work experience, internship, or student exchange. A substitute cross-cultural experience may be permitted with the academic advisor's recommendation. The foreign language requirement is a prerequisite to the foreign residency requirement.

## International Studies, BA

Program Code: ITSTAH

### Liberal Studies: 46-47

As outlined in the Liberal Studies Requirements with the following specifications:

**Mathematics: 3**

**Social Science:**

PLSC 111 - American Government **Credits: 3**

## Liberal Studies Electives: 6

No courses with PLSC prefix

## College: 0-6

Foreign Language Intermediate Level (1)

## Major: 33

### Required Courses:

- PLSC 101 - World Politics **Credits: 3**
- PLSC 111 - American Government **Credits: 3 (2)**
- PLSC 260 - Contemporary Political Ideas **Credits: 3**
- PLSC 282 - International Relations **Credits: 3**
- PLSC 300 - Research Methods in Political Science **Credits: 3**

### Specializations:

## International Political Economy: 21

### Required specialization course:

- PLSC 422 - International Law and Organizations **Credits: 3**

### Six Courses from the Following:

- ACCT 471
- BCOM 342 - Intercultural Business Communication **Credits: 3**
- COMM 320
- ECON 121 - Principles of Macroeconomics **Credits: 3**
- ECON 325 - Monetary Economics I **Credits: 3**
- ECON 345 - International Trade **Credits: 3**
- ECON 346 - International Finance **Credits: 3**
- FASH 357 - Global Fashion Sourcing and Trade **Credits: 3**
- GEOG 231 - Economic Geography **Credits: 3**
- GEOG 333 - Trade and Transportation **Credits: 3**
- MGMT 350 - International Business **Credits: 3**
- MGMT 451 - International Management **Credits: 3**
- MGMT 459 - Seminar in International Management **Credits: 3**
- MKTG 350 - International Business **Credits: 3**
- MKTG 430 - International Marketing **Credits: 3**
- PLSC 361 - Modern Political Thought **Credits: 3**
- PLSC 383 - Political Systems: Asia **Credits: 3**
- SOC 337 - Society, Globalization, and Risk **Credits: 3**

## International Security Studies: 21

### Required specialization course:

- PLSC 283 - American Foreign Policy **Credits: 3**
- or
- PLSC 388 - Dimensions of National Security **Credits: 3**
- or
- PLSC 465 - Intelligence Process and Policy **Credits: 3**

### Six Courses from the Following:

\*(if not taken as the required specialization course)

- BIOL 117 - Understanding HIV Biology and AIDS **Credits: 3**
- BIOL 119 - Emerging Diseases **Credits: 3**
- CRIM 344 - Terrorism **Credits: 3**
- ECON 361 - Environmental Economics **Credits: 3**
- GEOG 230 - Human Geography **Credits: 3**
- GEOG 331 - Population Geography **Credits: 3**
- GEOG 334 - Political Geography **Credits: 3**
- GEOG 341 - Climatology **Credits: 3**
- HIST 251 - United States Military History **Credits: 3**
- HIST 308
- HIST 361
- HIST 362 - History of American Diplomacy, 1900-present **Credits: 3**
- PLSC 283 - American Foreign Policy **Credits: 3 \***
- PLSC 422 - International Law and Organizations **Credits: 3**
- PLSC 388 - Dimensions of National Security **Credits: 3 \***
- PLSC 465 - Intelligence Process and Policy **Credits: 3 \***
- RLST 110 - World Religions **Credits: 3**

## International Political Systems: 21

### Required specialization course:

- PLSC 280 - Comparative Government I: Western Political Systems **Credits: 3**
- or
- PLSC 285 - Comparative Government II: Non-Western Political Systems **Credits: 3**
- or
- PLSC 389 - International Development Strategies **Credits: 3**

### Six Courses from the Following:

\*(if not taken as the required specialization course)

- ANTH 271 - Cultural Area Studies: Africa **Credits: 3**
- ANTH 272 - Culture Area: China **Credits: 3**
- ANTH 274 - Cultural Area Studies: Latin America **Credits: 3**
- ANTH 370 - Latinos and Diasporas **Credits: 3**
- ASIA 200 - Introduction to Asian Studies **Credits: 3**

ENGL 226 - Survey of Global Literature Since 1900 **Credits: 3**  
ENGL 396 - Postcolonial Literature **Credits: 3**  
ENGL 398 - Global Genres **Credits: 3**  
GEOG 104 - World Geography: Global Context **Credits: 3**  
GEOG 254 - Geography of Russia, Central Eurasia, and Eastern Europe **Credits: 3**  
GEOG 255 - Geography of Africa **Credits: 3**  
GEOG 256 - Geography of East and Southeast Asia **Credits: 3**  
GEOG 257 - Geography of South and Southwest Asia **Credits: 3**  
GEOG 331 - Population Geography **Credits: 3**  
HIST 206 - The History of East Asia **Credits: 3**  
HIST 208  
HIST 307 - History of Europe: 1815-1914 **Credits: 3**  
HIST 308  
HIST 313 - Europe Since 1945: Division, Revolution, and Unity **Credits: 3**  
HIST 321  
HIST 322 - French Revolution and Napoleon **Credits: 3**  
HIST 323 - Modern France: Renewing an Old Country **Credits: 3**  
HIST 331 - Modern Middle East **Credits: 3**  
PLSC 280 - Comparative Government I: Western Political Systems **Credits: 3 \***  
PLSC 285 - Comparative Government II: Non-Western Political Systems **Credits: 3 \***  
PLSC 383 - Political Systems: Asia **Credits: 3**  
PLSC 384 - Political Systems: Middle East **Credits: 3**  
PLSC 389 - International Development Strategies **Credits: 3 \***  
PNAF 131 - Introduction to Pan-African Studies **Credits: 3**  
RLST 311 - Eastern Philosophy **Credits: 3**  
RLST 360 - African Religions **Credits: 3**  
RLST 374 - Buddhism **Credits: 3**  
RLST 380 - Islam **Credits: 3**  
SOC 271  
SOC 273  
SOC 274  
SPAN 342 - Spanish Cultures from the 19th Century to the Present **Credits: 3**  
SPAN 382 - Contemporary Spain **Credits: 3**  
SPAN 383 - Geography and History of Spain **Credits: 3**  
SPAN 384 - History of Spanish Art **Credits: 3**  
SPAN 385 - Survey of Spanish Literature **Credits: 3**  
SPAN 412 - The Spanish Novel of the 19th and 20th Centuries **Credits: 3**

## Other Requirements:

(3)

## Free Electives: 34-41

## Total Degree Requirements: 120

(1) Intermediate-level foreign language may be included in Liberal Studies electives.

(2) Credits for PLSC 111 are counted in the Liberal Studies social science requirements.

(3) Majors are strongly encouraged to take advantage of the study abroad opportunities available through IUP departmental programs and of exchange opportunities available through the Office of International Education.

## **Kinesiology, Health and Sport Science/Exercise Science, BS**

Program Code: KHSS-EXSC

IUP's Exercise Science program is accredited by the Committee on Accreditation for the Exercise Sciences under the auspices of the Commission on Accreditation of Allied Health Education Programs. This program provides students with the knowledge, skills, and abilities to seek employment in private and commercial fitness clubs, medical fitness facilities, sport-specific and conditioning facilities, and clinical settings such as cardiac and pulmonary rehabilitation programs. This program has an academic core, specialty classes in exercise assessment, programming, and prescription, and opportunities for worksite experience.

While students may select Exercise Science is one of several tracks in the Kinesiology, Health, and Sport Science Department, students must demonstrate above-average academic performance by maintaining programmatic standards including (1) minimum 2.5 cumulative GPA for transfer students outside and within IUP; (2) a minimum of a "C" grade in major/core exercise science classes, including KHSS 221 or BIOL 150, KHSS 285, KHSS 286, KHSS 343, KHSS 347, KHSS 375, KHSS 413, KHSS 414, KHSS 415, KHSS 416, KHSS 492, and KHSS 493; and (3) before graduation, successful completion of an NCCA (National Commission for Certifying Agencies) approved health and fitness certification. Student transcripts will be reviewed each semester by the individual academic advisor and reported to the Exercise Science program coordinator for compliance with the academic requirements.

Specific work-site experiences may be contingent upon students' obtaining student liability insurance and selected health clearances such as physical, TB, and drug screening. Purchase of small equipment such as stethoscopes and digital heart rate monitors will be required.

### **Liberal Studies: 44**

As outlined in the Liberal Studies Requirements with the following specifications:

#### **Mathematics:**

MATH 217 - Probability and Statistics **Credits: 3**

#### **Natural Science:**

BIOL 104 - Human Biology: How the Human Body Works **Credits: 4**

BIOL 106 - Human Genetics and Health **Credits: 3**

BIOL 116 - Human Genetics and Health Laboratory **Credits: 1**

#### **Social Science:**

PSYC 101 - General Psychology **Credits: 3**

#### **Liberal Studies Electives: 3**

FDNT 145 - Personal Nutrition **Credits: 3**

## Major: 55-56

### Exercise Science Requirements: 50

- BIOL 240 - Human Physiology **Credits: 4**  
KHSS 135 - Careers in Kinesiology, Health, and Sport **Credits: 1**  
KHSS 175 - Prevention and Care of Injuries to the Physically Active **Credits: 2**  
KHSS 209 - Motor Behavior **Credits: 3**
- KHSS 221 - Human Structure and Function **Credits: 3**  
or  
BIOL 150 - Human Anatomy **Credits: 4**
- KHSS 285 - Group/Individual Exercise Leadership **Credits: 3**  
KHSS 286 - Personal Training Practicum **Credits: 3**  
KHSS 287 - Aquatic Fitness Instruction **Credits: 1**  
KHSS 315 - Biomechanics **Credits: 3**  
KHSS 343 - Physiology of Exercise **Credits: 3**  
KHSS 344 - Adapted Physical Activity and Sport **Credits: 3**  
KHSS 347 - Physiology of Exercise Laboratory **Credits: 1**  
KHSS 375 - Physiological Basis of Strength Training and Conditioning **Credits: 3**  
KHSS 413 - Physical Activity and Aging Across the Lifespan **Credits: 3**
- KHSS 414 - Exercise Electrocardiography **Credits: 3**  
or  
KHSS 416 - Functional Training for Strength and Conditioning **Credits: 3**
- KHSS 415 - Lifestyle Behavior Management for Physical Activity **Credits: 3**  
KHSS 418 - Fitness Assessment and Exercise Prescription **Credits: 4**  
KHSS 492 - Senior Capstone in Exercise Science **Credits: 3**  
KHSS 493 - Internship **Credits: 1-12**  
**(6 credits required)**

### Controlled Electives: 2-3

- BIOL 200 - Medical Terminology **Credits: 2**  
KHSS 292 - Introduction to Sport Management **Credits: 3**  
KHSS 373 - Business Administration in the Fitness Industry **Credits: 3**  
KHSS 436 - Corrective Exercise for the Health and Fitness Practitioner **Credits: 3**  
KHSS 493 - Internship **Credits: 1-12 (1)**

### Free Electives: 17-19

### Total Degree Requirements: 120

(1) Students may take additional internship credits in order to meet certification requirements. An additional 3 credits may be taken for a total of 9 credits.



## **Kinesiology, Health and Sport Science/Pre-athletic Training, BS**

Program Code: KHSS-ATHL

The Pre-Athletic Training Track prepares students for admission into a professional-level masters degree program in Athletic Training. Accelerated program progression allows students who meet eligibility requirements to apply for early admission into IUP's Master of Science program in Athletic Training program. Students will work closely with an advisor to ascertain the likelihood of early admission into graduate school and will be advised to switch into another PESP Track if appropriate. The first four semesters of the Pre-Athletic Training Track align closely with the Exercise Science Track and allows for seamless transition into Exercise Science if early admission requirements are not likely to be met by the end of the sixth semester. The masters degree in athletic training will be implemented beginning Summer 2020.

### **Liberal Studies: 44**

As outlined in the Liberal Studies Requirements with the following specifications:

#### **Mathematics:**

MATH 217 - Probability and Statistics **Credits: 3**

#### **Natural Science:**

BIOL 104 - Human Biology: How the Human Body Works **Credits: 4**

BIOL 106 - Human Genetics and Health **Credits: 3**

BIOL 116 - Human Genetics and Health Laboratory **Credits: 1**

#### **Social Science:**

PSYC 101 - General Psychology **Credits: 3**

#### **Liberal Studies Elective: 3**

FDNT 145 - Personal Nutrition **Credits: 3**

### **Major: 21**

#### **Core Requirements:**

KHSS 135 - Careers in Kinesiology, Health, and Sport **Credits: 1**

KHSS 175 - Prevention and Care of Injuries to the Physically Active **Credits: 2**

KHSS 209 - Motor Behavior **Credits: 3**

KHSS 221 - Human Structure and Function **Credits: 3**

KHSS 341 - Evaluations and Analytics in Kinesiology **Credits: 3**

KHSS 343 - Physiology of Exercise **Credits: 3**

KHSS 344 - Adapted Physical Activity and Sport **Credits: 3**

KHSS 441 - Psychosocial Implications for Health and Physical Education **Credits: 3**

## Pre-Athletic Training Requirements: 28

BIOL 150 - Human Anatomy **Credits: 4**  
BIOL 200 - Medical Terminology **Credits: 2**  
BIOL 240 - Human Physiology **Credits: 4**  
CHEM 101 - College Chemistry I **Credits: 4**  
KHSS 286 - Personal Training Practicum **Credits: 3**  
KHSS 315 - Biomechanics **Credits: 3**  
KHSS 347 - Physiology of Exercise Laboratory **Credits: 1**  
KHSS 375 - Physiological Basis of Strength Training and Conditioning **Credits: 3**  
PHYS 111 - Physics I Lecture **Credits: 3**  
or  
PHYS 151 - Physics for Life Sciences **Credits: 3**  
PHYS 121 - Physics I Lab **Credits: 1**  
or  
PHYS 161 - Medical Physics Lab **Credits: 1**

## Free Electives: 27

(1)

## Total Degree Requirements: 120

(1) Some elective credits can be used towards the MS degree program in Athletic Training if eligible for early admission.

## Kinesiology, Health and Sport Science/Sport Administration, BS

Program Code: KHSS-SPAD

This program prepares students to use a variety of skills to function in a management capacity within the sport industry. Graduates of this program can seek employment in such areas as school and college athletic departments, coaching, community recreation organizations, minor and major league sports franchises, commercial sport facilities, and golf courses, as well as other athletic and sports-related industries. Students acquire management skills that can be used in multiple career tracks. A minor that will enhance their career objectives is encouraged. Students wishing to change majors into Sport Administration must have a CGPA above 2.25. Students are required to earn a "C" or better in KHSS 292 in order to take KHSS 351, KHSS 445, KHSS 460, and KHSS 465.

## Liberal Studies: 47

As outlined in the Liberal Studies Requirements with the following specifications:

### Mathematics:

MATH 217 - Probability and Statistics **Credits: 3**

## Natural Science:

See requirements for **Natural Science: Option II** of the Liberal Studies Requirements **Knowledge Area: Natural Science: One Option** in the *Graduation Requirements* section of this catalog.

BIOL 104 - Human Biology: How the Human Body Works **Credits: 4**

One 3cr non-laboratory course

## Social Science:

ECON 121 - Principles of Macroeconomics **Credits: 3**

PSYC 101 - General Psychology **Credits: 3**

Global and Multicultural Awareness course

## Dimensions of Wellness:

KHSS 143 - Wellness **Credits: 3** (recommended)

or

FDNT 143 - Current Issues in Nutrition and Wellness **Credits: 3**

or

NURS 143 - Healthy People—Promoting Wellness **Credits: 3**

## Liberal Studies Electives: 6

COSC 101 - Computer Literacy **Credits: 3**

or

IFMG 101 - Computer Literacy **Credits: 3**

ECON 122 - Principles of Microeconomics **Credits: 3**

## Major: 60

## Core Requirements: 9

KHSS 135 - Careers in Kinesiology, Health, and Sport **Credits: 1**

KHSS 175 - Prevention and Care of Injuries to the Physically Active **Credits: 2**

KHSS 225 - Social Issues in Sport **Credits: 3**

KHSS 341 - Evaluations and Analytics in Kinesiology **Credits: 3**

## Sport Administration Requirements: 51

ACCT 201 - Accounting Principles I **Credits: 3**

KHSS 270 - Sport Communication **Credits: 3**

KHSS 280 - Aquatic Management and Operation **Credits: 3**

KHSS 292 - Introduction to Sport Management **Credits: 3**

KHSS 319 - Field Practicum I **Credits: 3**

KHSS 320 - Managing Facilities and Events in Sport **Credits: 3**

KHSS 351 - Sport Finance **Credits: 3**

KHSS 445 - Sport Marketing **Credits: 3**

KHSS 460 - Law and Issues in Managing Sport **Credits: 3**  
KHSS 465 - Sport Management Capstone **Credits: 3**  
KHSS 493 - Internship **Credits: 1-12**  
MGMT 300 - Human Resource Management **Credits: 3**  
MGMT 310 - Principles of Management **Credits: 3**  
MKTG 320 - Principles of Marketing **Credits: 3**  
MKTG 435 - Professional Selling and Sales Management **Credits: 3**

## Major Electives: 6

Two courses from the following:

ACCT 202 - Accounting Principles II **Credits: 3**  
BCOM 321 - Business and Interpersonal Communications **Credits: 3**  
COMM 150 - Media Aesthetics **Credits: 3**  
COMM 251 - Television Production **Credits: 3**  
ECON 239 - Economics of Sports **Credits: 3**  
FIN 310 - Fundamentals of Finance **Credits: 3**  
HOSP 235 - Tourism Management **Credits: 3**  
HOSP 280 - Special Event Management **Credits: 3**  
KHSS 221 - Human Structure and Function **Credits: 3**  
KHSS 315 - Biomechanics **Credits: 3**  
KHSS 333 - Psychology of Coaching **Credits: 3**  
KHSS 335 - Athletic Coaching **Credits: 3**  
KHSS 343 - Physiology of Exercise **Credits: 3**  
KHSS 373 - Business Administration in the Fitness Industry **Credits: 3**  
KHSS 375 - Physiological Basis of Strength Training and Conditioning **Credits: 3**  
KHSS 437 - Coaching Disability Sport **Credits: 3**  
KHSS 441 - Psychosocial Implications for Health and Physical Education **Credits: 3**  
MGMT 275 - Introduction to Entrepreneurship **Credits: 3**  
MKTG 321 - Consumer Behavior **Credits: 3**

## Free Electives: 14

## Total Degree Requirements: 120

# Management Information Systems/Information Technology, BS

Program Code: MISNM-ISIT

The information technology track of the Management Information Systems degree provides graduates with the skills and knowledge to take on professional positions in the Information Technology field. More than just a computer science degree, the Management Information Systems Information Technology (MIS-IT) bachelor's degree program gives you the combined business, technical, and analytical skills employers want. It provides skills for graduates to grow into leadership positions, pursue research, and enter graduate studies in the field.

A vibrant field, MIS-IT emerged as a result of rapid advances in technology and the need for organizations to quickly adjust to these changes. The MIS-IT degree encompasses courses spanning the latest technological advances in computing, security, and information management, thus enabling graduates to be valued contributors in this vibrant field. Students become proficient in networking, cybersecurity, programming, analysis and design, database development, various architectures, client-server applications, and user/manager involvement in business environments. Students also understand key business issues such as

profitability, budgeting, collaboration, and project management. Graduates are team leaders who have critical thinking skills, the ability to analyze and interpret both qualitative and quantitative data, and the capability to model problems and apply problem-solving strategies.

## Liberal Studies: 47-48

As outlined in the Liberal Studies Requirements with the following specifications:

### Mathematics: (1)

MATH 107 - Business Mathematics **Credits: 3**

MATH 108 - Applications of Business Mathematics **Credits: 1**

### Natural Science: Option II

See requirements for **Natural Science: Option II** of the Liberal Studies Requirements **Knowledge Area: Natural Science: One Option** in the *Graduation Requirements* section of this catalog.

### Social Science:

CRIM 101 - Crime and Justice Systems **Credits: 3**

ECON 121 - Principles of Macroeconomics **Credits: 3**

### Liberal Studies Electives: 6

ECON 122 - Principles of Microeconomics **Credits: 3**

MATH 214 - Probability and Statistics for Business Majors **Credits: 3 (2)**

### Major: 27

### Core Courses:

COSC 110 - Problem Solving and Structured Programming **Credits: 3**

COSC 210 - Object-Oriented and GUI Programming **Credits: 3**

COSC 216 - Introduction to Cyber Security **Credits: 3**

COSC 341 - Introduction to Database Management Systems **Credits: 3**

COSC 345 - Computer Networks **Credits: 3**

COSC 352 - LAN Design and Installation **Credits: 3**

COSC 356 - Network Security **Credits: 3**

COSC 380 - Seminar on the Computer Profession and Ethics **Credits: 2**

COSC 471 - Cloud Computing **Credits: 3**

COSC 480 - Seminar on Technical Topics **Credits: 1**

### Minor in Business Administration: 18

Must include BCOM 321

## Controlled Electives: 15 (3,4)

COSC 310 - Data Structures and Algorithms **Credits: 3**  
COSC 362 - Unix Systems **Credits: 3**  
COSC 365 - Web Application Development **Credits: 3**  
COSC 429 - Digital Forensics **Credits: 3**  
COSC 454 - Information Assurance Administration **Credits: 3**  
COSC 465 - Web Services **Credits: 3**  
COSC 493 - Internship in Computer Science **Credits: 3-12**  
CRIM 321 - Cybersecurity and Loss Prevention **Credits: 3**  
CRIM 323 - Cybersecurity and the Law **Credits: 3**  
IFMG 300 - Information Systems: Theory and Practice **Credits: 3**  
MATH 316 - Data Science Fundamentals **Credits: 3**  
MGMT 330 - Operations Management **Credits: 3**

## Free Electives: 12-13

## Total Degree Requirements: 120

- (1) MATH 121 or MATH 125 may substitute for MATH 107 and MATH 108
- (2) MATH 214 or MATH 216 or MATH 217
- (3) If a 6 credit COSC 493 is taken, 3 credits may be applied towards Controlled Electives.
- (4) Courses may not count toward both Controlled Electives and Minor in Business Administration.

## Management/Entrepreneurship and Small Business Management, BS

Program Code: MGMT-ESBU

Students taking this track will focus on creation and operation of a small business. This track is also for graduates who will be working in small businesses where the manager often must perform several managerial roles and manage several functions.

## Liberal Studies: 47-48

As outlined in the Liberal Studies Requirements with the following specifications:

### Mathematics:

MATH 107 - Business Mathematics **Credits: 3**  
MATH 108 - Applications of Business Mathematics **Credits: 1**

### Natural Science: Option II

See requirements for **Natural Science: Option II** of the Liberal Studies Requirements **Knowledge Area: Natural Science: One Option** in the *Graduation Requirements* section of this catalog.

## Social Science:

ECON 121 - Principles of Macroeconomics **Credits: 3**

PSYC 101 - General Psychology **Credits: 3**

One additional social science course. Selecting one from the Global and Multicultural Awareness list is recommended.

## Liberal Studies Electives: 6

ECON 122 - Principles of Microeconomics **Credits: 3**

MATH 214 - Probability and Statistics for Business Majors **Credits: 3 (1)**

## College: Business Administration Core: 36

### Required Courses:

ACCT 201 - Accounting Principles I **Credits: 3**

ACCT 202 - Accounting Principles II **Credits: 3**

BCOM 321 - Business and Interpersonal Communications **Credits: 3**

BLAW 235 - Legal Environment of Business **Credits: 3**

COSC 101 - Computer Literacy **Credits: 3**

or

IFMG 101 - Computer Literacy **Credits: 3**

or

IFMG 110 - Business Spreadsheet Computing **Credits: 3 (2)**

FIN 310 - Fundamentals of Finance **Credits: 3**

IFMG 300 - Information Systems: Theory and Practice **Credits: 3**

MGMT 310 - Principles of Management **Credits: 3**

MGMT 330 - Operations Management **Credits: 3**

MGMT 495 - Business Policy **Credits: 3**

MKTG 320 - Principles of Marketing **Credits: 3**

QBUS 215 - Business Statistics **Credits: 3**

## Major: 24

### Required Courses:

**Advanced MGMT elective. Credits: 3**

or

ACCT 311 - Cost Accounting **Credits: 3**

MGMT 275 - Introduction to Entrepreneurship **Credits: 3**

MGMT 325 - Small Business Management **Credits: 3**

MGMT 403 - Small Business Planning **Credits: 3**

MGMT 492 - Small Business/Entrepreneurship Internship **Credits: 3-12 (6cr required)**

Major Area Restricted Electives **Credits: 6**

Free Electives: 13-14

Total Degree Requirements: 120

(1) MATH 214 or MATH 216 or MATH 217.

(2) IFMG 110 cannot be used as a D/F repeat for COSC 101/IFMG 101.

## Management/General Management, BS

Program Code: MGMT-GNRL

While both management theory and application are taught in all of the department's majors, this track is distinguished by its emphasis on the achievement of organized goals through the efforts of organization members.

Liberal Studies: 47-48

As outlined in the Liberal Studies Requirements with the following specifications:

### Mathematics:

MATH 107 - Business Mathematics **Credits: 3**

MATH 108 - Applications of Business Mathematics **Credits: 1**

### Natural Science: Option II

See requirements for **Natural Science: Option II** of the Liberal Studies Requirements **Knowledge Area: Natural Science: One Option** in the *Graduation Requirements* section of this catalog.

### Social Science:

ECON 121 - Principles of Macroeconomics **Credits: 3**

PSYC 101 - General Psychology **Credits: 3**

One additional social science course.

### Liberal Studies Electives: 6

ECON 122 - Principles of Microeconomics **Credits: 3**

MATH 214 - Probability and Statistics for Business Majors **Credits: 3 (1)**

College: Business Administration Core: 36



## Required Courses:

ACCT 201 - Accounting Principles I **Credits: 3**  
ACCT 202 - Accounting Principles II **Credits: 3**  
BCOM 321 - Business and Interpersonal Communications **Credits: 3**  
BLAW 235 - Legal Environment of Business **Credits: 3**  
COSC 101 - Computer Literacy **Credits: 3**  
or  
IFMG 101 - Computer Literacy **Credits: 3**  
or  
IFMG 110 - Business Spreadsheet Computing **Credits: 3 (2)**  
FIN 310 - Fundamentals of Finance **Credits: 3**  
IFMG 300 - Information Systems: Theory and Practice **Credits: 3**  
MGMT 310 - Principles of Management **Credits: 3**  
MGMT 330 - Operations Management **Credits: 3**  
MGMT 495 - Business Policy **Credits: 3**  
MKTG 320 - Principles of Marketing **Credits: 3**  
QBUS 215 - Business Statistics **Credits: 3**

## Major: 24

### Required Courses:

ECON XXX - Any advanced 300-400-level ECON course **Credits: 3**  
MGMT 300 - Human Resource Management **Credits: 3**  
MGMT 311 - Human Behavior in Organizations **Credits: 3**  
MGMT 428 - Seminar in Management **Credits: 3**  
MGMT 434 - Industrial Quality: Statistical Tools and Management **Credits: 3**  
MGMT 451 - International Management **Credits: 3**  
MGMT XXX - Any one MGMT course **Credits: 3**

### Controlled Electives: 3

Any advanced business electives from 300-level courses or above. MGMT 493 may be used to meet this requirement. (3)

### Free Electives: 12-13

### Total Degree Requirements: 120

- (1) MATH 214 or MATH 216 or MATH 217.
- (2) IFMG 110 cannot be used as a D/F repeat for COSC 101/IFMG 101.
- (3) MGMT 275 will be considered an advanced business elective.

## Management/Supply Chain Management, BS

Program Code: MGMT-SCMG

Students in this track are well-grounded in both theory and application, focusing on production, operations, quality issues, and inventory and capacity management.

## Liberal Studies: 47-48

As outlined in the Liberal Studies Requirements with the following specifications:

### Mathematics:

MATH 107 - Business Mathematics **Credits: 3**

MATH 108 - Applications of Business Mathematics **Credits: 1**

### Natural Science: Option II

See requirements for **Natural Science: Option II** of the Liberal Studies Requirements **Knowledge Area: Natural Science: One Option** in the *Graduation Requirements* section of this catalog.

### Social Science:

ECON 121 - Principles of Macroeconomics **Credits: 3**

PSYC 101 - General Psychology **Credits: 3**

One additional social science course. Selecting one from the Global and Multicultural Awareness list is recommended.

### Liberal Studies Electives: 6

ECON 122 - Principles of Microeconomics **Credits: 3**

MATH 214 - Probability and Statistics for Business Majors **Credits: 3 (1)**

## College: Business Administration Core: 36

### Required Courses:

ACCT 201 - Accounting Principles I **Credits: 3**

ACCT 202 - Accounting Principles II **Credits: 3**

BCOM 321 - Business and Interpersonal Communications **Credits: 3**

BLAW 235 - Legal Environment of Business **Credits: 3**

COSC 101 - Computer Literacy **Credits: 3**

or

IFMG 101 - Computer Literacy **Credits: 3**

or

IFMG 110 - Business Spreadsheet Computing **Credits: 3 (2)**

FIN 310 - Fundamentals of Finance **Credits: 3**

IFMG 300 - Information Systems: Theory and Practice **Credits: 3**

MGMT 310 - Principles of Management **Credits: 3**

MGMT 330 - Operations Management **Credits: 3**

MGMT 495 - Business Policy **Credits: 3**

MKTG 320 - Principles of Marketing **Credits: 3**  
QBUS 215 - Business Statistics **Credits: 3**

## Major: 24

### Required Courses:

MGMT 434 - Industrial Quality: Statistical Tools and Management **Credits: 3**  
MGMT 437 - Supply Chain Modeling and Analysis **Credits: 3**

or

MGMT 428 - Seminar in Management **Credits: 3**

MKTG 434 - Business Logistics: Technical Analysis and Applications **Credits: 3**

### Controlled Electives:

#### One Course from the Following: 3

ECON 330 - Labor Economics **Credits: 3**  
ECON 434 - Managerial Economics **Credits: 3**

#### Three Courses from the Following: 9

BCOM 342 - Intercultural Business Communication **Credits: 3**  
IFMG 475 - Project Management and Implementation **Credits: 3**  
MGMT 300 - Human Resource Management **Credits: 3**  
MGMT 311 - Human Behavior in Organizations **Credits: 3**  
MGMT 401 - Management Development and Training **Credits: 3**

MGMT 461 - Organizational Leadership Theory **Credits: 3**

or

MGMT 462 - Applied Business Leadership Skills **Credits: 3**

MGMT 481 - Special Topics in Management **Credits: 1-3**  
MGMT 493 - Management Internship **Credits: 3-12**  
QBUS 450 - Data Science for Business **Credits: 3**  
SAFE 101 - Introduction to Occupational Safety and Health **Credits: 3**  
Other courses as approved by the advisor

### Free Electives: 12-13

### Total Degree Requirements: 120

(1) MATH 214 or MATH 216 or MATH 217.

(2) IFMG 110 cannot be used as a D/F repeat for COSC 101/IFMG 101.

## Marketing, BS

Program Code: MKTG

The Bachelor of Science degree program in marketing is designed to prepare its majors for a wide range of careers in private and public sector marketing, including sales management, retailing, brand management, advertising, distribution and logistics, customer relationship management, marketing research, public relations, marketing for nonprofit organizations, e-commerce, and international marketing. The program focuses on integrating technical knowledge in all areas of marketing with analytical and communication skills to prepare students for the challenges of the global competition in the 21st century.

### Liberal Studies: 47-48

As outlined in the Liberal Studies Requirements with the following specifications:

#### Mathematics:

MATH 107 - Business Mathematics **Credits: 3**

MATH 108 - Applications of Business Mathematics **Credits: 1**

#### Natural Science: Option II

See requirements for **Natural Science: Option II** of the Liberal Studies Requirements **Knowledge Area: Natural Science: One Option** in the *Graduation Requirements* section of this catalog.

#### Social Science:

ECON 121 - Principles of Macroeconomics **Credits: 3**

PSYC 101 - General Psychology **Credits: 3**

#### Liberal Studies Electives: 6

ECON 122 - Principles of Microeconomics **Credits: 3**

MATH 214 - Probability and Statistics for Business Majors **Credits: 3 (1)**

#### College: Business Administration Core: 36

#### Required Courses:

ACCT 201 - Accounting Principles I **Credits: 3**

ACCT 202 - Accounting Principles II **Credits: 3**

BCOM 321 - Business and Interpersonal Communications **Credits: 3**

BLAW 235 - Legal Environment of Business **Credits: 3**

COSC 101 - Computer Literacy **Credits: 3**

or

IFMG 101 - Computer Literacy **Credits: 3**

or

IFMG 110 - Business Spreadsheet Computing **Credits: 3 (2)**

FIN 310 - Fundamentals of Finance **Credits: 3**  
IFMG 300 - Information Systems: Theory and Practice **Credits: 3**  
MGMT 310 - Principles of Management **Credits: 3**  
MGMT 330 - Operations Management **Credits: 3**  
MGMT 495 - Business Policy **Credits: 3**  
MKTG 320 - Principles of Marketing **Credits: 3**  
QBUS 215 - Business Statistics **Credits: 3**

## Major: Marketing: 24

### Required Courses: 9

MKTG 321 - Consumer Behavior **Credits: 3**  
MKTG 421 - Marketing Research and Analytics **Credits: 3**  
MKTG 450 - Marketing Strategy **Credits: 3**

### Major Electives: 15

Select 15cr from the following:

MKTG 350 - International Business **Credits: 3**  
MKTG 430 - International Marketing **Credits: 3**  
MKTG 431 - Business-to-Business Marketing **Credits: 3**  
MKTG 433 - Advertising **Credits: 3**  
MKTG 434 - Business Logistics: Technical Analysis and Applications **Credits: 3**  
MKTG 435 - Professional Selling and Sales Management **Credits: 3**  
MKTG 436 - Retail and Omnichannel Management **Credits: 3**  
MKTG 437 - Services Marketing **Credits: 3**  
MKTG 439 - Internet Marketing **Credits: 3**  
MKTG 440 - Direct Interactive Database Marketing **Credits: 3**  
MKTG 442 - Social Cause Marketing for Nonprofit Organizations **Credits: 3**  
MKTG 443 - New Product Design and Branding **Credits: 3**  
MKTG 445 - Social Media Marketing **Credits: 3**  
MKTG 448 - Brand Design **Credits: 3**  
MKTG 493 - Marketing Internship **Credits: 3-12**

### Free Electives: 12-13

### Total Degree Requirements: 120

- (1) MATH 214 or MATH 216 or MATH 217.
- (2) IFMG 110 cannot be used as a D/F repeat for COSC 101/IFMG 101.

## Mathematics Education, BSED

Program Code: MAED

The program leading to the BSEd degree with a major in mathematics education prepares the student for teaching mathematics at one of two different concentrations. The secondary mathematics concentrations prepares the student for teaching mathematics in grades 7-12. The middle level education concentration prepares the student for teaching grades 4-8 with an emphasis in mathematics. Graduates from the program also have the option to continue their formal education at the graduate level or work in government or industry.

\*See requirements leading to teacher certification, titled "3-Step Process for Teacher Education," in the College of Education and Communications section of this catalog.

## Liberal Studies: 40-42

As outlined in the Liberal Studies Requirements with the following specifications:

Learning Skills: 6 (1)

Humanities: (2)

Mathematics: (3)

MATH 125 - Calculus I/Physics, Chemistry, Mathematics **Credits: 3**

or

MATH 121 - Calculus I for Natural and Social Sciences **Credits: 4**

Social Science: (4)

Natural Science: (5)

Liberal Studies Elective: 3

No courses with MATH prefix

College: 31

Preprofessional Education Sequence:

ETIT 103 - Digital Instructional Technology **Credits: 3**

EDSP 102 - Educational Psychology **Credits: 3**

Professional Education Sequence:

EDEX 301 - Education of Students with Disabilities in Inclusive Secondary Settings **Credits: 2**

EDEX 323 - Instruction of English Language Learners with Special Needs **Credits: 2**

EDSP 477 - Assessment of Student Learning: Design and Interpretation of Educational Measures **Credits: 3**

EDUC 242 - Pre-student Teaching Clinical Experience I **Credits: 1**

EDUC 342 - Pre-student Teaching Clinical Experience II **Credits: 1**

EDUC 441 - Student Teaching **Credits: 5-12 (12 credits required)**

EDUC 442 - School Law **Credits: 1**

MATH 413 - Methods for Teaching Mathematics **Credits: 3**

## Major:

### Required Courses: 19

MATH 111 - First-year Seminar **Credits: 1**  
MATH 317 - Probability and Statistics for Mathematics Instruction **Credits: 3**  
MATH 456 - Geometry for Mathematics Instruction **Credits: 3**  
MATH 457 - Number Theory for Mathematics Instruction **Credits: 3**  
MATH 460 - Technology in Mathematics Instruction **Credits: 3**  
MATH 461 - Discrete Mathematics for Mathematics Instruction **Credits: 3**  
MATH 471 - Algebra for Mathematics Instruction **Credits: 3**

### Specialization Areas:

Select one specialization.

#### Secondary Mathematics Specialization: 24

COSC 110 - Problem Solving and Structured Programming **Credits: 3**  
MATH 126 - Calculus II/Physics, Chemistry, Mathematics **Credits: 3**  
MATH 171 - Introduction to Linear Algebra **Credits: 3**  
MATH 216 - Probability and Statistics for Natural Sciences **Credits: 3**  
MATH 225 - Calculus III/Physics, Chemistry, Mathematics **Credits: 3**  
MATH 271 - Introduction to Mathematical Proofs I **Credits: 3**  
MATH 272 - Introduction to Mathematical Proofs II **Credits: 3**  
MATH 350 - History of Mathematics **Credits: 3**

#### Secondary Mathematics Free Electives: 5-6

#### Middle Level Mathematics Specialization: 28

ECED 280 - Maximizing Learning: Engaging All Learners **Credits: 3**  
ECED 351 - Literacy for the Emergent Reader: PreK to Grade 1 Learners **Credits: 3**  
EDEX 340 - Introduction to Behavior Management in Special Education **Credits: 3**  
EDUC 451 - Teaching Science in the Secondary School **Credits: 3**  
ENGL 323 - Teaching Literature and Reading in the Secondary School **Credits: 3**  
ENGL 324 - Teaching and Evaluating Writing **Credits: 3**  
GEOS 101 - The Dynamic Earth **Credits: 3 (7)**  
GEOS 102 - The Dynamic Earth Lab **Credits: 1**  
HIST 212 - World History Since 1500 **Credits: 3**  
One additional MATH course **Credits: 3 (6)**

### Total Required Credits: 120

(\* ) See requirements leading to teacher certification, titled "3-Step Process for Teacher Education," in the College of Education and Communications section of this catalog.

(1) English Composition II requirement is fulfilled by the department's Writing Plan.

(2) Students in the middle level concentration take HIST 205 ; Secondary concentration take HIST 196 , HIST 197 , or HIST 198.

(3) Students in the secondary mathematics specialization take MATH 125 and students in the middle level specialization take MATH 121.

(4) Students in the secondary mathematics specialization take PSYC 101 and students in the middle level specialization take ECON 101 or ECON 121; GEOG 101, GEOG 102, GEOG 104; and PLSC 101 or PLSC 111.

(5) Students in the middle level specialization take BIOL 103 or BIOL 104 or BIOL 106 /BIOL 116; and SCI 105 and SCI 115 .

(6) The following courses are excluded MATH 100, MATH 101, and MATH 150. This course can be used as part of the 6crs of math needed to apply for Step 1 of Teacher Education.

(7) The course meets the PDE requirement of 4cr in geoscience for Middle- Level Education Grades 4-8 certification.

## Mathematics, BS

Program Code: MATH

The program for a mathematics major in the Kopchick College of Natural Sciences and Mathematics has three options. A student may pursue a degree in mathematics with a track focused on actuarial science and statistics, or a degree with a major in mathematics with a specialization in either applied mathematics, pure mathematics, or data science. Those completing a degree in mathematics with a specialization in pure mathematics will be prepared to continue their studies in mathematics in graduate school, though some may enter business, industry, or government service. Students receiving a mathematics degree with a specialization in applied mathematics will be primarily prepared to enter business, industry, or government service in an area where mathematics or computer science is used, or to continue their studies in applied mathematics or computer science in graduate school. Students earning a mathematics degree with a data science specialization will gain skills on utilizing complex databases to provide real world, real-time solutions that incorporate predictive analytics and forecasting to improve decision making. Students are ready for careers that utilize quantitative modeling techniques, including probability, statistics, optimization, simulation, and computing, in the design of solutions to data-driven problems. Students in the actuarial science and statistics track take additional course work in finance and economics, preparing them to complete the first two professional actuarial exams and to pursue employment in the areas of insurance and investment.

### Liberal Studies: 46-47

As outlined in the Liberal Studies Requirements with the following specifications:

#### Mathematics:

MATH 125 - Calculus I/Physics, Chemistry, Mathematics Credits: 3

#### Liberal Studies Electives: 6

No courses with MATH prefix, includes intermediate-level foreign language



## Major: 25

### Required Courses:

- MATH 111 - First-year Seminar **Credits:** 1
- MATH 126 - Calculus II/Physics, Chemistry, Mathematics **Credits:** 3
- MATH 171 - Introduction to Linear Algebra **Credits:** 3
- MATH 216 - Probability and Statistics for Natural Sciences **Credits:** 3
- MATH 225 - Calculus III/Physics, Chemistry, Mathematics **Credits:** 3
- MATH 271 - Introduction to Mathematical Proofs I **Credits:** 3
- MATH 272 - Introduction to Mathematical Proofs II **Credits:** 3
- MATH 341 - Differential Equations **Credits:** 3

### Choose one course from the following:

- MATH 480 - Seminar in Mathematics **Credits:** 1-3 (1)
- MATH 493 - Internship in Mathematics **Credits:** 3-12 (2)

## Specialization Area:

Select one specialization

### Pure Mathematics Specialization: 27-28

- COSC 110 - Problem Solving and Structured Programming **Credits:** 3

### Choose six courses from among:

- MATH 353 - Theory of Numbers **Credits:** 3
- MATH 355 - Foundations of Geometry I **Credits:** 3
- MATH 371 - Linear Algebra **Credits:** 3
- MATH 421 - Advanced Calculus I **Credits:** 3
- MATH 422 - Advanced Calculus II **Credits:** 3
- MATH 423 - Complex Variables **Credits:** 3
- MATH 427 - Introduction to Topology **Credits:** 3
- MATH 476 - Abstract Algebra I **Credits:** 3
- MATH 477 - Abstract Algebra II **Credits:** 3

### Choose two courses from among:

- MATH 342 - Advanced Mathematics for Applications **Credits:** 4
- MATH 363 - Mathematical Statistics I **Credits:** 3
- MATH 364 - Mathematical Statistics II **Credits:** 3
- MATH 416 - Time Series Analysis **Credits:** 3
- MATH 445 - Deterministic Models in Operations Research **Credits:** 3
- MATH 446 - Probabilistic Models in Operations Research **Credits:** 3
- MATH 447 - Modeling and Simulation **Credits:** 3

MATH 448 - Introduction to Financial Mathematics **Credits:** 3

MATH 481 - Special Topics **Credits:** 1-3

Free electives for Pure Math Specialization: 20-22

Applied Mathematics Specialization: 35-36

Required Courses:

COSC 110 - Problem Solving and Structured Programming **Credits:** 3

COSC 343 - Introduction to Numerical Methods **Credits:** 3

or

MATH 343 - Introduction to Numerical Methods **Credits:** 3

MATH 363 - Mathematical Statistics I **Credits:** 3

MATH 447 - Modeling and Simulation **Credits:** 3

MATH 450 - Topics in Applied Computational Mathematics **Credits:** 3

Planned program in complementary field (3)

Choose one course from among:

MATH 342 - Advanced Mathematics for Applications **Credits:** 4

MATH 364 - Mathematical Statistics II **Credits:** 3

MATH 445 - Deterministic Models in Operations Research **Credits:** 3

MATH 446 - Probabilistic Models in Operations Research **Credits:** 3

Choose one additional course from among:

MATH 445 - Deterministic Models in Operations Research **Credits:** 3

MATH 446 - Probabilistic Models in Operations Research **Credits:** 3

Choose one course from among:

MATH 353 - Theory of Numbers **Credits:** 3

MATH 371 - Linear Algebra **Credits:** 3

MATH 421 - Advanced Calculus I **Credits:** 3

MATH 423 - Complex Variables **Credits:** 3

MATH 427 - Introduction to Topology **Credits:** 3

MATH 476 - Abstract Algebra I **Credits:** 3

Free electives for Applied Math Specialization: 12-14

Data Science Specialization

Required Courses:

MATH 316 - Data Science Fundamentals **Credits:** 3

MATH 411 - Univariate Data Analysis **Credits: 3**  
MATH 412 - Multivariate Statistics **Credits: 3**  
MATH 418 - Data Science Theory and Application **Credits: 3**  
MATH 446 - Probabilistic Models in Operations Research **Credits: 3**  
MATH 447 - Modeling and Simulation **Credits: 3**

Choose one course from among:

COSC 405 - Artificial Intelligence **Credits: 3**  
MATH 363 - Mathematical Statistics I **Credits: 3**  
MATH 371 - Linear Algebra **Credits: 3**  
MATH 416 - Time Series Analysis **Credits: 3**  
MATH 445 - Deterministic Models in Operations Research **Credits: 3**

**Minor in Computer Science: 15-18**

(4)

Must include COSC 341 and COSC 343

**Free electives for Data Science Specialization: 9-13**

**Total Degree Requirements: 120**

- (1) Students should take 2 credits of MATH 480 in Spring of junior year and 1 credit in Spring of senior year. Data Science Track students can substitute COSC 473 for MATH 480.
- (2) 3 credits of Internship will be applied to the major. Any additional credits may be used as free electives. Data Science Track students can substitute 3 credits of COSC 493 for MATH 493.
- (3) Requires advisor approval and at least 6cr in courses at 300 level or above.
- (4) Recommended COSC 310 and COSC 319.

## **Mathematics/Actuarial Science and Statistics, BS**

Program Code: MATH-ACTU

The program for a mathematics major in the Kopchick College of Natural Sciences and Mathematics has three options. A student may pursue a degree with a major in mathematics or a degree with a major in mathematics with a concentration in either applied mathematics or actuarial science. Those completing a degree with a major in mathematics will be prepared to continue their studies in mathematics in graduate school, though some may enter business, industry, or government service. Students receiving a mathematics degree with a concentration in applied mathematics will be primarily prepared to enter business, industry, or government service in an area where mathematics or computer science is used, or to continue their studies in applied mathematics or computer science in graduate school. Students in the actuarial science concentration take additional course work in finance and economics, preparing them to complete the first two professional actuarial exams and to pursue employment in the areas of insurance and investment. (1, 2)

**Liberal Studies: 46-47**

As outlined in the Liberal Studies Requirements with the following specifications:

### Mathematics:

MATH 125 - Calculus I/Physics, Chemistry, Mathematics **Credits: 3**

### Social Science:

ECON 121 - Principles of Macroeconomics **Credits: 3**

### Liberal Studies Elective: 6

No courses with MATH Prefix, intermediate-level foreign language and ECON 122 are required

### Major: 49

### Required Courses:

MATH 111 - First-year Seminar **Credits: 1**  
MATH 126 - Calculus II/Physics, Chemistry, Mathematics **Credits: 3**  
MATH 171 - Introduction to Linear Algebra **Credits: 3**  
MATH 216 - Probability and Statistics for Natural Sciences **Credits: 3**  
MATH 225 - Calculus III/Physics, Chemistry, Mathematics **Credits: 3**  
MATH 271 - Introduction to Mathematical Proofs I **Credits: 3**  
MATH 272 - Introduction to Mathematical Proofs II **Credits: 3**  
MATH 341 - Differential Equations **Credits: 3**  
MATH 363 - Mathematical Statistics I **Credits: 3**  
MATH 364 - Mathematical Statistics II **Credits: 3**  
MATH 448 - Introduction to Financial Mathematics **Credits: 3**  
MATH 450 - Topics in Applied Computational Mathematics **Credits: 3**

### Controlled Electives:

COSC 343 - Introduction to Numerical Methods **Credits: 3**

or

MATH 343 - Introduction to Numerical Methods **Credits: 3**

MATH 416 - Time Series Analysis **Credits: 3**

### One Course from the Following:

MATH 371 - Linear Algebra **Credits: 3**  
MATH 421 - Advanced Calculus I **Credits: 3**  
MATH 423 - Complex Variables **Credits: 3**

### One Course from the Following:

MATH 445 - Deterministic Models in Operations Research **Credits: 3**

MATH 446 - Probabilistic Models in Operations Research **Credits:** 3

### One Course from the Following:

MATH 480 - Seminar in Mathematics **Credits:** 1-3

MATH 493 - Internship in Mathematics **Credits:** 3-12 (3)

### Other Requirements: 6

ECON 356 - Introduction to Econometrics **Credits:** 3 (4)

FIN 320 - Corporate Finance **Credits:** 3 (4)

### Free Electives: 18-19

### Total Degree Requirements: 120

(1) Should pass SOA Exam P or Exam FM.

(2) "B" or higher grades in course work that carries Validation by Educational Experience (VEE) from the Society of Actuaries (required for SOA credential).

(3) Three credits of internship will be applied to the major. Additional credits may count as free electives.

(4) FIN 320 and ECON 356 must be passed with grade of "B" or better.

## Medical Imaging/Diagnostic Medical Sonography (Ultrasound), BS

Program Code: IMAG-SONO

The program leading to the bachelor of science degree in Medical Imaging is designed to prepare students for admission into an IUP affiliate institution focused on one of three tracks: Nuclear Medicine Technology, Diagnostic Medical Sonography (Ultrasound), or Echocardiography. This program is a 3+1 whereby the student spends the first three years at IUP taking the required math/science and liberal studies courses and then a year at an affiliate where they earn a certificate in one of the specialty diagnostic imaging programs. All of the coursework at IUP is preparatory towards the final year and the requirements by the Medical Imaging profession. A "C" or better in the following courses is required: MATH 105, CHEM 103, ENGL 101, PHYS 111, BIOL 150, and ENGL 310 or BCOM 321. Acceptance at an affiliate school is contingent upon the student meeting the academic program requirements. At the end of their senior year, upon successful completion of the certificate program at an articulated clinical affiliate accredited within the specific discipline, IUP will grant 32 credits that will be applied to the student's transcript and the bachelor's degree in the Diagnostic Imaging track will be conferred.

Diagnostic Medical Sonography or ultrasound, is a medical specialty in which allied health care professionals, use specialized equipment to create images of structures inside the human body. The process involves placing a small device called a transducer against the patient's skin near the body area to be imaged. A stream of high-frequency sound waves are sent into the body, then are detected as the sound waves bounce off internal structures. Different structures in the body reflect these sound waves differently. The reflected sound waves are analyzed by a computer to make an image of the structure(s) on a monitor or an image that can be recorded on hardcopy. These images created by sonographers help aid physicians in diagnosing and treating medical conditions in the abdomen, breast, heart and blood vessels and, more recently, in diagnosing and treating musculoskeletal problems.

## Liberal Studies: 43

As outlined in the Liberal Studies Requirements with the following specifications:

### Mathematics:

MATH 105 - College Algebra **Credits: 3**

### Philosophy/Religious Studies:

PHIL 130 - Introduction to Biomedical Ethics **Credits: 3**

### Natural Science:

CHEM 103 - Introduction to Chemistry for Health Sciences **Credits: 4**

CHEM 255 - Biochemistry for Health Sciences **Credits: 3**

### Social Science:

PSYC 101 - General Psychology **Credits: 3**

SOC 151 - Principles of Sociology **Credits: 3**

or

SOC 161 - Foundations of Sociology: Social Relations in Groups and Organizations **Credits: 3**

### Liberal Studies Electives: 3

COSC 101 - Computer Literacy **Credits: 3**

or

IFMG 101 - Computer Literacy **Credits: 3**

## Major: 35

### Required Courses:

(1)

IMAG 101 - Careers in Medical Imaging **Credits: 1**

IMAG 480 - Medical Imaging Seminar **Credits: 2**

Articulated courses in track transferred from affiliation agreement (1)

### Other Requirements: 22

(2)

BIOL 150 - Human Anatomy **Credits: 4**

BIOL 240 - Human Physiology **Credits: 4**

ENGL 310 - Public Speaking **Credits: 3**

or

BCOM 321 - Business and Interpersonal Communications **Credits: 3**

NURS 314 - Health Policy and Law **Credits: 3**

PHYS 111 - Physics I Lecture **Credits: 3**

PHYS 121 - Physics I Lab **Credits: 1**

PHYS 112 - Physics II Lecture **Credits: 3**

PHYS 122 - Physics II Lab **Credits: 1**

## Free Electives: 20

(3)

## Total Requirements: 120

(1) These courses are offered at the University of Findlay/Nuclear Medicine Institute, Findlay, Ohio, and are consistent with requirements of the Joint Review committee on Education in Diagnostic Medical Sonography. The courses are completed during the final 12 months of the degree program.

(2) Students are also required to complete a medical terminology course/ program. Options to fulfill this requirement must be approved by the coordinator of allied health professions.

(3) Two writing-intensive courses are required. Both courses may be from either Liberal Studies or free electives.

## Medical Imaging/Echocardiography, BS

Program Code: IMAG-ECHO

The program leading to the bachelor of science degree in Medical Imaging is designed to prepare students for admission into an IUP affiliate institution focused on one of three tracks: Nuclear Medicine Technology, Diagnostic Medical Sonography (Ultrasound), or Echocardiography. This program is a 3+1 whereby the student spends the first three years at IUP taking the required math/science and liberal studies courses and then a year at an affiliate where they earn a certificate in one of the specialty diagnostic imaging programs. All of the coursework at IDP is preparatory towards the final year and the requirements by the Medical Imaging profession. A "C" or better in the following courses is required: MATH 105, CHEM 103, ENGL 101, PHYS 111, BIOL 150, and ENGL 310 or BCOM 321. Acceptance at an affiliate school is contingent upon the student meeting the academic program requirements. At the end of their senior year, upon successful completion of the certificate program at an articulated clinical affiliate accredited within the specific discipline, IUP will grant 32 credits that will be applied to the student's transcript and the bachelor's degree in the Diagnostic Imaging track will be conferred.

Echocardiography is a medical specialty in which allied health care professionals use specialized equipment to create images of structures inside the human body. These professionals use echocardiogram technology to produce images of the patient's hearts. They create 2-D and 3-D pictures of the heart through the use of high frequency sound waves and special equipment. A transducer is placed against the patient's skin by sending a stream of high frequency sound waves into the body and then detects the sound waves as they bounce off the heart. The reflected sound waves are analyzed by a computer to make an image of the structure(s) on a monitor or images that can be recorded on hard copy. The images created by sonographers help aid physicians in diagnosing and treating numerous disease processes. Sonographers are trusted members of the healthcare team and are relied upon to obtain diagnostic images that will allow physicians to provide the best possible care for their patients.

Echocardiography technicians may specialize in adult echocardiography, pediatric echocardiography or fetal echocardiography.

## Liberal Studies: 43

As outlined in Liberal Studies Requirements section with the following specifications:

### Mathematics:

MATH 105 - College Algebra **Credits: 3**

### Philosophy/Religious Studies:

PHIL 130 - Introduction to Biomedical Ethics **Credits: 3**

### Natural Science:

CHEM 103 - Introduction to Chemistry for Health Sciences **Credits: 4**

CHEM 255 - Biochemistry for Health Sciences **Credits: 3**

### Social Science:

PSYC 101 - General Psychology **Credits: 3**

SOC 151 - Principles of Sociology **Credits: 3**

or

SOC 161 - Foundations of Sociology: Social Relations in Groups and Organizations **Credits: 3**

### Liberal Studies Electives: 3

COSC 101 - Computer Literacy **Credits: 3**

or

IFMG 101 - Computer Literacy **Credits: 3**

## Major: 35

### Required Courses:

(1)

IMAG 101 - Careers in Medical Imaging **Credits: 1**

IMAG 480 - Medical Imaging Seminar **Credits: 2**

Articulated courses in track transferred from affiliation agreement (1)

### Other Requirements: 22

(2)

BIOL 150 - Human Anatomy **Credits: 4**



BIOL 240 - Human Physiology **Credits: 4**

ENGL 310 - Public Speaking **Credits: 3**

or

BCOM 321 - Business and Interpersonal Communications **Credits: 3**

NURS 314 - Health Policy and Law **Credits: 3**

PHYS 111 - Physics I Lecture **Credits: 3**

PHYS 121 - Physics I Lab **Credits: 1**

PHYS 112 - Physics II Lecture **Credits: 3**

PHYS 122 - Physics II Lab **Credits: 1**

## Free Electives: 20

(3)

## Total Requirements: 120

(1) These courses are offered at the University of Findlay and are consistent with requirement of the Joint Review Committee on Education in Diagnostic Medical Sonography. The courses are completed during the final 12 months of the degree program.

(2) Students are also required to complete a medical terminology course/ program. Options to fulfill this requirement must be approved by the coordinator of allied health professions.

(3) Two writing-intensive courses are required. Both courses may be from either Liberal Studies or free electives.

## Medical Imaging/Nuclear Medicine Technology, BS

Program Code: IMAG-NMDT

The program leading to the bachelor of science degree in Medical Imaging is designed to prepare students for admission into an IUP affiliate institution focused on one of three tracks: Nuclear Medicine Technology, Diagnostic Medical Sonography (Ultrasound), or Echocardiography. This program is a 3+1 whereby the student spends the first three years at IUP taking the required math/science and liberal studies courses and then a year at an affiliate where they earn a certificate in one of the specialty diagnostic imaging programs. All of the coursework at IUP is preparatory towards the final year and the requirements by the Medical Imaging profession. A "C" or better in the following courses is required: MATH 105, CHEM 103, ENGL 101, PHYS 111, BIOL 150, and ENGL 310 or BCOM 321. Acceptance at an affiliate school is contingent upon the student meeting the academic program requirements. At the end of their senior year, upon successful completion of the certificate program at an articulated clinical affiliate accredited within the specific discipline, IUP will grant 32 credits that will be applied to the student's transcript and the bachelor's degree in the Diagnostic Imaging track will be conferred.

## Liberal Studies: 43

As outlined in the Liberal Studies Requirements with the following specifications:

### Mathematics:

MATH 105 - College Algebra **Credits: 3**

## Philosophy/Religious Studies:

PHIL 130 - Introduction to Biomedical Ethics **Credits: 3**

## Natural Science:

CHEM 103 - Introduction to Chemistry for Health Sciences **Credits: 4**

CHEM 255 - Biochemistry for Health Sciences **Credits: 3**

## Social Science:

PSYC 101 - General Psychology **Credits: 3**

SOC 151 - Principles of Sociology **Credits: 3**

or

SOC 161 - Foundations of Sociology: Social Relations in Groups and Organizations **Credits: 3**

## Liberal Studies Electives: 3

COSC 101 - Computer Literacy **Credits: 3**

or

IFMG 101 - Computer Literacy **Credits: 3**

## Major: 35

### Required Courses:

(1)

IMAG 101 - Careers in Medical Imaging **Credits: 1**

IMAG 480 - Medical Imaging Seminar **Credits: 2**

Articulated courses in track transferred from affiliation agreement (1)

### Other Requirements: 22

(2)

BIOL 150 - Human Anatomy **Credits: 4**

BIOL 240 - Human Physiology **Credits: 4**

ENGL 310 - Public Speaking **Credits: 3**

or

BCOM 321 - Business and Interpersonal Communications **Credits: 3**

NURS 314 - Health Policy and Law **Credits: 3**

PHYS 111 - Physics I Lecture **Credits: 3**

PHYS 121 - Physics I Lab **Credits: 1**

PHYS 112 - Physics II Lecture **Credits: 3**

PHYS 122 - Physics II Lab **Credits: 1**

## Free Electives: 20

(3)

## Total Degree Requirements: 120

(1) These courses are offered at the University of Findlay/Nuclear Medicine Institute, Findlay, Ohio, and/or Community College of Allegheny County nuclear medicine technology program, Pittsburgh. These areas of study are consistent with requirements of the JRCNMT. All eight of these areas of study are completed during the final 12 months of the degree program.

(2) Students are also required to complete a medical terminology course/ program. Options to fulfill this requirement must be approved by the coordinator of allied health professions.

(3) Two writing-intensive courses are required. Both courses may be from either Liberal Studies or Free Electives.

## Medical Technology, BS

Program Code: MEDT

Medical Technology encompasses the study of analytical and diagnostic procedures used in clinical laboratories and in medical research. Medical technologists (also known as clinical laboratory scientists) perform a variety of laboratory tests, upon which the physician depends for accurate diagnosis, prognosis, and proper treatment of the patient. The program is designed as a 3+1 with three years at IUP taking the required sciences and liberal studies courses and then one year of clinical experience at an IUP-approved affiliate program. All of the coursework at IUP is preparatory toward the final year and the requirements by the Medical Technology profession. At the end of their senior year, upon successful completion of the program at an articulated clinical affiliate accredited within the discipline, IUP will grant 30 credits that will be applied to the student's transcript and the bachelor's degree in Medical Technology will be conferred. The program also prepares the student for graduate and professional schools. IUP maintains affiliations with accredited schools of medical technology/ clinical laboratory science. To be competitive for clinical placement, the student must have a minimum overall GPA and math/science GPA of 2.8. Since admission to any hospital program is on a competitive basis, IUP cannot guarantee admission.

The following programs maintain agreements of affiliation with IUP:

UPMC Altoona Regional Health System, Altoona; Conemaugh Memorial Medical Center, Johnstown; Pennsylvania General College of Health Sciences, Lancaster; the Reading Hospital School of Health Science, Reading; St. Christopher's Hospital for Children, Philadelphia; St. Vincent Health Center, Erie; UPMC Susquehanna Health, Williamsport; UPMC Chautauqua WCA Hospital, Jamestown, New York; and Wellspan York Hospital, York.

Completion of academic studies at IUP and of one year of clinical experience qualifies the student to take a national certification examination. Successful results on this examination lead to certification as a professionally qualified medical technologist/clinical laboratory scientist.

## Liberal Studies:44

As outlined in the Liberal Studies Requirements with the following specifications:

### Mathematics:

MATH 217 - Probability and Statistics **Credits: 3**

## Natural Science:

CHEM 111 - General Chemistry I **Credits: 4**  
CHEM 112 - General Chemistry II **Credits: 4**

## Writing Intensive:

One required

## Liberal Studies Elective: 3

PHYS 111 - Physics I Lecture **Credits: 3**

## Major: 30

## Required Courses: (1)

Articulated courses in Medical Technology transferred from affiliation agreement (1)

## Other Requirements: 40

BIOL 150 - Human Anatomy **Credits: 4**  
BIOL 202 - Principles of Cell and Molecular Biology **Credits: 4**  
BIOL 240 - Human Physiology **Credits: 4**  
BIOL 241 - Introductory Medical Microbiology **Credits: 4**  
or  
BIOL 250 - Principles of Microbiology **Credits: 4**  
BIOL 364 - Immunology **Credits: 3**  
CHEM 231 - Organic Chemistry I **Credits: 4**  
CHEM 332 - Organic Chemistry II **Credits: 4**  
CHEM 325 - Analytical Chemistry I **Credits: 4**  
CHEM 351 - Biochemistry **Credits: 4**  
PHYS 121 - Physics I Lab **Credits: 1**  
PHYS 112 - Physics II Lecture **Credits: 3**  
PHYS 122 - Physics II Lab **Credits: 1**

## Free Electives: 6

## Total Degree Requirements: 120

See advisory paragraph "Timely Completion of Degree Requirements" in the section on Liberal Studies and Requirements for Graduation.

(1) These courses are offered by affiliating, hospital-based schools of medical technology (also known as clinical laboratory science). Areas of study are consistent with requirements of the National Accrediting Agency for Clinical Laboratory Sciences and are completed during the final 12 months of the degree program at an affiliating school.

## Music Education, BSED

Program Code: MUEDAH

Also see requirements leading to teacher certification, titled "3-Step Process for Teacher Education," in the College of Education and Communications section of this catalog.

### Liberal Studies: 43

As outlined in the Liberal Studies Requirements with the following specifications:

#### Fine Arts:

Fulfilled by courses in the major

#### Humanities:

MUHI 102 - Music and Literature Survey **Credits: 3**

#### Mathematics: 3

One of the following

MATH 101 - Foundations of Mathematics **Credits: 3**

MATH 105 - College Algebra **Credits: 3**

MATH 110 - Elementary Functions **Credits: 3**

MATH 217 - Probability and Statistics **Credits: 3**

#### Natural Science: Option II

See requirements for **Natural Science: Option II** of the Liberal Studies Requirements **Knowledge Area : Natural Science: One Option** in the *Graduation Requirements* section of this catalog.

#### Social Science:

PSYC 101 - General Psychology **Credits: 3**

#### Liberal Studies Electives: 6

MUHI 301 - Music History I **Credits: 3**

MUHI 302 - Music History II **Credits: 3**

#### College: 32

#### Professional Education Sequence:

EDEX 323 - Instruction of English Language Learners with Special Needs **Credits: 2**  
EDSP 102 - Educational Psychology **Credits: 3**  
EDUC 242 - Pre-student Teaching Clinical Experience I **Credits: 1**  
EDUC 342 - Pre-student Teaching Clinical Experience II **Credits: 1**  
EDUC 421 - Student Teaching **Credits: 5-6**  
EDUC 441 - Student Teaching **Credits: 5-12**  
EDUC 442 - School Law **Credits: 1**  
MUSC 240 - Technology in the Music Classroom **Credits: 2**  
MUSC 331 - Elementary Methods **Credits: 2**  
MUSC 333 - Instrumental Methods **Credits: 2**  
MUSC 335 - Music for Students with Disabilities in Inclusive Settings **Credits: 1**  
MUSC 337 - General/Choral Methods **Credits: 2**

### One Additional Course from:

MATH 101 - Foundations of Mathematics **Credits: 3**  
MATH 105 - College Algebra **Credits: 3**  
MATH 110 - Elementary Functions **Credits: 3**  
MATH 217 - Probability and Statistics **Credits: 3**

## Major: 53

### Required Courses:

APMU (Primary) Applied Music I-VII **Credits: 14**  
APMU 427 - Capstone Jury: Primary Instrument **Credits: 0**  
MUSC 111 - Theory Skills I **Credits: 2**  
MUSC 112 - Theory Skills II **Credits: 2**  
MUSC 115 - Theory I **Credits: 3**  
MUSC 116 - Theory II **Credits: 3**  
MUSC 120-MUSC 140 7 semesters of music ensembles (0-1cr each) **Credits: 0-1**  
MUSC 190 - Introduction to Music Education **Credits: 1**  
MUSC 211 - Theory Skills III **Credits: 2**  
MUSC 212 - Theory Skills IV **Credits: 2**  
MUSC 215 - Theory III **Credits: 3**  
MUSC 216 - Theory IV **Credits: 3**  
MUSC 311 - Fundamentals of Conducting **Credits: 2**  
MUSC 312 - Choral Conducting **Credits: 2**  
or  
MUSC 313 - Instrumental Conducting **Credits: 2**  
  
MUSC 475 - Music Lab **Credits: 0** (7 semesters of recital attendance)

### Concentration Area Courses:

(select one concentration)

### Voice Concentration

APMU 101 - Piano I **Credits: 1**

APMU 127 - Piano Proficiency Level II **Credits: 0**  
APMU 151 - Piano II **Credits: 1**  
APMU 201 - Piano III **Credits: 1**  
APMU 251 - Piano IV **Credits: 1**  
MUSC 351 - Italian Diction and Literature **Credits: 1**  
MUSC 353 - French Diction and Literature **Credits: 1**  
MUSC 354 - German Diction and Literature **Credits: 1**

**Select Two of the Following Class Instrument Courses: 2**

MUSC 155 - Class Strings I **Credits: 1**  
MUSC 157 - Class Percussion I **Credits: 1**  
MUSC 159 - Class Brass I **Credits: 1**  
MUSC 161 - Class Woodwinds I **Credits: 1**

**Instrumental Concentration**

APMU 126 - Piano Proficiency Level I **Credits: 0**  
MUSC 121 - Chamber Singers **Credits: 0/1**  
or  
MUSC 122 - University Chorale **Credits: 0/1**  
or  
MUSC 132 - Treble or Bass Chorus **Credits: 0-1**  
or  
MUSC 134 - University Chorus **Credits: 0-1**  
MUSC 151 - Class Voice I **Credits: 1**  
MUSC 153 - Class Piano I **Credits: 1**  
MUSC 154 - Class Piano II **Credits: 1**  
MUSC 155 - Class Strings I **Credits: 1**  
MUSC 157 - Class Percussion I **Credits: 1**  
MUSC 159 - Class Brass I **Credits: 1**  
MUSC 161 - Class Woodwinds I **Credits: 1**

**Controlled Electives:**

Select courses with MUSC, MUHI, or APMU prefixes to earn a total of 53cr in major.

**Total Degree Requirements: 128**

**Music Performance, BFA**

Program Code: MUPFAH-BFA

**Liberal Studies: 43**

As outlined in the Liberal Studies Requirements with the following specifications:

## Fine Arts:

MUHI 102 - Music and Literature Survey **Credits:** 3

## Humanities Literature:

Fulfilled by

MUHI 102 - Music and Literature Survey **Credits:** 3

## Mathematics:

MATH 101 - Foundations of Mathematics **Credits:** 3 or other 3cr Liberal Studies Mathematics

## Natural Science: Option II recommended

See requirements for **Natural Science: Option II** of the Liberal Studies Requirements **Knowledge Area : Natural Science: One Option** in the *Graduation Requirements* section of this catalog.

PHYS 105 - The Physics of Light and Sound **Credits:** 3 recommended

## Social Science:

PSYC 101 - General Psychology **Credits:** 3

## Liberal Studies Electives: 6

MUHI 301 - Music History I **Credits:** 3

MUHI 302 - Music History II **Credits:** 3

No courses with MUSC prefix

## Major: 54-56

## Required Courses:

APMU (Primary) Applied Music I-VIII (4cr each) **Credits:** 30-32 (1)

APMU 427 - Capstone Jury: Primary Instrument **Credits:** 0

MUSC 111 - Theory Skills I **Credits:** 2

MUSC 112 - Theory Skills II **Credits:** 2

MUSC 115 - Theory I **Credits:** 3

MUSC 116 - Theory II **Credits:** 3

MUSC 180 - Technology for General Musicianship **Credits:** 2

MUSC 211 - Theory Skills III **Credits:** 2

MUSC 212 - Theory Skills IV **Credits:** 2

MUSC 215 - Theory III **Credits:** 3

MUSC 216 - Theory IV **Credits:** 3

MUSC 311 - Fundamentals of Conducting **Credits:** 2

MUSC 475 - Music Lab **Credits:** 0 (8 semesters of recital attendance)



## Controlled Electives: 21-23

### All Concentrations

MUSC 120-MUSC 140 Music Ensembles (2) **Credits: 8**  
Electives with APMU, MUSC (but not 120-140), or MUHI prefix **Credits: 0-11**

### Keyboard Majors

MUSC 217 - Keyboard Harmony **Credits: 3**  
MUSC 405 - Piano Pedagogy **Credits: 3**

### Voice Majors

APMU 126 - Piano Proficiency Level I **Credits: 0**  
MUSC 153 - Class Piano I **Credits: 1**  
MUSC 154 - Class Piano II **Credits: 1**  
MUSC 351 - Italian Diction and Literature **Credits: 1**  
MUSC 353 - French Diction and Literature **Credits: 1**  
MUSC 354 - German Diction and Literature **Credits: 1**  
MUSC 406 - Vocal Pedagogy **Credits: 3**  
Foreign language course at 100-level or above (critical languages excluded)

### String Majors

APMU 126 - Piano Proficiency Level I **Credits: 0**  
MUSC 153 - Class Piano I **Credits: 1**  
MUSC 154 - Class Piano II **Credits: 1**  
MUSC 403 - Practicum in String Pedagogy **Credits: 0/1**

### Wind and Percussion Majors

APMU 126 - Piano Proficiency Level I **Credits: 0**  
APMU 480 - Wind and Percussion Pedagogy **Credits: 2**  
MUSC 153 - Class Piano I **Credits: 1**  
MUSC 154 - Class Piano II **Credits: 1**

### Composition Majors

MUSC 217 - Keyboard Harmony **Credits: 3**  
MUSC 315 - Theory V **Credits: 3**  
MUSC 417 - Orchestration **Credits: 3**

## Total Degree Requirements: 120

(1) Voice, keyboard, and string majors will take eight semesters of 4cr lessons (32cr). Wind and percussion majors will take seven semesters of 4cr lessons and one semester of 2cr lessons (30cr). Composition majors will take up to 16cr of composition lessons.

(2) Students are required to participate in ensembles for five hours a week each semester for eight semesters

## **Music/General Music, BA**

Program Code: MUSC-MGNL

The General Music Track provides focused instruction in music within the context of a traditional liberal arts education. The program is flexible enough to accommodate students with broad or nascent academic interests, and often leads to graduate study. The track is ideal for students who wish to pursue a double major or enter the dual-baccalaureate program.

### **Liberal Studies: 40-42**

As outlined in the Liberal Studies Requirements with the following specifications:

#### **Fine Arts:**

MUHI 102 - Music and Literature Survey **Credits: 3**

#### **Humanities Literature:**

*Fulfilled by MUHI 102.*

#### **Mathematics:**

MATH 101 - Foundations of Mathematics **Credits: 3** or other Liberal Studies Mathematics

#### **Natural Science:**

Option II recommended

PHYS 105 - The Physics of Light and Sound **Credits: 3** recommended

#### **Social Science:**

PSYC 101 - General Psychology **Credits: 3**

#### **Liberal Studies Elective: 3**

MUHI 301 - Music History I **Credits: 3**

No courses with MUSC prefix

### **Major: 42**

## Required Courses: 39

APMU (Primary) Applied Music I-VI **Credits:** 12  
APMU 427 - Capstone Jury: Primary Instrument **Credits:** 0  
MUHI 302 - Music History II **Credits:** 3  
MUSC 111 - Theory Skills I **Credits:** 2  
MUSC 112 - Theory Skills II **Credits:** 2  
MUSC 115 - Theory I **Credits:** 3  
MUSC 116 - Theory II **Credits:** 3  
MUSC 153 - Class Piano I **Credits:** 1  
MUSC 154 - Class Piano II **Credits:** 1  
MUSC 180 - Technology for General Musicianship **Credits:** 2  
MUSC 211 - Theory Skills III **Credits:** 2  
MUSC 212 - Theory Skills IV **Credits:** 2  
MUSC 215 - Theory III **Credits:** 3  
MUSC 216 - Theory IV **Credits:** 3  
MUSC 475 - Music Lab **Credits:** 0 (recital attendance)

## Controlled Electives: 3

APMU 126 - Piano Proficiency Level I **Credits:** 0  
MUSC 120-MUSC 140 (4 semesters of music ensembles) **Credits:** 0-3  
MUSC 217 - Keyboard Harmony **Credits:** 3 (piano and organ only)  
MUSC 351 - Italian Diction and Literature **Credits:** 1 (voice only)  
MUSC 353 - French Diction and Literature **Credits:** 1 (voice only)  
MUSC 354 - German Diction and Literature **Credits:** 1 (voice only)

## Free Electives: 36-38 (1)

## Total Degree Requirements: 120

(1) Students in the General Music Track are encouraged to consider a minor in another department. They may wish to explore a double major or the certificate programs in Audio Production, Digital Marketing, and Popular Music Studies.

## Music/Music Industry, BA

The Music Industry Track prepares students for careers in the music industry. The program combines a core music curriculum with courses in business, management, and marketing. It culminates in an internship experience and hands-on project. The track is flexible and ideal for students interested in artist management, music production, music publishing, and event promotion.

## Liberal Studies: 40-42

As outlined in the Liberal Studies Requirements with the following specifications:

### Fine Arts:

MUHI 102 - Music and Literature Survey **Credits:** 3

## Humanities Literature:

Fulfilled by MUHI 102.

## Mathematics:

MATH 101 - Foundations of Mathematics **Credits: 3**  
- OR - other Liberal Studies Mathematics (3 cr).

## Social Science:

PSYC 101 - General Psychology **Credits: 3**

## Natural Science:

Option II recommended.

PHYS 105 - The Physics of Light and Sound (3cr) recommended.

## Liberal Studies Electives:

3 credits required. No courses with MUSC prefix.

MUHI 302 - Music History II **Credits: 3**

## Major: 42

## Required Courses: 30

APMU Primary Applied Music I-IV **Credits: 8**  
APMU 427 - Capstone Jury: Primary Instrument **Credits: 0**  
MUHI 333 - History of Popular Music Since 1945 **Credits: 3**  
MUSC 111 - Theory Skills I **Credits: 2**  
MUSC 112 - Theory Skills II **Credits: 2**  
MUSC 115 - Theory I **Credits: 3**  
MUSC 116 - Theory II **Credits: 3**  
MUSC 120-140 - Music Ensembles **Credits: 0-3**  
MUSC 180 - Technology for General Musicianship **Credits: 2**  
MUSC 360 - Introduction to the Music Industry **Credits: 3**  
MUSC 420 - Professional Practices **Credits: 2**  
MUSC 475 - Music Lab **Credits: 0** (recital attendance)  
MUSC 493 - Internship in Music **Credits: 1-6**

## Controlled Electives: 12

Select four courses from among the following:

ACCT 200 - Foundations of Accounting **Credits: 3**

BCOM 321 - Business and Interpersonal Communications **Credits: 3**

BLAW 235 - Legal Environment of Business **Credits: 3**

MGMT 275 - Introduction to Entrepreneurship **Credits: 3**

MGMT 310 - Principles of Management **Credits: 3**

MKTG 320 - Principles of Marketing **Credits: 3**

## Free Electives: 36-38 (1)

## Total Credit Requirements: 120

(1) Students in the Music Industry Track are encouraged to consider a minor in Business Administration, Communications Media, or Marketing. They may also be interested in the certificate programs in Audio Production, Digital Marketing, and Popular Music Studies.

## Natural Science, BS

Program Code: NASC-BS

## Liberal Studies: 48

As outlined in the Liberal Studies Requirements with the following specifications:

### Mathematics:

MATH 121 - Calculus I for Natural and Social Sciences **Credits: 4**

### Natural Science:

CHEM 111 - General Chemistry I **Credits: 4**

CHEM 112 - General Chemistry II **Credits: 4**

### Social Science:

PSYC 101 - General Psychology **Credits: 3**

### Writing Intensive:

A second writing-intensive course is not required for three-year students who transfer to a professional school with an articulation agreement.

### Liberal Studies Elective: 3

COSC 101 - Computer Literacy **Credits: 3**

or

IFMG 101 - Computer Literacy **Credits: 3**

No courses with SCI prefix

## Major: 43

### Required Courses:

#### Biology:

- BIOL 150 - Human Anatomy **Credits: 4**
- BIOL 201 - Principles of Ecology and Evolution **Credits: 4**
- BIOL 202 - Principles of Cell and Molecular Biology **Credits: 4**
- BIOL 203 - Principles of Genetics and Development **Credits: 4**
- BIOL 240 - Human Physiology **Credits: 4**
- BIOL 241 - Introductory Medical Microbiology **Credits: 4**

#### Chemistry:

- CHEM 231 - Organic Chemistry I **Credits: 4**
- CHEM 332 - Organic Chemistry II **Credits: 4**
- or
- CHEM 351 - Biochemistry **Credits: 4**

#### Physics:

- PHYS 111 - Physics I Lecture **Credits: 3**
- PHYS 121 - Physics I Lab **Credits: 1**
- PHYS 112 - Physics II Lecture **Credits: 3**
- PHYS 122 - Physics II Lab **Credits: 1**

#### Mathematics:

- MATH 216 - Probability and Statistics for Natural Sciences **Credits: 3**

### Other Requirements: 0-6

Foreign Language Intermediate Level 0-6 cr

### Free Electives: 23-29

### Total Degree Requirements: 120

## Natural Science/Pre-chiropractic, BS

Program Code: NASC-PCHR

Accelerated three-year New York Chiropractic College, Logan Chiropractic College, Sherman Chiropractic College, and Parker Chiropractic programs. A maximum of 30cr of work may be transferred after the first year at one of the chiropractic school

programs. Upon completion of the first year of studies at one of the chiropractic school programs, a transcript from that school is to be sent by the student to the dean of the College of Natural Sciences and Mathematics with a note requesting application materials for graduation.

## Liberal Studies: 48

As outlined in the Liberal Studies Requirements with the following specifications:

### Mathematics:

MATH 121 - Calculus I for Natural and Social Sciences **Credits: 4**

### Natural Science:

CHEM 111 - General Chemistry I **Credits: 4**

CHEM 112 - General Chemistry II **Credits: 4**

### Social Science:

PSYC 101 - General Psychology **Credits: 3**

### Writing Intensive:

A second writing-intensive course is not required for three-year students who transfer to a professional school with an articulation agreement.

### Liberal Studies Elective: 3

COSC 101 - Computer Literacy **Credits: 3**

No courses with SCI prefix

## Major: 43

### Required Courses:

BIOL 150 - Human Anatomy **Credits: 4**

BIOL 201 - Principles of Ecology and Evolution **Credits: 4**

BIOL 202 - Principles of Cell and Molecular Biology **Credits: 4**

BIOL 203 - Principles of Genetics and Development **Credits: 4**

BIOL 240 - Human Physiology **Credits: 4**

BIOL 241 - Introductory Medical Microbiology **Credits: 4**

CHEM 231 - Organic Chemistry I **Credits: 4**

CHEM 332 - Organic Chemistry II **Credits: 4**

or

CHEM 351 - Biochemistry **Credits: 4**

PHYS 111 - Physics I Lecture **Credits: 3**  
PHYS 121 - Physics I Lab **Credits: 1**  
PHYS 112 - Physics II Lecture **Credits: 3**  
PHYS 122 - Physics II Lab **Credits: 1**  
MATH 216 - Probability and Statistics for Natural Sciences **Credits: 3**

## Other Requirements: 0-6

Foreign Language Intermediate Level

## Free Electives: 23-29

(1)

Electives to meet minimum of 90 IUP cr and minimum of 24cr of coursework in the humanities and/or social sciences areas for admission to affiliated chiropractic colleges after three years at IUP  
Maximum cr for work at affiliated chiropractic school **Credits: 30**

## Total Degree Requirements: 120

(1) Student is to work with his/her advisor to select appropriate free electives for professional school. Additional courses in biology and KHSS 315 or KHSS 345 are recommended.

## Natural Science/Pre-dentistry, BS

Program Code: NASC-PDNT

Accelerated three-year Temple University School of Dentistry program. A maximum of 30cr of work may be transferred after the first year at Temple University School of Dentistry. Upon completion of the first year of studies at Temple University School of Dentistry, a transcript from Temple University is to be sent by the student to the dean of the College of Natural Sciences and Mathematics with a note requesting application materials for graduation.

## Liberal Studies: 48

As outlined in the Liberal Studies Requirements with the following specifications:

### Mathematics:

MATH 121 - Calculus I for Natural and Social Sciences **Credits: 4**

### Natural Science:

CHEM 111 - General Chemistry I **Credits: 4**  
CHEM 112 - General Chemistry II **Credits: 4**

### Social Science:



PSYC 101 - General Psychology **Credits: 3**

## Writing Intensive:

A second writing-intensive course is not required for three-year students who transfer to a professional school with an articulation agreement.

## Liberal Studies Elective: 3

COSC 101 - Computer Literacy **Credits: 3**

No courses with SCI prefix

## Major: 43

## Required Courses:

BIOL 150 - Human Anatomy **Credits: 4**

BIOL 201 - Principles of Ecology and Evolution **Credits: 4**

BIOL 202 - Principles of Cell and Molecular Biology **Credits: 4**

BIOL 203 - Principles of Genetics and Development **Credits: 4**

BIOL 240 - Human Physiology **Credits: 4**

BIOL 241 - Introductory Medical Microbiology **Credits: 4**

CHEM 231 - Organic Chemistry I **Credits: 4**

CHEM 332 - Organic Chemistry II **Credits: 4**

or

CHEM 351 - Biochemistry **Credits: 4**

PHYS 111 - Physics I Lecture **Credits: 3**

PHYS 121 - Physics I Lab **Credits: 1**

PHYS 112 - Physics II Lecture **Credits: 3**

PHYS 122 - Physics II Lab **Credits: 1**

MATH 216 - Probability and Statistics for Natural Sciences **Credits: 3**

## Other Requirements: 0-6

Foreign Language Intermediate Level

## Free Electives: 23-29

(1)

Electives to meet minimum of 90 IUP cr and minimum of 24cr of coursework in the humanities and/or social sciences areas for admission to affiliated chiropractic colleges after three years at IUP

Maximum cr for work at affiliated chiropractic school **Credits: 30**

## Total Degree Requirements: 120

(1) Student is to work with his/her advisor to select appropriate free electives for professional school. Ceramics and additional courses in biology are highly recommended.

## Natural Science/Pre-optometry, BS

Program Code: NASC-POPT

Accelerated three-year Salus University program. A maximum of 30cr of work may be transferred after the first year at Salus. Upon completion of the first year of studies at Salus, a transcript from Salus is to be sent by the student to the dean of the College of Natural Sciences and Mathematics with a note requesting application materials for graduation.

### Liberal Studies: 48

As outlined in the Liberal Studies Requirements with the following specifications:

#### Mathematics:

MATH 121 - Calculus I for Natural and Social Sciences **Credits: 4**

#### Natural Science:

CHEM 111 - General Chemistry I **Credits: 4**

CHEM 112 - General Chemistry II **Credits: 4**

#### Social Science:

ECON 101 - Basic Economics **Credits: 3**

PSYC 101 - General Psychology **Credits: 3**

#### Writing Intensive:

A second writing-intensive course is not required for three-year students who transfer to a professional school with an articulation agreement.

#### Liberal Studies Elective: 3

COSC 101 - Computer Literacy **Credits: 3**

No courses with SCI prefix

### Major: 43

#### Required Courses:

BIOL 150 - Human Anatomy **Credits: 4**

BIOL 201 - Principles of Ecology and Evolution **Credits: 4**

BIOL 202 - Principles of Cell and Molecular Biology **Credits: 4**

BIOL 203 - Principles of Genetics and Development **Credits: 4**  
BIOL 240 - Human Physiology **Credits: 4**  
BIOL 241 - Introductory Medical Microbiology **Credits: 4**  
CHEM 231 - Organic Chemistry I **Credits: 4**  
CHEM 332 - Organic Chemistry II **Credits: 4**  
or  
CHEM 351 - Biochemistry **Credits: 4**  
PHYS 111 - Physics I Lecture **Credits: 3**  
PHYS 121 - Physics I Lab **Credits: 1**  
PHYS 112 - Physics II Lecture **Credits: 3**  
PHYS 122 - Physics II Lab **Credits: 1**  
MATH 216 - Probability and Statistics for Natural Sciences **Credits: 3**

## Other Requirements: 0-6

Foreign Language Intermediate Level

## Free Electives: 23-29

(1)

Electives to meet minimum of 90 IUP cr and minimum of 24cr of coursework in the humanities and/or social sciences areas for admission to affiliated chiropractic colleges after three years at IUP  
Maximum cr for work at affiliated chiropractic school **Credits: 30**

## Total Degree Requirements: 120

(1) Student is to work with his/her advisor to select appropriate free electives for professional school. Neurobiology and optics are highly recommended courses.

## Natural Science/Pre-physical Therapy, BS

Program Code: NASC-PPTH

Accelerated three-year Gannon University School of Physical Therapy program. A maximum of 30cr of work may be transferred after the first year at Gannon University School of Physical Therapy. Upon completion of the first year of studies at one of the physical therapy schools, a transcript from that school is to be sent by the student to the dean of the College of Natural Sciences and Mathematics with a note requesting application materials for graduation. Articulation agreement with Chatham University School of Physical Therapy requires a BS from IUP.

## Liberal Studies: 48

As outlined in the Liberal Studies Requirements with the following specifications:

### Mathematics:

MATH 121 - Calculus I for Natural and Social Sciences **Credits: 4**

## Natural Science:

CHEM 111 - General Chemistry I **Credits: 4**  
CHEM 112 - General Chemistry II **Credits: 4**

## Social Science:

ECON 101 - Basic Economics **Credits: 3**  
PSYC 101 - General Psychology **Credits: 3**

## Writing Intensive:

A second writing-intensive course is not required for three-year students who transfer to a professional school with an articulation agreement.

## Liberal Studies Elective: 3

COSC 101 - Computer Literacy **Credits: 3**  
No courses with SCI prefix

## Major: 43

## Required Courses:

BIOL 150 - Human Anatomy **Credits: 4**  
BIOL 201 - Principles of Ecology and Evolution **Credits: 4**  
BIOL 202 - Principles of Cell and Molecular Biology **Credits: 4**  
BIOL 203 - Principles of Genetics and Development **Credits: 4**  
BIOL 240 - Human Physiology **Credits: 4**  
BIOL 241 - Introductory Medical Microbiology **Credits: 4**  
CHEM 231 - Organic Chemistry I **Credits: 4**

CHEM 332 - Organic Chemistry II **Credits: 4**  
or  
CHEM 351 - Biochemistry **Credits: 4**

PHYS 111 - Physics I Lecture **Credits: 3**  
PHYS 112 - Physics II Lecture **Credits: 3**  
PHYS 121 - Physics I Lab **Credits: 1**  
PHYS 122 - Physics II Lab **Credits: 1**  
MATH 216 - Probability and Statistics for Natural Sciences **Credits: 3**

## Other Requirements: 0-6

Foreign Language Intermediate Level

## Free Electives: 23-29

(1)

Electives to meet minimum of 90 IUP cr and minimum of 24cr of coursework in the humanities and/or social sciences areas for admission to affiliated chiropractic colleges after three years at IUP  
Maximum cr for work at affiliated chiropractic school **Credits: 30**

## Total Degree Requirements: 120

(1) Student is to work with his/her advisor to select appropriate free electives for professional school. Neurobiology, biomechanics, and athletic training are highly recommended.

## Natural Science/Pre-physician Assistant, BS

Program Code: NASC-PPHA

Accelerated three-year Salus University program

## Liberal Studies: 45

As outlined in the Liberal Studies Requirements with the following specifications:

### Mathematics:

MATH 121 - Calculus I for Natural and Social Sciences **Credits: 4**

### Natural Science:

CHEM 111 - General Chemistry I **Credits: 4**

CHEM 112 - General Chemistry II **Credits: 4**

### Social Science:

PSYC 101 - General Psychology **Credits: 3**

### Writing Intensive:

A second writing-intensive course is not required for three-year students who transfer to a professional school with an articulation agreement.

### Liberal Studies Elective: 3

COSC 101 - Computer Literacy **Credits: 3**

or

IFMG 101 - Computer Literacy **Credits: 3**

No courses with SCI prefix

## Major: 49

### Required Courses:

BIOL 200 - Medical Terminology **Credits: 2**

BIOL 201 - Principles of Ecology and Evolution **Credits: 4**

BIOL 202 - Principles of Cell and Molecular Biology **Credits: 4**

BIOL 203 - Principles of Genetics and Development **Credits: 4**

BIOL 240 - Human Physiology **Credits: 4**

BIOL 241 - Introductory Medical Microbiology **Credits: 4**

BIOL 402 - Advanced Human Anatomy **Credits: 4**

CHEM 231 - Organic Chemistry I **Credits: 4**

CHEM 332 - Organic Chemistry II **Credits: 4**

CHEM 351 - Biochemistry **Credits: 4**

MATH 216 - Probability and Statistics for Natural Sciences **Credits: 3**

or

MATH 217 - Probability and Statistics **Credits: 3**

PHYS 111 - Physics I Lecture **Credits: 3**

PHYS 121 - Physics I Lab **Credits: 1**

PHYS 112 - Physics II Lecture **Credits: 3**

PHYS 122 - Physics II Lab **Credits: 1**

### Other Requirements: 0-4

Foreign Language through Intermediate Level

### Free Electives: 22-26

(1)

### Total Degree Requirements: 120

(1) The student, under consultation with her/his advisor, should select free electives courses that are appropriate for the student's targeted post-graduate PA programs.

## Nursing, BS

Program Code: NURS

The Pennsylvania State Board of Nursing requires two units of high school mathematics (one of which is algebra) for admission to the nursing major.

### Liberal Studies: 43

As outlined in the Liberal Studies Requirements with the following specifications:

### Mathematics:

MATH 217 - Probability and Statistics **Credits: 3**

### Natural Science:

CHEM 103 - Introduction to Chemistry for Health Sciences **Credits: 4**

CHEM 255 - Biochemistry for Health Sciences **Credits: 3**

CHEM 101/CHEM 102 or CHEM 111/CHEM 112 could fulfill with permission

### Social Science:

PSYC 101 - General Psychology **Credits: 3**

SOC 151 - Principles of Sociology **Credits: 3**

or

SOC 161 - Foundations of Sociology: Social Relations in Groups and Organizations **Credits: 3**

### Liberal Studies Elective: 3

PSYC 215 - Developmental Psychology **Credits: 3**

### Major: 53-56

### Required Courses:

NURS 211 - Fundamentals I Clinical **Credits: 1**

NURS 212 - Fundamentals I Theory **Credits: 3**

NURS 213 - Fundamentals II Clinical **Credits: 1**

NURS 214 - Health Assessment **Credits: 3**

NURS 236 - Fundamentals II Theory **Credits: 3**

NURS 312 - Professional Nursing **Credits: 2**

NURS 316 - Evidence-Based Practice in Nursing **Credits: 3**

NURS 330 - Care of the Child and Family **Credits: 2**

NURS 331 - Care of the Child and Family Clinical **Credits: 2**

NURS 332 - Maternal-Neonatal Health **Credits: 2**

NURS 333 - Maternal-Neonatal Clinical **Credits: 2**

NURS 336 - Adult Health I **Credits: 4**

NURS 337 - Adult Health I Clinical **Credits: 5**

NURS 412 - Nursing Management **Credits: 3**

NURS 431 - Public/Community Nursing Clinical **Credits: 2**

NURS 432 - Psychiatric/Mental Health **Credits: 2**

NURS 433 - Psychiatric/Mental Health Clinical **Credits: 2**

NURS 434 - Public/Community Nursing **Credits: 2**

NURS 436 - Adult Health II **Credits: 4**

NURS 437 - Adult Health II Clinical **Credits: 2.5**

NURS 440 - Nursing Management Clinical **Credits: 2.5**

NURS 450 - A Cognitive Approach to Clinical Problem Solving **Credits: 3 (1)**

NURS 493 - Internship **Credits:** 1-12

## Other Requirements: 15

### Science Sequence:

BIOL 150 - Human Anatomy **Credits:** 4

BIOL 240 - Human Physiology **Credits:** 4

BIOL 241 - Introductory Medical Microbiology **Credits:** 4

FDNT 212 - Nutrition **Credits:** 3

## Free Electives: 6-9

## Total Degree Requirements: 120

See advisory paragraph "Timely Completion of Degree Requirements" in the section on Liberal Studies and Requirements for Graduation.

(1) Students who achieve a higher score than a specified minimum on a department-required standardized test(s) are exempt from NURS 450. These students would need 9cr of free electives.

## Nursing/Licensed Practical Nurse, BS

Program Code: NURS-LPN

The Pennsylvania State Board of Nursing requires four units of English, three units of social studies, two units of math (one of which is algebra), and two units of science in high school for admission to the nursing major.

## Liberal Studies: 42

As outlined in the Liberal Studies Requirements with the following specifications:

### Dimensions of Wellness:

Fulfilled by the major

### Mathematics:

MATH 217 - Probability and Statistics **Credits:** 3

### Natural Science:

CHEM 103 - Introduction to Chemistry for Health Sciences **Credits:** 4

CHEM 255 - Biochemistry for Health Sciences **Credits:** 3

CHEM 101/CHEM 102 or CHEM 111/CHEM 112 could fulfill with permission



## Social Science:

PSYC 101 - General Psychology **Credits: 3**

SOC 151 - Principles of Sociology **Credits: 3**

or

SOC 161 - Foundations of Sociology: Social Relations in Groups and Organizations **Credits: 3**

## Liberal Studies Electives: 5

PSYC 215 - Developmental Psychology **Credits: 3**

No courses with NURS prefix

## Major: 51-54

### Required Courses:

NURS 214 - Health Assessment **Credits: 3**

NURS 312 - Professional Nursing **Credits: 2**

NURS 316 - Evidence-Based Practice in Nursing **Credits: 3**

NURS 334 - Transitions in Professional Nursing **Credits: 3**

NURS 412 - Nursing Management **Credits: 3**

NURS 431 - Public/Community Nursing Clinical **Credits: 2**

NURS 432 - Psychiatric/Mental Health **Credits: 2**

NURS 433 - Psychiatric/Mental Health Clinical **Credits: 2**

NURS 434 - Public/Community Nursing **Credits: 2**

NURS 436 - Adult Health II **Credits: 4**

NURS 437 - Adult Health II Clinical **Credits: 2.5**

NURS 440 - Nursing Management Clinical **Credits: 2.5**

NURS 450 - A Cognitive Approach to Clinical Problem Solving **Credits: 3 (1)**

NURS 493 - Internship **Credits: 1-12**

NURS XXX - Advisor approved NURS elective **Credits: 3**

## Adult Health:

NURS 336 - Adult Health I **Credits: 4**

NURS 337 - Adult Health I Clinical **Credits: 5**

or

Credits by Exam **Credits: 8 (2)** and

NURS 493 - Internship **Credits: 1-12**

## Maternal Neonatal Health:

NURS 330 - Care of the Child and Family **Credits: 2**

NURS 331 - Care of the Child and Family Clinical **Credits: 2**

NURS 332 - Maternal-Neonatal Health **Credits: 2**

NURS 333 - Maternal-Neonatal Clinical **Credits: 2**

or

Credits by Exam **Credits: 7 (2)** and

NURS 493 - Internship **Credits:** 1-12

## Other Requirements: 15

BIOL 150 - Human Anatomy **Credits:** 4

BIOL 240 - Human Physiology **Credits:** 4

BIOL 241 - Introductory Medical Microbiology **Credits:** 4

FDNT 212 - Nutrition **Credits:** 3

## Free Electives: 9-12

## Total Degree Requirements: 120

(1) Students who achieve a higher score than a specified minimum on a department-required standardized test(s) are exempt from NURS 450. These students would need 12cr of free electives.

(2) Students have the option of earning up to 15cr via examination and taking NURS 493 (up to 2cr) or completing NURS 330, NURS 331, NURS 332, NURS 333, NURS 336, and NURS 337 (17cr). Exam results must be received before students register for any 300- or 400-level nursing courses other than NURS 334.

## Nutrition/Dietetics, BS

Program Code: NUTN-DIET

Students who complete the Nutrition/Dietetics, BS (Didactic Program in Dietetics) meet the academic requirements as accredited by the Accreditation Council for Education in Nutrition and Dietetics (ACEND) of the Academy of Nutrition and Dietetics. This program prepares individuals to translate food and nutrition science information for members of the larger community with respect to healthful food preparation, healthy eating behaviors, medical nutrition therapy, management of nutrition delivery and food service systems, and advocacy for the profession of dietetics. Graduates will exhibit an in-depth knowledge of food, nutrition, behavioral sciences, and management theory and be able to apply this knowledge to solve problems.

Graduates are qualified to take the Commission on Dietetic Registration (CDR) credentialing examination to become certified as a Dietetic Technician Registered (DTR). In addition, program graduates are eligible to apply for admission to ACEND-accredited dietetic supervised practice programs in pursuit of dietetic registration (i.e., Registered Dietitian Nutritionist (RDN)). IUP Department of Food and Nutrition's Dietitian-Nutritionist Program enables students to earn a master's degree while engaging in supervised practice for eligibility to take the Commission on Dietetic Registration (CDR) credentialing exam to become an RDN.

## Liberal Studies: 40-41

As outlined in the Liberal Studies Requirements with the following specifications:

## Learning Skills: 6 (1)

### Mathematics:

MATH 217 - Probability and Statistics **Credits:** 3

## Dimensions of Wellness:

Choose one of the following:

KHSS 143 - Wellness **Credits: 3**

NURS 143 - Healthy People—Promoting Wellness **Credits: 3**

## Natural Science:

CHEM 101 - College Chemistry I **Credits: 4** (required)

CHEM 102 - College Chemistry II **Credits: 4** (required)

## Social Science:

PSYC 101 - General Psychology **Credits: 3**

SOC 151 - Principles of Sociology **Credits: 3**

or

SOC 161 - Foundations of Sociology: Social Relations in Groups and Organizations **Credits: 3**

## Liberal Studies Elective: 3

Liberal Studies Elective 3cr, no course with FDNT prefix.

## Major: 66

## Required Courses: 40 (2)

FDNT 110 - Careers in Food and Nutrition **Credits: 1**

FDNT 212 - Nutrition **Credits: 3**

FDNT 213 - Life Cycle Nutrition **Credits: 3**

FDNT 255 - Nutrition Assessment and Medical Terminology **Credits: 3**

FDNT 355 - Medical Nutrition Therapy I **Credits: 3**

FDNT 362 - Experimental Foods **Credits: 3**

FDNT 363 - Experimental Foods Laboratory **Credits: 1**

FDNT 402 - Community Nutrition **Credits: 3**

FDNT 430 - Professional Topics in Food and Nutrition **Credits: 3**

FDNT 455 - Medical Nutrition Therapy II **Credits: 3**

FDNT 465 - Nutrition Counseling and Education **Credits: 3**

FDNT 466 - Nutrition Counseling and Education Lab **Credits: 1**

## Select one of two specializations: 15

### Culinary Nutrition (3,4)

Certificate in Culinary Arts

## Food Management 15

FDNT 150 - Foods **Credits: 3**

FDNT 151 - Foods Laboratory **Credits: 1**

HOSP 130 - Food Service Sanitation **Credits: 1**

HOSP 256 - Human Resources in the Hospitality Industry **Credits: 3**

HOSP 259 - Hospitality Purchasing **Credits: 3**

HOSP 330 - Applications of Food Production and Service **Credits: 4**

## Other Natural Science Sequence Requirements: 11

BIOL 150 - Human Anatomy **Credits: 4**

BIOL 240 - Human Physiology **Credits: 4**

CHEM 255 - Biochemistry for Health Sciences **Credits: 3**

## Free Electives: 0-13 (4)

## Total Degree Requirements: 120

- (1) English Composition II requirement is fulfilled by the department's Writing Plan.
- (2) Students who complete the IUP Certificate in Culinary Arts transfer FDNT 145 Personal Nutrition as a substitute for FDNT 212 Nutrition.
- (3) Completion of a an IUP culinary certificate is required to select this concentration. To transfer a culinary certificate from an outside institution, it must be earned from an accredited (ACF), post-secondary program to be considered for this this concentration.
- (4) Because the culinary certificate includes considerable additional preparation in foods, the 32cr include hours of work can be considered in fulfillment of both concentration requirements and free electives.

## Nutrition/Food and Health, BS

Program Code: NUTN-FDHL

The Nutrition/Food and Health, BS provides flexibility and options for students based upon their career goals or plans for a graduate education, depending upon the minor, certificate, or second major that is chosen. Students may also opt to pursue a dual degree. Students can personalize the track toward employment within the fitness industry, community nutrition and health education, food and nutrition management, or other specialty areas. Students who earn the BS in Nutrition (either the Dietetics or Food and Health) are able to apply for admission to the accredited IUP MS in Food and Nutrition Dietitian-Nutritionist program which upon completion allows graduates to sit for the national examination to become a Registered Dietitian.

Students who minor in exercise science are prepared to take certification examinations offered by professional organizations, including the American College of Sports Medicine and the National Strength and Conditioning Association, among others. Those who graduate in the Food and Health Track with a minor in exercise science are eligible for early admission to the master of science in exercise science and/or food and nutrition. Students who minor in community health are eligible to take the National Commission for Health Education Credentialing exam and be recognized as a Certified Health Education Specialist (CHES). Students in the Food and Health Track are eligible for employment with the Special Supplemental Nutrition Program for Women, Infants, and Children.

Students who wish to pursue graduate education in nutrition or other natural science-related programs should work carefully with their advisor so that appropriate chemistry, biology, and nutrition electives are chosen. Students receive specific academic

advisement regarding science and nutrition courses needed to progress to graduation, depending upon their career plans. Faculty advisors work across disciplines to effectively mentor students toward their educational and career goals.

Students in the Nutrition/Food and Health, BS may transfer to Dietetics (accredited pathway for post-graduate dietetic internships) if their GPA is greater than or equal to a 3.0 and grades in science and food and nutrition courses are greater than or equal to a "C" or better. Students without these academic accomplishments are not competitive to receive a required post-graduate supervised practice experience to become a Registered Dietitian Nutritionist.

## Liberal Studies: 40-41

As outlined in the Liberal Studies Requirements with the following specifications:

### Learning Skills: 6 (1)

Mathematics:

MATH 217 - Probability and Statistics **Credits: 3**

### Dimensions of Wellness:

Choose one of the following.

KHSS 143 - Wellness **Credits: 3**

NURS 143 - Healthy People—Promoting Wellness **Credits: 3**

### Natural Science:

CHEM 101 - College Chemistry I **Credits: 4**

CHEM 102 - College Chemistry II **Credits: 4**

- or -

CHEM 103 - Introduction to Chemistry for Health Sciences **Credits: 4**

-OR-

BIOL 104 - Human Biology: How the Human Body Works **Credits: 4**

BIOL 106 - Human Genetics and Health **Credits: 3**

### Social Science:

PSYC 101 - General Psychology **Credits: 3**

SOC 151 - Principles of Sociology **Credits: 3**

### Liberal Studies Elective: 3

No courses with FDNT prefix (2)

## Major: 48-55

## Required Courses:

(1)

- FDNT 110 - Careers in Food and Nutrition **Credits: 1**
- FDNT 150 - Foods **Credits: 3**
- FDNT 151 - Foods Laboratory **Credits: 1**
- FDNT 212 - Nutrition **Credits: 3**
- FDNT 213 - Life Cycle Nutrition **Credits: 3**
- FDNT 255 - Nutrition Assessment and Medical Terminology **Credits: 3**
- FDNT 335 - Nutrition, Lifestyle, and Health **Credits: 3**
- FDNT 355 - Medical Nutrition Therapy I **Credits: 3**
- FDNT 370 - Human Food Consumption Patterns **Credits: 3**
- FDNT 402 - Community Nutrition **Credits: 3**
- FDNT 415 - Sustainable Nutrition **Credits: 3**
- FDNT 422 - Public Health Nutrition and Epidemiology **Credits: 3**
- FDNT 465 - Nutrition Counseling and Education **Credits: 3**
- FDNT 466 - Nutrition Counseling and Education Lab **Credits: 1**
- FDNT 471 - Integrative Nutrition in Complementary and Alternative Healthcare **Credits: 3**
- FDNT 493 - Internship **Credits: 1-12 (3cr needed)**

## Controlled Electives: 6-13 (2)

- ANTH 240 - Introduction to Global Health **Credits: 3**
- ANTH 430 - Anthropology of Food **Credits: 3**
- ANTH 450 - Health Disparities **Credits: 3**
- BIOL 241 - Introductory Medical Microbiology **Credits: 4**
- ECON 360 - Health Economics **Credits: 3**
- ECON 362 - Global Poverty and Health **Credits: 3**
- ELR 314 - Health Policy and Law **Credits: 3**
- ENGL 442 - Cross Cultural Communication **Credits: 3**
- FNLG 442 - Cross Cultural Communication **Credits: 3**
- FDNT 484 - Senior Seminar **Credits: 2**
- FDNT 431 - Career Advancement in Dietetics **Credits: 1**
- FDNT 455 - Medical Nutrition Therapy II **Credits: 3**
- FDNT 458 - Advanced Human Nutrition **Credits: 4**
- FDNT 362 - Experimental Foods **Credits: 3**
- FDNT 363 - Experimental Foods Laboratory **Credits: 1**
- FDNT 245 - Sports Nutrition **Credits: 3**
- FDNT 493 - Internship **Credits: 1-12**
- HDFS 330 - Consumer Economics and Family Finance **Credits: 3**
- HOSP 130 - Food Service Sanitation **Credits: 1**
- HOSP 256 - Human Resources in the Hospitality Industry **Credits: 3**
- HOSP 259 - Hospitality Purchasing **Credits: 3**
- HOSP 330 - Applications of Food Production and Service **Credits: 4**
- KHSS 251 - Foundations of Safety and Emergency Health Care **Credits: 3**
- KHSS 325 - School and Community Health **Credits: 3**
- KHSS 343 - Physiology of Exercise **Credits: 3**
- LIBR 151 - Introduction to Information Literacy **Credits: 1**
- LIBR 152 - Information Issues and Resources for the Health Sciences **Credits: 1**
- MKTG 320 - Principles of Marketing **Credits: 3**
- MKTG 321 - Consumer Behavior **Credits: 3**
- PLSC 250 - Public Policy **Credits: 3**

PSYC 215 - Developmental Psychology **Credits: 3**  
PSYC 377 - Interpersonal Skills and Group Dynamics **Credits: 3**  
PUBH 122 - Foundations of Public Health **Credits: 3**  
SOC 357 - Sociology of Aging and the Life-course **Credits: 3**  
SOC 442 - Medical Sociology **Credits: 3**  
SOC 454 - Dimensions of Rural Public Health **Credits: 3**  
THTR 361 - Performance of Caring **Credits: 3**  
WGS 200 - Introduction to Women's and Gender Studies **Credits: 3**

**Program minor, certificate, concentration: Credits: 18-21**

**Free Electives: 0-14 (2)**

**Total Degree Requirements: 120**

- (1) English Composition II requirement is fulfilled by the department's Writing Plan.
- (2) Students who have earned an IUP Certificate in Culinary Arts will transfer 32 credits into the BS in Nutrition, Food and Health track program. The culinary certificate includes considerable competencies in foods and nutrition. These 32 credits are applied as follows: (a) exemption for the following required major courses: FDNT 150 Foods (3cr), FDNT 151 Foods Laboratory (1cr), FDNT 493 Internship (3cr); (b) having to fulfill the requirement to complete a minor, certificate, concentration (18-21cr), and (c) with the balance of the credits waived (4-7cr) from the controlled elective and/or free elective category. To transfer a culinary certificate from an outside institution, it must be earned from an accredited (ACF), post-secondary program to be considered and credits transferred and their application may vary.
- (3) Selected in consultation with advisor.
- (4) Students that choose the Exercise Science or Community Health minor must take FDNT 245 - Sports Nutrition.
- (5) Students that desire certification as a Certified Health Education Specialist (CHES) must also choose KHSS 341-Evaluations and Analytics in Kinesiology and NURS 410 – Health Promotion and Social Issues.

## **Philosophy, BA**

Program Code: PHILAH

**Liberal Studies: 46-47**

As outlined in the Liberal Studies Requirements with the following specifications:

**Mathematics: 3**

**Liberal Studies Electives: 6**

No courses with PHIL prefix

**Major: 30**

One from each of the following 4 categories.

## Logic: 3

- PHIL 101 - Critical Thinking **Credits: 3**
- PHIL 221 - Symbolic Logic I **Credits: 3**

## History: 3

- PHIL 324 - Ancient Greek Philosophy **Credits: 3**
- PHIL 325 - Early Modern European Philosophy **Credits: 3**
- PHIL 326 - Existentialism **Credits: 3**

## Mind and World: 3

- PHIL 330 - Philosophy of Science **Credits: 3**
- PHIL 350 - The Human Experience of Time **Credits: 3**
- PHIL 360 - Philosophy of Mind **Credits: 3**
- PHIL 390 - Philosophy of Human Nature **Credits: 3**
- PHIL 420 - Knowledge and Reality **Credits: 3**
- PHIL 460 - Philosophy of Language **Credits: 3**

## Ethics and Values: 3

- PHIL 130 - Introduction to Biomedical Ethics **Credits: 3**
- PHIL 240 - Philosophy and the Good Life **Credits: 3**
- PHIL 270 - Ethics and the Environment **Credits: 3**
- PHIL 320 - Ethical Theory **Credits: 3**
- PHIL 323 - Political Philosophy **Credits: 3**
- PHIL 450 - Philosophy of Law **Credits: 3**

## Controlled Electives: 18

Six PHIL courses (18 credits), with restrictions. (1,2)

## Free Electives: 43-44

## Total Degree Requirements: 120

(1) No more than four 100- and 200-level courses may be counted toward the major. Only PHIL courses may be counted toward the major.

(2) No more than 9 non-classwork credits may be counted toward the major. Non-classwork credits include independent study, independent honors project, and internship in philosophy.

## **Philosophy/Philosophy, Politics, and Economics, BA**



Program Code: PHILAH-PPE

The Philosophy, Politics, and Economics (PPE) track is designed to help students understand the social institutions and structures that shape our world by looking at them through the lenses of three disciplines. To understand how the social world actually is, could be, and should be, the track combines the expertise and perspectives of philosophy, political science, and economics: economics to explain how economic systems operate and predict the effects of potential policy changes; political science to explain how political systems operate and how those systems might be changed; and, philosophy to analyze the moral costs and benefits of different economic and political systems. This track will be of interest to students concerned about the impact of law, policy, business, and government on individuals, social groups, and the broader world. It also prepares students for careers in law, government, public policy, public administration, the non-profit sector, advocacy, or consulting.

## Liberal Studies: 46-47

As outlined in Liberal Studies Requirements section with the following specifications:

### Mathematics:

MATH 217 - Probability and Statistics **Credits: 3**

### Humanities:

PHIL 122 - Contemporary Moral Issues **Credits: 3**

### Social Science:

PLSC 111 - American Government **Credits: 3**

ECON 121 - Principles of Macroeconomics **Credits: 3**

### Liberal Studies Electives: 6

ECON 122 - Principles of Microeconomics **Credits: 3**

### Major/Track: 30

### Required Core Courses: 6

PLSC 359 - Constitutional Law and Civil Liberties **Credits: 3**

PHIL 323 - Political Philosophy **Credits: 3**

### Controlled Electives:

### Economics: 6

Must take two of the following:

ECON 223 - Economics of Crime **Credits: 3**

ECON 330 - Labor Economics **Credits: 3**

ECON 345 - International Trade **Credits: 3**  
ECON 356 - Introduction to Econometrics **Credits: 3**  
ECON 360 - Health Economics **Credits: 3**

## Political Science: 6

Must take two of the following:

PLSC 250 - Public Policy **Credits: 3**  
PLSC 360 - Classical Political Thought **Credits: 3**  
PLSC 361 - Modern Political Thought **Credits: 3**  
PLSC 370 - The Practice of Public Administration **Credits: 3**

## Philosophy: 12

Must take four of the following: (1)

PHIL 130 - Introduction to Biomedical Ethics **Credits: 3**  
PHIL 221 - Symbolic Logic I **Credits: 3**  
PHIL 270 - Ethics and the Environment **Credits: 3**  
PHIL 320 - Ethical Theory **Credits: 3**  
PHIL 324 - Ancient Greek Philosophy **Credits: 3**  
PHIL 325 - Early Modern European Philosophy **Credits: 3**  
PHIL 450 - Philosophy of Law **Credits: 3**

## Free Electives: 35-52

## Total Degree Requirements: 120

(1) At least two PHIL elective courses must be 300 level or above.

## Physics, BS

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

Program Codes: PHYS-BS; PHYS+SSCH (Physics, BS w/Secondary Science Education Certificate)

The Department of Physics' goal is to prepare students for productive careers analyzing complex physical systems using mathematics. A physics degree can lead to various careers: business analyst, data analyst, engineer, patent attorney, physicist, physics researcher, physics teacher or professor, or programmer.

Students can pick their specialization. Coursework that can lead to admission into a graduate program in physics is available. Applied physics is another option, which leads to a career as a technician or researcher in industrial technology. Nanomanufacturing technology is also available. After a small set of required core courses, students will pick from course offerings that will lead them toward a deeper understanding of their field of interest.

The Certificate in Secondary Science Teaching and the BS in Physics prepare students to become certified middle- and high-school teachers in Pennsylvania and other states. Secondary Physics Teachers from the program have a deep understanding of the physics principles and enjoy transmitting that knowledge to their students.

### Nanofabrication Cooperative Experience

The IUP physics department participates in a cooperative agreement with Penn State University (PSU) to help address the Pennsylvania industry's need for skilled nanofabrication workers. Anyone who meets the prerequisite requirements may enroll through IUP in a one-semester experience at the PSU Center for Nanotechnology Education and Utilization (CNEU). These courses are offered in two modes: (1) as a capstone semester experience at the Penn State CNEU or (2) as a hybrid capstone semester consisting of distance learning followed by a two-week hands-on lab experience CNEU. For more information, contact the physics department.

## Liberal Studies: 44

As outlined in the Liberal Studies Requirements with the following specifications:

### Mathematics:

MATH 125 - Calculus I/Physics, Chemistry, Mathematics **Credits: 3**

### Social Science:

PSYC 101 - General Psychology **Credits: 3 (1)**

### Natural Science:

PHYS 131 - Physics I-C Lecture **Credits: 3**

PHYS 141 - Physics I-C Lab **Credits: 1**

PHYS 132 - Physics II-C Lecture **Credits: 3**

PHYS 142 - Physics II-C Lab **Credits: 1**

### Liberal Studies Elective: 3

MATH 126 - Calculus II/Physics, Chemistry, Mathematics **Credits: 3**

## Major Required Core Courses: 45-47

PHYS 331 - Modern Physics I **Credits: 3**

PHYS 342 - Thermal and Statistical Physics **Credits: 3**

PHYS 441 - Classical Mechanics **Credits: 3**

PHYS 451 - Electricity and Magnetism **Credits: 3**

#### **Additional Required Courses:**

Applied Category: Choose at least three from the following. (2, 3)

PHYS 231 - Electronics **Credits: 4**

PHYS 321 - Introduction to Computational Physics **Credits: 3**

PHYS 350 - Intermediate Experimental Physics I **Credits: 3**

PHYS 355 - Computer Interfacing **Credits: 3**

PHYS 490 - Solid State Physics **Credits: 3**

Theoretical Category: Choose at least four from the following. (2, 3)

PHYS 332 - Modern Physics II **Credits: 3**

PHYS 401 - Theoretical Physics **Credits: 3**

PHYS 461 - Quantum Mechanics I **Credits:** 3

PHYS 472 - Nuclear Physics **Credits:** 3

PHYS 345 - Optics **Credits:** 3

**Other Requirements:** (2)

COSC 110 - Problem Solving and Structured Programming **Credits:** 3

MATH 225 - Calculus III/Physics, Chemistry, Mathematics **Credits:** 3

MATH 341 - Differential Equations **Credits:** 3

**One course from the following:**

COSC 343 - Introduction to Numerical Methods **Credits:** 3

MATH 171 - Introduction to Linear Algebra **Credits:** 3

MATH 342 - Advanced Mathematics for Applications **Credits:** 4

MATH 423 - Complex Variables **Credits:** 3

## Additional Required Courses:

Pick at least three of the following - applied category

(3,4)

PHYS 231 - Electronics **Credits:** 4 (1)

PHYS 350 - Intermediate Experimental Physics I **Credits:** 3

PHYS 355 - Computer Interfacing **Credits:** 3

PHYS 321 - Introduction to Computational Physics **Credits:** 3

Pick at least four of the following - theoretical category:

(3,4)

PHYS 342 - Thermal and Statistical Physics **Credits:** 3

PHYS 345 - Optics **Credits:** 3 (1)

PHYS 401 - Theoretical Physics **Credits:** 3

PHYS 461 - Quantum Mechanics I **Credits:** 3

PHYS 472 - Nuclear Physics **Credits:** 3

PHYS 490 - Solid State Physics **Credits:** 3

## Other Requirements:

(2)

COSC 110 - Problem Solving and Structured Programming **Credits:** 3 (3,4,5)

MATH 225 - Calculus III/Physics, Chemistry, Mathematics **Credits:** 3

MATH 341 - Differential Equations **Credits:** 3

## One Course from the Following:

COSC 343 - Introduction to Numerical Methods **Credits:** 3 (5)

MATH 171 - Introduction to Linear Algebra **Credits:** 3 (recommended) (4)

MATH 342 - Advanced Mathematics for Applications **Credits:** 4 (3)

MATH 423 - Complex Variables **Credits:** 3

## Secondary Science Education Certificate: (5, 6)

### Preprofessional Education Sequence:

#### Preprofessional Education Sequence:

EDSP 102 - Educational Psychology **Credits: 3**

ETIT 103 - Digital Instructional Technology **Credits: 3**

#### Professional Education Sequence:

EDEX 301 - Education of Students with Disabilities in Inclusive Secondary Settings **Credits: 2**

EDEX 323 - Instruction of English Language Learners with Special Needs **Credits: 2**

EDSP 477 - Assessment of Student Learning: Design and Interpretation of Educational Measures **Credits: 3**

EDUC 242 - Pre-student Teaching Clinical Experience I **Credits: 1**

EDUC 342 - Pre-student Teaching Clinical Experience II **Credits: 1**

EDUC 441 - Student Teaching **Credits: 5-12**

EDUC 451 - Teaching Science in the Secondary School **Credits: 3**

## Foreign Language Intermediate: 0-6 (4)

## Free Electives: 29-31 (6)

## Total Degree Requirements: 120-121

(1) Required by teaching certification majors.

(2) For graduate work PHYS 401, PHYS 461, MATH 342 recommended; for Applied Physics: PHYS 231, PHYS 350, PHYS 355, PHYS 321 recommended.

(3) Teaching certification majors take GEOS 101, GEOS 103, or GEOS 105 in place one applied PHYS; CHEM 111 or CHEM 113, CHEM 112 or CHEM 114, and BIOL 201 or BIOL 202 in place of two theoretical physics courses and COSC 110 and MATH 171.

(4) Six credits of computer programming will substitute for the foreign language requirement: COSC 110, COSC 210, or higher-level computer science courses (COSC 343 recommended), with department permission.

(5) See requirements leading to teacher certification, titled "3-Step Process for Teacher Education." In the College of Education and Communications section of this catalog.

(6) Majors in the Teaching certification specialization will take the Preprofessional and Professional Education Sequence as Free Electives.

## Physics/Pre-engineering, BS

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

Program Code: PHYS-PENG

The **BS—Physics/Pre-engineering Track** is designed to prepare students for admission to engineering school. The student transfers to the affiliated engineering school after appropriate IUP course work has been completed. When sufficient credit from the affiliated engineering school has been earned, the student transfers the credit back to IUP to earn the bachelor of science degree.

## Liberal Studies: 44

As outlined in the Liberal Studies Requirements with the following specifications:

### Mathematics:

MATH 125 - Calculus I/Physics, Chemistry, Mathematics **Credits: 3**

### Natural Science:

PHYS 131 - Physics I-C Lecture **Credits: 3**

PHYS 141 - Physics I-C Lab **Credits: 1**

PHYS 132 - Physics II-C Lecture **Credits: 3**

PHYS 142 - Physics II-C Lab **Credits: 1**

### Liberal Studies Elective: 3

MATH 126 - Calculus II/Physics, Chemistry, Mathematics **Credits: 3**

No courses with PHYS prefix

### Major: 34

### Required Courses:

PHYS 131 - Physics I-C Lecture **Credits: 3 (1)**

PHYS 132 - Physics II-C Lecture **Credits: 3 (1)**

PHYS 141 - Physics I-C Lab **Credits: 1 (1)**

PHYS 142 - Physics II-C Lab **Credits: 1 (1)**

PHYS 331 - Modern Physics I **Credits: 3**

PHYS 345 - Optics **Credits: 3**

PHYS 441 - Classical Mechanics **Credits: 3**

PHYS 451 - Electricity and Magnetism **Credits: 3**

### Additional Required Physics Courses:

(2)

PHYS 231 - Electronics **Credits: 4**

PHYS 342 - Thermal and Statistical Physics **Credits: 3**

PHYS 350 - Intermediate Experimental Physics I **Credits: 3**

PHYS 355 - Computer Interfacing **Credits: 3**

PHYS 401 - Theoretical Physics **Credits: 3**

PHYS 461 - Quantum Mechanics I **Credits: 3**

PHYS 472 - Nuclear Physics **Credits: 3**

or

PHYS 490 - Solid State Physics **Credits: 3**

### Controlled Electives: 6-8

As required per engineering program:

### Chemical Engineering:

CHEM 231 - Organic Chemistry I **Credits: 4**

CHEM 332 - Organic Chemistry II **Credits: 4**

### Civil Engineering:

MATH 216 - Probability and Statistics for Natural Sciences **Credits: 3**

Technical elective **Credits: 3-4**

### Electrical Engineering:

MATH 216 - Probability and Statistics for Natural Sciences **Credits: 3**

Technical elective **Credits: 3-4**

### Industrial Engineering:

MATH 216 - Probability and Statistics for Natural Sciences **Credits: 3**

Technical elective **Credits: 3-4**

### Materials Science and Engineering:

CHEM 231 - Organic Chemistry I **Credits: 4**

CHEM 332 - Organic Chemistry II **Credits: 4**

### Mechanical Engineering:

Technical electives **Credits: 6-8**

### Other Requirements: 24-30

CHEM 111 - General Chemistry I **Credits: 4**

CHEM 112 - General Chemistry II **Credits: 4**

COSC 110 - Problem Solving and Structured Programming **Credits: 3**

COSC 343 - Introduction to Numerical Methods **Credits: 3**

MATH 225 - Calculus III/Physics, Chemistry, Mathematics **Credits: 3**

MATH 341 - Differential Equations **Credits: 3**

MATH 342 - Advanced Mathematics for Applications **Credits: 4**

### Foreign Language Intermediate Level: 0-6

(3)

### Free Electives: 4-12

(If no automatic transfer into the University of Pittsburgh)

## Special Requirements:

Two years at University of Pittsburgh School of Engineering (4)

## Total Degree Requirements: 120

(1) Credits are counted in the Liberal Studies natural science requirement.

(2) Some of these courses may be taken at the University of Pittsburgh.

(3) Six credits of computer programming will substitute for the foreign language requirement: COSC 110, COSC 210, or higher-level computer science courses (COSC 343 recommended), with department permission.

(4) A 3.0 cumulative GPA is required for transfer to the University of Pittsburgh. Students transferring to University of Pittsburgh do not need a second writing-intensive class. Students need at most 64 additional credits from the University of Pittsburgh to receive the engineering degree.

(#) See advisory paragraph "Timely Completion of Degree Requirements" in the section on Liberal Studies and Requirements for Graduation. Students earn two degrees, hence the high credit count.

## Political Science, BA

Program Code: PLSCAH

### Liberal Studies: 46-47

As outlined in the Liberal Studies Requirements with the following specifications:

#### Mathematics: 3

#### Social Science:

PLSC 111 - American Government **Credits: 3**

#### Liberal Studies Electives: 6

Two semesters of the same foreign language or intermediate foreign language and additional liberal studies elective or two liberal studies electives. (1)

No courses with PLSC prefix.

#### Major: 33

#### Required Courses:

PLSC 101 - World Politics **Credits: 3**



PLSC 260 - Contemporary Political Ideas **Credits: 3**  
PLSC 300 - Research Methods in Political Science **Credits: 3**

## Controlled Electives: 24

At least one course in three of the four areas:

### American Studies:

PLSC 251 - State and Local Political Systems **Credits: 3**  
PLSC 350 - The Presidency **Credits: 3**  
PLSC 351 - Legislative Process **Credits: 3**  
PLSC 354 - Urban Politics **Credits: 3**  
PLSC 355 - Intergovernmental Relations **Credits: 3**  
PLSC 356 - Mass Media in American Politics **Credits: 3**  
PLSC 358 - Judicial Process **Credits: 3**  
PLSC 359 - Constitutional Law and Civil Liberties **Credits: 3**

### Political Theory:

PLSC 360 - Classical Political Thought **Credits: 3**  
PLSC 361 - Modern Political Thought **Credits: 3**

### Public Policy and Administration:

PLSC 250 - Public Policy **Credits: 3**  
PLSC 370 - The Practice of Public Administration **Credits: 3**

### International Studies:

PLSC 280 - Comparative Government I: Western Political Systems **Credits: 3**  
PLSC 282 - International Relations **Credits: 3**  
PLSC 283 - American Foreign Policy **Credits: 3**  
PLSC 285 - Comparative Government II: Non-Western Political Systems **Credits: 3**  
PLSC 383 - Political Systems: Asia **Credits: 3**  
PLSC 384 - Political Systems: Middle East **Credits: 3**  
PLSC 388 - Dimensions of National Security **Credits: 3**  
PLSC 389 - International Development Strategies **Credits: 3**  
PLSC 422 - International Law and Organizations **Credits: 3**  
PLSC 465 - Intelligence Process and Policy **Credits: 3 (4)**

## Free Electives: 40-41

## Total Degree Requirements: 120

(1) Students should have two semesters of the same language, until reaching the intermediate level. With Spanish as an example:

SPAN 101 & SPAN 102 (if the student entered with no prior Spanish experience/did not test out of SPAN 101 1)

SPAN 102 & SPAN 201 (if the student tested into SPAN 102 /transferred in equivalent)

SPAN 201 only (if the student tested into SPAN 201 /transferred in equivalent)

No language required (if the student tested out of SPAN 201 /transferred in equivalent)

## **Political Science/Homeland Security, BA**

Program Code: PLSCAH-HMSC

Homeland security is the intersection of evolving threats, to include terrorism and other risks to national security, and natural and man-made hazards with traditional governmental and civic responsibilities. This multi-disciplinary track is built upon a political science core (required courses), with an emphasis on administration and policy (controlled electives). Students will choose between specializing in Homeland Defense or Emergency Management. The Homeland Defense specialization will focus on identifying risks to the homeland's security and essential infrastructure, and developing policy and strategy that mitigate, if not obviate, these risks. The Emergency Management track will focus on the twin facets of program administration and emergency management, sometimes called disaster or crisis management. The Political Science/Homeland Security major track emphasizes critical and creative thinking, information literacy, oral and written communications, interpersonal relations and teamwork. The knowledge and skills students will gain will prepare them to work in private businesses; emergency and safety management; private security; airports and border patrol; local, state, and federal law enforcement; and military service.

### **Liberal Studies: 46-47**

As outlined in Liberal Studies Requirements section with the following specifications

#### **Mathematics: 3**

#### **Social Science:**

PLSC 111 - American Government **Credits: 3**

#### **Liberal Studies Electives: 6**

Two semesters of the same foreign language or intermediate foreign language and additional liberal studies elective or two liberal studies electives. (1)

No courses with PLSC prefix.

#### **Major:33**

#### **Required Courses: 12**

PLSC 101 - World Politics **Credits: 3**

PLSC 260 - Contemporary Political Ideas **Credits: 3**

PLSC 270 - Fundamentals of Homeland Security **Credits: 3**

PLSC 300 - Research Methods in Political Science **Credits: 3**

## Controlled Electives: 9

Students must take three of the following controlled electives in the area of public policy/administration:

- PLSC 250 - Public Policy **Credits: 3**
- PLSC 283 - American Foreign Policy **Credits: 3**
- PLSC 355 - Intergovernmental Relations **Credits: 3**
- PLSC 370 - The Practice of Public Administration **Credits: 3**
- PLSC 372 - Constitutional Issues in Homeland Security **Credits: 3**
- PLSC 375 - Crisis Management and Decision Making **Credits: 3**

## Specializations:

Students must take four courses in one specialization.

At least two courses must have a prefix other than PLSC.

## Homeland Defense: 12

- BCOM 342 - Intercultural Business Communication **Credits: 3**
- COMM 101 - Introduction to Communications, Media, and Culture **Credits: 3**
- COSC 356 - Network Security **Credits: 3**
- COSC 429 - Digital Forensics **Credits: 3**
- COSC 454 - Information Assurance Administration **Credits: 3**
- CRIM 205 - Policing and the Community **Credits: 3**
- CRIM 255 - Law, Social Control, and Society **Credits: 3**
- CRIM 321 - Cybersecurity and Loss Prevention **Credits: 3**
- CRIM 323 - Cybersecurity and the Law **Credits: 3**
- CRIM 344 - Terrorism **Credits: 3**
- or
- PLSC 344 - Terrorism **Credits: 3**
- GEOG 316 - Introduction to Geographic Information Systems **Credits: 3**
- or
- RGPL 316 - Introduction to Geographic Information Systems **Credits: 3**
- HIST 339 - Jihad and the Origins of Islamist Movements in the Middle East **Credits: 3**
- or
- HIST 348 - Top Secret America: The Rise and Reach of the National Security State **Credits: 3**
- or
- PLSC 348 - Top Secret America: The Rise and Reach of the National Security State **Credits: 3**
- PLSC 350 - The Presidency **Credits: 3**
- PLSC 356 - Mass Media in American Politics **Credits: 3**
- PLSC 388 - Dimensions of National Security **Credits: 3**
- PLSC 465 - Intelligence Process and Policy **Credits: 3**
- SOC 337 - Society, Globalization, and Risk **Credits: 3**

## Emergency Management: 12

- BCOM 342 - Intercultural Business Communication **Credits: 3**
- BIOL 107 - Introduction to Forensic Biology **Credits: 3**
- BIOL 119 - Emerging Diseases **Credits: 3**

BIOL 221 - Environmental Health and Protection **Credits: 4**  
CHEM 105 - The Forensic Chemistry of CSI **Credits: 3**  
COMM 101 - Introduction to Communications, Media, and Culture **Credits: 3**  
CRIM 205 - Policing and the Community **Credits: 3**  
CRIM 255 - Law, Social Control, and Society **Credits: 3**  
CRIM 374 - Environmental Crime and Justice **Credits: 3**  
CRIM 401 - Contemporary Issues in Criminology **Credits: 3**  
GEOG 101 - Environment and Society **Credits: 3**

GEOG 232 - Urban Landscapes **Credits: 3**

or

RGPL 232 - Urban Landscapes **Credits: 3**

GEOG 316 - Introduction to Geographic Information Systems **Credits: 3**

or

RGPL 316 - Introduction to Geographic Information Systems **Credits: 3**

GEOG 341 - Climatology **Credits: 3**

or

RGPL 341 - Climatology **Credits: 3**

GEOG 343 - Fresh Water Resources **Credits: 3**

or

RGPL 343 - Fresh Water Resources **Credits: 3**

NMDT 430 - Radiation Biology and Radiation Protection **Credits: 2**

NURS 101 - Disaster Awareness **Credits: 1**

PHYS 101 - Energy and Our Environment **Credits: 3**

PLSC 356 - Mass Media in American Politics **Credits: 3**

SAFE 220 - Hazardous Materials and Emergency Management **Credits: 3**

SOC 337 - Society, Globalization, and Risk **Credits: 3**

## Free Electives: 28-29

## Total Degree Requirements: 120

(1) Students should have two semesters of the same language, until reaching the intermediate level. With Spanish as an example:

SPAN 101 & SPAN 102 (if the student entered with no prior Spanish experience/did not test out of SPAN 101 1)

SPAN 102 & SPAN 201 (if the student tested into SPAN 102 /transferred in equivalent)

SPAN 201 only (if the student tested into SPAN 201 /transferred in equivalent)

No language required (if the student tested out of SPAN 201 /transferred in equivalent)

## Political Science/Pre-law, BA

Program Code: PLSCAH-PLAW

## Liberal Studies: 46-47

As outlined in the Liberal Studies Requirements with the following specifications:

## Mathematics: 3

## Social Science:

PLSC 111 - American Government **Credits: 3**

## Liberal Studies Electives: 6

Two semesters of the same foreign language or intermediate foreign language and additional liberal studies elective or two liberal studies electives. (1)

No courses with PLSC prefix.

## Major: 33

## Required Courses:

PLSC 101 - World Politics **Credits: 3**

PLSC 260 - Contemporary Political Ideas **Credits: 3**

PLSC 300 - Research Methods in Political Science **Credits: 3**

## Controlled Electives: 24

At least one course in three of the four areas:

## American Studies:

PLSC 251 - State and Local Political Systems **Credits: 3**

PLSC 350 - The Presidency **Credits: 3**

PLSC 351 - Legislative Process **Credits: 3**

PLSC 353

PLSC 354 - Urban Politics **Credits: 3**

PLSC 355 - Intergovernmental Relations **Credits: 3**

PLSC 356 - Mass Media in American Politics **Credits: 3**

PLSC 358 - Judicial Process **Credits: 3**

PLSC 359 - Constitutional Law and Civil Liberties **Credits: 3**

## Political Theory:

PLSC 360 - Classical Political Thought **Credits: 3**

PLSC 361 - Modern Political Thought **Credits: 3**

## Public Policy and Administration:

PLSC 250 - Public Policy **Credits: 3**

PLSC 370 - The Practice of Public Administration **Credits: 3**

## International Studies:

- PLSC 280 - Comparative Government I: Western Political Systems **Credits: 3**
- PLSC 282 - International Relations **Credits: 3**
- PLSC 283 - American Foreign Policy **Credits: 3**
- PLSC 285 - Comparative Government II: Non-Western Political Systems **Credits: 3**
- PLSC 383 - Political Systems: Asia **Credits: 3**
- PLSC 384 - Political Systems: Middle East **Credits: 3**
- PLSC 388 - Dimensions of National Security **Credits: 3**
- PLSC 389 - International Development Strategies **Credits: 3**
- PLSC 422 - International Law and Organizations **Credits: 3**
- PLSC 465 - Intelligence Process and Policy **Credits: 3 (4)**

## Other Requirements: Pre-law Interdisciplinary Track: 21

Seven courses, including at least one from each of six areas:

### Business:

- ACCT 201 - Accounting Principles I **Credits: 3**
- ACCT 202 - Accounting Principles II **Credits: 3**
- BLAW 235 - Legal Environment of Business **Credits: 3**

### Criminology:

- CRIM 210 - Criminal Law **Credits: 3**
- CRIM 215 - Survey of Courts and the Criminal Justice System **Credits: 3**
- CRIM 225 - Survey of Corrections **Credits: 3**
- CRIM 255 - Law, Social Control, and Society **Credits: 3**

### Economics:

- ECON 121 - Principles of Macroeconomics **Credits: 3**
- ECON 122 - Principles of Microeconomics **Credits: 3**

### English:

- ENGL 212 - American Literature: Beginnings to 1900 **Credits: 3**
- ENGL 227 - Introduction to Legal Writing **Credits: 3**
- ENGL 265 - Law and Literature **Credits: 3**
- ENGL 310 - Public Speaking **Credits: 3**
- ENGL 321 - Persuasive Speech and Writing **Credits: 3**

### History:

- HIST 320 - History of England to 1688 **Credits: 3**
- HIST 342 - The Early Republic **Credits: 3**

HIST 346 - Recent United States History **Credits: 3**  
HIST 475 - History of American Constitutionalism **Credits: 3**

## Philosophy:

PHIL 101 - Critical Thinking **Credits: 3**  
PHIL 122 - Contemporary Moral Issues **Credits: 3**  
PHIL 130 - Introduction to Biomedical Ethics **Credits: 3**  
PHIL 221 - Symbolic Logic I **Credits: 3**  
PHIL 270 - Ethics and the Environment **Credits: 3**  
PHIL 320 - Ethical Theory **Credits: 3**  
PHIL 450 - Philosophy of Law **Credits: 3**

## Free Electives: 19-20

## Total Degree Requirements: 120

(1) Students should have two semesters of the same language, until reaching the intermediate level. With Spanish as an example:

SPAN 101 & SPAN 102 (if the student entered with no prior Spanish experience/did not test out of SPAN 101 1)

SPAN 102 & SPAN 201 (if the student tested into SPAN 102 /transferred in equivalent)

SPAN 201 only (if the student tested into SPAN 201 /transferred in equivalent)

No language required (if the student tested out of SPAN 201 /transferred in equivalent)

## Psychology, BA

Program Code: PSYCHH

## Liberal Studies: 43-44

As outlined in Liberal Studies Requirements section with the following specifications:

### Mathematics:

MATH 217 - Probability and Statistics **Credits: 3**

### Natural Science:

BIOL 104 - Human Biology: How the Human Body Works **Credits: 4** recommended  
BIOL 106 - Human Genetics and Health **Credits: 3** recommended

### Social Science:

PSYC 101 - General Psychology **Credits: 3**

## Liberal Studies Elective: 3

No course with PSYC prefix (1)

## Major: 42

### Required Courses:

PSYC 100 - The Psychology Major: Curriculum and Careers **Credits: 1**

PSYC 102 - Identity and Interactions in a Diverse World **Credits: 2**

PSYC 200 - Psychological Research I **Credits: 3**

PSYC 215 - Developmental Psychology **Credits: 3**

PSYC 225 - Abnormal Psychology **Credits: 3**

PSYC 235 - Social Psychology **Credits: 3**

PSYC 245 - Learning and Cognition **Credits: 3**

PSYC 255 - Biopsychology **Credits: 3**

PSYC 300 - Psychological Research II: Quantitative Research Methods **Credits: 3**

or

PSYC 301 - Psychological Research II: Qualitative Research Methods **Credits: 3**

PSYC 460 - Senior Seminar in Psychology **Credits: 3**

## One specialization required: (2)

### Psychological Science Specialization: 15

### Controlled Electives: 6

Two courses with different course numbers from the following:

PSYC 415 - Advanced Topics in Developmental Psychology **Credits: 3**

PSYC 435 - Advanced Topics in Social Psychology **Credits: 3**

PSYC 445 - Advanced Topics in Learning and Cognition **Credits: 3**

PSYC 450 - Counseling Skills **Credits: 3**

PSYC 455 - Advanced Topics in Biological Psychology **Credits: 3**

### Three Additional Electives from the following: 9

EDSP 476 - Foundations of Behavior Analysis **Credits: 3**

EDSP 477 - Assessment of Student Learning: Design and Interpretation of Educational Measures **Credits: 3**

Any PSYC elective. **Credits: 3**

### Applied Psychology Specialization: 15

PSYC 150 - Introduction to Applied Psychology **Credits: 3**



PSYC 390 - Industrial-Organizational Psychology **Credits: 3**

or

PSYC 450 - Counseling Skills **Credits: 3**

PSYC 493 - Psychological Practicum **Credits: 1-12 (3 cr. needed)**

## Controlled Electives: 6

Two courses from the following:

EDSP 476 - Foundations of Behavior Analysis **Credits: 3**

EDSP 477 - Assessment of Student Learning: Design and Interpretation of Educational Measures **Credits: 3**

PSYC 313 - Elder Abuse (CAAST) **Credits: 3**

PSYC 314 - Child and Adolescent Psychopathology (CAAST) **Credits: 3**

PSYC 322 - Violence Across the Life Span **Credits: 3**

PSYC 331 - Environmental Psychology **Credits: 3**

PSYC 332 - Community Psychology and Prevention Science (CAAST) **Credits: 3**

PSYC 372 - Drugs and Behavior **Credits: 3**

PSYC 374 - Stress and Coping **Credits: 3**

PSYC 377 - Interpersonal Skills and Group Dynamics **Credits: 3**

PSYC 378 - Psychology of Death and Dying **Credits: 3**

PSYC 379 - Psychology of Human Sexuality **Credits: 3**

PSYC 380 - Gender and Violence (CAAST) **Credits: 3**

PSYC 388 - Forensic Psychology **Credits: 3**

PSYC 411 - Psychology of Women **Credits: 3**

## Other Requirements: 18-24

Foreign Language Intermediate Level **Credits: 0-6**

Minor/concentration (3) **Credits: 18**

## Free Electives: 10-17

## Total Degree Requirements: 120

(1) Intermediate-level foreign language may be included in Liberal Studies electives.

(2) Specialization selected in consultation with advisor.

(3) Concentration plan developed in consultation with advisor.

## Public Health, BS

**Website:** <https://www.iup.edu/public-health/>

**Kristi Storti, Director**

**Scott Decker, Assistant Director**

Program Code: PUBHH

A major in Public Health will provide flexibility and personalized options based upon the student's career goals and graduate education aspirations. Students learn to improve health through a multidisciplinary core curriculum grounded in the social, natural and health sciences. Upon completion of the program, students will understand the science of human health, epidemiology of infectious and chronic diseases as well as complications of the US and global health care systems with regard to access and ethics of disparity in health care delivery. Through advising, students are encouraged to acquire a minor or a certificate with their electives that will enhance their knowledge in a specific area related to Public Health. These include but are not limited to: Anthropology; Applied Statistics; Biology; Community Health; Economics; Exercise Science; Geography; Global Health; LGBT&Q Studies; Nutrition; Psychology; Regional Planning; Safety, Health, and Environmental Sciences; Sociology; Spanish; and Women's and Gender Studies. Students will receive academic advisement, depending on their career plans, to assist with the selection of controlled electives in their progression to graduation. A career in public health opens the door to diverse opportunities in a variety of sectors such as federal, state, and local organizations, private, and non-governmental organizations. Professional jobs related to public health include Health Education, Research Assistant, Wellness/Health Coach, Medical Social Workers and more. Many graduates choose to further education in a master's degree program such as Health Services Administration or a Master of Public Health (MPH).

The total credits required is 120. Students must also maintain a cumulative GPA of 2.5 and a "C" or better in all of the required core Public Health courses.

## Liberal Studies: 43-46

As outlined in the Liberal Studies Requirements with the following specifications:

### Humanities:

PHIL 130 - Introduction to Biomedical Ethics **Credits: 3**

### Mathematics:

MATH 217 - Probability and Statistics **Credits: 3**

### Natural Science:

BIOL 104 - Human Biology: How the Human Body Works **Credits: 4**

BIOL 119 - Emerging Diseases **Credits: 3**

### Social Science:

**Choose three courses from:**

ECON 101 - Basic Economics **Credits: 3**

PSYC 101 - General Psychology **Credits: 3**

SOC 151 - Principles of Sociology **Credits: 3**

or

SOC 161 - Foundations of Sociology: Social Relations in Groups and Organizations **Credits: 3 (GMA)**

## Liberal Studies Electives: 3-6

(1)

FDNT 145 - Personal Nutrition **Credits: 3**

## Major: 43

### Core Requirements:

(1)

ANTH 240 - Introduction to Global Health **Credits: 3**

or

SOC 454 - Dimensions of Rural Public Health **Credits: 3**

ANTH 444 - Medical Anthropology **Credits: 3**

or

SOC 442 - Medical Sociology **Credits: 3**

BIOL 301 - Fundamentals of Epidemiology **Credits: 3**

ECON 360 - Health Economics **Credits: 3**

FDNT 422 - Public Health Nutrition and Epidemiology **Credits: 3**

NURS 101 - Disaster Awareness **Credits: 1**

NURS 410 - Health Promotion and Social Issues **Credits: 3**

NURS 455 - Health Care Informatics **Credits: 3**

NURS 314 - Health Policy and Law **Credits: 3**

or

ELR 314 - Health Policy and Law **Credits: 3**

PSYC 332 - Community Psychology and Prevention Science (CAAST) **Credits: 3**

PUBH 122 - Foundations of Public Health **Credits: 3**

PUBH 306 - Research Design and Analysis in Public Health **Credits: 3**

PUBH 493 - Internship in Public Health **Credits: 3-6**

SOC 448 - Social Welfare Policy **Credits: 3**

### Controlled Electives: 6-8

ANTH 110 - Contemporary Anthropology **Credits: 3**

ANTH 222 - Biological Anthropology **Credits: 3**

BIOL 106 - Human Genetics and Health **Credits: 3**

BIOL 116 - Human Genetics and Health Laboratory **Credits: 1**

BIOL 150 - Human Anatomy **Credits: 4**

FDNT 212 - Nutrition **Credits: 3**

FDNT 213 - Life Cycle Nutrition **Credits: 3**

GEOG 316 - Introduction to Geographic Information Systems **Credits: 3**

or

RGPL 316 - Introduction to Geographic Information Systems **Credits: 3**

KHSS 221 - Human Structure and Function **Credits: 3**

KHSS 251 - Foundations of Safety and Emergency Health Care **Credits: 3**  
KHSS 252 - Introduction to the Driving Task **Credits: 3**  
KHSS 325 - School and Community Health **Credits: 3**  
KHSS 343 - Physiology of Exercise **Credits: 3**  
KHSS 417 - Contemporary Issues in School and Community Health **Credits: 3**  
LGBT 200 - Introduction to Lesbian, Gay, Bisexual, Transgender, and Queer Studies **Credits: 3**  
MATH 411 - Univariate Data Analysis **Credits: 3**  
MATH 412 - Multivariate Statistics **Credits: 3**  
PSYC 225 - Abnormal Psychology **Credits: 3**  
PSYC 374 - Stress and Coping **Credits: 3**  
PUBH 493 - Internship in Public Health **Credits: 3-6**  
SAFE 101 - Introduction to Occupational Safety and Health **Credits: 3**  
SAFE 111 - Principles of Safety I—General Industry **Credits: 3**  
SOC 361 - Social Stratification **Credits: 3**  
SOC 362 - Racial and Ethnic Minorities **Credits: 3**  
SOC 363 - Sociology of Gender **Credits: 3**  
SOC 452 - Disability and Society **Credits: 3**

## Suggested Minors to assist in choice of electives:

Anthropology; Applied Statistics; Biology; Child and Adult Advocacy Studies; Community Health; Economics; Exercise Science; Geography; Global Health; LGBT&Q Studies; Nutrition; Psychology; Regional Planning; Safety, Health, and Environmental Sciences; Sociology; Spanish; Women's and Gender Studies

## Free Electives: 23-28

## Total Degree Requirements: 120

(1) Must maintain a 2.5 cumulative GPA and "C" or better in Core Requirements.

## Public Health/Emergency Medicine, BS

Program Code: PUBH-EMRG

This program is primarily designed for individuals who are seeking a public health degree with a focus in Emergency Medical Services (EMS). This degree is appropriate for anyone who may respond to emergencies, including fire/rescue personnel, nurses, coaches or athletic trainers, safety professionals, etc. Participants who successfully complete this program will be awarded a BS in Public Health -Emergency Medicine and are eligible to take National Registry of EMT and/or Paramedics certification exams for Pennsylvania and national certification as a paramedic.

## Liberal Studies: 43-46

As outlined in Liberal Studies Requirements with the following specifications:

### Mathematics: 3

MATH 217 - Probability and Statistics **Credits: 3**

## Humanities: 3

PHIL 130 - Introduction to Biomedical Ethics **Credits: 3**

## Natural Science: 7

BIOL 104 - Human Biology: How the Human Body Works **Credits: 4**

BIOL 119 - Emerging Diseases **Credits: 3**

## Social Science: 9

Choose three courses from:

PSYC 101 - General Psychology **Credits: 3**

ECON 101 - Basic Economics **Credits: 3**

SOC 151 - Principles of Sociology **Credits: 3**

-or-

SOC 161 - Foundations of Sociology: Social Relations in Groups and Organizations **Credits: 3**

## Liberal Studies Electives: 3-6 (1)

FDNT 145 - Personal Nutrition **Credits: 3**

## Major: 37

## Core Requirements: (2)

ANTH 240 - Introduction to Global Health **Credits: 3**

-or-

SOC 454 - Dimensions of Rural Public Health **Credits: 3**

ANTH 444 - Medical Anthropology **Credits: 3**

-or-

SOC 442 - Medical Sociology **Credits: 3**

BIOL 301 - Fundamentals of Epidemiology **Credits: 3**

ECON 360 - Health Economics **Credits: 3**

FDNT 422 - Public Health Nutrition and Epidemiology **Credits: 3**

NURS 101 - Disaster Awareness **Credits: 1**

NURS 410 - Health Promotion and Social Issues **Credits: 3**

NURS 455 - Health Care Informatics **Credits: 3**

ELR 314 - Health Policy and Law **Credits: 3**

-or-

NURS 314 - Health Policy and Law **Credits: 3**

PSYC 332 - Community Psychology and Prevention Science (CAAST) **Credits: 3**

PUBH 122 - Foundations of Public Health **Credits: 3**

PUBH 306 - Research Design and Analysis in Public Health **Credits: 3**

SOC 448 - Social Welfare Policy **Credits: 3**

## Controlled Electives: 6-9

- ANTH 110 - Contemporary Anthropology **Credits: 3**  
ANTH 222 - Biological Anthropology **Credits: 3**  
BIOL 150 - Human Anatomy **Credits: 4**  
BIOL 106 - Human Genetics and Health **Credits: 3**  
BIOL 116 - Human Genetics and Health Laboratory **Credits: 1**  
FDNT 212 - Nutrition **Credits: 3**  
FDNT 213 - Life Cycle Nutrition **Credits: 3**  
GEOG 316 - Introduction to Geographic Information Systems **Credits: 3**  
-or-  
RGPL 316 - Introduction to Geographic Information Systems **Credits: 3**  
KHSS 251 - Foundations of Safety and Emergency Health Care **Credits: 3**  
KHSS 252 - Introduction to the Driving Task **Credits: 3**  
KHSS 221 - Human Structure and Function **Credits: 3**  
KHSS 343 - Physiology of Exercise **Credits: 3**  
KHSS 325 - School and Community Health **Credits: 3**  
KHSS 417 - Contemporary Issues in School and Community Health **Credits: 3**  
LGBT 200 - Introduction to Lesbian, Gay, Bisexual, Transgender, and Queer Studies **Credits: 3**  
MATH 411 - Univariate Data Analysis **Credits: 3**  
MATH 412 - Multivariate Statistics **Credits: 3**  
PSYC 225 - Abnormal Psychology **Credits: 3**  
PSYC 374 - Stress and Coping **Credits: 3**  
PUBH 493 - Internship in Public Health **Credits: 3-6**  
SAFE 101 - Introduction to Occupational Safety and Health **Credits: 3**  
SAFE 111 - Principles of Safety I—General Industry **Credits: 3**  
SOC 361 - Social Stratification **Credits: 3**  
SOC 362 - Racial and Ethnic Minorities **Credits: 3**  
SOC 363 - Sociology of Gender **Credits: 3**  
SOC 452 - Disability and Society **Credits: 3**

## Required Certificates: 34 (5)

### Emergency Medical Technician Certificate: 4 (3)

### Paramedic Certificate: 30 (4)

## Total Degree Requirements: 120

- (1) If SOC 161 is unavailable, student must complete Global Multicultural Awareness LBST requirement.
- (2) Must maintain a 2.5 cumulative GPA and "C" or better in Core Requirements.
- (3) The Emergency Medical Technician certification is a 150-hour program that requires three to four months to complete 10 patient contacts with an authorized emergency medical service agency or authorized hospital or clinic.
- (4) The Paramedic certification is a 1,150 clock-hour program with 600 hours in the classroom including 230 hours of interactive lecture and 370 lab hours. A minimum of 550 hours are required in clinical and field settings with a minimum of 250 hours at clinical sites and a minimum of 100 hours during the Summative Capstone Field Internship.

(5) A BS in Public Health – Emergency Medicine requires the completion of both the EMT and Paramedic Certificate. An EMT Certification is required prior to completion of a Paramedic Certificate. Students who complete the EMT Certificate will be awarded 4 credits. Students who complete the Paramedic Certificate will be awarded 30 credits. A combination of these certificates will result in 34 credits toward the BS in Public Health/Emergency Medicine degree. Failure to complete one or both certificates will require the student to revert to the BS in Public Health degree and complete the requirements for the degree.

## **Regional Planning, BS**

Program Code: RGPLNM-BS

The Regional Planning program strives to prepare students for leadership positions as professional planners. The program trains students to become professional planners through a process that emphasizes conceptual knowledge, experiential learning, innovative planning skills, and civic engagement. Program graduates acquire ethical and conceptual knowledge, as well as a broad range of technical skills, land use, environmental training to articulate community problems and plan for sustainable communities.

Employment opportunities for urban and regional planners are excellent. This program has prepared students to work in planning agencies at the federal, state, regional, county, and local levels as well as in the private sector with planning consulting and engineering firms. As planners, they have been trained to work with the public to guide growth and change in both rural and urban municipalities across the country. The Regional Planning degree offers two specializations to allow students to develop knowledge and skills to pursue their interests and gain employment in Environmental Planning, Community Planning and Development. As part of their course of study, students address and solve real-world problems through class projects and intern with practicing planners who deal with these issues in a professional environment. Urban and Regional planners work with communities to improve the quality of life for people who live there. They take a comprehensive view of issues, listen to all citizen perspectives, endeavor to reconcile controversy, and propose alternatives that can guide community decision making in allocating finite resources to create better places to live.

### **Community Planning and Development Specialization**

The Community Planning and Development specialization prepares students for employment as professional planners, adept at identifying and assessing community development challenges and applying advanced techniques to the development of livable communities or further graduate studies. Data collection, spatial information management, and graphic presentation are integral skills taught in the program. Course work also equips students with a conceptual grounding on community development and housing policy issues, spatial data analysis in planning, and site location analysis. Course work includes methods for identifying, modeling and analyzing the spatial organization of community systems from both practical and theoretical perspectives. They are familiar with strategies of economic development and housing provision. They understand both the theory and ethics of planning. Students completing this specialization should be able to assist diverse communities and organizations in identifying and finding solutions to a wide variety of community development challenges and how transportation impacts land use issues.

### **Environmental Planning Specialization**

The Environmental Planning specialization prepares students for employment as environmental planners or further graduate studies. Data collection, spatial information management, and graphic presentation are integral skills taught in the program. Students who select this specialization learn about aspects of the natural environment, methods to preserve and conserve resources, and how to plan communities where humans both benefit from the natural environment and have minimal impact on it. They are knowledgeable about environmental regulation and policy. They understand community strategies for ameliorating environmental problems. They are familiar with the regulation and management of flood plains and wetlands, the management of waste and stormwater, environmental impact assessment. They understand both the theory and ethics of planning. Students completing this specialization should be able to assist diverse communities and organizations in identifying and finding solutions to a wide variety of environmental issues such as wastewater treatment, water pollution, acid mine drainage, watershed planning, carbon footprints, deforestation, and natural resource extraction.

## Liberal Studies: 46-47

As outlined in the Liberal Studies Requirements with the following specifications:

### Mathematics: 3

MATH 217 - Probability and Statistics **Credits: 3** recommended

### Natural Science

Recommended

GEOS 101 - The Dynamic Earth **Credits: 3**

GEOS 102 - The Dynamic Earth Lab **Credits: 1**

and

GEOS 103 - Oceans and Atmospheres **Credits: 3**

GEOS 104 - Oceans and Atmospheres Lab **Credits: 1**

### Social Science:

RGPL 103 - Global Cities: Planning and Development **Credits: 3** required

### Liberal Studies Electives: 6

No courses with RPLG prefix, recommended

GEOG 222 - Geography of National Parks **Credits: 3**

or

GEOS 155 - Geology of Climate Change **Credits: 3**

or

SUST 201 - Introduction to Sustainability Studies **Credits: 3**

### Major: 52

#### Required Courses:

RGPL 213 - Cartography and Map Design **Credits: 3**

RGPL 232 - Urban Landscapes **Credits: 3**

RGPL 316 - Introduction to Geographic Information Systems **Credits: 3**

RGPL 350 - Introduction to Community Planning **Credits: 3**

RGPL 352 - Planning Methods **Credits: 3**

RGPL 358 - Planning History and Theory **Credits: 3**

RGPL 453 - Planning Design Studio I **Credits: 3**

RGPL 454 - Planning Design Studio II **Credits: 3**

RGPL 458 - Land Use Law **Credits: 3**

RGPL 462 - Planning Policy, Implementation, and Administration **Credits: 3**



RGPL 493 - Internship **Credits:** 1-12 (4cr required)  
RGPL 498 - Community Planning Practicum **Credits:** 3

## Environmental Planning Specialization:

### Two Required Courses:

RGPL 343 - Fresh Water Resources **Credits:** 3  
RGPL 426 - Environmental Land Use Planning **Credits:** 3

### Select Three Courses from the following:

GEOG 425 - Global Positioning Systems (GPS) Concepts and Techniques **Credits:** 3  
GEOG 435 - Geography of Energy **Credits:** 3  
RGPL 345 - Biogeography for Environmental Managers **Credits:** 3  
RGPL 415 - Introduction to Remote Sensing **Credits:** 3  
RGPL 424 - Technical Issues in Geographic Information Systems **Credits:** 3  
RGPL 427 - GeoDesign **Credits:** 3  
RGPL 440 - Conservation: Environmental Analysis **Credits:** 3

## Community Planning and Development Specialization:

### Two Required Courses:

RGPL 404 - Transportation Planning **Credits:** 3  
RGPL 470 - Housing and Community Development Policy **Credits:** 3

### Select Three Courses from the following:

GEOG 334 - Political Geography **Credits:** 3  
PLSC 354 - Urban Politics **Credits:** 3  
RGPL 415 - Introduction to Remote Sensing **Credits:** 3  
RGPL 424 - Technical Issues in Geographic Information Systems **Credits:** 3  
RGPL 426 - Environmental Land Use Planning **Credits:** 3  
RGPL 427 - GeoDesign **Credits:** 3

## Free Electives: 21-22

## Total Degree Requirements: 120 (1)

(1) As they pass through the program, students will be expected to develop and maintain a portfolio of planning course work as a requirement for graduation.

## Respiratory Care, BS

**Uzer Kahn, MD, Medical Director**

Program Code: RESP

The bachelor of science degree program in respiratory care prepares the graduate for a career as a registered respiratory care practitioner. Respiratory care practitioners evaluate, treat, and care for people with breathing problems. They assist physicians in the evaluation and treatment of heart and lung disorders. Respiratory care practitioners are experts in the therapeutic use of medical gases, oxygen administration, pulmonary resuscitation, and artificial airways. They are employed in hospitals, extended care facilities, clinics, rehabilitation centers, physicians' offices, educational programs, home care services, as well as, national and international medical device companies.

The program is accredited by the Commission on Accreditation for Respiratory Care (CoARC). The program consists of two academic years of pre-clinical studies (65 credits) on the Indiana campus and two academic years (59 credits) of clinical study at the IUP Pittsburgh East. Students are expected to earn a GPA of at least 2.25 in the required Natural Sciences and Mathematics courses (includes "C" or higher in BIOL 150 and BIOL 240), and an overall GPA of at least 2.0 to be considered for Fall semester admission into the clinical years in respiratory care. However, since admission to the clinical years is competitive, IUP cannot guarantee progression.

Respiratory Care majors must earn a minimum grade of "C" in all required RESP 300 level and 400 level courses to progress. A grade of "D" in a RESP course may hinder progression to the next level of required courses when mastery of the content is essential for success and certification.

Upon graduation, graduates are eligible for certification (CRT) and registration (RRT) in respiratory care. The granting of the degree is not contingent upon passing the credential examinations. Graduates are prepared for graduate degrees that may lead to careers in administration, education, and medicine.

This program is also available to Certified Respiratory Therapists (CRTs) who are graduates of a USDE-accredited, Associate degree respiratory care program. Based upon successful completion and prior approval to transfer academic credits from another respiratory care program, CRT students may be exempt from the RESP 100 and 300 level courses (29 credits). Students who are A.S., CRT must complete 27 credits from the 400 level RESP courses (see list below), which are available on a full-time or part-time basis. There is potential for additional course exemptions that meet prior approval for transfer (liberal studies, math, science); several of these courses may be available online. CRT candidates must provide proof of a valid NBRC credential and a current respiratory license for the state of Pennsylvania.

Detailed information regarding requirements such as health screening, liability insurance, legal clearance, and professional uniforms is available in the Nursing and Allied Health Department office and on the IUP website.

Criteria for change of major and applications are available online through the IUP Department of Nursing and Allied Health Professions.

## Liberal Studies: 44

As outlined in the Liberal Studies Requirements with the following specifications:

### Mathematics:

MATH 105 - College Algebra **Credits:** 3 or higher level

### Natural Science:

CHEM 101 - College Chemistry I **Credits:** 4

CHEM 102 - College Chemistry II **Credits:** 4

## Social Science:

PSYC 101 - General Psychology **Credits: 3**

SOC 151 - Principles of Sociology **Credits: 3**

or

SOC 161 - Foundations of Sociology: Social Relations in Groups and Organizations **Credits: 3**

Global and multicultural awareness course

## Writing Intensive:

Not required

## Liberal Studies Elective: 3

No courses with RESP prefix

## Major: 56

## Required Courses:

RESP 101 - The Profession of Respiratory Care **Credits: 1**

RESP 326 - Respiratory Care Clinical Practice I **Credits: 3**

RESP 327 - Pharmacology **Credits: 3**

RESP 328 - Applied Concepts in Respiratory Care **Credits: 3**

RESP 329 - Respiratory Care Equipment I **Credits: 3**

RESP 331 - Respiratory Care Equipment I Lab **Credits: 1**

RESP 334 - Respiratory Care Equipment II **Credits: 3**

RESP 332 - Respiratory Care Equipment II Lab **Credits: 1**

RESP 333 - Respiratory Care Clinical Practice II **Credits: 3**

RESP 335 - Patient Care and Emergency Skills **Credits: 4**

RESP 336 - Cardiopulmonary Evaluation and Clinical Correlation **Credits: 4**

RESP 425 - Clinical Case Studies **Credits: 3**

RESP 426 - Respiratory Care Clinical Practice III **Credits: 4**

RESP 429 - Respiratory Care Leadership **Credits: 3**

RESP 430 - Cardiopulmonary Diagnostics **Credits: 3**

RESP 432 - Neonatal and Pediatric Respiratory Care **Credits: 3**

RESP 433 - Respiratory Care Clinical Practice IV **Credits: 4**

RESP 441 - Respiratory Care Professional I **Credits: 2**

RESP 435 - Respiratory Care Across the Continuum **Credits: 3**

RESP 451 - Respiratory Care Professional II **Credits: 2**

## Other Requirements: 15

## Science Courses:

BIOL 150 - Human Anatomy **Credits: 4**

BIOL 240 - Human Physiology **Credits: 4**

BIOL 241 - Introductory Medical Microbiology **Credits: 4**

PHYS 151 - Physics for Life Sciences **Credits: 3**

**Free Electives: 5**

**Total Degree Requirements: 120**

RESP 300- and 400- level courses are completed at IUP Pittsburgh East.

## **Safety, Health, and Environmental Applied Sciences, BS**

Program Code: SHENM

**Liberal Studies: 41**

As outlined in the Liberal Studies Requirements with the following specifications:

**Learning Skills:**

English: (1)

Mathematics:

MATH 105 - College Algebra **Credits: 3**

**Natural Science:**

CHEM 101 - College Chemistry I **Credits: 4**

CHEM 102 - College Chemistry II **Credits: 4**

**Social Science:**

PSYC 101 - General Psychology **Credits: 3**

Global and multicultural awareness course

**Liberal Studies Elective: 3**

MATH 217 - Probability and Statistics **Credits: 3**

**Major: 49-52**

**Required Courses:**

SAFE 101 - Introduction to Occupational Safety and Health **Credits: 3**

SAFE 111 - Principles of Safety I—General Industry **Credits: 3**

SAFE 211 - Principles of Safety II—Construction Industry **Credits: 3**

SAFE 212 - Hazard Prevention Management I **Credits: 3**  
SAFE 215 - Safety, Health, and Environmental Communications **Credits: 3**  
SAFE 220 - Hazardous Materials and Emergency Management **Credits: 3**  
SAFE 310 - Environmental Safety and Health Regulations and Sustainability **Credits: 3**  
SAFE 311 - Fire Protection **Credits: 3**  
SAFE 330 - Recognition, Evaluation, and Control of Occupational Health Hazards I **Credits: 4**  
SAFE 335 - Industrial and Environmental Stressors **Credits: 2**  
SAFE 345 - Process and Systems Safety **Credits: 3**  
SAFE 347 - Ergonomics **Credits: 3**  
SAFE 361 - Air and Water Pollution **Credits: 2**  
SAFE 412 - Hazard Prevention Management II **Credits: 3**  
SAFE 430 - Recognition, Evaluation, and Control of Occupational Health Hazards II **Credits: 4**  
SAFE 435 - Ethics and Professionalism **Credits: 1**  
-OR-  
SAFE 480 - Senior Capstone Project **Credits: 3**  
SAFE 493 - Internship **Credits: 6 (2)**

## Other Requirements: 8

### Additional Science and Mathematics:

BIOL 104 - Human Biology: How the Human Body Works **Credits: 4**

or

PHYS 111 - Physics I Lecture **Credits: 3**

PHYS 121 - Physics I Lab **Credits: 1**

## Free Electives: 19-22 (3)

## Total Degree Requirements: 120

(1) ENGL 202 - Composition II requirements are fulfilled by the department's Writing Plan.

(2) SAFE 493 is variable credit (6 or 12 credits). Up to 12 credits of SAFE 493 can be taken. Only 6 credits count toward meeting program requirements. Any additional credits over 6 credits count as free electives.

(3) It is recommended that students pursue taking (1) a minor or certificate, (2) business courses (e.g., MGMT 300, 310, 311, 330, or 434 or ACCT 200/201), or (3) additional advanced chemistry courses (e.g., CHEM 231).

## Social Studies Education/History, BSED

Program Code: SSED AH-HIST

See requirements leading to teacher certification, titled "3-Step Process for Teacher Education," in the College of Education and Communications section of this catalog. To student teach, students must have a 3.0 cumulative GPA in their major (social science and history courses). To be licensed to teach, education/history majors must apply for social studies education certification.

## Liberal Studies: 43

As outlined in the Liberal Studies Requirements with the following specifications:

## Learning Skills: 6 (1)

MATH 101 - Foundations of Mathematics **Credits: 3**

## Humanities-History:

Fulfilled by required courses in major

## Natural Science: Option II

See requirements for **Natural Science: Option II** of the Liberal Studies Requirements **Knowledge Area: Natural Science: One Option** in the *Graduation Requirements* section of this catalog.

## Social Science:

ECON 121 - Principles of Macroeconomics **Credits: 3**

GEOG 104 - World Geography: Global Context **Credits: 3**

PSYC 101 - General Psychology **Credits: 3**

## Liberal Studies Electives: 9

ECON 122 - Principles of Microeconomics **Credits: 3**

EDSP 102 - Educational Psychology **Credits: 3**

GEOG 230 - Human Geography **Credits: 3**

or

GEOG 254 - Geography of Russia, Central Eurasia, and Eastern Europe **Credits: 3**

or

GEOG 255 - Geography of Africa **Credits: 3**

or

GEOG 256 - Geography of East and Southeast Asia **Credits: 3**

or

GEOG 257 - Geography of South and Southwest Asia **Credits: 3**

## College: 35

3 additional credits of MATH level 105 or higher

ARHU 142 - Introduction to Secondary Social Studies Education **Credits: 2**

## Preprofessional Education Sequence:

ETIT 103 - Digital Instructional Technology **Credits: 3**

## Professional Education Sequence:

ARHU 342 - Social Studies Teaching Lab **Credits: 2**

EDEX 301 - Education of Students with Disabilities in Inclusive Secondary Settings **Credits: 2**

EDEX 323 - Instruction of English Language Learners with Special Needs **Credits: 2**

EDSP 477 - Assessment of Student Learning: Design and Interpretation of Educational Measures **Credits: 3**  
EDUC 242 - Pre-student Teaching Clinical Experience I **Credits: 1**  
EDUC 342 - Pre-student Teaching Clinical Experience II **Credits: 1**  
EDUC 441 - Student Teaching **Credits: 5-12** (12 credits required)  
EDUC 442 - School Law **Credits: 1**  
EDUC 455 - Teaching of Social Studies in Secondary Schools **Credits: 3**

## Major:30

### Foundation Courses: 12 (2)

HIST 211 - World History to 1500 **Credits: 3**  
HIST 212 - World History Since 1500 **Credits: 3**  
HIST 204 - United States History to 1877 **Credits: 3**  
HIST 205 - United States History since 1877 **Credits: 3**

### Research Courses: 6

HIST 295 - Introduction to Historical Studies **Credits: 3**  
HIST 495 - History Capstone **Credits: 3 (3)**

### Controlled Electives: 12

#### 12 Credits of HIST with the following specifications:

Any 3 additional HIST courses numbered 301-494 with at least one being a US History course and at least one being a non-US History course.

Any 1 additional HIST course numbered 200 or higher.

No more than one Public History course 420-430 may be counted as a controlled elective.

### US History Courses 300-494:

HIST 342 - The Early Republic **Credits: 3**  
HIST 343 - Civil War and Reconstruction **Credits: 3**  
HIST 346 - Recent United States History **Credits: 3**  
HIST 348 - Top Secret America: The Rise and Reach of the National Security State **Credits: 3**  
HIST 360 - History of Pennsylvania **Credits: 3**  
HIST 362 - History of American Diplomacy, 1900-present **Credits: 3**  
HIST 363 - Thought and Culture in Early America **Credits: 3**  
HIST 365 - History of Black America since Emancipation **Credits: 3**  
HIST 369 - Women in America **Credits: 3**  
HIST 374 - Blind Pigs and Brothels: A History of Crime and Vice in America **Credits: 3**  
HIST 475 - History of American Constitutionalism **Credits: 3**

### Non-US History Courses 300-494:

HIST 302 - History of Ancient Rome **Credits: 3**  
HIST 303 - Medieval Europe I, 400-1000 **Credits: 3**  
HIST 307 - History of Europe: 1815-1914 **Credits: 3**

HIST 313 - Europe Since 1945: Division, Revolution, and Unity **Credits: 3**  
HIST 320 - History of England to 1688 **Credits: 3**  
HIST 322 - French Revolution and Napoleon **Credits: 3**  
HIST 323 - Modern France: Renewing an Old Country **Credits: 3**  
HIST 332 - History of Early China **Credits: 3**  
HIST 333 - Vietnam in War and Revolution **Credits: 3**  
HIST 433 - China 1300-1800: The Late Imperial Age **Credits: 3**  
HIST 434 - Modern China 1800-present **Credits: 3**  
HIST 436 - Japan 1500-1850: Early Modern Japan **Credits: 3**  
HIST 437 - Modern Japan 1850-Present **Credits: 3**

### Other History Courses (neither US or Non-US):

HIST 356 - Digital History **Credits: 3**  
HIST 391 - Film as History **Credits: 3**  
HIST 395 - Introduction to Historical Methods **Credits: 3**  
HIST 250 - Introduction to Public History **Credits: 3**  
HIST 357 - Archival Studies **Credits: 3**  
HIST 353 - History Museums and Historic Sites: Theory and Practice **Credits: 3**  
HIST 354 - Oral History Practice **Credits: 3**

### Social Science Distribution: 12

PLSC 111 - American Government **Credits: 3**

One course from the following:

ANTH 110 - Contemporary Anthropology **Credits: 3**  
ANTH 211 - Cultural Anthropology **Credits: 3**

One course from the following:

PLSC 280 - Comparative Government I: Western Political Systems **Credits: 3**  
PLSC 285 - Comparative Government II: Non-Western Political Systems **Credits: 3**  
PLSC 350 - The Presidency **Credits: 3**  
PLSC 351 - Legislative Process **Credits: 3**  
PLSC 354 - Urban Politics **Credits: 3**  
PLSC 355 - Intergovernmental Relations **Credits: 3**  
PLSC 356 - Mass Media in American Politics **Credits: 3**  
PLSC 358 - Judicial Process **Credits: 3**  
PLSC 359 - Constitutional Law and Civil Liberties **Credits: 3**

One course from the following:

SOC 151 - Principles of Sociology **Credits: 3**  
SOC 161 - Foundations of Sociology: Social Relations in Groups and Organizations **Credits: 3**  
SOC 231 - Contemporary Social Problems **Credits: 3**  
SOC 337 - Society, Globalization, and Risk **Credits: 3**  
SOC 362 - Racial and Ethnic Minorities **Credits: 3**

### Total Degree Requirements: 120



- (1) English Composition II requirements are fulfilled by the department's Writing Plan.
- (2) In exceptional cases, the student's advisor may give special permission to substitute two upper-level courses for one of the foundation courses.
- (3) This requirement may be fulfilled by completing the departmental honors program.

## Sociology, BA

Program Code: SOCHH

The General track attempts to broadly educate those students who may wish to pursue graduate training in sociology and make sociology a career and profession. Because of its flexibility, it is also appropriate for students who want to pursue double majors that would include such fields as psychology or criminology. The General Track gives students the broadest possible training in sociology. Students graduating with majors in general sociology often find employment in business, industry, and government.

### Liberal Studies: 46-48

As outlined in the Liberal Studies Requirements with the following specifications:

#### Mathematics:

MATH 217 - Probability and Statistics **Credits:** 3 recommended

#### Social Science:

SOC 151 - Principles of Sociology **Credits:** 3

or

SOC 161 - Foundations of Sociology: Social Relations in Groups and Organizations **Credits:** 3

#### Liberal Studies Electives: 7-8

No courses with SOC prefix (1,2)

#### Major: 33

#### Required Courses:

SOC 315 - Social Research Methods **Credits:** 3

SOC 320 - Sociological Theory **Credits:** 3

SOC 325 - Making Sense of Social Data **Credits:** 3

SOC 465 - Launching Your Sociology Future **Credits:** 3

#### One Course from the Following:

SOC 251 - Sociology of Human Sexuality **Credits:** 3

SOC 357 - Sociology of Aging and the Life-course **Credits:** 3

SOC 361 - Social Stratification **Credits:** 3

SOC 362 - Racial and Ethnic Minorities **Credits: 3**  
SOC 363 - Sociology of Gender **Credits: 3**  
SOC 452 - Disability and Society **Credits: 3**

## Sociology Electives: 18

Select 6 courses (18 credits) from the following Sociology Electives. (3)

SOC 231 - Contemporary Social Problems **Credits: 3**  
SOC 251 - Sociology of Human Sexuality **Credits: 3**  
SOC 269 - Sociology of Deviance **Credits: 3**  
SOC 314 - Sociology of Native Americans **Credits: 3**  
SOC 333 - Delinquency and Youth **Credits: 3**  
SOC 335 - Alcohol and Drug Abuse **Credits: 3**  
SOC 336 - Sociology of the Family **Credits: 3**  
SOC 337 - Society, Globalization, and Risk **Credits: 3**  
SOC 345 - Sociological Social Psychology **Credits: 3**  
SOC 357 - Sociology of Aging and the Life-course **Credits: 3**  
SOC 361 - Social Stratification **Credits: 3**  
SOC 362 - Racial and Ethnic Minorities **Credits: 3**  
SOC 363 - Sociology of Gender **Credits: 3**  
SOC 387 - Social and Cultural Change **Credits: 3**  
SOC 421 - Sociology of Mass Media **Credits: 3**  
SOC 427 - Social Perspectives on Intimate Partner Violence **Credits: 3**  
SOC 428 - Child Abuse **Credits: 3**  
SOC 442 - Medical Sociology **Credits: 3**  
SOC 448 - Social Welfare Policy **Credits: 3**  
SOC 452 - Disability and Society **Credits: 3**  
SOC 493 - Internship in Sociology **Credits: 3-12**

## Free Electives: 37-41

## Total Degree Requirements: 120

- (1) Elementary Level II and Intermediate-level foreign language may be included in Liberal Studies electives.
- (2) SOC 151/161 Credits counted as Liberal Studies course, not in major.
- (3) Students may apply SOC 281/481 Special Topics courses to Sociology Electives with departmental permission.

## Sociology/Human Services, BA

Program Code: SOCHH-HMSV

The **Human Services Track** in sociology seeks to help students understand the causes of many of the problems that plague modern societies, such as poverty, racial discrimination, substance abuse, and domestic violence. It is designed to provide students with the knowledge and skills necessary to become practitioners in various human services areas (e.g., juvenile delinquency, medical sociology, gerontology, and interpersonal dynamics and family sociology).

## Liberal Studies: 46-48

As outlined in the Liberal Studies Requirements with the following specifications:

### Mathematics (required):

MATH 217 - Probability and Statistics **Credits: 3** recommended

### Social Science:

#### Required

SOC 151 - Principles of Sociology **Credits: 3** (2)

or

SOC 161 - Foundations of Sociology: Social Relations in Groups and Organizations **Credits: 3** (3)

#### Recommended

ANTH 110 - Contemporary Anthropology **Credits: 3**

PSYC 101 - General Psychology **Credits: 3**

### Liberal Studies Electives: 6-8

No courses with SOC prefix (1,2)

## Major: 42

### Required Courses:

SOC 315 - Social Research Methods **Credits: 3**

SOC 320 - Sociological Theory **Credits: 3**

SOC 325 - Making Sense of Social Data **Credits: 3**

SOC 391 - Foundations of Sociological Practice **Credits: 3** (3)

SOC 392 - Clinical Sociological Practice **Credits: 3** (3)

SOC 465 - Launching Your Sociology Future **Credits: 3**

SOC 493 - Internship in Sociology **Credits: 3-12** Minimum of 6 credits required.

### One Course from the Following:

SOC 251 - Sociology of Human Sexuality **Credits: 3**

SOC 357 - Sociology of Aging and the Life-course **Credits: 3**

SOC 361 - Social Stratification **Credits: 3**

SOC 362 - Racial and Ethnic Minorities **Credits: 3**

SOC 363 - Sociology of Gender **Credits: 3**

SOC 452 - Disability and Society **Credits: 3**

## Controlled Electives: 15 (4)

Select 5 courses from the following Sociology electives: (3)

- SOC 231 - Contemporary Social Problems **Credits: 3**
- SOC 251 - Sociology of Human Sexuality **Credits: 3**
- SOC 269 - Sociology of Deviance **Credits: 3**
- SOC 314 - Sociology of Native Americans **Credits: 3**
- SOC 333 - Delinquency and Youth **Credits: 3**
- SOC 335 - Alcohol and Drug Abuse **Credits: 3**
- SOC 336 - Sociology of the Family **Credits: 3**
- SOC 337 - Society, Globalization, and Risk **Credits: 3**
- SOC 345 - Sociological Social Psychology **Credits: 3**
- SOC 357 - Sociology of Aging and the Life-course **Credits: 3**
- SOC 361 - Social Stratification **Credits: 3**
- SOC 362 - Racial and Ethnic Minorities **Credits: 3**
- SOC 363 - Sociology of Gender **Credits: 3**
- SOC 387 - Social and Cultural Change **Credits: 3**
- SOC 421 - Sociology of Mass Media **Credits: 3**
- SOC 427 - Social Perspectives on Intimate Partner Violence **Credits: 3**
- SOC 428 - Child Abuse **Credits: 3**
- SOC 442 - Medical Sociology **Credits: 3**
- SOC 448 - Social Welfare Policy **Credits: 3**
- SOC 452 - Disability and Society **Credits: 3**

## Free Electives: 28-32

## Total Degree Requirements: 120

- (1) Foreign Language Elementary level II and/or Foreign Language Intermediate level (201) may be included in Liberal Studies electives.
- (2) Credits counted in Liberal Studies, not in major.
- (3) SOC 391 and SOC 392 must be taken before SOC 493. Generally, SOC 493 is taken in the summer before or during the senior year.
- (4) Students may apply SOC 281/481 Special Topics courses to Controlled Electives with departmental permission.

## Spanish, BA

Program Codes: SPANAH-BA; SPAN+SSCH (Spanish, BA w/Spanish Education PK-12 Education Certificate)

The Spanish BA program offers a varied curriculum to provide not only basic language instruction in Spanish, but also the more advanced competencies needed by language specialists and students hoping to take advantage of an international study experience. Those preparing to teach the language can pursue the Spanish Education PK-12 Certificate while they complete the Spanish BA.

Students majoring in Spanish will acquire proficiency in all phases of the language and enter more deeply into the history, culture, and literature of Spanish-speaking countries. Spanish majors generally find employment in government work,

librarianship, journalism and public relations, foreign trade, airlines, tourism, business, criminology, and teaching. Students choosing careers as secondary school teachers will find the close supervision and advanced methodology offered by the department a distinct asset.

## Placement

Students with previous Spanish study in high school will be placed into the appropriate course levels by means of a written departmental exam, administered before the beginning of the semester. In addition, students judged to be native or heritage speakers (either through the written placement exam or by classroom instructors), will have their speaking proficiency assessed by an oral proficiency tester in the Department of Foreign Languages who is currently certified by the American Council on the Teaching of Foreign Languages (ACTFL). Students who receive an advisory oral proficiency rating of Advanced Low level on the oral proficiency scale developed by ACTFL will not be permitted to enroll in SPAN 101, SPAN 102, SPAN 201, or SPAN 220. Students who receive an advisory oral proficiency rating of Advanced-Mid level or higher will not be permitted to enroll in SPAN 101, SPAN 102, SPAN 201, SPAN 220, SPAN 350, or SPAN 450. Students who are rated in the advanced range are encouraged to seek course credit for their oral proficiency levels by applying through the American Council on Education (ACE) Credit Recommendation Service in conjunction with Language Testing International (LTI) (see next section). In the case of Spanish majors and minors who place out of the courses listed as a result of having the advanced-level oral proficiency and choose NOT to pursue ACE credits, SPAN 201 will be waived (no credits granted), and students will need to seek other Spanish classes in place of the required SPAN 220 and SPAN 350 courses.

No student will be permitted to register for or take a D/F repeat in SPAN 101, SPAN 102, or SPAN 201 when credit has already been received for a higher-numbered course. No student will be permitted to register for or take a D/F repeat in SPAN 220 when credit has already been received for SPAN 350 and/or SPAN 450.

## Course Credit for Oral Proficiency Levels

Incoming students may receive course credit for their oral proficiency levels in Spanish through the American Council on Education (ACE) Credit Recommendation Service and Language Testing International (LTI), the assessment agency for the American Council on the Teaching of Foreign Languages (ACTFL). Students who have taken an ACTFL Oral Proficiency Interview (OPI) through LTI, received a proficiency rating by LTI, and received credit recommendation by ACE may receive the following course credits in Spanish at IUP:

<b>ACTFL Oral Proficiency Ratings (rated by LTI)</b>	<b>ACE Credit Recommendations</b>	<b>IUP Spanish Course Equivalencies</b>
Intermediate-Mid	4 Lower Division credits	Either SPAN 102 or SPAN 201, depending on placement on departmental written exam
Intermediate-High/Advanced Low	8 Lower Division credits	SPAN 201 and SPAN 220
Advanced-Mid	10 Lower Division credits	SPAN 201 and SPAN 220 and SPAN 350
Advanced-High/Superior	10 Lower Division credits and 3 Upper Division credits	SPAN 201 and SPAN 220 and SPAN 350 and SPAN 450

To begin the process, students in Spanish must contact Dr. Marjorie Zambrano-Paff ([mzambran@iup.edu](mailto:mzambran@iup.edu)) or Dr. Christina Huhn ([huhn@iup.edu](mailto:huhn@iup.edu)) in the Department of Foreign Languages. There is a fee for the OPI.

## Study Abroad

**Study Abroad:** The university has established study-abroad centers in Spain and Mexico. The program in Valladolid, Spain, is a second-semester-only program, whereas the one in Mexico is a summer program. All majors are required to participate in study abroad; nonmajors are also accepted into these programs. The 18 credits in Spain and 6 credits in Mexico are applicable, all or in part, to a major, minor, or certificate in Spanish. Students interested in more information should contact the department.

## Liberal Studies: 46-48

As outlined in the Liberal Studies Requirements with the following specifications:

### Mathematics: 3

### Social Science: 9

ANTH 110 - Contemporary Anthropology **Credits:** 3 (1)

PSYC 101 - General Psychology **Credits:** 3 (1)

One additional LS Social Science course with any prefix, except ANTH and PSYC.

### Liberal Studies Electives: 6 (2)

One LS Elective MATH course. (2)

One additional LS Elective with any prefix, except MATH or SPAN.

### Major: 33-37

Study Abroad (3)

### Required Courses:

SPAN 201 - Intermediate Spanish **Credits:** 4 (4)

SPAN 220 - Intermediate Spanish Conversation **Credits:** 3

SPAN 230 - Intermediate Spanish Composition and Grammar **Credits:** 3

SPAN 260 - Introduction to Hispanic Literature **Credits:** 3

SPAN 330 - Advanced Spanish Composition and Grammar **Credits:** 3

SPAN 340 - Hispanic Cultures into the 19th Century **Credits:** 3

SPAN 342 - Spanish Cultures from the 19th Century to the Present **Credits:** 3

or

SPAN 344 - Spanish-American Cultures from the 19th Century to the Present **Credits:** 3

SPAN 350 - Advanced Spanish Conversation **Credits:** 3

SPAN 362 - Survey of Peninsular Literature **Credits:** 3

or

SPAN 364 - Survey of Spanish-American Literature **Credits:** 3

### Controlled Electives (5):

Any two courses from those numbered 400-431 **Credits:** 6 (6)

Any 3cr in SPAN courses 342 or above except SPAN 390 **Credits:** 3

## Spanish Education PK-12 Certificate Option: 34 (7)

Please refer to the Spanish Education PK-12 Certificate for the list of detailed requirements.

## Free Electives: 1-41

## Total Degree Requirements: 120

Students pursuing the PK-12 Spanish Education Certificate must take this course.

MATH 217 – Probability and Statistics is highly recommended for students pursuing the PK-12 Spanish Education Certificate. Students who prefer not to take a MATH LS Elective must still take a second math course (101 or higher). Students must successfully complete a program of language study in a Spanish-speaking country. This program must, as a minimum, last four weeks and carry 3 or more credits extending beyond the intermediate level. Students may fulfill this requirement by participating in any of the programs primarily administered by faculty of IUP's Department of Foreign Languages. Students wishing to fulfill this requirement through any other study abroad program must obtain prior approval from the department chair. Requests for exemptions to this requirement must be initiated by the student in writing and submitted to the department chair.

Students for whom SPAN 201 is waived (by means of placement tests) only need 33 credits in Spanish courses.

Courses with a prefix other than SPAN taken to meet these requirements must be approved by the department chair.

Students pursuing the Certificate in PK-12 Spanish Education must take SPAN 454 - Spanish in Four Dimensions.

Students pursuing this certificate must meet all requirements for the Spanish BA with specified Liberal Studies requirements. They take the Pre-professional and Professional sequences as part of their free electives. They must also meet these requirements for the certificate: the Mid-program Review, Admission to Student Teaching, and the Three-Step Process.

## Special Education, BSED

Program Codes: SPCE

Completion of the sequence of study in this major leads to Pennsylvania Department of Education special education certification in grades PreK-12. Students will be prepared to teach persons with intellectual disabilities, autism, developmental disabilities, learning disabilities, brain injuries, emotional/behavioral disorders, physical disabilities, and multiple disabilities. Academic course work and field experiences are integrated within the course of study.

See requirements leading to teacher certification, titled "3-Step Process for Teacher Education," in the College of Education and Communications section of this catalog.

## Liberal Studies: 44

As outlined in the Liberal Studies Requirements with the following specifications:

### Mathematics:

MATH 151 - Elements of Mathematics I Credits: 3

### Natural Science:

Option one required (SCI 104, or SCI 105 or SCI 107 and SCI 117 recommended)

## Social Science:

PSYC 101 - General Psychology **Credits: 3**

## Liberal Studies Electives: 3

MATH 152 - Elements of Mathematics II **Credits: 3** (required)

## College: 24

## Preprofessional Education Sequence:

EDEX 103 - Special Education Technology **Credits: 3**

EDSP 102 - Educational Psychology **Credits: 3**

## Professional Education Sequence:

EDSP 477 - Assessment of Student Learning: Design and Interpretation of Educational Measures **Credits: 3**

EDUC 242 - Pre-student Teaching Clinical Experience I **Credits: 1**

EDUC 342 - Pre-student Teaching Clinical Experience II **Credits: 1**

EDUC 421 - Student Teaching **Credits: 5-6**

EDUC 441 - Student Teaching **Credits: 5-12**

EDUC 442 - School Law **Credits: 1**

## Major: 53

## Required Courses:

ECED 425 - Methods of Teaching and Assessing Language Arts: Pre-K to Grade 4 Learners **Credits: 3**

EDEX 111 - Introduction to Exceptional Persons **Credits: 3**

EDEX 114 - Atypical Development in Infants, Children, and Adolescents **Credits: 3**

EDEX 223 - Reading Methods and Strategies for Students with Disabilities **Credits: 3**

EDEX 323 - Instruction of English Language Learners with Special Needs **Credits: 2**

EDEX 340 - Introduction to Behavior Management in Special Education **Credits: 3**

EDEX 369 - Education of Persons with Emotional/Behavioral Disorders, Learning Disabilities or Brain Injury  
**Credits: 3**

EDEX 378 - Education of Persons with Intellectual/Developmental Disabilities and Physical/Multiple Disabilities  
**Credits: 3**

EDEX 415 - Preschool Education for Children with Disabilities **Credits: 3**

EDEX 424 - Strategic Assessment and Instruction in Expository Texts **Credits: 3**

EDEX 425 - Methods and Curriculum Mild-Moderate Disabilities **Credits: 3**

EDEX 435 - Methods and Curriculum—Severe Cognitive Disabilities **Credits: 3**

EDEX 440 - Ethical and Professional Behavior **Credits: 1**

EDEX 458 - Transition Assessment and Planning for Youth with Disabilities **Credits: 3**

EDEX 460 - Family Perspectives on Disability **Credits: 3**



EDHL 308 - Supporting Language and Communication for Deaf/Hard-of-Hearing, English Language Learners, and Individuals with Language Disorders **Credits: 3**  
ENGL 323 - Teaching Literature and Reading in the Secondary School **Credits: 3**  
MATH 330 - Teaching Mathematics in the Elementary School **Credits: 3**  
MATH 335 - Teaching Mathematics in Special Education **Credits: 2**

**Total Degree Requirements: 121**

## **Speech-Language Pathology, BS**

Program Code: SPLP

Completion of the sequence of courses in speech-language pathology and audiology serves as a preprofessional program for students planning to become practicing speech-language pathologists or audiologists. Students entering the undergraduate program should be aware of the following:

IUP is accredited by the Council on Academic Accreditation of the American Speech-Language-Hearing Association and qualifies a person for the Certificate of Clinical Competence from the American Speech-Language-Hearing Association and Pennsylvania State Licensure.

National certification, state licensure, and PDE Educational Specialist Certification as a School Speech-Language Pathologist are available only to holders of the master's degree in speech-language pathology.

Students will need a cumulative GPA greater than 3.25 to qualify for admission to most graduate schools.

Upon completion of a master's degree in speech-language pathology at IUP, students will be prepared to provide services in work settings such as hospitals, community clinics, public school and early intervention programs, and rehabilitation settings.

Students must complete 25 hours of observation in speech-language pathology supervised by an IUP faculty member who holds a Certificate of Clinical Competence. These hours are completed through enrollment in SPLP 310.

Transfers, changes of major, and post-baccalaureate admissions into the undergraduate Speech-Language Pathology and Audiology program will be approved on a competitive basis. For a prospective student to be considered for admission on those dates, the minimum criteria include a minimum cumulative GPA of 3.0 or greater in all undergraduate course work, an interview, and an essay. Please contact the Speech-Language Pathology and Audiology program director for more information.

**Liberal Studies:40**

As outlined in the Liberal Studies Requirements with the following specifications:

**English: 3**

ENGL 101 - Composition I **Credits: 3**

**Mathematics: 3**

MATH 217 - Probability and Statistics **Credits: 3**

**Fine Arts: 3**

Any LS Fine Arts **Credits: 3**

-OR-

THTR 361 - Performance of Caring **Credits: 3**

## Natural Science: 7

BIOL 104 - Human Biology: How the Human Body Works **Credits: 4**

SCI 107 - Chemistry for Everyone **Credits: 3**

-OR-

Any PHYS or CHEM from the Natural Science Non-Laboratory category. **Credits: 3**

## Social Science: 9

PSYC 101 - General Psychology **Credits: 3**

## Liberal Studies Electives: 3

PSYC 215 - Developmental Psychology **Credits: 3**

## Major: 50

## Required Courses: 38

ECED 250 - Language Development **Credits: 3**

or

SPLP 334 - Language Development **Credits: 3**

SPLP 111 - Introduction to Communication Disorders **Credits: 3**

SPLP 123 - Phonetics and Language **Credits: 4**

SPLP 242 - Speech and Hearing Science **Credits: 3**

SPLP 251 - Anatomy and Physiology for Communication Disorders **Credits: 4**

SPLP 310 - Observation in Communication Disorders **Credits: 2**

SPLP 311 - Audiology and Aural Rehabilitation **Credits: 4**

SPLP 342 - Neuroscience for Communication Disorders **Credits: 3**

SPLP 345 - Articulation and Language Disorders **Credits: 4**

SPLP 401 - Autism for the SLP **Credits: 2**

SPLP 408 - Organic Disorders **Credits: 3**

SPLP 412 - Professional Practice **Credits: 3**

## Controlled Electives: 12

Choose four from the following list

EDEX 111 - Introduction to Exceptional Persons **Credits: 3**

EDEX 340 - Introduction to Behavior Management in Special Education **Credits: 3**

EDHL 114 - Introduction to Deaf and Hard-of-Hearing Persons **Credits: 3**

EDHL 115 - Introduction to American Sign Language **Credits: 3**

EDSP 102 - Educational Psychology **Credits: 3**

PSYC 312 - Adult Development and Aging **Credits: 3**

or

PSYC 313 - Elder Abuse (CAAST) **Credits: 3**

or

SOC 357 - Sociology of Aging and the Life-course **Credits: 3**

SPLP 420 - Undergraduate Clinic **Credits:** 1-3 (1)

THTR 361 - Performance of Caring **Credits:** 3

**Free Electives: 30**

**Total Degree Requirements: 120**

(1) Prior to enrollment in SPLP 420 students must successfully obtain: Act 34 and Act 151 clearances, Act 24 Arrest or Conviction Report, Act 114 FBI Fingerprinting (continuing enrollment in IUP is required for fingerprinting to remain valid), Title IX mandated reporter training, TB Test (must be renewed annually), speech and hearing screening. Students must also become a national member of NSSLHA and obtain student clinician professional liability coverage.

## **Theatre, BA**

Program Code: THTRAH

**Liberal Studies: 43-44**

As outlined in the Liberal Studies Requirements with the following specifications:

**Fine Arts:**

Any without THTR prefix

**Liberal Studies Electives: 3**

No courses with THTR prefix

**Major: 42 (1)**

**Foundation Courses:**

THTR 111 - Foundations of Theater **Credits:** 3

THTR 216 - Fundamentals of Theatrical Design **Credits:** 3

THTR 214 - Theatre History and Literature: Tragedy **Credits:** 3

THTR 215 - Theatre History and Literature: Comedy **Credits:** 3

**Core Skills Courses:**

THTR 140 - Foundations of Ensemble **Credits:** 3

THTR 226 - Stage Management **Credits:** 3

**Choose two of:**

THTR 120 - Stagecraft **Credits:** 3 (2)

THTR 122 - Costume Technology **Credits:** 3 (2)

THTR 221 - Performance Lighting **Credits:** 3 (2)

## Theater Electives in Concentration Areas: 12

Choose one area:

### Design/Technology/Management Area

4 courses from the following:

DANC 355 - Dance Production: Administration to Creation **Credits: 3**

THTR 221 - Performance Lighting **Credits: 3**

THTR 223 - Makeup for the Stage **Credits: 3**

THTR 320 - Scene Design **Credits: 3**

THTR 321 - Stage Lighting Design **Credits: 3**

THTR 322 - Costume Design **Credits: 3**

THTR 323 - Sound Design **Credits: 3**

THTR 489 - Design/Technology/Management Studio **Credits: 3**

### Performance Area

Required:

THTR 130 - Stage Voice and Movement **Credits: 3**

THTR 240 - Acting I **Credits: 3**

THTR 340 - Acting II **Credits: 3**

And one elective from the following:

THTR 331 - Improvisation and Creativity **Credits: 3**

THTR 342 - Acting Shakespeare **Credits: 3**

THTR 350 - Directing **Credits: 3**

THTR 487 - Acting Studio **Credits: 3**

### Theory and Criticism Area

Required:

THTR 310 - Theater Criticism **Credits: 3**

THTR 311 - Dramaturgy **Credits: 3**

And two electives from the following:

ENGL 308 - Critical Theory **Credits: 3**

ENGL 350 - LGBTQ Literature, Theory, and Film **Credits: 3**

ENGL 434 - Shakespeare **Credits: 3**

ENGL 450 - Film Theory **Credits: 3**

ENGL 460 - Topics in Film **Credits: 3**

ENGL 466 - Topics in Theory **Credits: 3**

### Theatre Studies Area

12 Credits of THTR and/or DANC prefix courses as advised, 6 credits must be 300-400.

## Experiential Learning: 4

THTR 486 - Practicum: Performance, Production, Dramaturgy, or Applied Theatre **Credits: 0-3 (2) (Production subtitle)**

THTR 486 - Practicum: Performance, Production, Dramaturgy, or Applied Theatre **Credits: 0-3 (any subtitle) (3)**

or

THTR 493 - Internship **Credits: 1-12**

\*only 3 credits of Internship can be applied to the Experiential Learning category

## Capstone: 2

THTR 480 - Theatre Seminar **Credits: 1**

THTR 495 - Senior Thesis **Credits: 1**

## Free Electives: 32-34

## Total Degree Requirements: 120

- (1) Students must achieve a "C" or better in all major courses.
- (2) Technical core courses require corequisite THTR 486, Practicum Production for 0.5cr each course.
- (3) Must repeat THTR 486 Practicum 5 times.

## Theatre/Musical Theatre, BA

Program Code: THTRAH-MUTH

The **BA in Theatre, Musical Theatre Track** degree offers students knowledge of and training in all aspects of musical theatre within a liberal arts. Students entering the program will be advised to explore many dimensions of theatre, music, and dance and develop as singing actors with well developed additional skills and knowledge. Successful graduates will be able to compete for employment opportunities in the entertainment industry where musical talent is utilized. They will be capable of applying their learning to a wide variety of career options including, but not limited to, performance. For students intent on a professional career in performance, additional learning through free electives (and even a minor area of study) is advised in acting, voice training, music proficiency, and dance.

The program combines strengths of the voice program of the Music Department with the performance programs of the Theatre, Dance and Performance Department. An audition for both departments is required for entry into this challenging program.

Musical Theatre students will perform in main stage musicals of all genres, cabaret offerings, and studio performances.

As a practical extension of the academic program, the department offers a variety of production opportunities in the Theater-by-the-Grove main stage and studio theaters. The IUP Dance Theater performs twice annually.

Admission to the Theatre program requires satisfactory completion of an audition or interview, in addition to the university's general admission requirements. Audition information is available at [www.iup.edu/theater](http://www.iup.edu/theater).

The Department of Theatre, Dance and Performance is a fully accredited institutional member of the National Association of Schools of Theatre (NAST).

## Liberal Studies: 46-47

As outlined in the Liberal Studies Requirements with the following specifications:

### Fine Arts:

MUHI 101 - Introduction to Music **Credits: 3**  
or  
DANC 102 - Introduction to Dance **Credits: 3**

### Liberal Studies Electives: 6

No courses with THTR prefix

### Major: 42

(1)

### Foundation Studies Courses: 14

MUSC 111 - Theory Skills I **Credits: 2 (2)**  
MUSC 115 - Theory I **Credits: 3 (2)**  
THTR 111 - Foundations of Theater **Credits: 3**  
THTR 140 - Foundations of Ensemble **Credits: 3**  
THTR 371 - Musical Theater History **Credits: 3**

### Core Skills Courses: 19

APMU 105 - Voice I **Credits: 1**  
APMU 155 - Voice II **Credits: 1**  
APMU 205 - Voice II **Credits: 1**  
APMU 255 - Voice III **Credits: 1**

DANC 260 - Beginning Jazz Dance **Credits: 3**  
or  
DANC 360 - Intermediate Jazz I **Credits: 3 (3)**

DANC 280 - Beginning Ballet **Credits: 3**  
-or-  
DANC 380 - Intermediate Ballet I **Credits: 3 (3)**

THTR 240 - Acting I **Credits: 3**  
THTR 340 - Acting II **Credits: 3**

### Experiential Learning: 4

THTR 486 - Practicum: Performance, Production, Dramaturgy, or Applied Theatre **Credits: 0-3 --Production subtitle (4)**

And select from the following.

MUSC 126 - Music Theater **Credits:** 0/1 (4)

MUSC 128 - Opera/Musical in Production Ensemble **Credits:** 0/1 (4)

THTR 486 - Practicum: Performance, Production, Dramaturgy, or Applied Theatre **Credits:** 0-3 -- any subtitle (4)

## Controlled Electives: 3

Select 3 cr from the following:

DANC 270 - Beginning Ballroom and Tap Dance **Credits:** 3

DANC 485 - Dance Studio **Credits:** 3 (ballroom and tap)

MUSC 153 - Class Piano I **Credits:** 1

THTR 342 - Acting Shakespeare **Credits:** 3

## Capstone: 2

THTR 480 - Theatre Seminar **Credits:** 1

THTR 495 - Senior Thesis **Credits:** 1

## Free Electives: 31-32

## Total Degree Requirements: 120

- (1) Students must achieve a "C" or better in all major courses.
- (2) Level of dance studio competence will determine placement by faculty.
- (3) Proficiency in music theory is prerequisite. Students who do not demonstrate proficiency at audition will be required to take MUSC 113 - Theory Practicum I.
- (4) Repeated for credit.

## Vocational-Technical Education, BSED

Program Code: VOCAE-BSED

## Liberal Studies: 43-44

As outlined in the Liberal Studies Requirements with the following specifications:

### Mathematics:

MATH 151 - Elements of Mathematics I **Credits:** 3

## Social Science:

PSYC 101 - General Psychology **Credits: 3**

## Liberal Studies Electives: 3

no courses with VOED prefix

## College: 17

## Professional Educational Sequence:

ETIT 103 - Digital Instructional Technology **Credits: 3**  
EDEX 301 - Education of Students with Disabilities in Inclusive Secondary Settings **Credits: 2**  
EDEX 323 - Instruction of English Language Learners with Special Needs **Credits: 2**  
EDEX 458 - Transition Assessment and Planning for Youth with Disabilities **Credits: 3**  
EDSP 102 - Educational Psychology **Credits: 3**  
EDSP 477 - Assessment of Student Learning: Design and Interpretation of Educational Measures **Credits: 3**  
EDUC 442 - School Law **Credits: 1**

## Major: 25

## Required Courses:

VOED 101 - Introduction to Career and Technical Education **Credits: 1**  
VOED 102 - Instructional Planning in the Career and Technical Classroom **Credits: 2**  
VOED 103 - Strategies for Teaching Career and Technical Education **Credits: 3**  
VOED 201 - Making Accommodations for Students with Special Needs in the Career and Technical Classroom  
**Credits: 1**  
VOED 202 - Industry Linkages for Career and Technical Programs **Credits: 3**  
VOED 203 - Incorporating Reading and Communications Strategies in the Career and Technical Classroom  
**Credits: 3**  
VOED 301 - Integrating Math and Science in Career and Technical Education **Credits: 3**  
VOED 302 - Career Education in the Career and Technical Classroom **Credits: 3**  
VOED 404 - Research in Career and Technical Education **Credits: 3**  
VOED 405 - Professional Seminar in Career and Technical Education **Credits: 3**

## Other Requirements: 24

## Free Electives: 9-11

## Total Degree Requirements: 120

# Honors Concentrations



For the Biochemistry Honors Certificate and Chemistry Honors Certificate, please refer to the list of Certificate Programs.

## Anthropology Honors Program

Concentration code: ANHP

The honors program is open by departmental permission to declared anthropology majors with a minimum 3.25 cumulative GPA and a 3.25 GPA in ANTH courses. Students who are thinking about attending graduate school in anthropology are encouraged to consider applying for this track. Students complete 6 credits of ANTH 483 Honors Thesis in Anthropology and two other honors courses. Students also may substitute graduate courses approved by the department for the two other honors courses if they meet the graduate school's requirements for undergraduates taking graduate level courses. To determine what courses they should take, as well as how Honors Track courses will be integrated into existing requirements for the anthropology major, students must consult closely with their advisors.

To apply, students must petition the department honors committee for admission no earlier than the second semester of their sophomore year. An application should be obtained from your advisor or the department chairperson.

### Prerequisites:

Declared major in anthropology, completion of 60cr, and permission of department honors committee, academic advisor, and department chair

### Required Courses:

ANTH 483 - Honors Thesis **Credits:** 1-6 (Honors)

Two other honors courses **Credits:** 6 (1)

### Total Honors Requirements: 12

(1) Students also may substitute graduate courses approved by the department for the two other honors courses if they meet the graduate school's requirements for undergraduates taking graduate-level courses.

## Asian Studies Honors Program

The honors program is open by permission of the Asian Studies Committee to Asian Studies majors with a minimum 3.25 cumulative GPA and a 3.5 GPA in Asian Studies courses. Students complete 36 credits in Asian Studies (instead of the normal 33) including two semesters of honors thesis research and writing. Honors theses are completed individually under the direction of a professor who specializes in the student's area of interest and are approved by a thesis committee comprising the coordinator and two other readers, one of whom may come from outside the program.

Students interested in the Asian Studies honors program should discuss this opportunity as early as possible with their advisors. Students may file a declaration of intent during the sophomore year; a formal application for admission must be made, normally early in the junior year. The program is particularly encouraged for students intending to seek admission to graduate or professional schools. Honors course work is designated on university transcripts; students completing the honors program are recognized at commencement ceremonies.

### Required Courses:

Three additional credits in Asian Studies **Credits:** 3  
ASIA 483 - Honors Thesis **Credits:** 3 (1)

## Total Honors Requirements: 9

(1) Two semesters, 3cr each.

## Biology Honors Program

The honors program is open by departmental permission to all majors in the Department of Biology. Students who, by the end of the first semester of their sophomore year, have a minimum 3.25 cumulative GPA will be invited to apply for the program. The application will include a transcript and a personal statement outlining the student's academic plan, career goals, and why she or he wants to be considered for the honors program. A department honors committee (makeup to be determined by the department) will select a maximum of 12 students per year for the program.

Students accepted into the program will take BIOL 484 during the first semester of their junior year, two semesters of BIOL 483, and one 500- or 600-level BIOL course. The honors thesis will be based on research performed under the supervision of a department professor who specializes in the student's area of interest and must be approved by a thesis committee made up of the faculty member directing the student and two others, one of whom may come from outside the Department of Biology.

Students interested in the Biology Honors Program should discuss this opportunity with their advisors as early as possible so that they have achieved the necessary GPA and are prepared to make application for the program in the spring of their sophomore year. This program, though designed for all qualified students within the Department of Biology, should be of particular value to students intending to seek admission to graduate or professional schools. Honors course work is designated on university transcripts. Students completing the departmental honors program are recognized at departmental commencement ceremonies.

## Required Courses:

BIOL 484 - Honors Seminar **Credits:** 2 (1)  
BIOL 483 - Honors Thesis/Independent Study **Credits:** 1-6 (1, 2)  
BIOL 5XX/6XX - Graduate-level course **Credits:** 3 (3)

## Total Honors Requirements: 9

(1) May be counted toward the BA, BS, and BSEd in Biology programs.

(2) Two semesters, 2cr each.

(3) Students must take one course at the 500/600 level during their junior or senior year. This will be in addition to the biology credits (currently 38 for all tracks) required for the major.

## College of Education and Communications Honors Program

The Honors Track enables students to participate in advanced study in the areas of learning and instructional theory, motivation to learn, assessment of student learning, classroom management, and the psychology of adolescent education. The Honors Track is encouraged for exceptional students in all fields of education. Honors course work is recorded on university transcripts, and students completing the Education Honors Track will be recognized at departmental commencement ceremonies.

**Eligibility and Requirements:** This track is open by permission to all education students enrolled in initial certification programs, including BSEd and certificate tracks. To apply, an application should be filed with the Educational and School Psychology Department chairperson. Students may apply upon acceptance to IUP, or current students may make application following completion of one semester of course work. Applicants must have a minimum 3.25 GPA in total university or high school course work to apply. Students accepted before taking EDSP 102 complete EDSP 102/H/; EDSP 477/H/; EDSP 373/H/, EDSP 378/H/; and EDSP 493/H/. Students accepted following completion of a nonhonors section of EDSP 102 will be required to take all three of the courses offered (EDSP 373/H/ and EDSP 378 /H/) in addition to EDSP 477/H/ and the Honors Internship. Students must earn at least a B in each course completed for the track to proceed and must maintain a 3.25 cumulative GPA. To determine how Honors Track courses will be integrated into existing requirements for their major, students should consult their advisors.

## Required Courses:

EDSP 102 - Educational Psychology **Credits:** 3 (Honors)

EDSP 477 - Assessment of Student Learning: Design and Interpretation of Educational Measures **Credits:** 3 (Honors)

EDSP 373 - Psychology of Adolescent Education **Credits:** 3 (Honors)

EDSP 378 - Learning **Credits:** 3 (Honors)

Total Honors Requirement: 13

## Eberly College of Business Honors Program

The Eberly College of Business Honors program is restricted to business majors (including economics, and hotel, restaurant, tourism, and event management majors completing the Business Administration minor).

All courses listed here would have "H" attribute

ACCT 202 - Accounting Principles II **Credits:** 3

BCOM 321 - Business and Interpersonal Communications **Credits:** 3

FIN 310 - Fundamentals of Finance **Credits:** 3

HBUS 101 - Contemporary Business Issues **Credits:** 3

MGMT 330 - Operations Management **Credits:** 3

MGMT 495 - Business Policy **Credits:** 3

MKTG 320 - Principles of Marketing **Credits:** 3

## Economics Honors Program

The honors program is open by departmental permission to economics majors with a minimum 3.25 cumulative GPA and a 3.25 GPA in economics courses. Students complete ECON 355(1), ECON 356/H/, and ECON 456/W/. In addition, students must choose one class from the following: CRIM 306, FIN 310, FIN 315, GEOG 316/RGPL 316, HIST 487/H/, MATH 371, MATH 411, MATH 412, MATH 416, PLSC 370, PLSC 422, or SOC 315 . Students must earn at least a grade of "C" in each course completed for the track. Students should consult their advisors to determine how Honors Track courses may be integrated into existing requirements for the economics majors.

\*In practice, MATH 214, MATH 216, or MATH 217 can be substituted for ECON 355.

To apply, complete the Economics Honors Program form, which is available in the Department of Economics office. In addition, a change of major form must be filed.

## Required Courses: 9

ECON 355 - Statistics for Economists **Credits: 3 (1)**  
ECON 356 - Introduction to Econometrics **Credits: 3 (Honors)**  
ECON 456 - Advanced Econometrics **Credits: 3**

## One Course from the Following:

CRIM 306 - Criminological Research Methods **Credits: 3**  
FIN 310 - Fundamentals of Finance **Credits: 3**  
FIN 315 - Financial Analysis Using Electronic Spreadsheets **Credits: 3**  
GEOG 316 - Introduction to Geographic Information Systems **Credits: 3**  
or  
RGPL 316 - Introduction to Geographic Information Systems **Credits: 3**  
MATH 341 - Differential Equations **Credits: 3**  
MATH 363 - Mathematical Statistics I **Credits: 3**  
MATH 371 - Linear Algebra **Credits: 3**  
MATH 411 - Univariate Data Analysis **Credits: 3**  
MATH 412 - Multivariate Statistics **Credits: 3**  
MATH 416 - Time Series Analysis **Credits: 3**  
PLSC 370 - The Practice of Public Administration **Credits: 3**  
PLSC 422 - International Law and Organizations **Credits: 3**  
SOC 315 - Social Research Methods **Credits: 3**

## Total Honors Requirements: 12

(1) MATH 214, MATH 216, or MATH 217 may be substituted for ECON 355.

## English Honors Program

The honors program is open by departmental permission to declared English majors with a minimum 3.25 cumulative GPA and a 3.5 GPA in English courses.

To apply, students must submit a letter of application and a list of English courses taken (with instructors' names) to the chairperson of the Honors Track program. To be accepted, students must receive favorable evaluations from a majority of professors of courses taken and approval by the Honors Track program committee.

Students must complete one upper-level (300-400) H-designated course (3 credits) or ENGL 483/H Honors Thesis in English and ENGL 484 - Topics in English Studies. In conjunction with ENGL 484, students must take ENGL 485 - Honors English Portfolio/H.

## Prerequisites:

Declared major in English, completion of ENGL 101, ENGL 122, and ENGL 202; 15cr in the major, including at least two survey courses; and permission of English Honors Track program committee

## Required Courses:

## Additional Requirements:

6cr in any combination of the following options:

ENGL 483 - Honors Thesis **Credits:** 1-6 (Honors)

Any H-designated English course **Credits:** 0-6

## Total Honors Requirements: 7

## Geography Honors Program

The honors program is open by departmental permission to majors with at least a 3.25 GPA in total university course work and a 3.25 GPA in geography courses. After completing 45 credits of university course work, all qualified majors will be invited to join the Geography Honors.

Students must maintain a 3.0 GPA in the program. To determine how Honors Program courses will be integrated into existing requirements for the geography major, students should consult their academic advisor. To apply, students must submit and Honors Program application to the department chair or assistant chair. The student's advisor and one other Geography faculty member must endorse the student's application.

## Prerequisites:

Declared major in geography, completion of at least 45cr of university course work, 3.25 or higher GPA in major and overall, plus endorsement of advisor and one other Geography faculty member

## Select one of the following options:

### Option 1:

Two 600-level seminars

### Two Courses from

GEOG 334 - Political Geography **Credits:** 3

GEOG 343 - Fresh Water Resources **Credits:** 3

GEOG 345 - Biogeography for Environmental Managers **Credits:** 3

GEOG 435 - Geography of Energy **Credits:** 3

GEOG 440 - Conservation: Environmental Analysis **Credits:** 3 (1)

### Option 2:

One 600-level seminar

GEOG 483 Honors Thesis (2)

## Two Courses from

- GEOG 334 - Political Geography **Credits: 3**
- GEOG 343 - Fresh Water Resources **Credits: 3**
- GEOG 345 - Biogeography for Environmental Managers **Credits: 3**
- GEOG 435 - Geography of Energy **Credits: 3**
- GEOG 440 - Conservation: Environmental Analysis **Credits: 3 (1)**

## Option 3:

- GEOG 483 Honors Thesis (2)

## Three Courses from

- GEOG 334 - Political Geography **Credits: 3**
- GEOG 343 - Fresh Water Resources **Credits: 3**
- GEOG 345 - Biogeography for Environmental Managers **Credits: 3**
- GEOG 435 - Geography of Energy **Credits: 3**
- GEOG 440 - Conservation: Environmental Analysis **Credits: 3**

## Option 4:

- One 600-level seminar

## Three Courses from

- GEOG 334 - Political Geography **Credits: 3**
- GEOG 343 - Fresh Water Resources **Credits: 3**
- GEOG 440 - Conservation: Environmental Analysis **Credits: 3 (1)**

## Total Honors Requirements: 12

(1) Students in these designated undergraduate courses will undertake an honors project identified in conjunction with the course instructor and reviewed by the department chair or assistant chair.

(2) Credits for GEOG 483 Honors Thesis are counted in the appropriate departmental concentration requirement.

## History Honors Program

The honors track is open by departmental permission to history, history/ pre-law, and social studies education/history majors with a minimum 3.25 cumulative GPA and a 3.5 GPA in history courses. All students write an honors thesis, which is completed over two semesters under the direction of a department professor who specializes in the student's area of interest. The thesis is approved by a thesis committee comprising the director and two other readers, one of whom may come from outside the History Department.

Honors students also take an honors (H) designated 300+ history class. All Honors history courses count toward the major.

Students interested in the History Honors Track should discuss this opportunity as early as possible with their advisors. Students may file a declaration of intent during the sophomore year; a formal application for admission must be made, normally early in the junior year. The program is particularly encouraged for students intending to seek admission to graduate or professional schools. Honors coursework is designated on university transcripts; students completing the departmental honors program are recognized at departmental commencement ceremonies.

## Required Courses

HIST 483 - Honors Thesis **Credits: 3-6 (1)**  
HIST (H) Honors designated 300+ history course **Credits: 3**

## Total Honors Requirements: 9

(1) Two semesters, 3cr each.

## Philosophy Honors Program

The department offers students an opportunity to graduate with honors in philosophy. The option is encouraged for students intending to pursue graduate or advanced professional degrees. Philosophy majors and philosophy/ pre-law majors may be invited to apply or may nominate themselves. In either case, to be considered for Honors in Philosophy, students must have earned at least 60 credits in total, with a minimum 3.25 cumulative GPA and a minimum 3.5 GPA in philosophy courses. Honors in Philosophy requires completion of a two-semester, 6-credit, Honors Thesis Independent Study. The honors thesis is completed individually under the direction of a department professor who specializes in the student's area of interest and is approved by a thesis committee comprising the director and two other readers. To determine how honors will be integrated into existing requirements for the philosophy or philosophy/pre-law major, students should consult their assigned advisors. Students completing the departmental honors program are recognized at departmental commencement ceremonies.

## Required Course:

PHIL 483 - Honors Thesis **Credits: 1-6 (Honors)**

## Total Honors Requirements: 6

## Psychology Honors Program

Program Code: PSYCHH-H with Concentration Code: PSYH

## Liberal Studies: 43-44

As outlined in Liberal Studies Requirements section with the following specifications:

## Mathematics:

MATH 217 - Probability and Statistics **Credits: 3**

## Natural Science:

BIOL 104 - Human Biology: How the Human Body Works **Credits: 4** (recommended)  
BIOL 106 - Human Genetics and Health **Credits: 3** (recommended)

## Social Science:

PSYC 101 - General Psychology **Credits: 3**

## Liberal Studies Elective: 3

No course with PSYC prefix (1)

## Major: 42

### Required Courses:

PSYC 100 - The Psychology Major: Curriculum and Careers **Credits: 1**  
PSYC 102 - Identity and Interactions in a Diverse World **Credits: 2**  
PSYC 200 - Psychological Research I **Credits: 3**  
PSYC 215 - Developmental Psychology **Credits: 3**  
PSYC 225 - Abnormal Psychology **Credits: 3**  
PSYC 235 - Social Psychology **Credits: 3**  
PSYC 245 - Learning and Cognition **Credits: 3**  
PSYC 255 - Biopsychology **Credits: 3**

PSYC 300 - Psychological Research II: Quantitative Research Methods **Credits: 3**  
or  
PSYC 301 - Psychological Research II: Qualitative Research Methods **Credits: 3**

PSYC 480 - Honors Seminar in Psychology **Credits: 3** (2) (Taken twice for 6 total credits, see footnote)  
PSYC 483 - Honors Thesis **Credits: 1-6** (3) (Taken twice for 6 total credits, see footnote)

### Controlled Electives:

Two courses with different course numbers from the following:

PSYC 415 - Advanced Topics in Developmental Psychology **Credits: 3**  
PSYC 435 - Advanced Topics in Social Psychology **Credits: 3**  
PSYC 445 - Advanced Topics in Learning and Cognition **Credits: 3**  
PSYC 450 - Counseling Skills **Credits: 3**  
PSYC 455 - Advanced Topics in Biological Psychology **Credits: 3**

## Other Requirements: 18-24

Foreign Language Intermediate Level **Credits: 0-6**  
Minor/Concentration (4) **Credits: 18**



## Free Electives: 17

## Total Degree Requirements: 120

- (1) Intermediate-level foreign language may be included in Liberal Studies electives.
- (2) Students will enroll in PSYC 480 for 3cr in each of two semesters.
- (3) Students will enroll in PSYC 483 for 3cr in each of two semesters.
- (4) Concentration plan developed in consultation with advisor.

## Regional Planning Honors Program

The honors program is open by departmental permission to regional planning majors with at least a 3.25 GPA in total university course work and a 3.25 GPA in regional planning courses. After completing 45 credits of university course work, all qualified majors will be invited to join the Regional Planning Honors Track.

Students select one of the following options: (1) Two courses from RGPL 333, RGPL 345, RGPL 426, or RGPL 440 and two 600-level (graduate seminar) courses, (2) Two courses from RGPL 333, RGPL 345, RGPL 426, or RGPL 440 and one 600-level (graduate seminar) course and RGPL 483 Honors Thesis, (3) Three courses from RGPL 333, RGPL 345, RGPL 426, or RGPL 440 and RGPL 483 Honors Thesis, (4) Three courses from RGPL 333, RGPL 345, RGPL 426, or RGPL 440 and one 600-level (graduate seminar) course. Honors students who enroll in the above designated undergraduate courses will undertake an honors project identified in conjunction with the course instructor and reviewed by the Regional Planning program director or the department chair (if the director is the course instructor).

### Prerequisites:

Declared major in regional planning, completion of at least 45cr of university course work, 3.25 or higher GPA in major and overall, plus endorsement of advisor and one other Regional Planning faculty member

### Select One of the Following Options:

#### Option 1:

Two 600-level seminars

#### Two from

- RGPL 333 - Trade and Transportation **Credits: 3**
- RGPL 345 - Biogeography for Environmental Managers **Credits: 3**
- RGPL 426 - Environmental Land Use Planning **Credits: 3**
- RGPL 440 - Conservation: Environmental Analysis **Credits: 3 (1)**

## Option 2:

One 600-level seminar  
RGPL 483 (Honors) (2)

## Two from

RGPL 333 - Trade and Transportation **Credits: 3**  
RGPL 345 - Biogeography for Environmental Managers **Credits: 3**  
RGPL 426 - Environmental Land Use Planning **Credits: 3**  
RGPL 440 - Conservation: Environmental Analysis **Credits: 3 (1)**

## Option 3:

RGPL 483 (Honors) (2)

## Three from

RGPL 333 - Trade and Transportation **Credits: 3**  
RGPL 345 - Biogeography for Environmental Managers **Credits: 3**  
RGPL 426 - Environmental Land Use Planning **Credits: 3**  
RGPL 440 - Conservation: Environmental Analysis **Credits: 3 (1)**

## Option 4:

One 600-level seminar

## Three from

RGPL 333 - Trade and Transportation **Credits: 3**  
RGPL 345 - Biogeography for Environmental Managers **Credits: 3**  
RGPL 426 - Environmental Land Use Planning **Credits: 3**  
RGPL 440 - Conservation: Environmental Analysis **Credits: 3 (1)**

## Total Honors Requirements: 12

(1) Students in these designated undergraduate courses will undertake an honors project identified in conjunction with the course instructor and reviewed by the Regional Planning program director or the department chair (if the director is the course instructor).

(2) Credits for RGPL 483 are counted in the appropriate departmental track requirement.

## Sociology Honors Program

The honors program is open by departmental permission to declared sociology majors with a minimum 3.25 cumulative GPA and a 3.5 declared GPA in sociology courses. Students who are considering attending graduate school are encouraged to apply

to the honors program. Students complete two 500, 600, or 700 Sociology (SOC) master's-level courses and 6 credits of SOC 483. Students may not repeat 500 dual-level courses if the student has already taken the course at the 400-level. Students must meet graduate school requirements before enrolling in graduate-level courses. Students should be aware that, in accordance with university policy, graduate-level courses taken for the Honors Track cannot later be applied toward an IUP graduate program. SOC 320 is a prerequisite for enrollment in graduate classes and thesis credits. Pending approval, a student may substitute up to two honors courses for one or two of the graduate-level courses. Students must earn at least a grade of "B" in each course completed for the track and must maintain a 3.25 cumulative GPA. To determine how Honors Track courses will be integrated into existing requirements for the sociology major, students should consult their advisors.

Students may be invited to apply or may nominate themselves. In either case, to be considered for the Sociology Honors Track, students must have earned 15 credits in sociology. Sociology majors who have met the eligibility requirements must submit an application to the chairperson of the Department of Sociology after they have earned at least 60 credits, but prior to their senior year. Students are encouraged to apply for the honors program in the last semester of their sophomore or first semester of their junior year.

## Prerequisites:

Declared major in sociology and completion of 60cr, SOC 320, and 12 additional credits in SOC

## Required Courses:

CHSS 489 - Honors Colloquium **Credits:** 3 (Honors)  
HNRC 499 - Honors Senior Synthesis **Credits:** 3-6 (1)  
SOC 483 - Honors Thesis **Credits:** 1-6 (Honors)

## Total Honors Requirements: 12

(1) Credits for HNRC 499 are counted in the Liberal Studies synthesis requirement.

## Spanish Honors Program

The honors program is open by departmental permission to Spanish and Spanish education K-12 majors with a minimum 3.25 cumulative GPA and a 3.25 GPA in Spanish courses.

To apply, students must submit two letters of reference from department faculty members and a two-page self-statement describing the student's academic and career goals.

Students complete two semesters of SPAN 483/H/, CHSS 489 (a multidisciplinary colloquium emphasizing problem solving, discussion, reading, and writing on a topic or theme), and one course from SPAN 410-SPAN 431. Students must earn at least a grade of "B" in each course completed for the track. To determine how Honors Track courses will be integrated into existing requirements for the Spanish or Spanish education K-12 major, students should consult their advisors.

## Required Courses:

## Total Honors Requirements: 12

# Minors

## Accounting Minor

Minor code: ACCT  
(available for all majors)

### Required Courses: 9 (1)

ACCT 201 - Accounting Principles I **Credits: 3**  
ACCT 202 - Accounting Principles II **Credits: 3**  
ACCT 304 - Intermediate Accounting I **Credits: 3**

### Three courses from the following: 9 (1)

(at least two courses with ACCT prefix)

ACCT 305 - Intermediate Accounting II **Credits: 3**  
ACCT 311 - Cost Accounting **Credits: 3**  
ACCT 401 - Advanced Accounting **Credits: 3**  
ACCT 412 - Advanced Cost Accounting **Credits: 3**  
ACCT 421 - Federal Tax I **Credits: 3**  
ACCT 422 - Federal Tax II **Credits: 3**  
ACCT 431 - Auditing **Credits: 3**  
ACCT 432 - Forensic and Internal Auditing **Credits: 3**  
ACCT 441 - Accounting for Government and Nonprofit Organizations **Credits: 3**  
ACCT 461 - Accounting Systems **Credits: 3**  
CRIM 101 - Crime and Justice Systems **Credits: 3**  
ECON 121 - Principles of Macroeconomics **Credits: 3**  
ECON 122 - Principles of Microeconomics **Credits: 3**

COSC 101 - Computer Literacy **Credits: 3**  
or  
IFMG 101 - Computer Literacy **Credits: 3**  
or  
IFMG 110 - Business Spreadsheet Computing **Credits: 3**

### Total Minor Requirements: 18

(1) Minor course requirements must be completed with a minimum cumulative GPA of 2.0.

## Animal Behavior Minor

Minor code: ANML

Animal Behavior is the study of how living organisms interact with their environment and each other. This minor is intended for our students to gain knowledge of key concepts and principles in animal behavior, cognition and evolutionary relationships. This minor will provide our students with an option beyond veterinary medicine, such as graduate school, further training as veterinary assistants, wildlife technicians, or working in government and private institutions, zoos, and conservation groups.

### Required Courses: 6

BIOL 220 - General Zoology **Credits: 3**

BIOL 455 - Animal Behavior **Credits: 3**

### Controlled Elective Courses: 12 (1, 2)

BIOL 205 - Ecological Methods **Credits: 3**

BIOL 261 - Ornithology **Credits: 3**

BIOL 352 - Comparative Animal Physiology **Credits: 3**

BIOL 362 - Ecology **Credits: 3**

BIOL 425 - Herpetology **Credits: 3**

BIOL 431 - Ichthyology **Credits: 3**

BIOL 450 - Field Biology at Pymatuning Laboratory of Ecology **Credits: 4**

or

BIOL 490 - Field Studies in Biology **Credits: 1-4**

BIOL 451 - Evolutionary Biology **Credits: 3**

BIOL 475 - Mammalogy **Credits: 3**

BIOL 481 - Special Topics **Credits: 1-3**

### Total Minor Requirements: 18

(1) Other appropriate BIOL courses at 200 level and above may be substituted with permission of the advisor and the Biology department chair in advance of taking the course.

(2) No more than two of majors courses can apply (excluding prerequisite, liberal studies, cognate or college core courses) towards Minor.

## Anthropology Minor

Minor code: ANTH

A minor in Anthropology allows students to apply the benefits of broad cross-cultural training to their chosen field of study. This minor is particularly helpful for students interested in international or global careers, or those who wish to apply the

lessons of the past to their future pursuits. The 18-credit minor allows the flexibility to select the classes that best fit the student's interest.

## Required Course:

ANTH 110 - Contemporary Anthropology **Credits: 3**

## Controlled Requirements: 3

One core course from the following:

ANTH 211 - Cultural Anthropology **Credits: 3**

ANTH 222 - Biological Anthropology **Credits: 3**

ANTH 233 - Language and Culture **Credits: 3**

ANTH 244 - Basic Archaeology **Credits: 3**

## Controlled Electives: 12

Four additional courses in ANTH with at least 6cr 300 level or higher

## Total Minor Requirements: 18

## Applied Statistics Minor

Minor code: APST

The Applied Statistics minor consists of 18 credits in mathematics and statistics. It is designed for students who want to apply statistical methodology to investigate real-world problems. The use of statistical software and interpretation of results is heavily emphasized. The minor is created for students from a variety of majors, including those in the natural sciences, social sciences, and business.

## Required Courses: 9

MATH 214 - Probability and Statistics for Business Majors **Credits: 3**

or

MATH 216 - Probability and Statistics for Natural Sciences **Credits: 3**

or

MATH 217 - Probability and Statistics **Credits: 3**

MATH 411 - Univariate Data Analysis **Credits: 3**

MATH 412 - Multivariate Statistics **Credits: 3**

## Controlled Electives: 9

Select at least 9cr from the following:

MATH 115 - Applied Mathematics for Business **Credits: 3**

or

MATH 121 - Calculus I for Natural and Social Sciences **Credits: 4**

or

MATH 125 - Calculus I/Physics, Chemistry, Mathematics **Credits: 3**

MATH 363 - Mathematical Statistics I **Credits: 3**

MATH 364 - Mathematical Statistics II **Credits: 3**

CRIM 306 - Criminological Research Methods **Credits: 3**

QBUS 215 - Business Statistics **Credits: 3**

ECON 356 - Introduction to Econometrics **Credits: 3**

**Total Minor Requirements: 18**

## **Art History Minor**

**Required Courses: 9**

ARHI 205 - Ancient to Medieval Art **Credits: 3**

ARHI 207 - Renaissance to Modern Art **Credits: 3**

ARHI 224 - Introduction to Asian Art **Credits: 3**

Three additional courses with an ARHI prefix except ARHI 101

**Total Minor Requirements: 18**

## **Art Studio Minor**

**Three Courses from the Following: 9**

ART 111 - Figure Drawing **Credits: 3**

ART 112 - Fundamentals of Drawing **Credits: 3**

ART 113 - 3D Design and Digital Fabrication **Credits: 3**

ART 114 - Color and Two-Dimensional Design **Credits: 3**

ART 211 - Painting **Credits: 3**

ART 213 - Woodworking: Function and Form **Credits: 3**

ART 214 - Ceramics **Credits: 3**

ART 215 - Sculpture **Credits: 3**

ART 216 - Jewelry and Metals **Credits: 3 (1)**

ART 217 - Print Media **Credits: 3**

ART 218 - Introduction to Graphic Design **Credits: 3 (1)**

ART 281 - Special Topics **Credits: 1-3**

**Three Courses from the Following: 9**

ART 421 - Advanced Drawing **Credits: 3**

ART 451 - Advanced Woodworking: Function and Form **Credits: 3**

ART 452 - Advanced Ceramics **Credits: 3**

ART 453 - Advanced Sculpture **Credits: 3**

ART 454 - Advanced Painting **Credits: 3**

ART 455 - 3D Modeling and Animation **Credits: 3-6**

ART 456 - Advanced Web and Interactive Design **Credits: 3-6**

ART 457 - Advanced Print Media **Credits: 3-6**

ART 460 - Advanced Jewelry and Metals **Credits: 3**

ART 481 - Special Topics **Credits: 1-3**

## Total Minor Requirements: 18

(1) Courses have prerequisites. Check the catalog for details and discuss course of study with minor advisor. The instructor may choose to waive the prerequisite for art studio minors.

(2) Art Minors are permitted to repeat any advanced 400-level advanced studio course multiple times to fulfill the 9cr requirement.

(3) Art Minors are not permitted to take section 002 of any 400-level advanced studio course for six credits.

## Asian Studies Minor

**Alan T. Baumler, Coordinator**

(1, 2, 3)

The Committee of Asian Studies offers an interdisciplinary major and a minor to provide students with the opportunity to increase their knowledge of the world's largest, most populous, and most diverse continent. Students enrolled in the Asian studies major or minor will find that the course offerings furnish excellent preparation for careers in business, government, journalism and public relations, and teaching.

To minor in Asian studies, students must complete a minimum of 18 credits, no more than 6 of which may have the prefix of their major. ASIA 200 is required of all Asian studies minors. At least 12 credits must come from Category A (Exclusively Asia-Focused); 3 credits of an Asian language course may apply to the Category A requirement. No more than 3 credits from Category B (Substantially Asia-Focused) may be applied to the minor.

## Required Course: 3

ASIA 200 - Introduction to Asian Studies **Credits: 3**

## Electives 15

The remaining 15 credits should come from the list of Category A, exclusively Asia-focused classes from the major. Students may, but do not have to, apply up to 3cr of an Asian Language class and/or 3cr of a Category B class.

## Total Minor Requirements: 18

(1) The subject matter varies in rotating topic courses (e.g., HIST 497, RLST 485 etc.); and special topics courses (i.e. classes numbered 281 and 481). When concerned with Asian Studies, these courses may be applied to either Category A or Category B with the approval of the Asian Studies Committee.

(2) With the program coordinator's approval, 3cr of an internship (493) may be counted toward the Asian Studies minor.

(3) Courses need to be in at least two different prefixes.



## Biochemistry Minor

Total credits will depend on the controlled electives used (9cr minimum required to 12cr for three 4cr electives).

### Required Courses: 8

- BIOC 301 - Foundations of Biochemistry **Credits: 3 (1a)**
- BIOC 402 - Advanced Biochemistry **Credits: 3**
- BIOC 311 - Biochemistry Laboratory I **Credits: 2 (1a)**
- BIOC 412 - Advanced Biochemistry Laboratory II **Credits: 2**

### Other Requirements: 10-12

At least three controlled electives from following: (1)

- BIOC 480 - Biochemistry Seminar II **Credits: 1**
- BIOC 481 - Special Topics in Biochemistry **Credits: 1-3**
- BIOC 490 - Biochemistry Senior Seminar **Credits: 1**
- BIOL 203 - Principles of Genetics and Development **Credits: 4 (1b)**
- BIOL 250 - Principles of Microbiology **Credits: 4 (1b, d)**
- BIOL 352 - Comparative Animal Physiology **Credits: 3 (1d)**
- BIOL 364 - Immunology **Credits: 3 (1d)**
- CHEM 332 - Organic Chemistry II **Credits: 4 (1c)**
- CHEM 325 - Analytical Chemistry I **Credits: 4**

### Total Minor Requirements: 18-20

(1) Or other 200-level or higher biology or chemistry courses with permission of chairperson of offering department. A minimum of 10cr is required.

- BIOC 202 and CHEM 332 are prerequisites.
- Required for biology major
- Required for chemistry major
- These courses have prerequisites not needed for the required courses.

## Biology Minor

The Biology minor is intended for students in the Nursing and Allied Health or Natural Science programs. Not for Biology majors.

### Required Courses: 8

(1, 2)

- BIOL 103 - Life on Earth **Credits: 4**
- BIOL 104 - Human Biology: How the Human Body Works **Credits: 4**
- BIOL 106 - Human Genetics and Health **Credits: 3**
- BIOL 116 - Human Genetics and Health Laboratory **Credits: 1**

## Additional BIOL courses: 10

(3,4)

### Other Requirements:

Student must have at least a 2.0 GPA in all BIOL courses for the minor.

Student must take at least 6cr of biology courses at IUP.

Must have permission of Biology Department chairperson.

## Total Minor Requirements: 18

- (1) Student must take two of the three required courses.
- (2) Two of the following courses may be substituted for the required courses: BIOL 201, BIOL 202 or BIOL 203.
- (3) With approval of department chairperson.
- (4) At least six of the 10 required additional BIOL cr must come from 300-level or higher courses.

## Biomedical Science Minor

Minor track intended for students interested in the health field, including Biology majors as long as there is maximum of two course overlap between Majors and Minors courses.

### Required Courses: 12

BIOL 150 - Human Anatomy **Credits: 4**  
BIOL 240 - Human Physiology **Credits: 4**  
BIOL 241 - Introductory Medical Microbiology **Credits: 4**

### Controlled Electives: (1, 2)

6 credits from the following:

ANTH 496 - Human Osteology **Credits: 3**  
BIOL 300 - Genetics in Medicine and Nutrition **Credits: 3**  
BIOL 301 - Fundamentals of Epidemiology **Credits: 3**  
BIOL 310 - Applied Entomology and Zoonoses **Credits: 3**  
BIOL 323 - Introduction to Toxicology and Risk Assessment **Credits: 3**  
BIOL 364 - Immunology **Credits: 3**  
BIOL 409 - Pharmacology Principles and Applications **Credits: 3**  
BIOL 410 - Molecular Biology Topics **Credits: 3**  
BIOL 411 - Forensic Biology Laboratory Operations **Credits: 4**  
BIOL 430 - Gene Editing Tools in Medicine and Biotechnology **Credits: 3**  
BIOL 456 - Ecological Toxicology **Credits: 3**  
BIOL 462 - Vertebrate Endocrinology **Credits: 3**  
BIOL 466 - Principles of Virology **Credits: 3**

BIOL 469 - Circadian Rhythms and Sleep **Credits: 3**  
BIOL 477 - Neurobiology **Credits: 3**  
BIOL 479 - Neurobiology of Addiction **Credits: 3**  
BIOL 493 - Biology Internship **Credits: 3-12**  
PSYC 312 - Adult Development and Aging **Credits: 3**  
SOC 442 - Medical Sociology **Credits: 3**  
SOC 450 - Health Disparities **Credits: 3**  
SOC 454 - Dimensions of Rural Public Health **Credits: 3**

## Total Minor Requirements: 18

- (1) Other BIOL content courses with the approval of the minor advisor.
- (2) Up to 3 credits from another department can be used towards the controlled electives.

## Business Administration Minor

The ECOB offers, as a joint effort of its departments, a 18-credit minor for nonbusiness majors. The program is designed to give nonbusiness majors a general background in business.

The Business Administration Minor is **available to non-business majors** (including economics, and hotel, restaurant, tourism, and event management majors).

## Prescribed Liberal Studies:

### Mathematics:

MATH 105 - College Algebra **Credits: 3**  
or  
Higher numbered 3 credit MATH Liberal Studies course

## Required Business Courses: 12

ACCT 200 - Foundations of Accounting **Credits: 3**  
or  
ACCT 201 - Accounting Principles I **Credits: 3**

FIN 310 - Fundamentals of Finance **Credits: 3**  
MGMT 310 - Principles of Management **Credits: 3**  
MKTG 320 - Principles of Marketing **Credits: 3**

## Other Requirements: 6

Two of the following courses with advisement:

BCOM 321 - Business and Interpersonal Communications **Credits: 3**  
BLAW 235 - Legal Environment of Business **Credits: 3**  
ECON 121 - Principles of Macroeconomics **Credits: 3**  
ECON 122 - Principles of Microeconomics **Credits: 3**  
IFMG 110 - Business Spreadsheet Computing **Credits: 3**

IFMG 300 - Information Systems: Theory and Practice **Credits: 3**  
MGMT 275 - Introduction to Entrepreneurship **Credits: 3**  
MGMT 311 - Human Behavior in Organizations **Credits: 3**  
MGMT 330 - Operations Management **Credits: 3**  
MKTG 321 - Consumer Behavior **Credits: 3**

**Total Minor Requirements: 18**

## **Chemistry Minor**

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

### **Required Courses:**

CHEM 111 - General Chemistry I **Credits: 4**  
or  
CHEM 113 - Advanced General Chemistry I **Credits: 4**  
CHEM 112 - General Chemistry II **Credits: 4**  
or  
CHEM 114 - Advanced General Chemistry II **Credits: 4**  
CHEM 231 - Organic Chemistry I **Credits: 4**

### **At Least 7cr from the Following:**

CHEM 314 - Inorganic Chemistry **Credits: 4**  
CHEM 332 - Organic Chemistry II **Credits: 4**  
or  
Any CHEM or BIOC course(s) at the 300 level or above

**Total Minor Requirements: 19**

## **Child and Adult Advocacy Studies (CAAST) Minor**

Minor code: CAAS

Child and Adult Advocacy Studies is an 18-credit interdisciplinary undergraduate minor. It is designed for current undergraduate students enrolled at IUP. It provides mandated reporters and first responders in criminology, education, family studies, medicine, nursing, psychology, public health, sociology, social work, and other disciplines with evidence-based, culturally relevant knowledge and skills to improve the outcomes for victims and perpetrators of interpersonal violence across the lifespan. A student's major determines which CAAST minor s/he pursues: one minor has been designed for Psychology majors, one minor has been designed for Sociology majors, and one minor has been designed for all other majors.

### **Required Courses for Psychology Majors: 9**

Students who are psychology majors can only have two PSYC courses that count for their major and the CAAST minor.

PSYC 101 - General Psychology **Credits: 3 (1)**  
PSYC 322 - Violence Across the Life Span **Credits: 3**

SOC 151 - Principles of Sociology **Credits:** 3 (1)

- or -

SOC 161 - Foundations of Sociology: Social Relations in Groups and Organizations **Credits:** 3 (1)

SOC 391 - Foundations of Sociological Practice **Credits:** 3

SOC 392 - Clinical Sociological Practice **Credits:** 3

## Controlled Electives for Psychology Majors: 9

One additional PSYC Course from the following:

PSYC 313 - Elder Abuse (CAAST) **Credits:** 3

PSYC 314 - Child and Adolescent Psychopathology (CAAST) **Credits:** 3

PSYC 332 - Community Psychology and Prevention Science (CAAST) **Credits:** 3

PSYC 380 - Gender and Violence (CAAST) **Credits:** 3

PSYC 493 - Psychological Practicum **Credits:** 1-12

Two additional SOC Courses from the following:

SOC 357 - Sociology of Aging and the Life-course **Credits:** 3

SOC 427 - Social Perspectives on Intimate Partner Violence **Credits:** 3

SOC 428 - Child Abuse **Credits:** 3

## Required Courses for Sociology majors: 9

Students who are Sociology/Human Services Track majors can only have to SOC courses that count for their major and the CAAST minor. Sociology/General Track majors who wish to get a CAAST minor must take SOC 391 and SOC 392 as part of their free electives.

PSYC 101 - General Psychology **Credits:** 3 (1)

PSYC 313 - Elder Abuse (CAAST) **Credits:** 3

- or -

PSYC 314 - Child and Adolescent Psychopathology (CAAST) **Credits:** 3

PSYC 322 - Violence Across the Life Span **Credits:** 3

PSYC 332 - Community Psychology and Prevention Science (CAAST) **Credits:** 3

PSYC 380 - Gender and Violence (CAAST) **Credits:** 3

SOC 151 - Principles of Sociology **Credits:** 3 (1)

- or -

SOC 161 - Foundations of Sociology: Social Relations in Groups and Organizations **Credits:** 3 (1)

## Controlled Electives for Sociology Majors: 9

SOC 357 - Sociology of Aging and the Life-course **Credits:** 3

SOC 427 - Social Perspectives on Intimate Partner Violence **Credits:** 3

SOC 428 - Child Abuse **Credits:** 3

## Required Courses for all other majors: 9

PSYC 101 - General Psychology **Credits: 3 (1)**

PSYC 322 - Violence Across the Life Span **Credits: 3**

SOC 151 - Principles of Sociology **Credits: 3 (1)**

or

SOC 161 - Foundations of Sociology: Social Relations in Groups and Organizations **Credits: 3 (1)**

SOC 391 - Foundations of Sociological Practice **Credits: 3**

SOC 392 - Clinical Sociological Practice **Credits: 3**

## Controlled Electives for all other majors: 9

Three additional courses from the following (2):

PSYC 313 - Elder Abuse (CAAST) **Credits: 3**

or

PSYC 314 - Child and Adolescent Psychopathology (CAAST) **Credits: 3**

PSYC 332 - Community Psychology and Prevention Science (CAAST) **Credits: 3**

PSYC 380 - Gender and Violence (CAAST) **Credits: 3**

SOC 357 - Sociology of Aging and the Life-course **Credits: 3**

SOC 427 - Social Perspectives on Intimate Partner Violence **Credits: 3**

SOC 428 - Child Abuse **Credits: 3**

## Total Minor Requirements (all majors): 18 credits

(1) Credits counted in Liberal Studies, not in the minor.

(2) With the aid of a CAAST minor advisor, students will select classes (a) from both PSYC and SOC, and (b) that will cover the spectrum of violence across the lifespan.

## Child Development and Family Science Minor

IUP students who major or minor in CDFR must earn a "C" grade or better in HDFS 218 and HDFS 224

The Child Development and Family Science minor, consisting of 18 credits, is for students who desire to work in programs that entail all aspects of child development and family relationships and administration in human service agencies at federal, state, and local levels, but who have their major coursework in a related field. The Child Development and Family Science minor is appropriate for all majors who wish to pursue careers working with children and families. The minor includes three required courses and three elective courses.

## Required Courses: 9

HDFS 218 - Child Development **Credits: 3**

HDFS 430 - Poverty and Human Development **Credits: 3**

HDFS 224 - Marriage and Family Relations **Credits: 3**

## Three courses from the following: 9

- HDFS 310 - Child Observation and Assessment **Credits: 3**
- HDFS 315 - Introduction to Early Intervention **Credits: 3**
- HDFS 321 - Preschool Education: Play and Developmentally Appropriate Practices **Credits: 3**
- HDFS 322 - Early Care and Education **Credits: 3**
- HDFS 323 - Family Issues **Credits: 3**
- HDFS 410 - Infant and Toddler Development **Credits: 3**
- HDFS 411 - Family and Community **Credits: 3**
- HDFS 420 - Infant Toddler Mental Health **Credits: 3**
- HDFS 425 - Adolescence: Risk and Resiliency **Credits: 3**
- HDFS 426 - Techniques of Parent Education **Credits: 3**
- HDFS 427 - Administration of Human Service Programs **Credits: 3**
- HDFS 428 - Family Dynamics **Credits: 3**
- HDFS 429 - Teaching in Community Settings **Credits: 3**
- HDFS 481 - Special Topics **Credits: 1-3**

## Total Minor Requirements: 18

### **Communications Media Minor**

#### Required Courses:

- COMM 101 - Introduction to Communications, Media, and Culture **Credits: 3**
- COMM XXX - Electives in Communication Media **Credits: 15**

## Total Minor Requirements: 18

### **Community Health Minor**

The Community Health minor will help prepare students who desire to work in programs that communicate and advocate for health and health education services. This minor would be of interest to sociology, child development and family relations, food and nutrition, and allied health majors who are interested in working with targeted populations on making healthy behavior changes through planned instruction and outreach.

#### Required Courses: 6

- KHSS 325 - School and Community Health **Credits: 3**
- KHSS 417 - Contemporary Issues in School and Community Health **Credits: 3**
- KHSS 420 - Health Education and Promotion at the Workplace **Credits: 3**

#### Controlled Electives: 12

(1)

Three courses from the following:

- FDNT 212 - Nutrition **Credits: 3**
- FDNT 402 - Community Nutrition **Credits: 3**
- HOSP 343 - Fund-Raising for Special Events **Credits: 3**
- KHSS 341 - Evaluations and Analytics in Kinesiology **Credits: 3**
- SOC 231 - Contemporary Social Problems **Credits: 3**
- SOC 333 - Delinquency and Youth **Credits: 3**
- SOC 336 - Sociology of the Family **Credits: 3**

## Total Minor Requirements: 18

(1) Only two courses with the same prefix may be used as electives.

## Computer Science Minor

### Required Courses:

- COSC 110 - Problem Solving and Structured Programming **Credits: 3**
- COSC 210 - Object-Oriented and GUI Programming **Credits: 3**

### Controlled Electives: 12

(1, 2, 3)

Select additional 12 credits in computer science including at least six credits from 300-level or higher courses. COSC 143 cannot be counted as part of a computer science minor.

## Total Minor Requirements: 18

(1) COSC 101 is an appropriate entry course for this minor. However, COSC 101 cannot be counted as part of a Computer Science minor by management information systems majors.

(2) No more than six credits of overlap can be used for computer science and cyber security minors.

(3) See Computer Science minor advisor for suggestions.

## Criminology Minor

(1)

### Required Courses:

- CRIM 101 - Crime and Justice Systems **Credits: 3** (2)
- CRIM 102 - Survey of Criminology **Credits: 3**
- CRIM 401 - Contemporary Issues in Criminology **Credits: 3**
- CRIM 403 - Dilemmas in Criminology and Criminal Justice **Credits: 3**
- Two additional CRIM electives, one chosen from Controlled **Credits: 6**



Electives Group B and one from Group C (3, 4)

## Total Minor Requirements: 18

- (1) Must have formal Department of Criminology and Criminal Justice approval to be admitted to Criminology minor.
- (2) Meets Liberal Studies Social Science requirement.
- (3) For students in the Computer Science/Cyber Security program, CRIM 321 may be substituted for Group B elective.
- (4) For students in the Computer Science/Cyber Security program, CRIM 323 may be substituted for Group C elective.

## Cyber Security Minor

(1)

### Required Courses:

COSC 110 - Problem Solving and Structured Programming **Credits: 3 (2)**

or

Controlled Elective (see below)

COSC 216 - Introduction to Cyber Security **Credits: 3 (3)**

COSC 345 - Computer Networks **Credits: 3 (4)**

or

COSC 352 - LAN Design and Installation **Credits: 3**

or

IFMG 352 - LAN Design and Installation **Credits: 3**

CRIM 101 - Crime and Justice Systems **Credits: 3 (5)**

or

CRIM 102 - Survey of Criminology **Credits: 3 (5)**

or

Controlled Elective (see below)

CRIM 321 - Cybersecurity and Loss Prevention **Credits: 3**

or

CRIM 323 - Cybersecurity and the Law **Credits: 3**

### Controlled Electives:

Select at least 3cr from the following:

COSC 341 - Introduction to Database Management Systems **Credits: 3**

COSC 356 - Network Security **Credits: 3**

COSC 362 - Unix Systems **Credits: 3**

COSC 427 - Introduction to Cryptography **Credits: 3**

COSC 429 - Digital Forensics **Credits: 3**

COSC 430 - Introduction to Systems Programming **Credits: 3**

COSC 432 - Introduction to Operating Systems **Credits: 3**  
COSC 454 - Information Assurance Administration **Credits: 3**  
CRIM 321 - Cybersecurity and Loss Prevention **Credits: 3**  
CRIM 323 - Cybersecurity and the Law **Credits: 3**  
CRIM 401 - Contemporary Issues in Criminology **Credits: 3**  
CRIM 403 - Dilemmas in Criminology and Criminal Justice **Credits: 3**

## Total Minor Requirements: 18

- (1) At most 6cr of a student's major can be counted towards both the major and minor. Computer Science/Cyber Security students are not eligible to take this minor; instead, they must take a Criminology minor.
- (2) Students with COSC 110 (or equivalent such as IFMG 210 ) as part of their major must take 3 credits from the controlled elective list.
- (3) Computer science majors cannot count COSC 216 for both their major and minor.
- (4) Computer Science majors cannot count COSC 352 or IFMG 352. Computer Science majors must take COSC 345.
- (5) Students with CRIM 101 or CRIM 102 as part of their major must take 3 credits from the controlled elective list.

## Dance Minor

The Dance minor provides a foundation for those interested in teaching dance, working in administration with a dance company, managing a private dance studio, working with theatre productions, or desiring a broad-based education within the dance discipline.

The minor is an 18-credit program with 6 required and 12 advised elective credits. The required credits include pertinent foundation courses and advanced-level theory courses. The required courses also provide a comprehensive study of production elements, fundamental and historical theories of dance, and dance choreographic and teaching theories that cannot be obtained in any of the elective courses. The advised elective credits include the technique courses.

The Dance minor is based on the National Standards for Arts Education dance requirements. Using this basis for the program ensures fundamental preparation for a number of students' needs, e.g., the dance teacher, the performer, and the dance studio owner.

Through advisement, the minor program can serve the individual student's needs. The program would be of interest to majors in secondary and elementary education, small business, recreation and physical education, theatre, music, and interdisciplinary fine arts and anyone who has an interest in dance and wants to broaden his or her liberal arts education.

## Required Courses: 6

### Two Courses from the Following as Advised:

DANC 210 - Dance and Somatics **Credits: 3**  
DANC 220 - Women and Dance **Credits: 3**  
DANC 351 - Choreography **Credits: 3**  
DANC 353 - Dance Curriculum and Instruction **Credits: 3**  
DANC 354 - Pedagogy of Ballet I **Credits: 3**  
DANC 355 - Dance Production: Administration to Creation **Credits: 3**

## 12 credits as Advised from the Following:

- DANC 150 - Fundamentals of Dance **Credits: 3**
- DANC 250 - Beginning Modern Dance **Credits: 3**
- DANC 260 - Beginning Jazz Dance **Credits: 3**
- DANC 270 - Beginning Ballroom and Tap Dance **Credits: 3**
- DANC 280 - Beginning Ballet **Credits: 3**
- DANC 290 - Ethnic Dance **Credits: 3**
- DANC 350 - Intermediate Modern I **Credits: 3**
- DANC 360 - Intermediate Jazz I **Credits: 3**
- DANC 380 - Intermediate Ballet I **Credits: 3**
- DANC 450 - Intermediate Modern II **Credits: 3**
- DANC 460 - Intermediate Jazz II **Credits: 3**
- DANC 480 - Intermediate Ballet II **Credits: 3**
- DANC 481 - Special Topics **Credits: 1-6**
- DANC 485 - Dance Studio **Credits: 3**
- DANC 486 - Practicum in Dance **Credits: 0-2**
- DANC 487 - Practicum in Dance Senior Project **Credits: 1**

## Total Minor Requirements: 18

### Deaf Studies Minor

A minor in Deaf Studies introduces the participant to essential information regarding hearing loss and deaf culture. In addition, basic sign language skills are developed. This course of study enables individuals to have a better understanding of the needs of persons who are deaf and hard-of-hearing and to communicate with individuals within the deaf community at a basic level.

The minor is an 18-credit program with 15 required and 3 elective credits. Required credits include the core courses that are essential to understanding the language and culture of the deaf community. The elective credits allow the minor candidate to select a more focused area of concentration.

Students must maintain a cumulative GPA of not less than 2.5 to enter and complete the minor. Except for the introductory courses, EDHL 114 and EDHL 115, only students who have officially declared a deaf studies minor will be able to schedule the designated courses. The grade received in American Sign Language courses must be a "C" or better to complete the minor.

This minor would be of interest to anthropology, criminology, education, nursing, psychology, disability services, and sociology majors and anyone else who is interested in interacting with persons who are deaf or hard-of hearing.

### Required Courses: 15

- EDHL 114 - Introduction to Deaf and Hard-of-Hearing Persons **Credits: 3**
- EDHL 115 - Introduction to American Sign Language **Credits: 3**
- EDHL 215 - Intermediate American Sign Language **Credits: 3**
- EDHL 308 - Supporting Language and Communication for Deaf/Hard-of-Hearing, English Language Learners, and Individuals with Language Disorders **Credits: 3**
- EDHL 317 - Sign Language in a Variety of Settings **Credits: 3**

### Controlled Electives: 3

3 credits from the following:

- EDEX 111 - Introduction to Exceptional Persons **Credits: 3**
- EDHL 417 - Advanced American Sign Language **Credits: 3**

**Total Minor Requirements: 18**

## **Early Childhood Art Education Minor**

(1,2)

This minor is designed to provide students with the option of a specialization in art with an emphasis on translating studio experiences for a variety of early childhood art education settings including childcare centers, schools, museums and community-based programs. The minor provides students with an overview of and orientation to studio experience that will serve as the framework from which to teach art to young children.

### **Required Course:**

- ARED 317 - Art in K-6 Programs **Credits: 3**

### **Two courses from the following:**

- ART 111 - Figure Drawing **Credits: 3**
- ART 112 - Fundamentals of Drawing **Credits: 3**
- ART 113 - 3D Design and Digital Fabrication **Credits: 3**
- ART 114 - Color and Two-Dimensional Design **Credits: 3**

### **One course from the following:**

- ART 211 - Painting **Credits: 3**
- ART 213 - Woodworking: Function and Form **Credits: 3**
- ART 214 - Ceramics **Credits: 3**
- ART 215 - Sculpture **Credits: 3**
- ART 216 - Jewelry and Metals **Credits: 3**
- ART 217 - Print Media **Credits: 3**
- ART 218 - Introduction to Graphic Design **Credits: 3**
- ART 281 - Special Topics **Credits: 1-3**

### **One course from the following:**

- ARHI 100 - Arts of the 20th Century **Credits: 3**
- ARHI 101 - Introduction to Art **Credits: 3**

### **One course from the following:**

- ARED 423 - Community-Based and Museum Art Education **Credits: 3**
- ARED 424 - Special Populations in Art Education **Credits: 3**

## Total Minor Requirements: 18

(1) Courses have prerequisites. Check the catalog for details and discuss course of study with minor advisor. The instructor may choose to waive the prerequisite for Early Childhood Art Education minors.

(2) Art studio majors are permitted to apply no more than two courses from the Art Studio major to the Early Childhood Art Education minor.

## Economics Minor

### Required Courses:

ECON 121 - Principles of Macroeconomics **Credits: 3**  
ECON 122 - Principles of Microeconomics **Credits: 3**

### Controlled Electives: 12

Four courses from ECON 200 or higher with at least 6cr 300-level or higher (1, 2)

## Total Minor Requirements: 18

(1) MATH 214, MATH 216, MATH 217, or another quantitative class approved by the chairperson may be substituted for ECON 355. If one of the previously noted MATH classes is substituted for ECON 355, it will not count as a 300-level or higher course.

(2) Neither ECON 101 nor ECON 143 counts as an ECON controlled elective.

## Educational Technology Minor

The department of Professional Studies in Education offers a minor in Educational Technology. The Educational Technology minor is an 18 credit program designed for students who are completing a teaching degree in any discipline.

NOTE: No more than two classes in a student's core program can be utilized towards credits in a minor.

### Required Courses:

ETIT 103 - Digital Instructional Technology **Credits: 3**  
BTED 412 - Methods in Business and Information Technology II **Credits: 3**  
ETIT 330 - Technology in the Classroom **Credits: 3**  
MIDL 321 - 21st-Century Literacies for Diverse Learners **Credits: 3**

## Total Minor Requirements: 18

### Electives:

Two classes from:

- COMM 101 - Introduction to Communications, Media, and Culture **Credits: 3**
- COMM 240 - Communications Graphics **Credits: 3**
- COMM 249 - Basic Audio Production **Credits: 3**
- COMM 271 - Beginning Photography **Credits: 3**
- COSC 110 - Problem Solving and Structured Programming **Credits: 3**
- COSC 210 - Object-Oriented and GUI Programming **Credits: 3**

## Elementary and Middle-Level Mathematics Minor

The minor consists of 18 credits in Elementary and Middle-Level Mathematics Education. The minor may offer additional preparation for the teaching of elementary and middle mathematics. This minor does not lead to certification and is not open to students majoring in middle-level education 4-8/mathematics.

### Required Courses: 12

- MATH 151 - Elements of Mathematics I **Credits: 3**
- MATH 152 - Elements of Mathematics II **Credits: 3**
- MATH 456 - Geometry for Mathematics Instruction **Credits: 3**
- MATH 471 - Algebra for Mathematics Instruction **Credits: 3**

### Controlled Electives: 6

(1)

Select 6cr from the following:

- MATH 153 - Elements of Algebra **Credits: 3**
- MATH 317 - Probability and Statistics for Mathematics Instruction **Credits: 3**
- MATH 420 - Patterns and Functions for Elementary/Middle-Level Teachers **Credits: 3**
- MATH 457 - Number Theory for Mathematics Instruction **Credits: 3**
- MATH 458 - Logic and Logical Games for Elementary/Middle-Level Teachers **Credits: 3**
- MATH 459 - Technology in Elementary/Middle-Level Mathematics Instruction **Credits: 3**
- MATH 461 - Discrete Mathematics for Mathematics Instruction **Credits: 3**

### Total Minor Requirements: 18

(1) Other MATH content courses with the approval of the minor advisor.

## English Minor

To minor in English, 18 credits in English courses are required beyond the Liberal Studies requirement of ENGL 101 and ENGL 202. At least 6 of these credits must be numbered 300 level or higher. ENGL 121 may be used to fulfill part of the 18 credits required. Of these 18 credits, no more than 6 credits may be transferred to IUP from another university.

## Environmental Microbiology Minor

Minor track intended for students interested in the field of environmental microbiology. The minor courses will introduce students to the diversity of microbial populations and their roles in environmental process, and overall health of this planet.

## Required Courses:

(1)

- BIOL 105 - Cell Biology **Credits: 3**
- BIOL 201 - Principles of Ecology and Evolution **Credits: 4**
- BIOL 205 - Ecological Methods **Credits: 3**
- BIOL 241 - Introductory Medical Microbiology **Credits: 4**
- BIOL 364 - Immunology **Credits: 3**

## Total Minor Requirements: 20

(1) No more than two of majors courses can apply (excluding prerequisite, liberal studies, cognate or college core courses) towards Minor.

## Exercise Science Minor

The minor in Exercise Science provides students who have an interest in fitness with knowledge to educate and skills to lead exercise for individuals who wish to achieve their personal fitness goals. At the completion of the minor, students will have the knowledge and skills to perform basic fitness assessments and provide individual/small group exercise training. Students will possess the knowledge, skills and abilities to take a variety of national certification examinations at the personal trainer level. (1,2)

## Required Courses: 12

- KHSS 221 - Human Structure and Function **Credits: 3 (3)**
- KHSS 285 - Group/Individual Exercise Leadership **Credits: 3**
- KHSS 286 - Personal Training Practicum **Credits: 3**
- KHSS 343 - Physiology of Exercise **Credits: 3**

## Controlled Electives: 6-7

Two courses from the following:

- KHSS 375 - Physiological Basis of Strength Training and Conditioning **Credits: 3**
- KHSS 413 - Physical Activity and Aging Across the Lifespan **Credits: 3**
- KHSS 415 - Lifestyle Behavior Management for Physical Activity **Credits: 3**
- KHSS 418 - Fitness Assessment and Exercise Prescription **Credits: 4**

## Total Minor Requirements: 18-19

(1) Completion of the Exercise Science minor does not guarantee entry into the Exercise Science major. Students desiring transfer into the Exercise Science major must have a minimum 2.5 overall GPA.

- (2) Students must attain a grade "C" or better in each of the courses.
- (3) Students must take KHSS 221 before any other class in the minor. BIOL 150 may be substituted.

## Family and Consumer Science Minor

### Required Courses: 18

HDFS 218 - Child Development **Credits: 3**  
HDFS 224 - Marriage and Family Relations **Credits: 3**  
HDFS 330 - Consumer Economics and Family Finance **Credits: 3**  
FASH 112 - Fundamentals of Clothing Construction **Credits: 3**  
or  
FASH 180 - Introduction to Fashion **Credits: 3**  
INDS 105 - Introduction to Interior Design **Credits: 3**

### Controlled Elective: 3

Any 300 or 400 level course in CDFR, INDS, FCSE, FDNT, or FSMR (1)

### Total Minor Requirements: 18

(1) Prerequisites and/or instructor permission may be required.

## Fashion Studies Minor

For Art, Theatre, and Family and Consumer Sciences Education majors or by special permission. The minor in Fashion Studies allows students in the creative and educational majors of Art, Theatre, and Family and Consumer Sciences Education to supplement their coursework with additional techniques and competencies. The minor addresses foundational fashion concepts and skills; students then choose additional Fashion Studies courses that complement major coursework and career goals to complete minor requirements.

### Required Courses:

FASH 180 - Introduction to Fashion **Credits: 3**  
  
FASH 112 - Fundamentals of Clothing Construction **Credits: 3**  
or  
FASH 280 - Introduction to Apparel Buying **Credits: 3**  
  
FASH 215 - Textiles **Credits: 3**  
FASH 357 - Global Fashion Sourcing and Trade **Credits: 3**  
FASH 456 - Historic Costume **Credits: 3**  
Two more 3 credit courses with a FASH prefix (6 credits total)

### Total Minor Requirements: 21



## Finance Minor

(1,2)

(for all majors *except* Finance majors)

### Required Courses: 9

FIN 310 - Fundamentals of Finance **Credits: 3**

FIN 320 - Corporate Finance **Credits: 3**

FIN 324 - Principles of Investments **Credits: 3**

### Controlled Electives: 9

Three courses from FIN or REAL at 300 level or higher

### Total Minor Requirements: 18

(1) Minor course requirements must be completed with a minimum cumulative GPA of 2.0.

(2) Maximum of two REAL courses.

## Forensic Biosciences Minor

(1)

The goal of this interdisciplinary minor is to provide students with a broad-based understanding of the field of forensic biosciences. The minor allows students to gain both a deep understanding of a traditional discipline through their major field of study while gaining experience with various aspects of forensic biology and criminal investigations. It is not designed to provide students necessarily with the methods and measures of forensics, which will come from student's undergraduate fields of study and/or future graduate study. The purpose is to give students an understanding of the basic issues and the applications of those methods within the context of forensic biology.

### Foundation Courses: 12

(all majors)

BIOL 107 - Introduction to Forensic Biology **Credits: 3**

BIOL 211 - Investigative Biological Forensics **Credits: 3**

BIOL 313 - Forensic Analysis of DNA **Credits: 3**

CHEM 105 - The Forensic Chemistry of CSI **Credits: 3**

### Required Course: 4

BIOL 411 - Forensic Biology Laboratory Operations **Credits: 4**

### Controlled Elective: 3-4

One course from the following:

- ANTH 488 - Geophysical Applications in Archaeology **Credits: 3**
- ANTH 491 - Zooarcheology **Credits: 3**
- BIOL 103 - Life on Earth **Credits: 4**
- BIOL 104 - Human Biology: How the Human Body Works **Credits: 4**
- BIOL 105 - Cell Biology **Credits: 3**
- BIOL 106 - Human Genetics and Health **Credits: 3**
- BIOL 115 - Biotic Diversity of North America **Credits: 3**
- BIOL 323 - Introduction to Toxicology and Risk Assessment **Credits: 3**
- BIOL 364 - Immunology **Credits: 3**
- BIOL 493 - Biology Internship **Credits: 3-12**
- PSYC 388 - Forensic Psychology **Credits: 3**

## Total Minor Requirements: 19-20

(1) Must have formal Biology Department approval to be admitted to the minor in Forensic Biosciences.

## French Minor

### Placement

Students with no previous French study will be placed in FRNC 101, a class reserved for true beginners. Students with previous French study in high school or college will be placed into the appropriate course by means of the online WebCAPE placement test. This test may be taken more than once before enrolling in French courses; it is free of charge for IUP students. Instructions on how to take the online WebCAPE test are available on the departmental website and in print in the Department of Foreign Languages office (Sutton Hall). As deemed necessary by the individual student or French faculty, the proposed WebCAPE placement may be further refined: Students' writing and speaking proficiency may be additionally assessed by one or more faculty members in the French program in the Department of Foreign Languages. Each student's individual requirements and the judgment of the classroom instructors will also be considered in placement. No student will be allowed to register for or take a D/F repeat in FRNC 101, FRNC 102, or FRNC 201 when credit has already been received for a higher numbered course.

### IUP Course Credit for Acquired Proficiency

Incoming students may receive course credit for their oral proficiency levels in French through the American Council on Education (ACE) Credit Recommendation Service and Language Testing International (LTI), the assessment agency for the American Council on the Teaching of Foreign Languages (ACTFL). Students who have taken an ACTFL Oral Proficiency Interview (OPI) through LTI, received a proficiency rating by LTI, and received credit recommendation by ACE may receive the following course credits in French at IUP:

<b>ACTFL Oral Proficiency Ratings (rated by LTI)</b>	<b>ACE Credit Recommendations</b>	<b>IUP French Course Equivalencies</b>
Intermediate-Mid	4 Lower Division credits	Either FRNC 102 or FRNC 201 depending on placement on departmental written exam
Intermediate-High/Advanced Low	8 Lower Division credits	FRNC 201 and FRNC 220
Advanced-Mid or higher	10 Lower Division credits	FRNC 201, FRNC 220 and approved conversation elective

To begin the process, students must contact LTI by e-mail (testing@ language testing.com) to request an ACE College Credit Recommendation by OPI Examination information package and application. There is a fee for the OPI and an ACE application fee to be paid by the candidate.

## **Study Abroad French Studies Summer Programs: Aix-en-Provence, France/Intensive French Language (Aix-Marseille University) and the Cours d'été, Nancy, France**

The Department of Foreign Languages has partnered with the Office of International Education to establish two study abroad experiences in Aix-en-Provence and in Nancy, France. All students having successfully completed FRNC 102 are invited to consider continuing their study of French in France. Students seeking the certificate or minor in French are strongly encouraged to study abroad in one of our centers in France.

These summer programs propose a five or six-week session, including up to 25 hours of weekly language instruction as well as cultural field trips or activities, and weekly debriefing sessions with faculty from the IUP Department of Foreign Languages. Housing options include accommodations in university housing, apartments, and home-stay with a host family. Both programs offer 6 hours of transfer credits that may be used toward completion of any foreign language requirement, the certificate in French, or the French minor.

For further information about cost and application procedures, contact the Department of Foreign Languages.

### **Required Courses:**

(1)

FRNC 201 - Intermediate French **Credits:** 4 (2)

FRNC 220 - Intermediate French Conversation **Credits:** 3

FRNC 230 - Intermediate French Composition and Grammar **Credits:** 3

One IUP French elective course **Credits:** 3

Two or three courses at IUP or an accredited institution in the US or abroad; transfer or ACE credit; individualized instruction or independent study courses (3, 4) **Credits:** 6-9

### **Total Minor Requirements: 18-19**

(1) At least nine of the 18 or 10 of the 19 credits must be taken at IUP. No more than 9cr transfer or study abroad credits will be counted toward the French minor; any additional transfer or study abroad credits will count as free electives.

(2) If a student is exempted from FRNC 201 based on his/her score on the French placement test, the student must instead take a 200-or 300- level course in place of FRNC 201.

(3) At least 6cr of the minor must be upper-division courses, generally those numbered 300 and above or otherwise designated as upper-division.

(4) All courses taken outside of IUP must be approved by the French minor advisor. Various study abroad opportunities in France and French-speaking countries are available to students through departmental programs and offerings provided by the Office of International Education (OIE).

## **Geography Minor**

A minor in geography is appropriate for majors in all other fields of the natural and social sciences. Students in marketing and information systems will find a minor in this field relevant. A minor consists of 18 credits in courses taken only with the GEOG prefix; at least two courses must be at the 200 level and at least two courses must be at the 300 level or above. The department suggests students take major core courses if graduate study is anticipated.

### **Controlled Electives:**

(1)

- At least two courses at the 200 level
- At least two courses at the 300 level or above

### **Total Minor Requirements: 18**

(1) Only courses taken as GEOG may be counted toward the minor.

## **Geology Minor**

The minor in geology is designed for students who want a background in geology in conjunction with their main area of study. This minor may be particularly appropriate for students pursuing degrees in business or one of the social or physical sciences.

### **Required Introductory Course: 4**

GEOS 200 - Foundations of Geology **Credits: 4**

### **Controlled Elective Courses: 14**

(1) (2) Any GEOS course 200-level or above, except GEOS 470, GEOS 475, and GEOS 480.

### **Total Minor Requirements: 18**

(1) At least 6cr must be 300-level or higher.

(2) Only one Geoscience Field Workshop (including prerequisite Seminar) can be counted toward the minor.

## **German Minor**

### **Study Abroad**

The department encourages all students who study German at IUP to consider study abroad for one or two semesters. To provide this opportunity at a relatively modest cost, the university has arranged an exchange of students between Duisburg University and IUP. By participating in this or other approved programs, students can earn from 12 to 14 credits per semester. For information, contact the Department of Foreign Languages.

## **IUP Course Credit for Acquired Proficiency**

Incoming students may receive course credit for their oral proficiency levels in German through the American Council on Education (ACE) Credit Recommendation Service and Language Testing International (LTI), the assessment agency for the American Council on the Teaching of Foreign Languages (ACTFL). Students who have taken an ACTFL Oral Proficiency Interview (OPI) through LTI, received a proficiency rating by LTI, and received credit recommendation by ACE may receive the following course credits in German at IUP:

<b>ACTFL Oral Proficiency Ratings (LTI)</b>	<b>ACE Credit Recommendations</b>	<b>IUP German Course Equivalencies</b>
Intermediate-Mid	4 Lower Division credits	Either GRMN 102 or GRMN 201 depending on placement on departmental written exam
Intermediate-High/Advanced Low	8 Lower Division credits	GRMN 201 and GRMN 220
Advanced-Mid or higher	10 Lower Division credits	GRMN 201, GRMN 220 and approved conversation elective

To begin the process, students must contact the Foreign Languages Department.

## Required Courses:

(1)

GRMN 201 - Intermediate German **Credits: 4**

(2)

GRMN 220 - Intermediate German Conversation **Credits: 3**

GRMN 230 - Intermediate German Composition and Grammar **Credits: 3**

One IUP German elective course **Credits: 3**

Two or three courses at IUP or an accredited institution in the US or abroad; transfer credit; individualized instruction or independent study courses (3, 4) **Credits: 6-9**

## Total Minor Requirements: 18-19

(1) At least nine of the 18 or 10 of the 19 credits must be taken at IUP. No more than 9cr transfer or study abroad credits will be counted toward the German minor; any additional transfer or study abroad credits will count as free electives.

(2) If a student is exempted from GRMN 201 based on his/her score on the German placement test, the student must instead take a 200-or 300- level course in place of GRMN 201.

(3) At least 6cr of the minor must be upper-division courses, generally those numbered 300 and above or otherwise designated as upper-division.

(4) All courses taken outside of IUP must be approved by the German minor advisor. Various study abroad opportunities in Germany are available to students through departmental programs and offerings provided by the Office of International Education (OIE).

## Global Health Minor

(2, 5)

Global health is an area for study, research, and practice that places a priority on improving health and achieving health equity for all people worldwide. The Global Health minor will equip students interested in health and medicine with the analytical and critical-thinking skills needed to understand, explain, and critique health inequalities. They will recognize how these health disparities result from globalization and the need for promoting health equity in areas of the world with under-resourced and constrained health care. The minor is organized around six global health pathways:

- food, nutrition, and hunger
- environmental justice
- law, ethics, and policy
- disaster, conflict, and displacement
- gender, sexuality, and reproductive health
- aging

Students will select one of the six pathways and will complete 12 credits in the selected pathway, in addition to Introduction to Global Health and either Medical Anthropology or Medical Sociology.

Health topics, theories, and research methods as addressed in the social sciences will advance students' interdisciplinary understandings of health disparities, with a corresponding awareness of health equity. Practicums, through field school participation, internships, and other experiential learning opportunities, will merge course material with real world praxis, and will provide students with greater insights into global health and its contributions. The Global Health minor will prepare students for graduate studies in health-related fields and careers in health-promoting governmental agencies and non-governmental organizations (NGOs). Ethnographic field school, independent study courses, and internship courses may be applied to each global health pathway with the approval of the Global Health minor committee. Students should consult with the program coordinator to determine if there are any prerequisites for the courses listed below. The program coordinator will work with individual departments to determine if students may qualify for prerequisite exemptions. Course substitutions will be permitted with the approval of the Global Health minor committee.

## Core Courses: 6

ANTH 240 - Introduction to Global Health **Credits: 3**

ANTH 444 - Medical Anthropology **Credits: 3**

or

SOC 442 - Medical Sociology **Credits: 3**

## Select one Global Health Pathway: 12

### Food, Nutrition, and Hunger

(7 courses, choose 4) (3, 4)

At least one course must have a FDNT prefix.

The courses in this pathway offer the students an interdisciplinary perspective that will provide students with the analytical tools to examine world needs associated with food, nutrition, and health.

ANTH 430 - Anthropology of Food **Credits: 3**

ECON 360 - Health Economics **Credits: 3**

ECON 362 - Global Poverty and Health **Credits: 3**

FDNT 143 - Current Issues in Nutrition and Wellness **Credits: 3 (1)**

or

NURS 143 - Healthy People—Promoting Wellness **Credits: 3 (1)**

FDNT 415 - Sustainable Nutrition **Credits: 3**

FDNT 370 - Human Food Consumption Patterns **Credits: 3**

SOC 337 - Society, Globalization, and Risk **Credits: 3**

## Environmental Justice

(7 courses, choose 4) (3, 4)

The courses in this pathway offer the students an interdisciplinary perspective that will provide students with the analytical tools to examine the linkages between environmental issues in the world and health.

ANTH 420 - Environmental Anthropology **Credits: 3**  
BIOL 221 - Environmental Health and Protection **Credits: 4**  
ECON 362 - Global Poverty and Health **Credits: 3**  
FDNT 415 - Sustainable Nutrition **Credits: 3**  
GEOG 343 - Fresh Water Resources **Credits: 3**  
or  
RGPL 343 - Fresh Water Resources **Credits: 3**  
PHIL 270 - Ethics and the Environment **Credits: 3**

## Law, Ethics, and Policy

(9 courses, choose 4) (3, 4)

The courses in this pathway will allow students to learn about using law and ethics to develop and advocate for legislation and policies designed to address social injustice and improve health in the world.

ANTH 352 - The Anthropology of Human Rights **Credits: 3**  
ANTH 457 - Applied Anthropology **Credits: 3**  
ECON 360 - Health Economics **Credits: 3**  
ECON 362 - Global Poverty and Health **Credits: 3**  
NURS 314 - Health Policy and Law **Credits: 3**  
or  
ELR 314 - Health Policy and Law **Credits: 3**  
PHIL 130 - Introduction to Biomedical Ethics **Credits: 3**  
PLSC 405 - Sexuality and Law **Credits: 3**  
SOC 362 - Racial and Ethnic Minorities **Credits: 3**  
SOC 452 - Disability and Society **Credits: 3**

## Disasters, Conflicts, and Displacement

(6 courses, choose 4) (3, 4)

The courses in this pathway will offer the students an interdisciplinary perspective to examine natural disasters and armed conflicts that result in displacement and poor health in many parts of the globe.

ANTH 352 - The Anthropology of Human Rights **Credits: 3**  
ANTH 370 - Latinos and Diasporas **Credits: 3**  
PSYC 378 - Psychology of Death and Dying **Credits: 3**  
RGPL 103 - Global Cities: Planning and Development **Credits: 3**  
SOC 337 - Society, Globalization, and Risk **Credits: 3**

## Gender, Sexuality, and Reproductive Health

(10 courses, choose 4) (3, 4)

The courses in this pathway will offer the students an interdisciplinary perspective that will provide students with the analytical tools to examine gender, sexuality, and related health issues as well as reproductive health knowledge and services in the world.

- ANTH 350 - Anthropology of Gender **Credits: 3**
- BIOL 117 - Understanding HIV Biology and AIDS **Credits: 3**
- KHSS 143 - Wellness **Credits: 3** (1)
- ENGL 336 - Language, Gender, and Society **Credits: 3**
- LGBT 200 - Introduction to Lesbian, Gay, Bisexual, Transgender, and Queer Studies **Credits: 3**
- PLSC 405 - Sexuality and Law **Credits: 3**
- PSYC 379 - Psychology of Human Sexuality **Credits: 3**
- SOC 251 - Sociology of Human Sexuality **Credits: 3**
- SOC 363 - Sociology of Gender **Credits: 3**
- SOC 410 - Men and Masculinities **Credits: 3**

## Aging

(8 courses, choose 4) (3, 4)

The courses in this pathway will offer the students an interdisciplinary perspective that will provide students with the analytical tools to examine fundamentals of global aging and health.

- ECON 362 - Global Poverty and Health **Credits: 3**
- PSYC 312 - Adult Development and Aging **Credits: 3**
- PSYC 378 - Psychology of Death and Dying **Credits: 3**
- SOC 357 - Sociology of Aging and the Life-course **Credits: 3**
- SOC 452 - Disability and Society **Credits: 3**

## Total Minor Requirements: 18

- (1) Only one 143 Liberal Studies class may be taken in a student's entire program.
- (2) At least six credits in the selected pathway must be at the 300 level or above.
- (3) Only one 100-level course may count in the selected pathway.
- (4) Only two courses in the selected pathway may come from the student's major.
- (5) With the exception of GLOB courses, no course prefix may be used more than twice without written permission from the program director.

## History Minor

To minor in history, 18 credits of courses with an HIST prefix are required, with at least 6 credits taken at the 300 or higher level and no more than 3 credits taken at the 100 level. No more than 9 transfer credits may be counted toward the minor.



## Homeland Security Minor

### Required Courses: 9

PLSC 101 - World Politics **Credits: 3**  
PLSC 111 - American Government **Credits: 3**  
PLSC 270 - Fundamentals of Homeland Security **Credits: 3**

### Controlled Electives: 9

Three additional courses from the following:

PLSC 283 - American Foreign Policy **Credits: 3**

PLSC 344 - Terrorism **Credits: 3**  
- OR -  
CRIM 344 - Terrorism **Credits: 3**

PLSC 372 - Constitutional Issues in Homeland Security **Credits: 3**  
PLSC 375 - Crisis Management and Decision Making **Credits: 3**  
PLSC 465 - Intelligence Process and Policy **Credits: 3**  
PLSC 388 - Dimensions of National Security **Credits: 3**

### Total Minor Requirements: 18

(1) Must be completed before taking additional courses in the minor.

## Hospitality Management Minor

A minor in Hospitality Management prepares students with fundamental knowledge in the management of hospitality operations. Hospitality industry specific management skills in the areas of employee development, purchasing, managing and critiquing food production systems pertinent to the hospitality industry are the focus of this minor.

### Required Courses:

HOSP 130 - Food Service Sanitation **Credits: 1**  
HOSP 150 - Principles of Hospitality Management **Credits: 3**  
HOSP 256 - Human Resources in the Hospitality Industry **Credits: 3**  
HOSP 259 - Hospitality Purchasing **Credits: 3**  
HOSP 300 - Critiquing Commercial Restaurants **Credits: 1**  
HOSP 330 - Applications of Food Production and Service **Credits: 4**  
HOSP Elective **Credits: 3 (1)**

### Total Minor Requirements: 18

(1) Needs to be 300-level or higher

## Hotel and Lodging Management Minor

The Hotel and Lodging Minor prepares students with industry specific skills required of today's hotel professional. Students will learn how to lead front office operations, housekeeping and facilities management, industry standard pricing strategies, revenue management, the role of a hotel sales department, and how to lead with a focus on service management.

### Required Courses: 12

HOSP 260 - Hotel Operations Management **Credits: 3**  
HOSP 325 - Hotel Sales **Credits: 3**  
HOSP 372 - Housekeeping and Facilities Management **Credits: 3**  
HOSP 400 - Hotel Revenue Management **Credits: 3**

### Controlled Electives: 6

HOSP courses approved by department chair totaling at least 6cr

### Total Minor Requirements: 18

## Human Resource Management Minor

The Human Resource Management Minor will help students in obtaining an overview of managing the most important resources in organizations: people. Human Resource professionals are involved in many critical aspects such as onboarding process/training, compensation management, talent management, motivating employees, performance appraisal, change management, and organizational development. This minor will introduce students to many of these concepts that will provide them a competitive edge in their careers.

### Required Courses:

MGMT 300 - Human Resource Management **Credits: 3**

### Controlled Electives: (1, 2)

Select 6 credits from the following list:

MGMT 400 - Compensation Management **Credits: 3**  
MGMT 401 - Management Development and Training **Credits: 3**  
MGMT 405 - Organizational Staffing **Credits: 3**

Select an additional 9 credits from the following list:

MATH 214 - Probability and Statistics for Business Majors **Credits: 3**  
or  
MATH 216 - Probability and Statistics for Natural Sciences **Credits: 3**  
or

MATH 217 - Probability and Statistics **Credits: 3**

MGMT 310 - Principles of Management **Credits: 3**

MGMT 311 - Human Behavior in Organizations **Credits: 3**

or

PSYC 390 - Industrial-Organizational Psychology **Credits: 3** (only one not both)

BCOM 321 - Business and Interpersonal Communications **Credits: 3**

or

PSYC 377 - Interpersonal Skills and Group Dynamics **Credits: 3** (only one not both)

MGMT 400 - Compensation Management **Credits: 3**

MGMT 401 - Management Development and Training **Credits: 3**

MGMT 405 - Organizational Staffing **Credits: 3**

PSYC 435 - Advanced Topics in Social Psychology **Credits: 3**

## Total Minor Requirements: 18

(1) See management minor advisor for suggestions and for correct order of classes

(2) No more than two of major's courses can apply towards the minor.

## International Studies/Political Science Minor

### Required Courses:

PLSC 101 - World Politics **Credits: 3**

### Controlled Electives: 15

Five additional PLSC courses (15cr) from the following, at least two of which must be 300 level or higher:

PLSC 280 - Comparative Government I: Western Political Systems **Credits: 3**

PLSC 282 - International Relations **Credits: 3**

PLSC 283 - American Foreign Policy **Credits: 3**

PLSC 285 - Comparative Government II: Non-Western Political Systems **Credits: 3**

PLSC 383 - Political Systems: Asia **Credits: 3**

PLSC 384 - Political Systems: Middle East **Credits: 3**

PLSC 388 - Dimensions of National Security **Credits: 3**

PLSC 389 - International Development Strategies **Credits: 3**

PLSC 422 - International Law and Organizations **Credits: 3**

PLSC 465 - Intelligence Process and Policy **Credits: 3**

## Total Minor Requirements: 18

## **Lesbian, Gay, Bisexual, Transgender, and Queer (LGBT&Q) Studies Minor**

The Lesbian, Gay, Bisexual, Transgender, and Queer (LGBT&Q) Studies minor provides students the opportunity to critically analyze influences on and of sexualities, sexual and gender identity formation, and experiences in various social contexts, with a focus on sexual minorities and on preparing students to live and work in a pluralistic society. This interdisciplinary minor includes courses from a variety of disciplines, including sociology, anthropology, psychology, English, health education, child development and family relations. Students will examine diversity in sexual and gender identities, and the intersections of sexualities and gender with other identities including race, religion, and social class. Students also explore institutional influences, including family, politics, labor force and economics, religion, education, health care, media, arts, and sciences and the local, national, and global discourse on sexualities and gender identities. The curriculum additionally includes critical examination of the formation and effects of public policies on individuals and communities of differing sexual and gender identities, analysis of representations, and the discourses on sexualities as expressed through language, literature, and the arts, as well as the policies and practices of social institutions such as health care, religion, politics, education, and sports, among others.

### **Required Course: 3**

LGBT 200 - Introduction to Lesbian, Gay, Bisexual, Transgender, and Queer Studies **Credits: 3**

### **Controlled Electives: 15**

Five courses from the following, two of which must be 300 level or higher: (1)

ANTH 350 - Anthropology of Gender **Credits: 3**

ANTH 352 - The Anthropology of Human Rights **Credits: 3**

HDFS 224 - Marriage and Family Relations **Credits: 3**

HDFS 323 - Family Issues **Credits: 3**

ENGL 350 - LGBTQ Literature, Theory, and Film **Credits: 3**

PLSC 405 - Sexuality and Law **Credits: 3**

PSYC 379 - Psychology of Human Sexuality **Credits: 3**

SOC 251 - Sociology of Human Sexuality **Credits: 3**

### **Total Minor Requirements: 18**

(1) Other relevant courses may serve as an elective with permission of the LGBT&Q Studies coordinator.

## **Management Minor**

(for all IUP majors except management)

(1,2)

### **Required Courses: 6**

MGMT 310 - Principles of Management **Credits: 3**

MGMT 311 - Human Behavior in Organizations **Credits: 3**

## Controlled Electives: 12

Select 12 additional credits from the following list:

BCOM 321 - Business and Interpersonal Communications **Credits: 3**

MATH 214 - Probability and Statistics for Business Majors **Credits: 3**

or

MATH 216 - Probability and Statistics for Natural Sciences **Credits: 3**

or

MATH 217 - Probability and Statistics **Credits: 3**

MGMT 275 - Introduction to Entrepreneurship **Credits: 3**

MGMT 300 - Human Resource Management **Credits: 3**

MGMT 434 - Industrial Quality: Statistical Tools and Management **Credits: 3**

MGMT 451 - International Management **Credits: 3**

MGMT 461 - Organizational Leadership Theory **Credits: 3**

One MGMT 3XX or 4XX course or BCOM 3XX or 4XX **Credits: 3**

Up to two courses from the major (with approval) **Credits: 6**

## Total Minor Requirements: 18

(1) Only up to 6 credits, out of the total required 18 credits for the minor, may be part of the student's major with approval of the minor advisor.

(2) Business students' core courses are considered part of the major.

## Marketing Minor

(1)

(available to all majors)

## Required Courses:

ECON 101 - Basic Economics **Credits: 3**

or

ECON 121 - Principles of Macroeconomics **Credits: 3**

or

ECON 122 - Principles of Microeconomics **Credits: 3**

MKTG 320 - Principles of Marketing **Credits: 3**

Any 4 MKTG courses **Credits: 12**

## Total Minor Requirements: 18

(1) Minor course requirements must be completed with a minimum cumulative GPA of 2.0.

## Mathematics Minor

The minor consists of a minimum of 18 credits in mathematics including at least 6 credits from 300-level or higher courses. The minor prepares students for advanced study in areas such as economics, computer science, physics, and other natural sciences. Anyone required to take a year of calculus should consider the Mathematics minor.

A cumulative GPA of at least 2.0 in MATH courses is required for the Mathematics or Applied Statistics minor. No more than 6 credits of overlap can be used for the Mathematics and Applied Statistics minors. Transfer students must earn at least 9 credits from the IUP Department of Mathematical and Computer Sciences in order to complete a minor.

### Required Courses: 6-8

MATH 121 - Calculus I for Natural and Social Sciences **Credits: 4**

or

MATH 125 - Calculus I/Physics, Chemistry, Mathematics **Credits: 3**

MATH 122 - Calculus II for Natural and Social Sciences **Credits: 4**

or

MATH 126 - Calculus II/Physics, Chemistry, Mathematics **Credits: 3**

### Controlled Electives: 10-12

One of MATH 411 or MATH 412 is permitted but not both.

MATH 171 - Introduction to Linear Algebra **Credits: 3**

MATH 216 - Probability and Statistics for Natural Sciences **Credits: 3**

MATH 225 - Calculus III/Physics, Chemistry, Mathematics **Credits: 3**

MATH 271 - Introduction to Mathematical Proofs I **Credits: 3**

MATH 272 - Introduction to Mathematical Proofs II **Credits: 3**

MATH 309 - Discrete Mathematics **Credits: 3**

MATH 316 - Data Science Fundamentals **Credits: 3**

MATH 341 - Differential Equations **Credits: 3**

MATH 342 - Advanced Mathematics for Applications **Credits: 4**

MATH 343 - Introduction to Numerical Methods **Credits: 3**

MATH 350 - History of Mathematics **Credits: 3**

MATH 353 - Theory of Numbers **Credits: 3**

MATH 355 - Foundations of Geometry I **Credits: 3**

MATH 363 - Mathematical Statistics I **Credits: 3**

MATH 364 - Mathematical Statistics II **Credits: 3**

MATH 371 - Linear Algebra **Credits: 3**

MATH 411 - Univariate Data Analysis **Credits: 3**

- OR -

MATH 412 - Multivariate Statistics **Credits: 3**

MATH 416 - Time Series Analysis **Credits: 3**

MATH 418 - Data Science Theory and Application **Credits: 3**

MATH 421 - Advanced Calculus I **Credits: 3**

MATH 422 - Advanced Calculus II **Credits: 3**

MATH 423 - Complex Variables **Credits: 3**

MATH 427 - Introduction to Topology **Credits:** 3  
MATH 445 - Deterministic Models in Operations Research **Credits:** 3  
MATH 446 - Probabilistic Models in Operations Research **Credits:** 3  
MATH 447 - Modeling and Simulation **Credits:** 3  
MATH 448 - Introduction to Financial Mathematics **Credits:** 3  
MATH 450 - Topics in Applied Computational Mathematics **Credits:** 3  
MATH 476 - Abstract Algebra I **Credits:** 3  
MATH 477 - Abstract Algebra II **Credits:** 3  
MATH 481 - Special Topics **Credits:** 1-3

**Total Minor Requirements: 18**

## **Military Leadership Minor**

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

**Required Courses: 6**

**Foundational:**

SOC 161 - Foundations of Sociology: Social Relations in Groups and Organizations **Credits:** 3 (1)  
THTR 161 - Introduction to Theatre: Teamwork **Credits:** 3 (2)

**Military Science: 12**

(3)

MLSC 305 - Fundamentals of Leadership and Modern Learning/Teaching Relationship **Credits:** 3  
MLSC 306 - Study of Advance Leader Planning and Execution of Modern Combat Operations **Credits:** 3  
MLSC 407 - Advanced Army Leadership Seminar **Credits:** 2  
MLSC 408 - Seminar in Military Analysis and Management **Credits:** 3

**Practical Applications in Military Leadership: 0**

Leadership Laboratory **Credits:** 0 (4)

**Total Minor Requirements: 18**

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

## Music Minor

(1)

### Required Courses: 15-18

APMU XXX - Applied Music **Credits:** 2 (2)  
MUSC 115 - Theory I **Credits:** 3  
MUSC 111 - Theory Skills I **Credits:** 2  
or  
MUSC 116 - Theory II **Credits:** 3  
2-4 semesters of the following: MUSC 120-MUSC 140 (1cr each)  
6 cr of MUHI or MUSC 300-level or above

### Electives: 0-3

Courses with MUSC, MUHI or APMU (by permission only) prefix, **except** ensembles (MUSC 120-MUSC 140) and courses in the music education sequence (MUSC 155, MUSC 157, MUSC 159, MUSC 161, MUSC 219, MUSC 240, MUSC 331, MUSC 333, MUSC 335, MUSC 337)

### Total Minor Requirements: 18

- (1) Students must audition to be admitted into the minor.
- (2) Admitted minors will receive one semester of 2cr applied lessons and may (when possible) receive further semesters depending on instructor availability. Students must be enrolled in an ensemble (as advised) during any semester in which they receive applied lessons.

## Neurobiology Minor

Students who obtain a Neurobiology minor would be able to demonstrate knowledge of the neurobiological processes in animals and humans. This minor is an excellent option for students who are (i) planning to pursue advanced study in any of several fields related to neurobiology or neuroscience whether it be cognitive, behavioral, developmental, computational, molecular; or (ii) seeking relevant training for jobs related to the assessment, rehabilitation, and treatment of traumatic brain injury, brain diseases, and addiction. Additionally, this minor could also be attractive to psychology or other (Pre-) health majors.

### Required Courses:



BIOL 104 - Human Biology: How the Human Body Works **Credits: 4**

or

BIOL 240 - Human Physiology **Credits: 4**

BIOL 477 - Neurobiology **Credits: 3**

## Controlled Elective Courses: 12

(1)

BIOL 409 - Pharmacology Principles and Applications **Credits: 3**

BIOL 462 - Vertebrate Endocrinology **Credits: 3**

BIOL 469 - Circadian Rhythms and Sleep **Credits: 3**

BIOL 479 - Neurobiology of Addiction **Credits: 3**

BIOL 481 - Special Topics **Credits: 1-3 (2)**

PHIL 360 - Philosophy of Mind **Credits: 3**

PHIL 390 - Philosophy of Human Nature **Credits: 3**

PSYC 372 - Drugs and Behavior **Credits: 3**

## Total Minor Requirements: 19

(1) At least 6cr should be from BIOL courses.

(2) Needs approval of department chair.

## Nutrition Minor

The Nutrition Minor is recommended for students majoring in related disciplines such as Athletic Training, Biology, Chemistry, Child Development, Exercise Science, Family Consumer Science Education, Health and Physical Education, Hospitality Management, Human Development and Family Science, Nursing and Allied Health, Pre-Medicine, Pre-Pharmacy, and Speech-Language Pathology.

## Required Courses: 6

FDNT 145 - Personal Nutrition **Credits: 3**

or

FDNT 212 - Nutrition **Credits: 3**

FDNT 213 - Life Cycle Nutrition **Credits: 3**

## Controlled Electives: 12

Select four additional courses from the following list. Other FDNT courses may be selected but must be pre-approved by the department chair. Must meet any course prerequisites.

FDNT 150 - Foods **Credits: 3**

FDNT 245 - Sports Nutrition **Credits: 3**

FDNT 255 - Nutrition Assessment and Medical Terminology **Credits: 3**

FDNT 370 - Human Food Consumption Patterns **Credits: 3**

FDNT 402 - Community Nutrition **Credits: 3**  
FDNT 415 - Sustainable Nutrition **Credits: 3**  
FDNT 422 - Public Health Nutrition and Epidemiology **Credits: 3**  
FDNT 445 - Advanced Sports Nutrition **Credits: 3**  
FDNT 459 - Advanced Human Metabolism: Macronutrients **Credits: 3**  
FDNT 460 - Advanced Human Metabolism: Micronutrients and Water **Credits: 3**  
FDNT 471 - Integrative Nutrition in Complementary and Alternative Healthcare **Credits: 3**

**Total Minor Requirements: 18**

## **Philosophy Minor**

**Controlled Electives: 18**

Six PHIL courses (with restrictions) (1, 2)

**Total Minor Requirements: 18**

(1) No more than three 100- and 200-level courses may be counted toward the minor. Only PHIL courses may be counted toward the minor. Unless otherwise indicated in the Course Descriptions, all 300- and 400-level courses require either philosophy major or minor status, junior or senior standing, or permission of the instructor.

(2) No more than 3 non-classwork credits may be counted toward the minor. Non-classwork credits include independent study, independent honors project, and internship in philosophy.

## **Physics Minor**

To minor in physics, a student must successfully complete 18-20 credits in physics consisting of at least 6 credits at the 300 level or higher.

**Required Courses: 8**

PHYS 131 - Physics I-C Lecture **Credits: 3**  
or  
PHYS 111 - Physics I Lecture **Credits: 3**  
PHYS 141 - Physics I-C Lab **Credits: 1**  
or  
PHYS 121 - Physics I Lab **Credits: 1**  
PHYS 132 - Physics II-C Lecture **Credits: 3**  
or  
PHYS 112 - Physics II Lecture **Credits: 3**  
PHYS 142 - Physics II-C Lab **Credits: 1**  
or  
PHYS 122 - Physics II Lab **Credits: 1**

**Additional Elective Courses: 12**

At least 10 credits from the following, 6cr of which must be at 300 level or higher: (1)

PHYS 231 - Electronics **Credits: 4**

PHYS 331 - Modern Physics I **Credits: 3**

PHYS 342 - Thermal and Statistical Physics **Credits: 3**

PHYS 355 - Computer Interfacing **Credits: 3**

## **Total Minor Requirements: 18-20**

(1) Other courses may be considered with department recommendation.

## **Political Science Minor**

### **Required Courses:**

PLSC 101 - World Politics **Credits: 3**

PLSC 111 - American Government **Credits: 3**

### **Controlled Electives: 12**

Four additional PLSC courses, at least two of which must be 300 level or higher

## **Total Minor Requirements: 18**

## **Pre-law Interdisciplinary Minor**

Successful lawyers possess excellent skills in writing and speaking and can analyze a problem and explain its solution in clear, logical terms. The Pre-law minor prepares the student especially well in these areas and provides the skills and knowledge needed to do well in the law school admissions examination. This minor may be taken with any major other than those with a Pre-law Track. Although a pre-law minor is not required for law school admission, this interdisciplinary minor will provide students with the prerequisite skills for law school.

### **Seven Courses:**

Seven courses, including at least one from each of the areas (no courses with student's major prefix):

#### **Business:**

ACCT 201 - Accounting Principles I **Credits: 3**

ACCT 202 - Accounting Principles II **Credits: 3**

BLAW 235 - Legal Environment of Business **Credits: 3**

#### **Criminology:**

CRIM 210 - Criminal Law **Credits: 3**

CRIM 215 - Survey of Courts and the Criminal Justice System **Credits: 3**

CRIM 225 - Survey of Corrections **Credits: 3**

CRIM 255 - Law, Social Control, and Society **Credits: 3**

## Economics:

ECON 121 - Principles of Macroeconomics **Credits: 3**

ECON 122 - Principles of Microeconomics **Credits: 3**

## English:

ENGL 212 - American Literature: Beginnings to 1900 **Credits: 3**

ENGL 227 - Introduction to Legal Writing **Credits: 3**

ENGL 265 - Law and Literature **Credits: 3**

ENGL 310 - Public Speaking **Credits: 3**

ENGL 321 - Persuasive Speech and Writing **Credits: 3**

## History:

HIST 320 - History of England to 1688 **Credits: 3**

HIST 342 - The Early Republic **Credits: 3**

HIST 346 - Recent United States History **Credits: 3**

HIST 475 - History of American Constitutionalism **Credits: 3**

## Philosophy:

PHIL 101 - Critical Thinking **Credits: 3**

PHIL 122 - Contemporary Moral Issues **Credits: 3**

PHIL 130 - Introduction to Biomedical Ethics **Credits: 3**

PHIL 221 - Symbolic Logic I **Credits: 3**

PHIL 270 - Ethics and the Environment **Credits: 3**

PHIL 320 - Ethical Theory **Credits: 3**

PHIL 450 - Philosophy of Law **Credits: 3**

## Political Science:

PLSC 358 - Judicial Process **Credits: 3**

PLSC 359 - Constitutional Law and Civil Liberties **Credits: 3**

PLSC 361 - Modern Political Thought **Credits: 3**

PLSC 405 - Sexuality and Law **Credits: 3**

**Total Minor Requirements: 21**

## **Professional Teamwork and Leadership Minor**

The Professional Teamwork and Leadership minor is an interdisciplinary program that aims to better prepare students for a competitive job market by instilling interpersonal, teamwork, and communication skills for use in their field. Employers of today seek job candidates who possess a strong set of technical skills, but strongly prefer someone who can also work in a team

environment. Ninety percent of employers believe that team skills are equally, or even more important, than technical skills when hiring. This minor provides students with ways to stand out from the crowd.

The minor is open to all IUP students and provides three pathways to best acquire the necessary team and leadership skills:

*Applications of Teamwork and Leadership:* Links the theory of teamwork and leadership to applications within your chosen field. Employers seek graduates who pursue opportunities to develop and apply their team and leadership skills through current, real-world problems that graduates will face during employment.

*Business Leadership Theory:* Explores top leadership theories and models, the motivation of teams, cooperate social responsibility, foundations of commercial sustainability, and corporate ethics in the regional and global marketplaces.

*Community and Civic Leadership Theory:* Explores the team and leadership theories regarding the evaluation and planning of services, managing, and motivating teams of volunteers while building intergovernmental and intraorganizational relationships.

Successful leaders have confidence in their abilities, are passionate, possess strong values, are excellent planners and organizers as well as effective communicators. These attributes are imperative to solving key problems. The minor will build students' identities as team members and leaders, transform and enhance their thought processes, and provide an expanded toolkit to cultivate effective teams.

The addition of the minor is practical for all majors, particularly those programs with few free electives looking to add more value and marketability. This minor will expose students to understanding how their beliefs, attitudes, and actions affect the team as well as how the diversity of the team adds strength and additional perspective to solve complex problems facing society. Students will learn how to engage audiences with nontechnical and technically rich content, frame and present arguments, and develop the ability to speak about their work and its significance. Traits of good team members and leaders will be examined and applied through case studies or by solving current, real-world problems in in-major projects within their required coursework. The capstone course, coupled with the teamwork intensive course, provides direct opportunities for students to develop and apply their team and leadership skills within their chosen field. Students will reflect on the personal qualities and attributes they bring to a team and prepare materials that best illustrate these skills to future employers.

## Core Courses: 12 (1)

MGMT 310 - Principles of Management **Credits: 3**

-or-

MGMT 461 - Organizational Leadership Theory **Credits: 3**

SOC 161 - Foundations of Sociology: Social Relations in Groups and Organizations **Credits: 3**

THTR 161 - Introduction to Theatre: Teamwork **Credits: 3**

Any 100-level PHIL course **Credits: 3**

## Select one Professional Teamwork and Leadership Pathway:

### Applications of Teamwork and Leadership: 6-7 (2)

Links the theory of teamwork and leadership to applications within your chosen field. Employers seek graduates who pursue opportunities to develop and apply their team and leadership skills through current, real-world problems that graduates will face during employment.

COMM 261 - Teamwork and Communication Skills for College and Career **Credits: 3**

or

## Business Leadership Theory: 6

Explores top leadership theories and models, motivation of teams, cooperate social responsibility, foundations of commercial sustainability, and corporate ethics in the regional and global marketplaces.

BCOM 321 - Business and Interpersonal Communications **Credits: 3**

MGMT 311 - Human Behavior in Organizations **Credits: 3**

-or-

MGMT 462 - Applied Business Leadership Skills **Credits: 3**

## Community and Civic Leadership Theory: 6

Explores the team and leadership theories regarding evaluation and planning of services, managing, and motivating teams of volunteers while building inter-governmental and intra-organizational relationships.

COMM 261 - Teamwork and Communication Skills for College and Career **Credits: 3**

or

PLSC 370 - The Practice of Public Administration **Credits: 3**

or

PSYC 390 - Industrial-Organizational Psychology **Credits: 3**

or

SOC 345 - Sociological Social Psychology **Credits: 3**

## Total Minor Requirements: 19-20

(1) COMM 261, JRNL 361, PHIL 122, THTR 161, and SOC 161 can count as one or more liberal studies requirements. Honors College students can satisfy PHIL 122, THTR 161, and SOC 161 by taking the appropriate HRNC core courses. THTR 111 is a substitute for THTR 161.

(2) At least one course from pathway is required to be of 300-or 400-level coursework. If possible, take an in-major teamwork-intensive course, elective, or writing intensive requirement. Ensure the section chosen has the Teamwork-Intensive course attribute.

## Psychology Minor

The Psychology Minor will be available 100% online in addition to face-to-face.

### Required Courses:

PSYC 101 - General Psychology **Credits: 3 (1)**

PSYC 200 - Psychological Research I **Credits: 3 (2)**

or

PSYC 280 - Psychological Inquiry **Credits: 3**

or

NURS 316 - Evidence-Based Practice in Nursing **Credits: 3**

Four other PSYC electives beyond PSYC 101 (3,4)

## Total Minor Requirements: 18

- (1) Meets Liberal Studies requirement.
- (2) Prerequisite: Grade of C or better in MATH 217.
- (3) Selected in consultation with the minor advisor.
- (4) At least six credits must be at the 300-level or higher.

## Public Health and Community Nutrition Minor

The Public Health and Community Nutrition Minor provides students with foundational knowledge and skills to promote health, prevent nutrition-related diseases and conditions, and advocate for needed food and nutrition programs and services to help groups, communities, and populations. The minor consists of 18 credits including at least 6 credits from 300-level or higher courses. The minor provides a strong complement to extend specialized knowledge in public health and community nutrition for students in majors such as nursing, biology pre-medicine, public health, and political science.

## Required Courses: 15

- FDNT 145 - Personal Nutrition **Credits: 3**
- FDNT 213 - Life Cycle Nutrition **Credits: 3**
- FDNT 402 - Community Nutrition **Credits: 3**
- FDNT 422 - Public Health Nutrition and Epidemiology **Credits: 3**
- PUBH 122 - Foundations of Public Health **Credits: 3**

## Controlled Electives: 3

- FDNT 370 - Human Food Consumption Patterns **Credits: 3**
- FDNT 415 - Sustainable Nutrition **Credits: 3**
- FDNT 471 - Integrative Nutrition in Complementary and Alternative Healthcare **Credits: 3**

## Total Required Credits: 18

- (1) FDNT 212 Nutrition can substitute for FDNT 145 introduction to Nutrition.
- (2) Students must attain a grade of "C" or better in each of the courses.
- (3) Completion of the Public Health and Community Nutrition minor or certificate does not guarantee entry into the Nutrition major. Students desiring the Dietetics track must have a minimum 3.0 overall GPA and grades in science and food and nutrition courses are a "C" or better.

## Regional Planning Minor

A minor in regional planning is appropriate for majors in all other fields of the natural and social sciences. Students in marketing and information systems will find a minor in this field relevant. A minor consists of 18 credits in courses taken with the RGPL prefix. The department suggests students take the core in this program if graduate study is anticipated.

### Controlled Electives:

Six RGPL courses **Credits:** 18 (1)

### Total Minor Requirements: 18

(1) Only courses taken as RGPL may be counted toward the minor.

## Religious Studies Minor

The Religious Studies minor is designed to provide a balanced, nonsectarian, cross-cultural approach leading to a better understanding of the phenomenon of religion in human experience. Its interdisciplinary curriculum helps students to understand the relationship between religion and politics, economics, and social structures. Religious studies is a good complement to majors in such fields as anthropology, English, fine arts, history, international studies, music, philosophy, political science, psychology, and sociology.

### Controlled Electives: 18

Six RLST courses. (1,2)

### Total Minor Requirements: 18

(1) At least 6 credits must be taken at the 300 level or higher.

(2) Religion-related courses offered in other departments may be approved in consultation with advisor.

## Restaurant and Food Service Management Minor

The Restaurant and Food Service Management Minor prepares students with the skills to be a successful food service manager. This minor prepares students to manage and operate a food production system by developing skills in food sanitation, food preparation skills, menu planning, front and back of the house operations, and responsible alcohol service.

### Required Courses:

HOSP 130 - Food Service Sanitation **Credits:** 1

HOSP 220 - Food Service Operations **Credits:** 3

HOSP 330 - Applications of Food Production and Service **Credits:** 4 (1, 2)

HOSP 402 - Beverage Management **Credits:** 3

HOSP 403 - Wine and Wine Service **Credits:** 3

HOSP 413 - Restaurant Food Production and Service **Credits:** 4 (1, 2)

### Total Minor Requirements: 18



- (1) Department-specified kitchen food preparation uniform and knife kit are required for lab courses.
- (2) Students are required to show proof of approved safe food handling certification.

## **Safety, Health, and Environmental Applied Sciences Minor**

The minor consists of 18 credits in safety, health, and environmental applied sciences courses as identified below. The minor has improved job opportunities for students in public health, environmental fields, geography/geology, criminology, human resource management, international business, and management.

### **Required Courses:**

- SAFE 101 - Introduction to Occupational Safety and Health **Credits: 3**
- SAFE 111 - Principles of Safety I—General Industry **Credits: 3**
- SAFE 220 - Hazardous Materials and Emergency Management **Credits: 3**
- SAFE 310 - Environmental Safety and Health Regulations and Sustainability **Credits: 3**

### **Controlled Electives: 6**

SAFE courses approved by department chair totaling at least 6cr with at least 3cr being in 300-level or higher course(s). SAFE 100 , The Science of Living Safely, does not count toward the minor degree requirements.

### **Total Minor Requirements: 18**

## **Sociology Minor**

### **Required Courses:**

- SOC 151 - Principles of Sociology **Credits: 3**
- or
- SOC 161 - Foundations of Sociology: Social Relations in Groups and Organizations **Credits: 3**
- SOC 320 - Sociological Theory **Credits: 3**

### **Controlled Electives:**

### **One Course from the Following:**

- SOC 361 - Social Stratification **Credits: 3**
- SOC 362 - Racial and Ethnic Minorities **Credits: 3**
- SOC 363 - Sociology of Gender **Credits: 3**

### **Additional Courses: 9**

Three additional courses in SOC/SOWK, at least one of which must be 300 level or above

Total Minor Requirements: 18

## **Sociology of Human Services Minor**

Minor code: SHSV

Required Course:

SOC 151 - Principles of Sociology **Credits: 3**

or

SOC 161 - Foundations of Sociology: Social Relations in Groups and Organizations **Credits: 3**

SOC 391 - Foundations of Sociological Practice **Credits: 3**

SOC 392 - Clinical Sociological Practice **Credits: 3**

Controlled Electives:

One Course from the Following:

SOC 320 - Sociological Theory **Credits: 3**

SOC 361 - Social Stratification **Credits: 3**

Additional Courses

Two additional courses in SOC/SOWK, at least one of which must be 300 level or above

Total Minor Requirements: 18

## **Spanish Minor**

Required Courses:

SPAN 220 - Intermediate Spanish Conversation **Credits: 3**

SPAN 230 - Intermediate Spanish Composition and Grammar **Credits: 3**

SPAN 260 - Introduction to Hispanic Literature **Credits: 3**

SPAN 330 - Advanced Spanish Composition and Grammar **Credits: 3**

Two additional courses at the SPAN 3XX or 4XX level (except SPAN 390) **Credits: 6**

Total Minor Requirements: 18

## **Special Education PK-12 Minor**

Completion of the Special Education minor will prepare students to have a better understanding of the social, emotional, and learning characteristics of individuals with intellectual disabilities, autism, developmental disabilities, learning disabilities, brain injuries, emotional and behavioral disorders, physical disabilities, and multiple disabilities.

In addition, students taking this minor will develop a thorough understanding of PL 105-17, Individuals with Disabilities Education Act (IDEA), which addresses the rights of individuals and parents regarding inclusion in the regular classroom, delivery of services in inclusive settings, and transition planning.

The Special Education minor is an 18-credit program with 15 required and 3 elective credits. The required credits are met through enrollment in EDEX 111. This course provides essential information regarding IDEA (PL 105-17) as well as an overview of the field of special education, thus allowing the minor candidate to select a more focused area of concentration.

This minor would be of interest to sociology, psychology, human development and family science, criminology, and secondary education majors who are interested in interacting or working with individuals with disabilities.

To be accepted into the minor, a student must have a minimum 2.5 cumulative GPA.

## Required Course: 15

EDEX 111 - Introduction to Exceptional Persons **Credits: 3**

EDEX 340 - Introduction to Behavior Management in Special Education **Credits: 3**

EDEX 369 - Education of Persons with Emotional/Behavioral Disorders, Learning Disabilities or Brain Injury  
**Credits: 3**

EDEX 378 - Education of Persons with Intellectual/Developmental Disabilities and Physical/Multiple Disabilities  
**Credits: 3**

EDEX 425 - Methods and Curriculum Mild-Moderate Disabilities **Credits: 3**

## Controlled Electives: 3

One course from the following:

EDEX 415 - Preschool Education for Children with Disabilities **Credits: 3**

EDEX 435 - Methods and Curriculum—Severe Cognitive Disabilities **Credits: 3**

EDEX 458 - Transition Assessment and Planning for Youth with Disabilities **Credits: 3**

EDEX 460 - Family Perspectives on Disability **Credits: 3**

## Total Minor Requirements: 18

(1) When choosing electives, only 6 credits are permitted to be counted from your major for your minor.

(2) If choosing to use (maximum 12) credits toward the Special Education Masters, you must take the 500 level courses (EDEX 525, 535, 558, 560, 569, 578).

## Special Event/Tourism Management Minor

The Special Event/Tourism Management Minor introduces students to the planning, organizing, influencing, and controlling of special event functions and the social, cultural, environmental and economic processes linked to the tourism industry. This minor provides the option to select industry specific courses that meet their individual career goals in areas of professional wedding planning, fund-raising, catering, festivals, destination management, international tourism, and event management.

## Required Courses: 9

HOSP 235 - Tourism Management **Credits: 3**  
HOSP 280 - Special Event Management **Credits: 3**  
HOSP 347 - Meeting and Convention Management **Credits: 3**

## Controlled Electives: 9

HOSP courses approved by department chair totaling at least 9cr with at least 3cr being 300 level or higher.

## Total Minor Requirements: 18

### Sport Management Minor

This minor is recommended for students majoring in related disciplines such as exercise science, health and physical education, athletic training, accounting, communications media, economics, finance, human resource management, management, and marketing and for students who have a personal interest in sport management. It provides students with the necessary skills to work in management within the sport industry.

## Required Courses: 12

KHSS 292 - Introduction to Sport Management **Credits: 3**  
KHSS 320 - Managing Facilities and Events in Sport **Credits: 3**  
KHSS 445 - Sport Marketing **Credits: 3**  
KHSS 460 - Law and Issues in Managing Sport **Credits: 3**

## Controlled Electives: 6

Two courses from the following:

ECON 239 - Economics of Sports **Credits: 3**  
KHSS 270 - Sport Communication **Credits: 3**  
KHSS 280 - Aquatic Management and Operation **Credits: 3**  
KHSS 335 - Athletic Coaching **Credits: 3**  
KHSS 351 - Sport Finance **Credits: 3**  
KHSS 493 - Internship **Credits: 1-12**

## Total Minor Requirements: 18

### Sustainability Studies Minor

The Sustainability Studies minor is an interdisciplinary program that draws from expertise across the university. The program conceptualizes "sustainability" as an interdisciplinary approach to knowledge production and action that focuses on "the health and integrity of human societies and the natural world." Sustainability is classically defined as a stool with three legs—the social, the economic, and the environmental. The purpose of this program is to address the challenges of sustainability by balancing the humanities, social sciences, and natural sciences. The minor equips students to broaden their thinking about the origins of sustainability problems and possible solutions to include human institutions, ethics, and cultures as well as

technologies and natural sciences. In so doing, the minor aims to foster student agency with regard to research on sustainability, responsibility to both human and non-human life, and civic engagement with local sustainability projects. The minor can supplement all majors in the university. Career possibilities include positions in design, law, food industries, planning and architecture, education, building certification, renewable energy, and waste management.

Students must complete 18 credits and a capstone experience (described below) to earn a minor in sustainability studies. The program's interdisciplinary approach encourages students to take courses from a variety of departments. The program is structured as follows:

All students will take SUST 201 - Introduction to Sustainability Studies.

Students must then take at least 12 credits from Category A, defined as courses in which substantial content is foundational to engagement with sustainability. These credits must be distributed across three "clusters," each of which denotes a major aspect of sustainability. Having taken one course from each of the three clusters, students will then be able to take the remaining Category A credits from a cluster of their choosing.

Only 3 credits may come from Category B, defined as courses in which significant content is foundational to engagement with sustainability. Because their content may vary, courses from Category B must be approved by the program director to count for the minor.

At least 6cr must be at the 300 level or above.

Only one course may come from the student's major.

With the exception of SUST courses, no course prefix may be used more than twice without written permission from the program director.

Special topics, independent study courses, and internship courses may be applied to either Category A or Category B with the approval of the Sustainability Studies Committee.

Students should consult with the program director to determine if there are any prerequisites for the courses. Through counseling, the program coordinator will work with individual departments to determine if students may qualify for prerequisite exemptions.

Students will work with an advisor from the Sustainability Studies program to develop a capstone experience that synthesizes their knowledge and skills related to sustainability. This requirement may be fulfilled by one of the following options: a portfolio, conference presentation, or other scholarly activity approved by the program director.

## Required Course: 3

SUST 201 - Introduction to Sustainability Studies **Credits: 3**

## Category A: 12-15

### Cluster I: Ethics, Culture, and Society

ANTH 420 - Environmental Anthropology **Credits: 3**

ANTH 430 - Anthropology of Food **Credits: 3**

ANTH 470 - Environmental Archaeology **Credits: 3**

ENGL 361 - Environmental Literature **Credits: 3**

GEOG 230 - Human Geography **Credits: 3**

PHIL 270 - Ethics and the Environment **Credits: 3**

RLST 365 - Native North American Religions **Credits: 3**

SOC 314 - Sociology of Native Americans **Credits: 3**

### Cluster II: Natural Sciences and Environmental Stewardship

BIOL 103 - Life on Earth **Credits: 4**

BIOL 115 - Biotic Diversity of North America **Credits: 3**

BIOL 201 - Principles of Ecology and Evolution **Credits: 4**  
BIOL 221 - Environmental Health and Protection **Credits: 4**  
BIOL 362 - Ecology **Credits: 3**  
BIOL 450 - Field Biology at Pymatuning Laboratory of Ecology **Credits: 4**  
BIOL 490 - Field Studies in Biology **Credits: 1-4**  
ENVE 301 - Environmental Aquatic Chemistry **Credits: 4**  
GEOG 101 - Environment and Society **Credits: 3**  
GEOG 341 - Climatology **Credits: 3**  
GEOG 435 - Geography of Energy **Credits: 3**  
GEOS 101 - The Dynamic Earth **Credits: 3**  
GEOS 103 - Oceans and Atmospheres **Credits: 3**  
GEOS 155 - Geology of Climate Change **Credits: 3**  
GEOS 156 - Geology of Natural Disasters **Credits: 3**  
GEOS 204 - Historical Geology **Credits: 4**  
GEOS 310 - Environmental Geology **Credits: 4**  
GEOS 370 - Oceanography **Credits: 4**  
PHYS 101 - Energy and Our Environment **Credits: 3**  
PSYC 331 - Environmental Psychology **Credits: 3**  
SAFE 310 - Environmental Safety and Health Regulations and Sustainability **Credits: 3**

### Cluster III: Environmental Policy, Economics, and Law

CRIM 374 - Environmental Crime and Justice **Credits: 3**  
ECON 361 - Environmental Economics **Credits: 3**  
ENVE 101 - Introduction to Environmental Engineering **Credits: 3**  
FDNT 370 - Human Food Consumption Patterns **Credits: 3**  
FDNT 415 - Sustainable Nutrition **Credits: 3**  
GEOG 104 - World Geography: Global Context **Credits: 3**  
GEOG 231 - Economic Geography **Credits: 3**

GEOG 343 - Fresh Water Resources **Credits: 3**  
or  
RGPL 343 - Fresh Water Resources **Credits: 3**

GEOG 345 - Biogeography for Environmental Managers **Credits: 3**  
or  
RGPL 345 - Biogeography for Environmental Managers **Credits: 3**

GEOG 440 - Conservation: Environmental Analysis **Credits: 3**  
or  
RGPL 440 - Conservation: Environmental Analysis **Credits: 3**

RGPL 103 - Global Cities: Planning and Development **Credits: 3**  
RGPL 426 - Environmental Land Use Planning **Credits: 3**

### Category B

ANTH 110 - Contemporary Anthropology **Credits: 3**  
ANTH 213 - World Archaeology **Credits: 3**  
ANTH 240 - Introduction to Global Health **Credits: 3**  
ANTH 314 - Contemporary Native American Cultures **Credits: 3**  
ANTH 352 - The Anthropology of Human Rights **Credits: 3**

ANTH 444 - Medical Anthropology **Credits: 3**  
ART 113 - 3D Design and Digital Fabrication **Credits: 3**  
ART 213 - Woodworking: Function and Form **Credits: 3**  
BIOL 301 - Fundamentals of Epidemiology **Credits: 3**  
BIOL 323 - Introduction to Toxicology and Risk Assessment **Credits: 3**  
BIOL 456 - Ecological Toxicology **Credits: 3**  
ECON 338 - Poverty in Africa **Credits: 3**  
GEOS 150 - Geology of National Parks **Credits: 3**  
GEOS 200 - Foundations of Geology **Credits: 4**  
NURS 101 - Disaster Awareness **Credits: 1**  
NURS 143 - Healthy People—Promoting Wellness **Credits: 3**  
PHIL 122 - Contemporary Moral Issues **Credits: 3**  
PHIL 130 - Introduction to Biomedical Ethics **Credits: 3**  
PLSC 250 - Public Policy **Credits: 3**  
PLSC 389 - International Development Strategies **Credits: 3**  
SOC 337 - Society, Globalization, and Risk **Credits: 3**

**Total Minor Requirements: 18**

## **Theatre Minor**

The Theatre minor provides a foundation; students must meet with the department chair for initial advisement to be admitted into the minor. The minor will be tailored to individual student goals with a course plan. (1)

**Required Course: 3**

THTR 111 - Foundations of Theater **Credits: 3**

**One Course from the Following: 3**

THTR 120 - Stagecraft **Credits: 3**

THTR 122 - Costume Technology **Credits: 3**

THTR 221 - Performance Lighting **Credits: 3**

THTR 486 - Practicum: Performance, Production, Dramaturgy, or Applied Theatre **Credits: 0-3 (2)**

**Electives: 12-15**

Courses with a THTR prefix as advised (3)

**Total Minor Requirements: 18**

(1) THTR 101 satisfies the Liberal Studies Fine Arts requirement but may not be counted toward the Theatre minor.

(2) Practicum credit is gained through assignment to theatre and dance company productions under the supervision of a faculty member. It is usually granted at 1-2cr for an assignment. Therefore, more than one assignment will need to be completed if a student wishes to accumulate exactly 18cr in the minor. It is possible to complete one practicum assignment and complete the balance of the minor with additional electives. This will usually result in 19 or 20cr in the minor.

(3) Six credits at 300 level or above is required.

## Wildlife and Conservation Biology Minor

The Wildlife and Conservation Biology minor is intended for students to gain knowledge and tools to study, conserve and understand the impact of habitat on wildlife species. This minor would be a perfect fit for a Pre-veterinary major as it would provide skills and career opportunities in government, private, academic institutions in the area of aquatic or wildlife sciences, ecological conservation or management, and education.

### Required Courses:

BIOL 205 - Ecological Methods **Credits: 3**  
BIOL 362 - Ecology **Credits: 3**

### Controlled Electives: 9-10cr

(1,2)

BIOL 261 - Ornithology **Credits: 3**  
BIOL 310 - Applied Entomology and Zoonoses **Credits: 3**  
BIOL 352 - Comparative Animal Physiology **Credits: 3**  
BIOL 425 - Herpetology **Credits: 3**  
BIOL 431 - Ichthyology **Credits: 3**

BIOL 450 - Field Biology at Pymatuning Laboratory of Ecology **Credits: 4**

or

BIOL 490 - Field Studies in Biology **Credits: 1-4**

BIOL 451 - Evolutionary Biology **Credits: 3**  
BIOL 455 - Animal Behavior **Credits: 3**  
BIOL 475 - Mammalogy **Credits: 3**  
BIOL 481 - Special Topics **Credits: 1-3**

### Total Minor Requirements: 18-19

(1) Other appropriate BIOL courses at 200 level and above may be substituted on permission of the advisor and the Biology department chair in advance of taking the course.

(2) No more than two of major's courses can apply (excluding prerequisite, liberal studies, cognate or college core courses) towards minor.

## Women's and Gender Studies Minor

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

**Lynn Botelho, Director**

The Women's and Gender Studies minor is designed to increase students' interdisciplinary knowledge about the gendered nature of women's experiences and the ways that all genders are shaped by history, culture, and society. In order to achieve this goal, the program offers courses using a variety of theories and methodologies from a range of disciplines, such as anthropology, art,



communication media, criminology, film, the fine arts, history, journalism and public relations, literature, philosophy, political science, psychology, religious studies, and sociology. The program explores gendered hierarchies and the impact of gender on the experiences of women, as well as women- and gendered-centered knowledge productions and learning. Students are encouraged to challenge traditional theories and research regarding women and gender through innovative and experimental classroom experiences and writing assignments. Students analyze the world, imagine and re-envision it, and seek to enact social transformation in both theory and practice.

A minor in women's and gender studies strengthens and supplements every academic major and later professional careers. Students' awareness of gendered, sexualized, classed, and racialized hierarchies make them valuable professionals in a range of careers, from business and banking to social work and law.

## Required Course: 3

WGS 200 - Introduction to Women's and Gender Studies **Credits: 3**

## Other Requirements:

Students receive approval for a specified course of study from the following list of courses: (1, 2, 3)

ANTH 350 - Anthropology of Gender **Credits: 3**

ASIA 244 - Samurai and Gongfu Heroes: Masculinity in East Asia **Credits: 3**

or

HIST 244 - Samurai and Gongfu Heroes: Masculinity in East Asia **Credits: 3**

COMM 325 - Gender in Media **Credits: 3**

CRIM 450 - Women and Crime **Credits: 3**

ENGL 225 - Introduction to Literature by Women **Credits: 3**

ENGL 336 - Language, Gender, and Society **Credits: 3**

ENGL 350 - LGBTQ Literature, Theory, and Film **Credits: 3**

HIST 369 - Women in America **Credits: 3**

HIST 390 - History of Women—World Cultures **Credits: 3**

PLSC 404 - Women and Politics **Credits: 3**

PSYC 379 - Psychology of Human Sexuality **Credits: 3**

PSYC 380 - Gender and Violence (CAAST) **Credits: 3**

PSYC 411 - Psychology of Women **Credits: 3**

RLST 245 - Women and Religion **Credits: 3**

RLST 345 - Women in the Bible **Credits: 3**

SOC 251 - Sociology of Human Sexuality **Credits: 3**

SOC 363 - Sociology of Gender **Credits: 3**

SOC 410 - Men and Masculinities **Credits: 3**

SOC 427 - Social Perspectives on Intimate Partner Violence **Credits: 3**

WGS 400 - Feminist Theories **Credits: 3**

## Total Minor Requirements: 18

(1) Students receive approval for a specified course of study from the above list of courses and, with permission from the director of Women's and Gender Studies, from selected WGS courses that have been recently developed.

(2) No more than two courses that for a student's major can also count for the Women's and Gender Studies minor.

(3) At least 6cr of coursework must be at 300 level or above.

(4) Special topics courses that focus on women's and gender studies and are offered by individual departments can count as Women's and Gender Studies minor electives with the approval of director.

(5) Internships (up to 3cr) may be counted toward the minor.

## Certificates

### Applied Theatre and Performance Certificate

Program code: ATPF-CERT

The Applied Theatre and Performance Certificate introduces methodology and practice for creating and applying performance within a range of settings and contexts. The certificate program is designed to complement any field of study through the development of four core skills: Creativity, Collaboration, Communication, and Community-building. Students will receive training in Standardized/Simulated Patient simulation performance, Equity/Diversity/Inclusion (EDI) facilitation, Theatre of the Oppressed (TO) practice, and Theatre-in-Education (TIE) methodology

#### Required Courses:

THTR 261 - Simulation Performance **Credits: 3**  
THTR 361 - Performance of Caring **Credits: 3**  
THTR 362 - Performance for Social Change **Credits: 3**

THTR 486 - Practicum: Performance, Production, Dramaturgy, or Applied Theatre **Credits: 0-3 (1)**  
or  
THTR 493 - Internship **Credits: 1-12**

#### Total Certificate Requirements: 12

(1) Only 1 credit of practicum can be applied in a given semester. A total of 3 semesters of practicum are required unless otherwise approved.

### Athletic Coaching Certificate

This certificate is recommended for students majoring in disciplines such as exercise science, health and physical education, athletic training, and education and for students who have a personal interest in coaching as a profession. It provides students with the necessary skills to work in the athletic coaching industry. Students will have a chance to earn a variety of certifications, including ASEP Coaching Certification, Certified Disability Sport Specialist, Certified Special Olympics Coach.

#### Required Courses: 17

KHSS 175 - Prevention and Care of Injuries to the Physically Active **Credits: 2**  
KHSS 209 - Motor Behavior **Credits: 3 (1)**  
KHSS 333 - Psychology of Coaching **Credits: 3 (1)**  
KHSS 335 - Athletic Coaching **Credits: 3 (1)**  
KHSS 437 - Coaching Disability Sport **Credits: 3 (1)**  
KHSS 493 - Internship **Credits: 1-12**

## Controlled Elective: 3

One course from the following:

- KHSS 221 - Human Structure and Function **Credits: 3**
- KHSS 256 - Applied Human Structure and Conditioning **Credits: 3 (1)**
- KHSS 292 - Introduction to Sport Management **Credits: 3 (1)**

## Total Certificate Requirements: 20

(1) Courses have been designed as distance education courses.

## Audio Production Certificate

Prepares students for careers producing, recording, mixing, and mastering audio. This 18-credit certificate requires students to take four 3-credit core courses and an additional 6 credits for electives. Completion of this certificate will help prepare students for positions in many fields including, radio, film and television in which knowledge of audio production techniques and technology is required. Majors from other departments will be able to declare a communications media minor along with receiving the certificate.

## Core Courses: 12

- COMM 101 - Introduction to Communications, Media, and Culture **Credits: 3**
- COMM 249 - Basic Audio Production **Credits: 3**
- COMM 349 - Radio Production **Credits: 3**
- COMM 449 - Advanced Audio Recording Techniques **Credits: 3**

## Electives: 6

- COMM 281 - Special Topics **Credits: 1-3 (1)**
- COMM 354 - Media Law and Policy **Credits: 3**
- COMM 390 - Practicum in Communications **Credits: 1-3 (1)**
- COMM 401 - Media Programming and Promotion **Credits: 3**
- COMM 403 - Multimedia News Writing **Credits: 3**
- COMM 408 - Media Field Studies **Credits: 3**
- COMM 414 - Music, Media, and Culture **Credits: 3**
- COMM 451 - Multimedia News Production **Credits: 3**
- COMM 470 - Media Management and Sales **Credits: 3**
- COMM 477 - Freelancing and Entrepreneurship in Media **Credits: 3**
- COMM 480 - Seminar in Communications Media **Credits: 3 (1)**
- COMM 481 - Special Topics **Credits: 1-3 (1)**

## Total Certificate Requirements: 18

(1) As appropriate depending on topic; approval required.

## Big Ideas: Transformative Culture and Professions Certificate

Below are the 4 guided pathways through the Big Ideas certificate.

### Big Ideas: Law and Government

Central Concept: Social Organization How does a just society function?

All societies have rules that determine what is and is not acceptable, who does and does not belong, and what steps to take when these determinations are transgressed. The migration of people across the globe, change and diversity among populations within a nation, and contact with different cultures puts pressure on these rules and how they are enforced, requiring informed citizens to examine what their society does, how it does it, whether or not it is desirable, and why. The Law and Government concentration explores a wide range of historical, social, and cultural contexts, preparing students to ask questions about power, politics, ethics, and communal membership as they become leaders shaping the societies of tomorrow.

No more than 2 classes per department may be counted towards the certificate.

Only 1 class from a student's major may be counted towards the certificate.

One 100-level course may be counted towards the certificate.

Substitution of courses may be approved by the director.

### Required Core Courses:

(1)

ARHU 122 - Big Ideas I: Ancient to Enlightenment **Credits: 3**

ARHU 123 - Big Ideas II: Enlightenment to Present **Credits: 3**

ARHU 461 - Big Ideas Capstone **Credits: 1-3**

### Students will select 3 courses from the following:

ARHI 100 - Arts of the 20th Century **Credits: 3**

ANTH 352 - The Anthropology of Human Rights **Credits: 3**

ENGL 212 - American Literature: Beginnings to 1900 **Credits: 3**

ENGL 226 - Survey of Global Literature Since 1900 **Credits: 3**

ENGL 227 - Introduction to Legal Writing **Credits: 3**

ENGL 265 - Law and Literature **Credits: 3**

ENGL 348 - African American Literature **Credits: 3**

ENGL 396 - Postcolonial Literature **Credits: 3**

HIST 206 - The History of East Asia **Credits: 3**

HIST 251 - United States Military History **Credits: 3**

HIST 265 - The History of Power: Its Uses and Abuses **Credits: 3**

HIST 313 - Europe Since 1945: Division, Revolution, and Unity **Credits: 3**

HIST 348 - Top Secret America: The Rise and Reach of the National Security State **Credits: 3**

HIST 362 - History of American Diplomacy, 1900-present **Credits: 3**

HIST 437 - Modern Japan 1850-Present **Credits: 3**

PHIL 323 - Political Philosophy **Credits: 3**

PHIL 390 - Philosophy of Human Nature **Credits: 3**

PHIL 450 - Philosophy of Law **Credits: 3**

PLSC 111 - American Government **Credits: 3**

PLSC 250 - Public Policy **Credits: 3**  
PLSC 283 - American Foreign Policy **Credits: 3**  
PLSC 351 - Legislative Process **Credits: 3**  
PLSC 358 - Judicial Process **Credits: 3**  
PLSC 359 - Constitutional Law and Civil Liberties **Credits: 3**  
PLSC 422 - International Law and Organizations **Credits: 3**  
RLST 120 - Comparative Religious Ethics **Credits: 3**  
SOC 231 - Contemporary Social Problems **Credits: 3**  
SOC 333 - Delinquency and Youth **Credits: 3**  
SOC 337 - Society, Globalization, and Risk **Credits: 3**  
SOC 361 - Social Stratification **Credits: 3**  
SOC 387 - Social and Cultural Change **Credits: 3**  
SOC 448 - Social Welfare Policy **Credits: 3**  
THTR 313 - American Theater Between the Wars **Credits: 3**

## Big Ideas: Mind, Body, and Health

Central Concept: Health

What does it mean for a person to be healthy?

The health sciences increasingly recognize the necessity of considering the whole person, mind and body, when it comes to helping people become and stay healthy. This requires moving beyond the quantifiable body into dimensions of emotions, imagination, history, cultural practices and the various subtleties that impact and influence human life. The Mind, Body, and Health concentration brings together courses from a variety of disciplines outside of the sciences to help students think beyond the scientific emphasis of health and medicine and reinforce the important connection of social and cultural contexts to enhance the quality healthcare.

No more than 2 classes per department may be counted towards the certificate.

Only 1 class from a student's major may be counted towards the certificate.

One 1 100-level course may be counted towards the certificate.

Substitution of courses may be approved by the director.

### Required Core Courses:

(1)

ARHU 122 - Big Ideas I: Ancient to Enlightenment **Credits: 3**  
ARHU 123 - Big Ideas II: Enlightenment to Present **Credits: 3**  
ARHU 461 - Big Ideas Capstone **Credits: 1-3**

### Students will select 3 courses from the following:

ARHI 205 - Ancient to Medieval Art **Credits: 3**  
ARHI 207 - Renaissance to Modern Art **Credits: 3**  
ANTH 110 - Contemporary Anthropology **Credits: 3**  
ANTH 240 - Introduction to Global Health **Credits: 3**  
ANTH 430 - Anthropology of Food **Credits: 3**  
ANTH 444 - Medical Anthropology **Credits: 3**  
ENGL 222 - Technical Writing **Credits: 3**  
ENGL 225 - Introduction to Literature by Women **Credits: 3**  
ENGL 337 - Myth **Credits: 3**

- ENGL 341 - Poetry **Credits: 3**  
ENGL 350 - LGBTQ Literature, Theory, and Film **Credits: 3**  
HIST 240 - Zombies: A Cultural History of Death, Disease, and Technology **Credits: 3**  
PHIL 130 - Introduction to Biomedical Ethics **Credits: 3**  
PHIL 240 - Philosophy and the Good Life **Credits: 3**  
PHIL 326 - Existentialism **Credits: 3**  
PHIL 360 - Philosophy of Mind **Credits: 3**  
PHIL 390 - Philosophy of Human Nature **Credits: 3**  
PLSC 370 - The Practice of Public Administration **Credits: 3**  
RLST 120 - Comparative Religious Ethics **Credits: 3**  
RLST 245 - Women and Religion **Credits: 3**
- SOC 151 - Principles of Sociology **Credits: 3**  
or  
SOC 161 - Foundations of Sociology: Social Relations in Groups and Organizations **Credits: 3**
- SOC 251 - Sociology of Human Sexuality **Credits: 3**  
SOC 335 - Alcohol and Drug Abuse **Credits: 3**  
SOC 357 - Sociology of Aging and the Life-course **Credits: 3**  
SOC 362 - Racial and Ethnic Minorities **Credits: 3**  
SOC 363 - Sociology of Gender **Credits: 3**  
SOC 410 - Men and Masculinities **Credits: 3**  
SOC 442 - Medical Sociology **Credits: 3**  
SOC 452 - Disability and Society **Credits: 3**  
SOC 454 - Dimensions of Rural Public Health **Credits: 3**  
THTR 214 - Theatre History and Literature: Tragedy **Credits: 3**  
THTR 215 - Theatre History and Literature: Comedy **Credits: 3**

## Big Ideas: Management, Information, and Organization

Central Concept: Information

What does useful information look like?

Management, information, organization all rely on the recognition and effective communication of information. To be successful and lead in rapidly changing industries requires an understanding of the textures of the information we possess, the rich potential of the diverse people we manage, and the contextual factors that contribute to how people see information: how they identify, assimilate, interpret it, as well as how vital ideas and impactful details can be miscommunicated or overlooked. The Management, Information, and Organization concentration illuminates factors that limit and misconstrue information, as well as those that can create a culture of innovation, communication, and trust by exploring the cultural histories and practices that inform how people develop and exchange information and how to maximize its values across different projects and populations.

No more than 2 classes per department may be counted towards the certificate.

Only 1 class from a student's major may be counted towards the certificate.

One 1 100-level course may be counted towards the certificate.

Substitution of courses may be approved by the director.

### Required Core Courses:

(1)

ARHU 122 - Big Ideas I: Ancient to Enlightenment **Credits: 3**

ARHU 123 - Big Ideas II: Enlightenment to Present **Credits: 3**

ARHU 461 - Big Ideas Capstone **Credits: 1-3**

### Students will select 3 courses from the following:

ARHI 207 - Renaissance to Modern Art **Credits: 3**

ANTH 271 - Cultural Area Studies: Africa **Credits: 3**

ANTH 272 - Culture Area: China **Credits: 3**

ANTH 274 - Cultural Area Studies: Latin America **Credits: 3**

ENGL 212 - American Literature: Beginnings to 1900 **Credits: 3**

ENGL 222 - Technical Writing **Credits: 3**

ENGL 226 - Survey of Global Literature Since 1900 **Credits: 3**

ENGL 227 - Introduction to Legal Writing **Credits: 3**

ENGL 265 - Law and Literature **Credits: 3**

ENGL 310 - Public Speaking **Credits: 3**

ENGL 321 - Persuasive Speech and Writing **Credits: 3**

ENGL 421 - Digital Writing **Credits: 3**

HIST 265 - The History of Power: Its Uses and Abuses **Credits: 3**

HIST 348 - Top Secret America: The Rise and Reach of the National Security State **Credits: 3**

HIST 356 - Digital History **Credits: 3**

PHIL 450 - Philosophy of Law **Credits: 3**

PHIL 460 - Philosophy of Language **Credits: 3**

PLSC 250 - Public Policy **Credits: 3**

PLSC 282 - International Relations **Credits: 3**

PLSC 370 - The Practice of Public Administration **Credits: 3**

PLSC 375 - Crisis Management and Decision Making **Credits: 3**

PLSC 389 - International Development Strategies **Credits: 3**

PLSC 422 - International Law and Organizations **Credits: 3**

RLST 120 - Comparative Religious Ethics **Credits: 3**

SOC 151 - Principles of Sociology **Credits: 3**

or

SOC 161 - Foundations of Sociology: Social Relations in Groups and Organizations **Credits: 3**

SOC 231 - Contemporary Social Problems **Credits: 3**

SOC 337 - Society, Globalization, and Risk **Credits: 3**

SOC 345 - Sociological Social Psychology **Credits: 3**

SOC 421 - Sociology of Mass Media **Credits: 3**

THTR 313 - American Theater Between the Wars **Credits: 3**

WGS 200 - Introduction to Women's and Gender Studies **Credits: 3**

## Big Ideas: Science and the Environment

Central Concept: Discovery

How does the world work?

From the dark riddles of black holes to the perplexities of sub-atomic particles, the physical world holds an untellable number of mysteries, and we turn to science to get answers to our questions about the nature of our environment. Scientific theories and practices do not emerge from the straightforward accumulation of facts, but from a set of changing intellectual conditions of possibility that are entirely human, and therefore, what we can discover is only as limited as our ability to discover new ways of asking questions. The Science and Environment concentration brings together disciplinary methods outside of the sciences to

explore the factors that limit the questions we ask, how they are asked, and who is invited to ask them while integrating methods of inquiry from the humanities and arts, emboldening students to ask unexpected and innovative questions about their world that will give the answers they need to face the challenges of the future.

No more than 2 classes per department may be counted towards the certificate.

Only 1 class from a student's major may be counted towards the certificate.

One 1 100-level course may be counted towards the certificate.

Substitution of courses may be approved by the director.

## Required Core Courses:

(1)

ARHU 122 - Big Ideas I: Ancient to Enlightenment **Credits: 3**

ARHU 123 - Big Ideas II: Enlightenment to Present **Credits: 3**

ARHU 461 - Big Ideas Capstone **Credits: 1-3**

## Students will select 3 courses from the following:

ARHI 205 - Ancient to Medieval Art **Credits: 3**

ARHI 207 - Renaissance to Modern Art **Credits: 3**

ANTH 110 - Contemporary Anthropology **Credits: 3**

ANTH 211 - Cultural Anthropology **Credits: 3**

ANTH 413 - Archaeology of Coasts **Credits: 3**

ANTH 420 - Environmental Anthropology **Credits: 3**

ANTH 430 - Anthropology of Food **Credits: 3**

ANTH 444 - Medical Anthropology **Credits: 3**

ANTH 470 - Environmental Archaeology **Credits: 3**

ENGL 222 - Technical Writing **Credits: 3**

ENGL 341 - Poetry **Credits: 3**

ENGL 361 - Environmental Literature **Credits: 3**

ENGL 421 - Digital Writing **Credits: 3**

HIST 240 - Zombies: A Cultural History of Death, Disease, and Technology **Credits: 3**

PHIL 221 - Symbolic Logic I **Credits: 3**

PHIL 270 - Ethics and the Environment **Credits: 3**

PHIL 330 - Philosophy of Science **Credits: 3**

PLSC 250 - Public Policy **Credits: 3**

PLSC 355 - Intergovernmental Relations **Credits: 3**

PLSC 370 - The Practice of Public Administration **Credits: 3**

RLST 365 - Native North American Religions **Credits: 3**

SOC 151 - Principles of Sociology **Credits: 3**

or

SOC 161 - Foundations of Sociology: Social Relations in Groups and Organizations **Credits: 3**

SOC 337 - Society, Globalization, and Risk **Credits: 3**

SOC 345 - Sociological Social Psychology **Credits: 3**

SOC 442 - Medical Sociology **Credits: 3**

SUST 201 - Introduction to Sustainability Studies **Credits: 3**

WGS 200 - Introduction to Women's and Gender Studies **Credits: 3**



## Total Certificate Requirements

(1) Students must complete both ARHU 122 and ARHU 123. ENGL 121; ENGL 122; FNLG 121; and MUHI 102 may not be substituted for ARHU 122 or ARHU 123.

(2) Either SOC 151 OR SOC 161 may fulfill a certificate component. Students may NOT receive certificate credit for both SOC 151 and SOC 161.

## Biochemistry Honors Certificate

(1)

### Liberal Studies: 11

As outlined in the Liberal Studies Requirements section with the following specifications:

#### Mathematics:

MATH 125 - Calculus I/Physics, Chemistry, Mathematics **Credits: 3**

#### Natural Science:

PHYS 131 - Physics I-C Lecture **Credits: 3**

PHYS 141 - Physics I-C Lab **Credits: 1**

PHYS 132 - Physics II-C Lecture **Credits: 3**

PHYS 142 - Physics II-C Lab **Credits: 1**

### Required Courses: 7

CHEM 341 - Physical Chemistry I **Credits: 4**

MATH 126 - Calculus II/Physics, Chemistry, Mathematics **Credits: 3**

### Elective Courses: 7

Any additional BIOC, BIOL, CHEM, or MATH courses at the 300-level or above (2)

## Total Degree Requirements: 25

(1) Honors certificate also requires a presentation of research during departmental seminar.

(2) For an American Chemical Society certified degree, students must take CHEM 314 and a CHEM course at the 400 level

## Biorisk Management Certificate

The Biorisk Management Certificate will prepare both students and professionals interested in gaining the necessary skills to support the safe and secure execution of life science operations including high/maximum containment facilities. Students that matriculate through this certificate program will become competitive for entry-level biosafety and/or biorisk management positions with the U.S. life science enterprises (e.g., universities, federal government, biotech, human/veterinary facilities, pharmaceutical facilities, etc.).

## Required Courses: 13

BIOL 241 - Introductory Medical Microbiology **Credits: 4**  
SAFE 401 - Laboratory Biosafety and Biosecurity **Credits: 3**  
SAFE 402 - Biological Risk assessment and Regulatory Compliance **Credits: 3**  
SAFE 441 - Accident Investigation **Credits: 3**

## Controlled Elective: 3

**Non-biology majors: (1)**  
BIOL 119 - Emerging Diseases **Credits: 3**  
- OR -  
Any other 3 credit 300 or 400 level BIOL course with chairperson permission.  
**Biology majors: (2)**  
BIOL 301 - Fundamentals of Epidemiology **Credits: 3**  
- OR -  
BIOL 310 - Applied Entomology and Zoonoses **Credits: 3**  
- OR -  
BIOL 466 - Principles of Virology **Credits: 3**

## Total Requirements: 16 credits

(1) For Non-Biology majors  
(2) For Biology majors

## Cell and Molecular Biology Certificate

For Biology majors and non-majors who wish to obtain specialized training in cell and molecular biology, the department offers a 16-credit sub-baccalaureate certificate program that consists of a five core Biology course sequence. Completion of the certificate will help to prepare students for positions in the modern biotechnology workforce. Applications are available at 114 Weyandt Hall. For more information, call 724-357-2352.

## Core Courses: 16

BIOL 202 - Principles of Cell and Molecular Biology **Credits: 4**  
BIOL 203 - Principles of Genetics and Development **Credits: 4**  
BIOL 331 - Developmental Biology **Credits: 3**  
BIOL 405 - The Biology of the Cell - Critical Thinking **Credits: 2**  
BIOL 430 - Gene Editing Tools in Medicine and Biotechnology **Credits: 3**

## Total Certificate Requirements: 16

### Chemistry Honors Certificate

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

The Chemistry Honors certificate is available for those students with strong math and science backgrounds. This certificate specifies a more-rigorous set of math and physics courses from among the range included in the Chemistry, BS degree. It also requires that Advanced Physical Chemistry be taken as one of the chemistry electives, and that the students completes 3 credit hours of undergraduate research. This certificate is intended for students who plan to go on to graduate study in chemistry, and should give them the necessary background to be successful in obtaining advanced degrees.

### Liberal Studies: 14

As outlined in the Liberal Studies Requirements section with the following specifications:

#### Mathematics:

MATH 125 - Calculus I/Physics, Chemistry, Mathematics **Credits: 3**

#### Natural Science:

PHYS 131 - Physics I-C Lecture **Credits: 3**

PHYS 141 - Physics I-C Lab **Credits: 1**

and

PHYS 132 - Physics II-C Lecture **Credits: 3**

PHYS 142 - Physics II-C Lab **Credits: 1**

#### Liberal Studies Electives: 3

MATH 126 - Calculus II/Physics, Chemistry, Mathematics **Credits: 3**

#### Core Courses: 9

CHEM 442 - Advanced Physical Chemistry **Credits: 3 (2)**

CHEM 498 - Problems in Chemistry **Credits: 3**

MATH 225 - Calculus III/Physics, Chemistry, Mathematics **Credits: 3**

#### Elective Course: 3

MATH 171 - Introduction to Linear Algebra **Credits: 3**

or any BIOL, COSC, GEOS, MATH, or PHYS course at the 300-level or above (3)

## Total Certificate Requirements: 26

- (1) Honors certificate also requires a presentation of research during departmental seminar.
- (2) Meets 3cr of CHEM controlled elective.
- (3) This requirement may also be met by taking an additional 3cr at the 400-level in CHEM or BIOC.

## **Child and Adult Advocacy Studies Certificate (CAAST)**

The CAAST Certificate is a 12-credit interdisciplinary program designed for individuals who are already working in professional environments and are seeking additional training/knowledge relevant to their work. It provides mandated reporters and first responders in child protection, child advocacy, criminal justice, domestic violence, education, medicine, nursing, older adult protective services, older adult advocacy, psychology, sociology, social work, and other disciplines with evidence-based, culturally relevant knowledge and skills to improve the outcomes for victims and perpetrators of interpersonal violence across the lifespan.

### **Prerequisite:**

Program Coordinator(s) approval

### **Required Course: 3**

PSYC 322 - Violence Across the Life Span **Credits: 3**

### **Controlled Electives: 9**

#### **PSYC Course**

One additional PSYC course from the following:

- PSYC 313 - Elder Abuse (CAAST) **Credits: 3**
- PSYC 314 - Child and Adolescent Psychopathology (CAAST) **Credits: 3**
- PSYC 332 - Community Psychology and Prevention Science (CAAST) **Credits: 3**
- PSYC 380 - Gender and Violence (CAAST) **Credits: 3**

#### **SOC Courses**

Two additional SOC courses from the following:

- SOC 357 - Sociology of Aging and the Life-course **Credits: 3**
- SOC 427 - Social Perspectives on Intimate Partner Violence **Credits: 3**
- SOC 428 - Child Abuse **Credits: 3**

**Total Certificate Requirements: 12**

## **China Studies Certificate**

(1, 2, 3, 4)

The China Studies Certificate is a 15-credit program that allows students to pursue studies that focus on one or more disciplinary areas focused on China. Students who wish to pursue graduate-level studies and/or a career in a China-related field may want to add this credential to their main academic preparation. Others who have an interest in Chinese society and culture can also benefit from this certificate.

## Core Courses: Primarily China-Focused Courses: 12-15

(2)

- ANTH 272 - Culture Area: China **Credits: 3**
- ANTH 333 - The Archaeology of Early China **Credits: 3**
- ARHI 425 - Arts of China **Credits: 3**
- CHIN - Chinese Language Courses **Credits: 4 (5)**
- HIST 332 - History of Early China **Credits: 3**
- HIST 433 - China 1300-1800: The Late Imperial Age **Credits: 3**
- HIST 434 - Modern China 1800-present **Credits: 3**

## Electives: East Asia-Focused Courses: 0-3

- GEOG 256 - Geography of East and Southeast Asia **Credits: 3**
- HIST 244 - Samurai and Gongfu Heroes: Masculinity in East Asia **Credits: 3**
- or
- ASIA 244 - Samurai and Gongfu Heroes: Masculinity in East Asia **Credits: 3**
- HIST 206 - The History of East Asia **Credits: 3**
- PLSC 383 - Political Systems: Asia **Credits: 3**
- RLST 311 - Eastern Philosophy **Credits: 3**
- RLST 374 - Buddhism **Credits: 3**

## Total Certificate Requirements: 15

- (1) Courses need to be in at least two different prefixes.
- (2) The subject matter varies in rotating topic courses (e.g., HIST 497, RLST 485 etc.); and special topics courses (i.e. classes numbered 281 and 481). When concerned with Asian Studies, these courses may be applied to either the China-focused or East Asia-focused categories with the approval of the Asian Studies Coordinator.
- (3) Three credits of an appropriate internship can count towards the certificate with the approval of the Asian Studies Coordinator.
- (4) No more than 6 transfer credits may be counted towards the certificate.
- (5) No more than 3cr from an appropriate language class may be counted toward the certificate.

## Cultural Competencies Certificate

The Cultural Competencies Certificate prepares you for life and professional practice in culturally diverse settings. The world is now global and the Cultural Competencies Certificate assists you in adopting a critical and self-reflective approach to differences in identity, as defined by, for example, race, ethnicity, gender, class, age, religion, ability, and sexual orientation. Since several of these identities are combined in any culture, the certificate allows you to select a series of courses that best meet your needs and careers. The certificate provides the knowledge, skills, and attitudes to increase your effectiveness in

relating across cultural differences and in increasingly diverse environments in the country and abroad. The core courses establish the foundations needed to appreciate diversity and cultural competency, while the electives allow you to explore the facets of diversity that will best prepare you for life in your global workplace.

## Required Courses: 3

ANTH 110 - Contemporary Anthropology **Credits: 3**

or

ANTH 211 - Cultural Anthropology **Credits: 3**

## Cultural Area Course: 3

ANTH 271 - Cultural Area Studies: Africa **Credits: 3**

ANTH 272 - Culture Area: China **Credits: 3**

ANTH 274 - Cultural Area Studies: Latin America **Credits: 3**

ANTH 314 - Contemporary Native American Cultures **Credits: 3**

ANTH 370 - Latinos and Diasporas **Credits: 3**

## Elective Courses: 6

ANTH 213 - World Archaeology **Credits: 3**

ANTH 240 - Introduction to Global Health **Credits: 3**

ANTH 316 - Anthropology of Magic, Witchcraft, and Religion **Credits: 3**

ANTH 350 - Anthropology of Gender **Credits: 3**

ANTH 352 - The Anthropology of Human Rights **Credits: 3**

ANTH 420 - Environmental Anthropology **Credits: 3**

ANTH 444 - Medical Anthropology **Credits: 3**

ANTH 450 - Health Disparities **Credits: 3**

or

SOC 450 - Health Disparities **Credits: 3**

ASIA 200 - Introduction to Asian Studies **Credits: 3**

BCOM 342 - Intercultural Business Communication **Credits: 3**

COMM 230 - Global Media and Communication **Credits: 3**

CRIM 410 - Race, Ethnicity, Social Structure, and Crime **Credits: 3**

CRIM 450 - Women and Crime **Credits: 3**

ECED 117 - Family, Community, and School Relationships in a Diverse Society **Credits: 3**

ECON 338 - Poverty in Africa **Credits: 3**

ECON 345 - International Trade **Credits: 3**

ECON 346 - International Finance **Credits: 3**

ECON 362 - Global Poverty and Health **Credits: 3**

ENGL 336 - Language, Gender, and Society **Credits: 3**

ENGL 344 - Ethnic American Literature **Credits: 3**

ENGL 348 - African American Literature **Credits: 3**

ENGL 350 - LGBTQ Literature, Theory, and Film **Credits: 3**

FDED 440 - Orientation to Teaching in Urban Centers **Credits: 2**

FDNT 370 - Human Food Consumption Patterns **Credits: 3**

GEOG 104 - World Geography: Global Context **Credits: 3**

GEOG 230 - Human Geography **Credits: 3**

HIST 331 - Modern Middle East **Credits: 3**

HIST 338 - The History of Iran **Credits: 3**  
HIST 365 - History of Black America since Emancipation **Credits: 3**  
HIST 369 - Women in America **Credits: 3**  
HIST 434 - Modern China 1800-present **Credits: 3**  
HIST 437 - Modern Japan 1850-Present **Credits: 3**  
HOSP 245 - Multicultural Management in Hospitality **Credits: 3**  
HOSP 382 - International Tourism **Credits: 3**  
LGBT 200 - Introduction to Lesbian, Gay, Bisexual, Transgender, and Queer Studies **Credits: 3**  
MGMT 350 - International Business **Credits: 3**  
or  
MKTG 350 - International Business **Credits: 3**

MKTG 430 - International Marketing **Credits: 3**  
NURS 410 - Health Promotion and Social Issues **Credits: 3**  
PNAF 131 - Introduction to Pan-African Studies **Credits: 3**  
RLST 110 - World Religions **Credits: 3**  
RLST 245 - Women and Religion **Credits: 3**  
RLST 360 - African Religions **Credits: 3**  
RLST 365 - Native North American Religions **Credits: 3**  
RLST 374 - Buddhism **Credits: 3**  
RLST 380 - Islam **Credits: 3**  
RLST 385 - Christianity **Credits: 3**  
RLST 402 - Topics in Asian Religions **Credits: 3**  
RLST 403 - Topics in Indigenous Religions **Credits: 3**  
SOC 314 - Sociology of Native Americans **Credits: 3**  
SOC 361 - Social Stratification **Credits: 3**  
SOC 362 - Racial and Ethnic Minorities **Credits: 3**  
SOC 363 - Sociology of Gender **Credits: 3**  
SOC 452 - Disability and Society **Credits: 3**  
SPAN 244 - Modern Mexico **Credits: 3**  
SPAN 342 - Spanish Cultures from the 19th Century to the Present **Credits: 3**  
SPAN 344 - Spanish-American Cultures from the 19th Century to the Present **Credits: 3**  
THTR 361 - Performance of Caring **Credits: 3**  
THTR 362 - Performance for Social Change **Credits: 3**  
WGS 200 - Introduction to Women's and Gender Studies **Credits: 3**  
WGS 400 - Feminist Theories **Credits: 3**

**Total Certificate Requirements: 12**

## **Dance Leadership and Women's and Gender Studies Certificate**

The Certificate in Dance Leadership and Women's and Gender Studies serves to fortify and enhance student's understanding of women's and gender roles throughout history and within the job market as a performer, artist, and administrator. Students will analyze and evaluate women's and gender roles while gaining insight into business administration. The certificate combines selected courses from Dance, Women's and Gender Studies Program and from the Eberly College of Business and Information Technology to create a unique credential for Dance Majors and Minors, Women's and Gender Studies Majors, Business Majors and those with a particular interest in under- represented leadership roles.

### **Required Courses:**

BCOM 321 - Business and Interpersonal Communications **Credits: 3**

COMM 325 - Gender in Media **Credits: 3**  
DANC 220 - Women and Dance **Credits: 3**  
DANC 355 - Dance Production: Administration to Creation **Credits: 3**  
DANC 486 - Practicum in Dance **Credits: 0-2**  
WGS 200 - Introduction to Women's and Gender Studies **Credits: 3**

**Total Certificate Requirements: 16**

## **Dance Pedagogy and Research Certificate**

The Certificate in Dance Pedagogy and Research is an added credential for Dance Majors, Minors, and returning professionals in the areas of Pedagogy and Research. Students will be introduced to dance pedagogy, dance production, anatomical organization of the human body, and literature research methods through selected courses in Dance, Health and Human Services, and Universities Libraries.

### **Required Courses:**

DANC 353 - Dance Curriculum and Instruction **Credits: 3**  
DANC 354 - Pedagogy of Ballet I **Credits: 3**  
DANC 355 - Dance Production: Administration to Creation **Credits: 3**  
DANC 486 - Practicum in Dance **Credits: 0-2**  
KHSS 146 - Foundations of Exercise Science **Credits: 1**  
KHSS 221 - Human Structure and Function **Credits: 3**  
LIBR 151 - Introduction to Information Literacy **Credits: 1**

**Total Certificate Requirements: 15**

## **Digital History Certificate**

Introduces skills that will prepare students to research, discover, preserve, and present history through digital and news media. Completion of the 18-credit certificate will enable students to pursue careers in education, virtual archive management, public history, and multimedia productions.

### **Core Courses: 9**

One History course numbered 250 or below 3cr  
One History course numbered 300 or above 3cr  
HIST 356 - Digital History **Credits: 3**

#### **Choose any three:**

COMM 240 - Communications Graphics **Credits: 3**  
COMM 249 - Basic Audio Production **Credits: 3**  
COMM 271 - Beginning Photography **Credits: 3**  
COMM 306 - 2-D Digital Game Development **Credits: 3**  
COMM 374 - Documentary Photography **Credits: 3**  
COMM 440 - Multimedia Production **Credits: 3**  
COMM 449 - Advanced Audio Recording Techniques **Credits: 3**



## Total Certificate Requirements: 18

### Digital Marketing Certificate

Provides the student with the specific knowledge and skills necessary to function as a marketing professional with primary duties in digital aspects of business and marketing. Students learn about digital marketing communications, social media campaign planning, content marketing, and more. Students will gain exposure to using tools offered by Google, Facebook, Adobe and other leading digital marketing platforms.

#### Required Courses:

- MKTG 320 - Principles of Marketing **Credits: 3**
- MKTG 433 - Advertising **Credits: 3**
- MKTG 439 - Internet Marketing **Credits: 3**
- MKTG 445 - Social Media Marketing **Credits: 3**

#### Additional one 3 credit course from the following list:

- MKTG 440 - Direct Interactive Database Marketing **Credits: 3**
- or
- MKTG 448 - Brand Design **Credits: 3**
- or
- one 3 credit course by approval of Department Chair

## Total Certificate Requirements: 15

### Diversity and Social Justice Certificate

With increasingly diverse US and Pennsylvania populations, there is a need for sensitivity, understanding, and action related to social equity and inclusive institutions and organizations. This undergraduate certificate provides students with intersectional tools for applying and engaging with multiple social identities and statuses, understanding the structural and institutional inequalities they experience, and the array of strategies for social change for promoting social justice.

#### Core Sociological Concepts: 3 credits

Choose one from the following list.

- SOC 151 - Principles of Sociology **Credits: 3**
- or-
- SOC 161 - Foundations of Sociology: Social Relations in Groups and Organizations **Credits: 3**

#### Social Stratification Electives: 9 credits

Choose three from the following list.

- SOC 251 - Sociology of Human Sexuality **Credits: 3**

- SOC 361 - Social Stratification **Credits: 3**
- SOC 362 - Racial and Ethnic Minorities **Credits: 3**
- SOC 363 - Sociology of Gender **Credits: 3**
- SOC 357 - Sociology of Aging and the Life-course **Credits: 3**
- SOC 452 - Disability and Society **Credits: 3**

## Controlled Electives: 3 credits

One course from the following.

- ANTH 350 - Anthropology of Gender **Credits: 3**
- ANTH 352 - The Anthropology of Human Rights **Credits: 3**
- ANTH 420 - Environmental Anthropology **Credits: 3**
- CRIM 410 - Race, Ethnicity, Social Structure, and Crime **Credits: 3**
- CRIM 450 - Women and Crime **Credits: 3**
- EDEX 460 - Family Perspectives on Disability **Credits: 3**
- ENGL 336 - Language, Gender, and Society **Credits: 3**
- ENGL 348 - African American Literature **Credits: 3**
- ENGL 350 - LGBTQ Literature, Theory, and Film **Credits: 3**
- HDFS 430 - Poverty and Human Development **Credits: 3**
- LGBT 200 - Introduction to Lesbian, Gay, Bisexual, Transgender, and Queer Studies **Credits: 3**
- PLSC 405 - Sexuality and Law **Credits: 3**
- PSYC 379 - Psychology of Human Sexuality **Credits: 3**
- SOC 387 - Social and Cultural Change **Credits: 3**
- SOC 448 - Social Welfare Policy **Credits: 3**
- SOC 450 - Health Disparities **Credits: 3**
- SOC 481 - Special Topics **Credits: 1-3**
- WGS 200 - Introduction to Women's and Gender Studies **Credits: 3**
- WGS 400 - Feminist Theories **Credits: 3**

## Total Required Credits: 15

## Driver Education Certification

Candidates for the driver education certification must possess, or be a candidate for, a valid Pennsylvania certificate in any area of certification. A student must currently complete the following four courses: KHSS 251, KHSS 252, KHSS 353, and KHSS 354. Students must request the certificate in driver education when they apply for graduation. For students who have already graduated, contact the Office of the Dean, College of Education and Communications, for correct procedures.

## Required Courses:

The four courses are offered that prepare students for the teaching driver education in both public and private settings, and also prepares students to take the Pennsylvania Department of Education certification exam (Pennsylvania Safety Driver Education Teacher Certification Assessment). A valid driver's license is required to take KHSS 252 and KHSS 354.

- KHSS 251 - Foundations of Safety and Emergency Health Care **Credits: 3 (1)**
- KHSS 252 - Introduction to the Driving Task **Credits: 3**

## Total Certificate Requirements: 12

(1) KHSS 251 may be substituted for KHSS 242 in the core curriculum.

## English as a Second Language Certificate

Prepares students to teach English as a second or other language through a focus on structures and uses of English, the role of sociocultural contexts in language learning, second language acquisition theory, and practices and materials for use in the ESL classroom. Completing the 12-credit program will enable students from multiple majors to pursue teaching English in a variety of domestic and international contexts. Teacher candidates seeking ESL state certification take an additional three credit field experience course during which they are placed in a P-12 ESL classroom.

### Required Courses:

ENGL 415 - English Language Study for Teachers **Credits: 3**

ENGL 424 - Second Language Acquisition **Credits: 3**

ENGL 426 - ESL Methods and Materials **Credits: 3**

ENGL 442 - Cross Cultural Communication **Credits: 3**

### For Teacher Candidates:

If students are majoring in an education program that leads to PDE certification, additional requirements apply:

See requirements leading to teacher certification, titled "3-Step Process for Teacher Education," in the College of Education and Communications section of this catalog. These steps must be fulfilled in order to apply for add-on ESL certification.

EDUC 493 (**3 credits needed**) (1)

Teacher candidates must take EDUC 493 in order to apply for ESL certification from the state of Pennsylvania.

EDUC 493 is only offered as a face to face field placement course.

Candidates must maintain a minimum grade of "C" in all certificate courses and a 3.0 cumulative GPA.

## Total Certificate Requirements: 12-15

(1) The field experience, EDUC 493 requires 60 hours of direct work with English Language Learners (ELLs), a minimum of 30 hours of which must be in an approved public school classroom setting. Students sign up for EDUC 493 in fall. A minimum of 30 hours in the classroom must be completed in the fall. The remaining 30 hours (if the full 60 are not completed in the classroom in fall) may be continued into spring if approved by the instructor, program coordinator, and mentor teacher.

## Foreign Language/Chinese Certificate

The Foreign Language Certificate is an 18-credit program aimed at those who want to add a foreign language credential to their main academic preparation, either as a bachelor's degree in progress or in a postbaccalaureate setting. The certificate is an excellent opportunity for students in any college of the university, particularly those in colleges where foreign language study is not generally required, such as the Eberly College of Business and the College of Health and Human Services.

This certificate offers students a variety of options for fulfilling the requirements. In addition to completing the course sequence, students may earn credits toward the certificate by taking an Advanced Placement Exam, or they may earn ACE

credits. Students with previous foreign language experience who do not earn credits through Advanced Placement or ACE are required to take a departmentally-approved language placement exam for possible exemption from some courses. Students are allowed to exempt out of up to 12 credits of the initial language sequence either by exam or through transfer credits from another institution. All students, including returning, graduate, and transfer students, are required to take at least six credits at IUP from Foreign Language levels 220 and above.

## Initial Language Sequence 12cr

CHIN 101 - Beginning Chinese Language and Culture I **Credits: 3**

CHIN 102 - Elementary Chinese II **Credits: 4**

CHIN 201 - Intermediate Chinese **Credits: 4**

## Intermediate Language Sequence: 6

Students must complete 6 credits above the 201 level in course work related to Chinese language or culture. The 6 additional credits must be approved by the Department of Foreign Languages chair or the chair's designee.

Courses taken in a study abroad context may also count toward the certificate. Transfer credit received through study abroad experiences must be approved by chair of the Department of Foreign Languages or the chair's designee or previously approved through the Admissions–Transfer Services Office.

## Oral Proficiency Interview Exam

By the midterm of the final semester of course work for the certificate, students will be required to complete the Oral Proficiency Interview (OPI) or the Oral Proficiency Interview by Computer (OPIc), administered by Language Testing International (LTI). The OPI and OPIc provide an independent rating of the student's oral skills in the language, which may be useful for employment purposes. There is a fee for the OPI and the OPIc, for which students will be responsible.

## Total Certificate Requirements: 18

## Foreign Language/French Certificate

The Foreign Language Certificate is an 18-credit program aimed at those who want to add a foreign language credential to their main academic preparation, either as a bachelor's degree in progress or in a postbaccalaureate setting. The certificate is an excellent opportunity for students in any college of the university, particularly those in colleges where foreign language study is not generally required, such as the Eberly College of Business and the College of Health and Human Services.

This certificate offers students a variety of options for fulfilling the requirements. In addition to completing the course sequence, students may earn credits toward the certificate by taking an Advanced Placement Exam, or they may earn ACE credits. Students with previous foreign language experience who do not earn credits through Advanced Placement or ACE are required to take a departmentally-approved language placement exam for possible exemption from some courses. Students are allowed to exempt out of up to 12 credits of the initial language sequence either by exam or through transfer credits from another institution. All students, including returning, graduate, and transfer students, are required to take at least six credits at IUP from Foreign Language levels 220 and above.

## Initial Language Sequence 12cr

FRNC 101 - Beginning French Language and Culture I **Credits: 3**

FRNC 102 - Basic French II **Credits: 4**

FRNC 201 - Intermediate French **Credits: 4**

## Intermediate Language Sequence: 6

Students must complete FRNC 220 and 3 additional credits above the 201 level. The 3 additional credits may be either FRNC 230 or another course related to French, which must be approved by the Department of Foreign Languages chair or the chair's designee.

Courses taken in a study abroad context may also count toward the certificate. Transfer credit received through study abroad experiences must be approved by chair of the Department of Foreign Languages or the chair's designee or previously approved through the Admissions–Transfer Services Office.

## Oral Proficiency Interview Exam

By the midterm of the final semester of course work for the certificate, students will be required to complete the Oral Proficiency Interview (OPI) or the Oral Proficiency Interview by Computer (OPIc), administered by Language Testing International (LTI). The OPI and OPIc provide an independent rating of the student's oral skills in the language, which may be useful for employment purposes. There is a fee for the OPI and the OPIc, for which students will be responsible.

## Total Certificate Requirements: 18

## Foreign Language/German Certificate

The Foreign Language Certificate is an 18-credit program aimed at those who want to add a foreign language credential to their main academic preparation, either as a bachelor's degree in progress or in a postbaccalaureate setting. The certificate is an excellent opportunity for students in any college of the university, particularly those in colleges where foreign language study is not generally required, such as the Eberly College of Business and the College of Health and Human Services.

This certificate offers students a variety of options for fulfilling the requirements. In addition to completing the course sequence, students may earn credits toward the certificate by taking an Advanced Placement Exam, or they may earn ACE credits. Students with previous foreign language experience who do not earn credits through Advanced Placement or ACE are required to take a departmentally-approved language placement exam for possible exemption from some courses. Students are allowed to exempt out of up to 12 credits of the initial language sequence either by exam or through transfer credits from another institution. All students, including returning, graduate, and transfer students, are required to take at least six credits at IUP from Foreign Language levels 220 and above.

## Initial Language Sequence 12cr

GRMN 101 - Beginning German Language and Culture I **Credits: 3**

GRMN 102 - Elementary German II **Credits: 4**

GRMN 201 - Intermediate German **Credits: 4**

## Intermediate Language Sequence: 6

Students must complete GRMN 220 and 3 additional credits above the 201 level. The 3 additional credits may be either GRMN 230 or another course related to German, which must be approved by the Department of Foreign Languages chair or the chair's designee.

Courses taken in a study abroad context may also count toward the certificate. Transfer credit received through study abroad experiences must be approved by chair of the Department of Foreign Languages or the chair's designee or previously approved through the Admissions–Transfer Services Office.

## Oral Proficiency Interview Exam

By the midterm of the final semester of course work for the certificate, students will be required to complete the Oral Proficiency Interview (OPI) or the Oral Proficiency Interview by Computer (OPIC), administered by Language Testing International (LTI). The OPI and OPIC provide an independent rating of the student's oral skills in the language, which may be useful for employment purposes. There is a fee for the OPI and the OPIC, for which students will be responsible.

## Total Certificate Requirements: 18

## Foreign Language/Spanish Certificate

The Foreign Language Certificate is an 18-credit program aimed at those who want to add a foreign language credential to their main academic preparation, either as a bachelor's degree in progress or in a postbaccalaureate setting. The certificate is an excellent opportunity for students in any college of the university, particularly those in colleges where foreign language study is not generally required, such as the Eberly College of Business and the College of Health and Human Services.

This certificate offers students a variety of options for fulfilling the requirements. In addition to completing the course sequence, students may earn credits toward the certificate by taking an Advanced Placement Exam, or they may earn ACE credits. Students with previous foreign language experience who do not earn credits through Advanced Placement or ACE are required to take a departmentally-approved language placement exam for possible exemption from some courses. Students are allowed to exempt out of up to 12 credits of the initial language sequence either by exam or through transfer credits from another institution. All students, including returning, graduate, and transfer students, are required to take at least six credits at IUP from Foreign Language levels 220 and above.

## Initial Language Sequence 12cr

SPAN 101 - Beginning Spanish Language and Culture I **Credits: 3**

SPAN 102 - Elementary Spanish II **Credits: 4**

SPAN 201 - Intermediate Spanish **Credits: 4**

## Intermediate Language Sequence: 6

Students must complete SPAN 220 and 3 additional credits above the 201 level. The 3 additional credits may be either SPAN 230 or another course related to Spanish, which must be approved by the Department of Foreign Languages chair or the chair's designee.

Courses taken in a study abroad context may also count toward the certificate. Transfer credit received through study abroad experiences must be approved by chair of the Department of Foreign Languages or the chair's designee or previously approved through the Admissions–Transfer Services Office.

## Oral Proficiency Interview Exam

By the midterm of the final semester of course work for the certificate, students will be required to complete the Oral Proficiency Interview (OPI) or the Oral Proficiency Interview by Computer (OPIC), administered by Language Testing

International (LTI). The OPI and OPIc provide an independent rating of the student's oral skills in the language, which may be useful for employment purposes. There is a fee for the OPI and the OPIc, for which students will be responsible.

## Total Certificate Requirements: 18

### Geospatial Intelligence Certificate

This certificate prepares students to undertake the use and analysis of imagery, imagery intelligence, and geospatial information to describe, assess, and visually depict physical features and geographically-referenced activities on the Earth's surface for intelligence purposes. Students will learn the context, geographic information science, and geo intelligence tradecraft techniques to be well prepared to enter the workforce as an entry-level geospatial intelligence analyst for federal intelligence agencies or private intelligence contractors.

## Required Courses: 21

GEOG 213 - Cartography and Map Design **Credits: 3**

or

RGPL 213 - Cartography and Map Design **Credits: 3**

GEOG 316 - Introduction to Geographic Information Systems **Credits: 3**

or

RGPL 316 - Introduction to Geographic Information Systems **Credits: 3**

GEOG 415 - Introduction to Remote Sensing **Credits: 3**

or

RGPL 415 - Introduction to Remote Sensing **Credits: 3**

GEOG 424 - Technical Issues in Geographic Information Systems **Credits: 3**

or

RGPL 424 - Technical Issues in Geographic Information Systems **Credits: 3**

GEOG 455 - Advanced Remote Sensing **Credits: 3**

or

RGPL 455 - Advanced Remote Sensing **Credits: 3**

GEOG 488 - Geospatial Intelligence Capstone **Credits: 3**

MLSC 204 - National Security and Fundamentals of Military Topography **Credits: 2**

or

PLSC 465 - Intelligence Process and Policy **Credits: 3**

## Total Certificate Requirements: 21

### Infant-Toddler Development Certificate

Students interested in working with very young children (birth to 3) will receive specialized training specifically focused on best practices for supporting young children and their families. Current early childhood educators may be interested in

completing this certificate. Human service professionals in general (e.g., nurses, social workers, public health professionals) may be interested in receiving additional training focused on very young children. *This certificate is not for HDFS majors.*

## Required Courses: 12

HDFS 218 - Child Development **Credits: 3**

or

ECED 112 - Childhood Development Birth–Age 5 **Credits: 3**

or

ECSP 112 - Growth and Development: Typical and Atypical **Credits: 3**

HDFS 310 - Child Observation and Assessment **Credits: 3**

HDFS 410 - Infant and Toddler Development **Credits: 3**

HDFS 420 - Infant Toddler Mental Health **Credits: 3**

## Elective Courses: 6

CDFR Elective **Credits: 3**

CDFR Elective **Credits: 3**

## Total Certificate Requirements: 18

## Japan Studies Certificate

(1, 2, 3, 4)

The Japan Studies Certificate is a 15-credit program that allows students to pursue studies that focus on one or more disciplinary areas focused on Japan. Students who wish to pursue graduate-level studies and/or a career in a Japan-related field may want to add this credential to their main academic preparation. Others who have an interest in Japanese society and culture can also benefit from this certificate.

## Core Courses: Primarily Japan-Focused Courses: 12-15

(2)

ARHI 423 - Art of Japan **Credits: 3**

HIST 436 - Japan 1500-1850: Early Modern Japan **Credits: 3**

HIST 437 - Modern Japan 1850-Present **Credits: 3**

JAPN - Japanese Language Courses **Credits: 4 (5)**

RLST 374 - Buddhism **Credits: 3**

## Electives: East Asia-Focused Courses: 0-3

GEOG 256 - Geography of East and Southeast Asia **Credits: 3**

HIST 244 - Samurai and Gongfu Heroes: Masculinity in East Asia **Credits: 3**

or

ASIA 244 - Samurai and Gongfu Heroes: Masculinity in East Asia **Credits: 3**

HIST 206 - The History of East Asia **Credits: 3**

PLSC 383 - Political Systems: Asia **Credits: 3**



RLST 311 - Eastern Philosophy **Credits: 3**

## Total Certificate Requirements: 15

- (1) Courses need to be in at least two different prefixes.
- (2) The subject matter varies in rotating topic courses (e.g., HIST 497, RLST 485 etc.); and special topics courses (i.e. classes numbered 281 and 481). When concerned with Asian Studies, these courses may be applied to either the Japan-focused or East Asia-focused categories with the approval of the Asian Studies Coordinator.
- (3) Three credits of an appropriate internship can count towards the certificate with the approval of the Asian Studies Coordinator.
- (4) No more than 6 transfer credits may be counted towards the certificate.
- (5) No more than 3cr from an appropriate language class may be counted toward the certificate.

## Middle Eastern Studies Certificate

(1, 2, 3, 4)

The Middle Eastern Studies Certificate is a 15-credit program that allows students to pursue studies that focus on one or more disciplinary areas focused on the Middle East. Students who wish to pursue graduate-level studies and/or a career in a Middle Eastern-related field may want to add this credential to their main academic preparation. Others who have an interest in Middle Eastern society and culture can also benefit from this certificate.

## Required Courses: 15

- (2)
  - HIST 207 - The History of the Middle East **Credits: 3**
  - HIST 331 - Modern Middle East **Credits: 3**
  - HIST 338 - The History of Iran **Credits: 3**
  - HIST 339 - Jihad and the Origins of Islamist Movements in the Middle East **Credits: 3**
  - or
  - PLSC 384 - Political Systems: Middle East **Credits: 3**
  - RLST 380 - Islam **Credits: 3**

## Total Certificate Requirements: 15

- (1) Courses need to be in at least two different prefixes.
- (2) The subject matter varies in rotating topic courses (e.g., HIST 497, RLST 485 etc.); and special topics courses (i.e. classes numbered 281 and 481). When concerned with the Middle East, these courses can count towards the certificate with the approval of the Asian Studies Coordinator.
- (3) Three credits of an appropriate internship can count towards the certificate with the approval of the Asian Studies Coordinator.
- (4) No more than 6 transfer credits may be counted towards the certificate.

(5) No more than 3cr from an appropriate language class may be counted towards the certificate.

## **Military Geographic Competencies Certificate**

The goal of this certificate program is to provide students who are pursuing military science degree programs with geographic knowledge and geospatial expertise relevant to service in the armed forces. Among the proficiencies that students will develop are knowledge of global human and physical geography, global regional geographic characteristics, and cartographic and geospatial techniques.

### **Core Courses: 9**

GEOG 104 - World Geography: Global Context **Credits: 3**  
or  
RGPL 103 - Global Cities: Planning and Development **Credits: 3**  
GEOG 213 - Cartography and Map Design **Credits: 3**

### **Controlled Electives: 6**

#### **One additional course from the following:**

GEOG 254 - Geography of Russia, Central Eurasia, and Eastern Europe **Credits: 3**  
GEOG 255 - Geography of Africa **Credits: 3**  
GEOG 256 - Geography of East and Southeast Asia **Credits: 3**  
GEOG 257 - Geography of South and Southwest Asia **Credits: 3**

#### **One additional course from the following:**

GEOG 316 - Introduction to Geographic Information Systems **Credits: 3**  
GEOG 415 - Introduction to Remote Sensing **Credits: 3**  
GEOG 425 - Global Positioning Systems (GPS) Concepts and Techniques **Credits: 3**

### **Total Certificate Requirements: 15**

## **Museum Studies Certificate**

The certificate in Museum Studies introduces students to the broad range of work found in museum settings. It prepares students for museum work by directly engaging them in museum-based internships and through multi-disciplinary coursework in a wide variety of museum types and practices. The certificate also prepares students for graduate work in Museum Studies. Students will learn display and presentational practices, cataloging techniques, and the basics of artifact and artwork conservation.

### **Required Courses: 12**

ANTH 318 - Museum Methods **Credits: 3**  
ARHI 420 - Art Museums, Art Libraries, and Visual Resources **Credits: 3**  
HIST 250 - Introduction to Public History **Credits: 3**

**Museum-based Internship**

ANTH 493 - Internship in Anthropology **Credits:** 3-12

or

ARHI 493 - Internship **Credits:** 3-12

or

HIST 493 - Internship **Credits:** 3-12

**Choose one from the following: 3**

ANTH 486 - Historic Artifacts **Credits:** 3

ANTH 489 - Prehistoric Technologies of Eastern North America **Credits:** 3

HIST 357 - Archival Studies **Credits:** 3

HIST 353 - History Museums and Historic Sites: Theory and Practice **Credits:** 3

**Total Certificate Requirements: 15**

## **Pan-African Studies Certificate**

The Pan-African Studies Certificate expands your knowledge of people of African descent throughout the world. Through courses in various disciplines, you will explore the many cultures, contributions, and challenges of African-descended peoples, from pre-colonial African societies to present day America. This Certificate will heighten your sensitivity to cultural diversity and prepare you to be a globally-minded professional and citizen.

**Required Course: 3**

PNAF 131 - Introduction to Pan-African Studies **Credits:** 3

### **Category A: Exclusively Pan-African Focused 3-9 cr**

A minimum of 3 credits from Category A is required.

Students must complete 12 credits to earn a Pan-African Studies Certificate. In addition to the one required course, PNAF 131, at least one course (3 credits) must come from Category A: Exclusively Pan-African-Focused courses. The remaining courses may come from either Category A or Category B: Substantially Pan-African-Focused courses. In addition, special topics, independent study, study abroad, and internship courses may be applied to either category with the approval of the program coordinator.

ANTH 271 - Cultural Area Studies: Africa **Credits:** 3

ECON 338 - Poverty in Africa **Credits:** 3

ENGL 348 - African American Literature **Credits:** 3

GEOG 255 - Geography of Africa **Credits:** 3

HIST 365 - History of Black America since Emancipation **Credits:** 3

PNAF 281 Special Topic **Credits:** 3

PNAF 481 Special Topic **Credits:** 3

PNAF 482 - Independent Study **Credits:** 1-3

### **Category B: Substantially Pan-African Focused: 0-6 cr**

0-6 credits from Category B may be taken to fulfill the 9 required controlled electives. Because their content may vary, courses from Category B must be approved by the coordinator of Pan-African Studies to count for the certificate.

- ENGL 396 - Postcolonial Literature **Credits: 3**
- ENGL 398 - Global Genres **Credits: 3**
- HIST 343 - Civil War and Reconstruction **Credits: 3**
- PLSC 389 - International Development Strategies **Credits: 3**
- PLSC 404 - Women and Politics **Credits: 3**
- SOC 362 - Racial and Ethnic Minorities **Credits: 3**

**Total Requirements: 12 credits**

## **Photography and Digital Imaging Certificate**

For students who wish to obtain inclusive training in digital photography, image editing, and studio lighting. This 18-credit program certificate requires students to take five 3-credit core courses and an additional 3 credits of electives. Completion of the certificate will help prepare students for positions in many fields in which knowledge of photography and digital imaging is required. Majors from other departments will be able to declare a communications media minor along with receiving the certificate.

**Core Courses: 15**

- COMM 101 - Introduction to Communications, Media, and Culture **Credits: 3**
- COMM 271 - Beginning Photography **Credits: 3**
- COMM 371 - Advanced Photography **Credits: 3**

**Additional 6 credits from the following list:**

- COMM 240 - Communications Graphics **Credits: 3**
- COMM 340 - Advanced Communication Graphics **Credits: 3**
- COMM 374 - Documentary Photography **Credits: 3**

COMM 471 - Advanced Image Editing **Credits: 3**

or

COMM 474 - Commercial Photography **Credits: 3**

**Elective: 3**

- ART 114 - Color and Two-Dimensional Design **Credits: 3**
- COMM 390 - Practicum in Communications **Credits: 1-3 (1)**
- COMM 408 - Media Field Studies **Credits: 3**
- COMM 440 - Multimedia Production **Credits: 3**
- COMM 480 - Seminar in Communications Media **Credits: 3 (1)**
- COMM 481 - Special Topics **Credits: 1-3 (1)**

**Total Certificate Requirements: 18**

(1) As appropriate depending on topic: approval required.

## Popular Music Studies Certificate

(1)

The Certificate in Popular Music Studies introduces students to fundamental concepts associated with the creation and reception of popular music. It is a credential that enables students to demonstrate basic competency with the performance, production, or analysis of popular music, and may be particularly appealing to those studying music, communications media, entrepreneurship, or marketing.

The certificate program is administered jointly by the Department of Music and Department of Communications Media. It requires 10 credits of core courses and an additional nine credits of electives. While basic performance or songwriting ability is recommended, no audition is required for admission to the program.

### Core Courses: 10

- COMM 249 - Basic Audio Production **Credits: 3**
- COMM 414 - Music, Media, and Culture **Credits: 3**
- MUSC 114 - Analysis of Popular Music **Credits: 3**
- MUSC 140 - Popular Music Ensemble **Credits: 1 (2)**

### Electives: 9

Nine credits from the following:

- APMU XXX - Applied Music **Credits: 1-2 (1)**
- COMM 354 - Media Law and Policy **Credits: 3**
- COMM 449 - Advanced Audio Recording Techniques **Credits: 3**
- MUHI 333 - History of Popular Music Since 1945 **Credits: 3**
- MUSC 140 - Popular Music Ensemble **Credits: 1 (2)**

### Total Certificate Requirements: 19

(1) Applied music instructors may require certificate participants to demonstrate basic proficiency with voice or a musical instrument. Students may elect up to two semesters of 1cr lessons.

(2) Students must register for MUSC 140 - Popular Music Ensemble (1cr) at least once. The course may be repeated up to three times for a total of four credits.

## Pre-Dance Therapy and Dance Wellness Certificate

The Certificate in Pre-Dance Therapy and Dance Wellness focuses on areas of dance wellness through courses in Dance and Somatics, Human Function and Structure, and General Psychology. The certificate is an added credential to Dance Majors and Minors, and returning professionals, preparing them for a post baccalaureate degree in Dance Therapy and Dance Wellness and increasing opportunities in the job market. Students will demonstrate, synthesize, and create dance as a holistic art form combining a deeper knowledge of the human body and mind, using dance as a form of therapy and healing.

### Required Courses:

DANC 210 - Dance and Somatics **Credits: 3**  
DANC 486 - Practicum in Dance **Credits: 0-2**  
DANC 487 - Practicum in Dance Senior Project **Credits: 1**  
KHSS 221 - Human Structure and Function **Credits: 3**  
KHSS 175 - Prevention and Care of Injuries to the Physically Active **Credits: 2**  
PSYC 101 - General Psychology **Credits: 3**

**Total Certificate Requirements: 14**

## **Preschool Education Certificate**

Those interested in working with preschool age children (3 to 6 years) will receive specialized training specifically focused on best practices for supporting preschoolers and their families. Current early childhood educators without a degree may be interested in completing this certificate. The certificate will prepare students (e.g., test preparation, training hours) for the Child Development Associate (CDA) credential awarded by the Council for Professional Recognition.

**Required Courses: 12**

ECED 112 - Childhood Development Birth–Age 5 **Credits: 3**  
or  
ECSP 112 - Growth and Development: Typical and Atypical **Credits: 3**  
or  
EDEX 114 - Atypical Development in Infants, Children, and Adolescents **Credits: 3**  
or  
HDFS 218 - Child Development **Credits: 3**

and

HDFS 310 - Child Observation and Assessment **Credits: 3**  
or  
ECSP 340 - Introduction to Classroom and Behavior Management **Credits: 3**

and

HDFS 321 - Preschool Education: Play and Developmentally Appropriate Practices **Credits: 3**

and

HDFS 322 - Early Care and Education **Credits: 3**  
or  
HDFS 315 - Introduction to Early Intervention **Credits: 3**  
or  
EDEX 415 - Preschool Education for Children with Disabilities **Credits: 3**

**Elective Courses: 6**

ECED 200 - Introduction to Early Childhood Education **Credits: 3**  
and/or  
any course with the CDFR prefix **Credits: 3-6**

## Total Certificate Requirements: 18

### Public Health and Community Nutrition Certificate

The Public Health and Community Nutrition Certificate provides students with foundational knowledge and skills to promote health, prevent nutrition-related diseases and conditions, and advocate for needed food and nutrition programs and services to help groups, communities, and populations. The certificate consists of 18 credits including at least 6 credits from 300-level or higher courses. The certificate develops knowledge and skills for individuals in public health and community nutrition who are not interested in a degree program.

#### Required Courses: 15 (1)

FDNT 145 - Personal Nutrition **Credits: 3**

- or -

FDNT 212 - Nutrition **Credits: 3**

FDNT 213 - Life Cycle Nutrition **Credits: 3**

FDNT 402 - Community Nutrition **Credits: 3**

FDNT 422 - Public Health Nutrition and Epidemiology **Credits: 3**

PUBH 122 - Foundations of Public Health **Credits: 3**

#### Controlled Electives: 3 (1)

One course from the following:

FDNT 370 - Human Food Consumption Patterns **Credits: 3**

FDNT 415 - Sustainable Nutrition **Credits: 3**

FDNT 471 - Integrative Nutrition in Complementary and Alternative Healthcare **Credits: 3**

#### Total Required Credits: 18

(1) Students must attain a grade of "C" or better in each of the courses.

### Public History Certificate

Prepares students for careers in the collection, preservation, and presentation of information about the past to the general public. This 12-credit certificate complements majors in related fields such as anthropology, communications media, and education. Completion of the certificate will prepare students to pursue positions in libraries, museums, archives, national parks, heritage sites, media, and corporations.

#### Core Courses: 3

HIST 250 - Introduction to Public History **Credits: 3**

## Controlled Electives: 9

Choose three **Public History** courses from the following:

HIST 352 - Local and Family History **Credits: 3**

HIST 353 - History Museums and Historic Sites: Theory and Practice **Credits: 3**

HIST 354 - Oral History Practice **Credits: 3**

HIST 355 - Topics in Public History **Credits: 3**

HIST 356 - Digital History **Credits: 3**

HIST 357 - Archival Studies **Credits: 3**

HIST 493 - Internship **Credits: 3-12** (Maximum of 3 credits may apply toward the certificate.)

HIST 493, as part of the controlled electives for the certificate, must be 3 credits (no more) and may only count once towards the certificate. The internship must be public history oriented.

## Total Certificate Requirements: 12

### Secondary English Education Certificate

The Secondary English Education Certificate is available for students interested in teaching English Language Arts in 7th-12th grade who are simultaneously pursuing a BA in English with the English Education specialization. Completion of the Secondary English Education Certificate along with a BA in English Studies with the English Education specialization prepares students to become certified middle and high school English Language Arts teachers in Pennsylvania. English Language Arts teachers in grades 7 to 12 teach subjects that require a broad foundation in literature, language, composition, and literacy. Courses in the foundations of education and pedagogy complement the subject matter studies, helping students develop and implement philosophies, strategies, and approaches that will reach learners with diverse strengths, needs, and backgrounds. Students create and teach lessons, design and implement assessments, and reflect on their teaching both in field experiences and their IUP classes. All of this work culminates in a yearlong teacher residency that includes full-time student teaching.

Admission to this program requires entering students to meet the guidelines for admission to the College of Education and Communications. Additionally, students must achieve a 3.0 GPA and meet all other Step 1 requirements in order to apply for Step 1 of the Teacher Education process, to student teach, and to be recommended for certification. For additional information on requirements leading to teacher certification, see "3 Step Process for Teacher Education" in the College of Education and Communications section of this catalog.

## Required Courses: 15

Literary Studies-American, British, Global, or Genres and Theories categories. **Credits: 3**

ENGL 323 - Teaching Literature and Reading in the Secondary School **Credits: 3**

ENGL 415 - English Language Study for Teachers **Credits: 3**

ENGL 434 - Shakespeare **Credits: 3**

ENGL 324 - Teaching and Evaluating Writing **Credits: 3**

## Professional Sequence: 30 (1, 2, 3, 4)

ARHU 343 - Applied Practice in Secondary English Language Arts **Credits: 1**

EDEX 301 - Education of Students with Disabilities in Inclusive Secondary Settings **Credits: 2**

EDSP 477 - Assessment of Student Learning: Design and Interpretation of Educational Measures **Credits: 3**

EDUC 242 - Pre-student Teaching Clinical Experience I **Credits: 1**



EDUC 342 - Pre-student Teaching Clinical Experience II **Credits: 1**  
EDUC 441 - Student Teaching **Credits: 5-12**  
EDUC 442 - School Law **Credits: 1**  
EDUC 452 - Teaching of English and Communication in the Secondary School **Credits: 3**  
ENGL 426 - ESL Methods and Materials **Credits: 3**  
ETIT 103 - Digital Instructional Technology **Credits: 3**

## Total Requirements: 45 credits

- (1) Required for Secondary English Education Certificate.
- (2) Capstone outcomes for Secondary English Education Certificate students will be met in the Professional Sequence.
- (3) Free electives will be used towards the Professional Sequence for Secondary English Education Certificate students.
- (4) For the Secondary English Education Certificate, see requirements leading to teacher certification titled Three Step Process for Teacher Education in the College of Education and Communications section of this catalog.

## Secondary Science Education Certificate

(1)

The Secondary Science Education Certificate is available for students interested in teaching Biology, Chemistry, Earth and Space Science or Physics. Completion of the Secondary Science Education Certificate requirements as part of their BS program prepares students to become certified middle- and high-school teachers in Pennsylvania and other states. Science teachers in grades 7 to 12 teach subjects that require a broad and solid foundation in their chosen discipline, as other sciences and mathematics. Courses in the foundations of education and pedagogy complement the subject matter studies. Students create and present lessons, first in their courses and then in school classrooms, culminating in the student teaching experience in the final semester. For additional information on requirements leading to teacher certification, see "3-Step Process for Teacher Education" in the College of Education and Communications section of this catalog.

## Preprofessional Education Sequence: 6

(2)

ETIT 103 - Digital Instructional Technology **Credits: 3**  
EDSP 102 - Educational Psychology **Credits: 3**

## Professional Education Sequence: 25

(2)

EDEX 301 - Education of Students with Disabilities in Inclusive Secondary Settings **Credits: 2**  
EDEX 323 - Instruction of English Language Learners with Special Needs **Credits: 2**  
EDUC 242 - Pre-student Teaching Clinical Experience I **Credits: 1**  
EDUC 342 - Pre-student Teaching Clinical Experience II **Credits: 1**  
EDUC 441 - Student Teaching **Credits: 5-12**  
EDUC 442 - School Law **Credits: 1**  
EDUC 451 - Teaching Science in the Secondary School **Credits: 3**  
EDSP 477 - Assessment of Student Learning: Design and Interpretation of Educational Measures **Credits: 3**

## Total Certificate Requirements: 31

(1) Students should work with the teacher education coordinator in their department to apply for PA teaching certification. Only students majoring in Biology, Chemistry, Geoscience or Physics or who have received approval from the education coordinator responsible for the desired area of certification will qualify for this certificate

(2) These courses are a part of the Three Step Process for teacher education at IUP. This process must be completed, including the non-coursework components, to earn the Secondary Science Education certificate. Information on the Three Step Process can be found in the undergraduate catalog under College of Education and Communications, or on the web at: <https://www.iup.edu/teachereducation/students/three-step-process/>

## Sociology for Human Services Certificate

The certificate in Sociology for Human Services seeks to provide students with sociological knowledge and skills that will help them pursue further education and careers in the field of human services. Human service practitioners rely on a broad base of knowledge and skills as they interact with diverse populations to prevent and remediate problems. This certificate provides the student with flexibility in selecting courses that best fit with the student's areas of interest and future goals while also providing core courses designed to familiarize students with the sociology of human services and enhance skills and preparation for work in these fields. The certificate in Sociology for Human Services is open to students in any major.

### Core Courses: 6

SOC 391 - Foundations of Sociological Practice **Credits: 3**

SOC 392 - Clinical Sociological Practice **Credits: 3**

### Social Stratification Elective: 3

One course from the following:

SOC 361 - Social Stratification **Credits: 3**

SOC 362 - Racial and Ethnic Minorities **Credits: 3**

SOC 363 - Sociology of Gender **Credits: 3**

SOC 452 - Disability and Society **Credits: 3**

### Controlled Electives: 3

One course from the following:

SOC 251 - Sociology of Human Sexuality **Credits: 3**

SOC 333 - Delinquency and Youth **Credits: 3**

SOC 357 - Sociology of Aging and the Life-course **Credits: 3**

SOC 427 - Social Perspectives on Intimate Partner Violence **Credits: 3**

SOC 428 - Child Abuse **Credits: 3**

SOC 448 - Social Welfare Policy **Credits: 3**

## Total Certificate Requirements: 12

### Spanish for Safety Sciences Certificate

The Certificate in Spanish for Safety Sciences is an 18-21-credit program aimed at those who want to better prepare themselves to work in safety, health, and environmental applied science fields alongside the growing number of Spanish-speaking individuals entering the U.S. workforce. The certificate builds oral and written Spanish skills to communicate in safety science professions.

The Certificate in Spanish for Safety Sciences offers students a variety of options for fulfilling requirements. In addition to completing the course sequence, students may earn credits towards the Certificate by taking an Advanced Placement Exam, or they may earn IUP course credits for oral proficiency levels in Spanish through the American Council on Education (ACE). (An explanation of how to obtain ACE credits is given in the *Undergraduate Catalog* in the Spanish, BA section of the Department of Foreign Languages). Students with previous foreign language experience who do not earn credits through Advanced Placement or ACE are required to take a departmentally-approved language placement exam for possible exemption from some courses. Students in the Certificate in Spanish for Safety Sciences can only be exempted from up to 12 credits in the initial Language Sequence and must take at least 6 credits of coursework.

## Initial Language Sequence: 12

Courses with these numbers are offered in Spanish as part of the three-semester core language

SPAN 101 - Beginning Spanish Language and Culture I **Credits: 3**

SPAN 102 - Elementary Spanish II **Credits: 4**

SPAN 201 - Intermediate Spanish **Credits: 4**

## Intermediate Spanish for the Safety Sciences Sequence: 6

(1)

SPAN 221 - Oral Communication in Spanish for Safety and Health **Credits: 3**

or

SAFE 221 - Oral Communication in Spanish for Safety and Health **Credits: 3**

SPAN 231 - Safety and Health Technical Reading and Writing in Spanish **Credits: 3**

or

SAFE 231 - Safety and Health Technical Reading and Writing in Spanish **Credits: 3**

## Total Certificate Requirements: 18-21

(1) SAFE 101 or SAFE 111 is a required prerequisite or corequisite for non-SAFE majors

In the intermediate-level courses, the safety sciences concepts will be taught in English by an instructor from the Department of Safety Sciences, and Spanish communication skills will be taught in Spanish by an instructor from the Department of Foreign Languages.

Credits taken in a study abroad context may also count toward the Certificate. Transfer credit received through study abroad experiences must be approved by the Chairperson of the Department of Foreign Languages or the Chairperson's designee or previously approved through the Transfer Credit Office.

#### **Oral Proficiency Interview Exam**

Between the midterm and the completion of the final semester of coursework in the certificate, students will be required to complete the Oral Proficiency Interview (OPI) in person, or the Oral Proficiency Interview by Computer (OPIc) administered by Language Testing International (LTI). Both the OPI and OPIc issue a reliable rating on the oral proficiency level based on the ACTFL Proficiency Guidelines. Students receive official documentation of their oral proficiency rating after completing this oral assessment. The OPI or the OPIc ratings are valid for two years and can be used for employment purposes. There is a fee associated with taking the OPI or OPIc, for which students are responsible.

## **Unmanned Aerial Systems (UAS) Science and Applications Certificate**

This certificate provides students with foundational knowledge and technical skills in the emerging sector of small Unmanned Aerial Systems (UAS). Students will learn the regulatory environment for UASs in the United States, as well as the basics of UAS design and operation, aeronautics and flight theory, requirements for FAA Part 107 Remote Pilot certification, remote sensing and photogrammetric concepts, mission planning, UAS mission flight techniques, and processing techniques for data deliverables. The certificate is designed to provide students with knowledge, skills, experience and credentials to participate in the expanding UAS sector as a certified FAA Part 107 Remote Pilot, operator, or ancillary ground crew member/observer.

### **Required Courses:**

GEOG 415 - Introduction to Remote Sensing **Credits: 3**

GEOG 316 - Introduction to Geographic Information Systems **Credits: 3**

or

GEOG 425 - Global Positioning Systems (GPS) Concepts and Techniques **Credits: 3**

GEOG 460 - Foundations of Unmanned Aerial Systems Science and Applications **Credits: 3**

GEOG 463 - Unmanned Aerial Systems for Remote Sensing and Spatial Data Acquisition **Credits: 3**

**Total Certificate Requirements: 12**

## **Urban Education Certificate**

The 16-18 credit certificate in urban education prepares education majors for teaching in urban school districts, where the need for high-quality teachers is great. Course work and field experiences emphasize the historical, economic, political, and socioeconomic contexts of urban schools and seek to develop within future teachers the skills, knowledge base, and dispositions for working with students whose backgrounds and life experiences may differ from their own.

### **Required Courses:**

(1,2,3)

EDUC 342 - Pre-student Teaching Clinical Experience II **Credits: 1 (1)**

EDUC 441 - Student Teaching **Credits: 5-12**

or

EDUC 421 - Student Teaching **Credits:** 5-6

and

EDUC 441 - Student Teaching **Credits:** 5-12

or

EDUC 461 - Student Teaching **Credits:** 6

and

EDUC 471 - Student Teaching **Credits:** 6 (2)

FDED 440 - Orientation to Teaching in Urban Centers **Credits:** 2

FDED 441 - Field Experiences in Urban Education **Credits:** 3 (3)

## Total Certificate Requirements:16-18

- (1) Field experience portion of this course must be completed in an urban setting.
- (2) Student teaching must be completed in an urban setting. The number of student teaching credits and the course numbers vary in accordance to the requirements of the major.
- (3) This course may replace EDUC 242 in some education programs. Others may substitute this for the field experience portion of EDUC 242.

## Water Resources/Watershed Management Certificate

### Required Courses:

GEOG 342 - Physiography **Credits:** 3

or

RGPL 342 - Physiography **Credits:** 3

GEOG 343 - Fresh Water Resources **Credits:** 3

or

RGPL 343 - Fresh Water Resources **Credits:** 3

RGPL 426 - Environmental Land Use Planning **Credits:** 3

### Controlled Courses:

Take two from the following:

GEOG 101 - Environment and Society **Credits:** 3

GEOG 316 - Introduction to Geographic Information Systems **Credits:** 3

GEOG 341 - Climatology **Credits:** 3

or

RGPL 341 - Climatology **Credits:** 3

GEOG 415 - Introduction to Remote Sensing **Credits:** 3

or  
RGPL 415 - Introduction to Remote Sensing **Credits: 3**

GEOS 312 - Hydrogeology **Credits: 4**

**Total Certificate Requirements: 15**

## **Certification Preparation Programs**

### **Center for Transportation, Teacher certification in Safety/Driver Education**

**Website:** [www.iup.edu/rural-health-safety/center-for-transportation](http://www.iup.edu/rural-health-safety/center-for-transportation)

The Center for Transportation focuses on improving safety through injury prevention by offering teacher certification in safety/driver education, driver training programs, and by coordinating community programs and events that promote safe driving. Injury is the leading cause of death for persons age 1 to 44. Unintentional motor vehicle traffic crashes remain the leading cause of injury death for those age 5 to 24 and the second leading cause of injury death for those age 1 to 4 and 25 and older.

**Teacher certification in Safety/Driver Education** is the last program of its kind in Pennsylvania that certifies teachers and instructors to teach driver education. The Driver Education Certification program requires completion of four core courses through cooperative effort with the Department of Kinesiology, Health, and Sport Science.

From **Novice Driver Education** programs for beginning drivers to **Advanced Driver Training** programs in emergency driving techniques, including perceptual driving, the IRHS provides a cadre of courses, all designed to meet the needs of the student.

**Community Traffic Safety** projects are Community Health Education projects that are federally funded and contracted with the Pennsylvania Department of Transportation's Bureau of Maintenance and Operations. Originating at IUP in 1987, programs and trainings for corporations, schools, civic groups, law enforcement agencies, etc., include topics such as occupant protection, impaired driving, distracted driving, aggressive driving, safe driving near heavy trucks, motorcycles and other vulnerable road users, and safety while walking and bicycling, with emphasis on young drivers and mature drivers.

A secondary focus for the Center for Transportation is on health by reducing obesity and increasing physical activity. According to the National Institutes of Health, obesity and overweight are the second leading causes of preventable death in the US, behind only tobacco use. Center staff teach courses in active transportation planning, complete walkability assessments, and promote walk- and bike-friendly places to foster healthy communities in Pennsylvania.

## **Literacy/Reading Specialist PK-12 Certification**

To receive a reading specialist certification, students must complete 27 credits within the master's program from categories A-C.

### **A. Literacy**

LTCY 600 - Foundations of Literacy Instruction **Credits: 3**

LTCY 644 - Issues and Trends in the Language Arts **Credits: 3**

LTCY 701 - Assessment and Acceleration **Credits: 3**

LTCY 702 - Reading and Writing in the Content Areas **Credits: 3**

LTCY 705 - Organization and Administration of Reading/ Writing Programs **Credits: 3**

LTCY 770 - Practicum and Seminar for Reading Specialist I **Credits: 3**

LTCY 771 - Practicum and Seminar for Reading Specialist II **Credits: 3**

## B. Diversity

LTCY 635 - Literacy in Inclusive Classrooms **Credits: 3**

## C. Related Area

LTCY 607 - Instruction and Learning with Literature **Credits: 3**

## Total Certificate Requirements: 27

Please see the *Graduate Catalog* at [www.iup.edu/graduatestudies/catalog](http://www.iup.edu/graduatestudies/catalog) and look under Master's Degree Programs for specific courses.

## Military Science Program

### Required Courses:

MLSC 101 - Introduction to Military Science **Credits: 2 (1)**

MLSC 102 - Fundamentals of Military Science **Credits: 2 (1)**

MLSC 203 - Fundamentals of Tactical Operations, Techniques of Leadership, and Weapons Characteristics  
**Credits: 2 (2)**

MLSC 204 - National Security and Fundamentals of Military Topography **Credits: 2 (2)**

MLSC 305 - Fundamentals of Leadership and Modern Learning/Teaching Relationship **Credits: 3**

MLSC 306 - Study of Advance Leader Planning and Execution of Modern Combat Operations **Credits: 3**

MLSC 407 - Advanced Army Leadership Seminar **Credits: 2**

MLSC 408 - Seminar in Military Analysis and Management **Credits: 3**

HIST 251 - United States Military History **Credits: 3**

## Total Program Requirements: 23

(1) MLSC 101-MLSC 102 may substitute for the Liberal Studies requirement in Health and Wellness.

(2) MLSC 203-MLSC 204 are available as free electives to all students without any military obligation.

## Secondary School Cooperative Education Teacher/Coordinator Certification

Existing Pennsylvania teaching certificate (Career and Technical Instructional I or II certificate or Instructional I or II certificate)

Candidates who hold a valid PA Career and Technical Instructional I or II (9-12 credits) are required to complete all courses listed below:

- VOED 406 - Planning, Development, and Evaluation of a Cooperative Education Program Class **Credits: 3**
- VOED 407 - Legal Considerations for Cooperative Education Programs **Credits: 2**
- VOED 408 - Planning School-Based Instruction for Cooperative Education **Credits: 2**
- VOED 409 - Practicum/Field Experience **Credits: 2**

**Recommended:**

- EDEX 458 - Transition Assessment and Planning for Youth with Disabilities **Credits: 3**  
Program requirement includes a course in accommodating students with special needs. Determination of course substitution will be made upon transcript review by program advisor.

Candidates who hold a valid Instructional I or II (10-13 credits) are required to complete all courses listed below:

- VOED 406 - Planning, Development, and Evaluation of a Cooperative Education Program Class **Credits: 3**
- VOED 407 - Legal Considerations for Cooperative Education Programs **Credits: 2**
- VOED 408 - Planning School-Based Instruction for Cooperative Education **Credits: 2**
- VOED 409 - Practicum/Field Experience **Credits: 2**
- VOED 410 - Foundations of Career and Technical Education **Credits: 1**

**Recommended:**

- EDEX 458 - Transition Assessment and Planning for Youth with Disabilities **Credits: 3**  
Program requirement includes a course in accommodating students with special needs. Determination of course substitution will be made upon transcript review by program advisor.

**Total Certification Requirements: 9-13**

## **Vocational-Technical Education Certification**

**Liberal Studies: 15-16**

As follows:

**English:**

- ENGL 101 - Composition I **Credits: 3**

**Humanities:**

- One course from list



## Mathematics:

MATH 151 - Elements of Mathematics I **Credits: 3**

## Natural Science:

One course, lab or non-lab

## Social Science:

PSYC 101 - General Psychology **Credits: 3**

## College: 17

## Professional Educational Sequence:

ETIT 103 - Digital Instructional Technology **Credits: 3**

EDEX 301 - Education of Students with Disabilities in Inclusive Secondary Settings **Credits: 2**

EDEX 323 - Instruction of English Language Learners with Special Needs **Credits: 2**

EDEX 458 - Transition Assessment and Planning for Youth with Disabilities **Credits: 3**

EDSP 102 - Educational Psychology **Credits: 3**

EDSP 477 - Assessment of Student Learning: Design and Interpretation of Educational Measures **Credits: 3**

EDUC 442 - School Law **Credits: 1**

## Major: 25

## Required Courses:

VOED 101 - Introduction to Career and Technical Education **Credits: 1**

VOED 102 - Instructional Planning in the Career and Technical Classroom **Credits: 2**

VOED 103 - Strategies for Teaching Career and Technical Education **Credits: 3**

VOED 201 - Making Accommodations for Students with Special Needs in the Career and Technical Classroom  
**Credits: 1**

VOED 202 - Industry Linkages for Career and Technical Programs **Credits: 3**

VOED 203 - Incorporating Reading and Communications Strategies in the Career and Technical Classroom  
**Credits: 3**

VOED 301 - Integrating Math and Science in Career and Technical Education **Credits: 3**

VOED 302 - Career Education in the Career and Technical Classroom **Credits: 3**

VOED 404 - Research in Career and Technical Education **Credits: 3**

VOED 405 - Professional Seminar in Career and Technical Education **Credits: 3**

## Free Electives: 2-3

## Total Certification Requirements: 60

## Certificate and Certification Preparation Programs (clock hour)

### Baking and Pastry Certificate

**Website:** <https://www.iup.edu/culinary/programs/baking-and-pastry-arts/>

Program code: BKNG

The **Department of Culinary Arts** offers a 16-month, non-credit Certificate in Baking and Pastry Arts. This distinctive program combines hands-on learning experiences in the kitchen laboratory, instruction in fundamental baking and pastry and culinary theory, and a paid externship in the industry to provide each student with the necessary skills and knowledge to begin a successful career in the field of baking and pastry arts. The program consists of a 16-month, competency-based baking and pastry arts curriculum culminating with an industry work experience.

This program is accredited by the American Culinary Federation.

### Culinary Arts Certificate

**Website:** <https://www.iup.edu/culinary/programs/culinary-arts>

Program code: CULINARY

The Department of Culinary Arts offers a 16-month, non-credit Certificate in Culinary Arts. This distinctive program combines hands-on learning experiences in the kitchen laboratory, instruction in fundamental culinary and baking and pastry theory, and a paid externship in the industry to provide each student with the necessary skills and knowledge to begin a successful career in the field of culinary arts. The program consists of a 16-month, competency-based culinary arts curriculum culminating with an industry work experience.

This program is accredited by the American Culinary Federation.

### Emergency Medical Technician, Center for Emergency Services Training

**Website:** <https://www.iup.edu/est/emt-training/>

Emergency Medical Technician (EMT) is a non-degree certificate program offered through the IUP Institute for Rural Health and Safety provides the necessary coursework to apply for the National Registry and Pennsylvania EMT certification or licensure, Issued by National Registry and Pennsylvania Department of Health. Certification or licensure is valid for 3 years.

The Emergency Medical Technician (EMT) program will primarily be designed for future emergency medical service personnel but is appropriate for anyone who may respond to emergencies, including fire/rescue personnel, nurses, coaches, athletic trainers, and safety professionals. Participants who successfully complete this program are eligible to take National Registry of EMT certification exams for both Pennsylvania certification and national certification as an EMT. The EMT program does have an articulation agreement for credit transfer, but only in the Kinesiology, Health and Sport Science Program. Other departments

could embed EMT into their programs, for example: Athletic Training, Biology Pre-Med, Public Health, Natural Science Pre-Physical Therapy and Physician's Assistant.

The EMT program is accredited by Pennsylvania Department of Health. This pursuant to the Emergency Medical Services System, Act of August 18, 2009, P.L. 308, No. 37 as amended, and as set forth in the rules and regulations. The Pennsylvania Department of Health hereby issues this certificate of accreditation to conduct education programs for prehospital personnel in the Commonwealth of Pennsylvania.

- Accreditation Number: 0068110165
- Types of Training Programs: BLS and ALS
- Date of Issue: 11/28/2018
- Expiration: 12/31/2021
- Region: EMS West

Admission to the EMT program requires a HS Diploma/GED, approval of the Director of Emergency Services Training, and various clearances.

The 152-hour (pass/fail) program may be offered at IUP's Indiana campus, and the West Pike Institute for Rural Health and Safety or Monroeville sites. Successful completion requires students to pass all modular exams and the final exam with 70% or greater, have a minimum of 10 patient contacts in the clinical/field, and graded as competent in the cognitive, affective and psychomotor domains.

Students will receive a certificate upon passing the program. A course representing the EMT program will appear on the student's IUP clock hour transcript which will serve as official confirmation of completion.

More details outlining the program's curriculum, fees, and required clearances are outlined on the IUP Institute for Rural Health and Safety webpage.

## Paramedic Certificate, Center for Emergency Services Training

The Center for Emergency Services Training offers programs designed to meet the training needs of ambulance, fire, and police personnel in the areas of emergency medical services and rescue. Projects include emergency services training for first responders through a federal Health Resources and Services Administration grant to reduce incidences of morbidity and mortality related to opioid usage in rural areas, and for employees in industrial settings like power plants and coal mines. Two certifications available are Emergency Medical Technician and Paramedic.

The **Paramedic** 1,150-clock-hour program with 600 hours in the classroom, including 230 hours of interactive lecture and 370 lab hours. Also, a minimum of 550 hours are required in clinical and field settings, with a minimum of 250 hours at clinical sites, and a minimum of 100 hours during the Summative Capstone Field Internship. Up to 30 transfer credits may be awarded to students with Paramedic certification.

## School Security Personnel Basic Training Program

**Website:** <https://www.iup.edu/crimjustice/>

The School Security Personnel Basic Training Course is a non-degree certificate program offered through the IUP Criminal Justice Training Center. This program is specifically designed to satisfy the requirements for the PA Act 67 of 2019. Successful completion of this program will certify the graduate to work in Pennsylvania schools only, in the following roles School Police Officer, School Resource Officer, and School Security Officer.

The School Security Personnel (SSP) Basic Training Course is a 40-hour block of instruction for those wishing to work in school-based law enforcement or security type positions. The course provides a knowledge base for the SSP to build rapport

with students and staff. The material is also designed to provide non-protection personnel, i.e., schoolteachers, administrators, counselors, etc. with a thorough overview of the SSP functions as part of the school staff. The course is offered by IUP through face-to-face instruction or online platform.

Both face-to-face and online courses are approved by the Pennsylvania Commission on Crime and Delinquency (PCCD).

Admission is contingent on approval of the director of the IUP Criminal Justice Training Center and various clearances.

The 40-hour (pass/fail) program may be offered in-person and/or online throughout the year. Successful completion requires students to pass unit quizzes and deliver a culminating presentation. Students will receive a letter of completion upon passing the program. A course representing the SSP program will appear on the student's IUP clock hour transcript, which will serve as official confirmation of completion.

More details outlining the program's curriculum, fees, and required clearances will be outlined on the IUP Criminal Justice webpage.

# Course Descriptions

Credit designation at right of title is expressed in (c) class hours per week, (l) lab or (d) discussion section hours per week, and (cr) number of credits per semester.

## Accounting

### ACCT 200 - Foundations of Accounting

**Class Hours:** 3  
**Lab/Discussion:** 0  
**Credits:** 3

**Description:** Provides a framework in which nonbusiness majors can see how accounting relates to, and reports on, business activities. Introduces the basic financial accounting concepts, principles, and practices applied to the preparation and interpretation of the major financial statements. Takes a business process approach to the information requirements of external decision makers.

### ACCT 201 - Accounting Principles I

**Class Hours:** 3  
**Lab/Discussion:** 0  
**Credits:** 3

**Description:** Introduces the basic financial accounting concepts, principles, and practices applied to the preparation and interpretation of the major financial statements. Includes complete coverage of the accounting cycle, which will satisfy the information requirements of external decision makers. Topics covered are: asset valuation, liability measurement, income determination, and equity activities. Integrated throughout is a discussion of ethical issues and considerations.

### ACCT 202 - Accounting Principles II

**Class Hours:** 3  
**Lab/Discussion:** 0  
**Credits:** 3

**Prerequisite:** ACCT 201  
**Description:** Introduces traditional managerial accounting concepts and procedures utilized in the organization and processing of accounting information for management decision-making purposes. Topics include managerial

accounting and the business environment, cost terms and concepts, cost systems, cost behavior, and cost-volume-profit analysis. Also covers the master budget, standard costing and variance analysis, performance evaluation, responsibility accounting, relevant cost analysis, and decision making.

### ACCT 304 - Intermediate Accounting I

**Class Hours:** 3  
**Lab/Discussion:** 0  
**Credits:** 3

**Prerequisite:** Grade of "C" or better in ACCT 202  
**Description:** Primarily focuses on financial reporting for asset wealth typically found in business environments. Coverage includes recognition and measurement of such assets as cash, receivables, investments, inventories, plant assets, and intangible assets. Present value concepts in financial reporting are also emphasized.

### ACCT 305 - Intermediate Accounting II

**Class Hours:** 3  
**Lab/Discussion:** 0  
**Credits:** 3

**Prerequisite:** Grade of "C" or better in ACCT 304  
**Description:** Concentrates on financial reporting of creditor and investor claims on business assets in the form of liabilities and equity. Specialized financial reporting topics such as earnings per share, stock options, income tax, pension, and lease accounting are also covered.

### ACCT 311 - Cost Accounting

**Class Hours:** 3  
**Lab/Discussion:** 0  
**Credits:** 3

**Prerequisite:** Grade of "C" or better in ACCT 202  
**Description:** Studies the aggregation and use of financial information for internal management decision making. Discussions concentrate on cost management system design, cost estimation methods for budget preparation and achievement, cost accumulation methods for manufacturing and service organizations, inventory control procedures, transfer pricing administration, and managerial performance evaluation techniques.

## ACCT 401 - Advanced Accounting

**Class Hours:** 3  
**Lab/Discussion:** 0  
**Credits:** 3

**Prerequisite:** ACCT 305

**Description:** A study of accounting issues of specialized nature including partnerships, organization and liquidation, agency and branch accounting, accounting for business combinations, preparation of consolidated financial statements, accounting for government and not-for-profit entities, accounting for estates and trusts, and receivership accounting.

## ACCT 412 - Advanced Cost Accounting

**Class Hours:** 3  
**Lab/Discussion:** 0  
**Credits:** 3

**Prerequisite:** Grade of "C" or better in ACCT 311

**Description:** A study of budgets, standard costs, direct and absorption costing, analysis of cost variances, and extensive analysis of various cost control and profit planning programs.

## ACCT 421 - Federal Tax I

**Class Hours:** 3  
**Lab/Discussion:** 0  
**Credits:** 3

**Prerequisite:** Grade of "C" or better in ACCT 202

**Description:** Introduces the fundamental concepts of federal taxation, with special emphasis on individuals. Creates an awareness and recognition of the tax consequences involved in financial decision making, with special emphasis on use of professional tax software and Internet resources.

## ACCT 422 - Federal Tax II

**Class Hours:** 3  
**Lab/Discussion:** 0  
**Credits:** 3

**Prerequisite:** ACCT 421

**Description:** Introduces the fundamental concepts of federal taxation of corporations, partnerships, estates, and gift transactions. Creates an awareness and recognition of the tax consequences involved in financial decision

making, with special emphasis on use of professional tax software, the Internal Revenue Code and Regulations, and Internet research.

## ACCT 431 - Auditing

**Class Hours:** 3  
**Lab/Discussion:** 0  
**Credits:** 3

**Prerequisite:** ACCT 304

**Description:** A study of auditing theory and practical application of auditing standards and procedures to the review, testing, and evaluation of accounting controls and to the verification of transactions and balances to express an opinion in an audit report on the fairness of financial statements' presentation.

## ACCT 432 - Forensic and Internal Auditing

**Class Hours:** 3  
**Lab/Discussion:** 0  
**Credits:** 3

**Prerequisite:** ACCT 431

**Description:** Introduces forensic auditing in fraudulent financial reporting and employee theft. Also covers the foundation of internal auditing and operational audits performed by internal auditors.

## ACCT 441 - Accounting for Government and Nonprofit Organizations

**Class Hours:** 3  
**Lab/Discussion:** 0  
**Credits:** 3

**Prerequisite:** ACCT 305

**Description:** Presents the views of authoritative professional organizations as to desirable standards of accounting and reporting for governmental and nonprofit entities. Topics include budgeting and budgetary accounts, accounting for various funds, the general fixed assets group of accounts, the financial reporting process, and application of the principles of fund accounting in specific areas.

## ACCT 461 - Accounting Systems

**Class Hours:** 3  
**Lab/Discussion:** 0

**Credits:** 3

**Prerequisite:** ACCT 305, ACCT 311, IFMG 300

**Description:** A study of concepts, principles, and procedures of accounting system design, installation, implementation, auditing, and maintenance in relating to system objectives, information requirements, constraints, system elements, and considerations on a computerized basis.

## ACCT 482 - Independent Study

**Class Hours:** var

**Lab/Discussion:** 1

**Credits:** 3

**Restriction:** Prior approval through advisor, faculty member, department chairperson, dean, and Office of the Provost

**Description:** Students, with interest in independent study of a topic not offered in the curriculum may propose a plan of study in conjunction with a faculty member. Approval is based on academic appropriateness and availability of resources.

## ACCT 493 - Internship in Accounting

**Class Hours:** var

**Lab/Discussion:** 3

**Credits:** 6

**Prerequisite:** Must have completed a minimum of 90cr (18cr in ACCT) with a cumulative GPA of 2.75 and 3.00 GPA within the major.

**Restriction:** Approval of the Eberly College of Business internship coordinator, department chairperson, and dean.

**Description:** A supervised learning experience that integrates the student's academic background with practical experience related to the students' major area of interest. The number of credits earned depends on the nature of the job and the amount of time involved in the internship.

## Anthropology

### ANTH 110 - Contemporary Anthropology

**Class Hours:** 3

**Lab/Discussion:** 0

**Credits:** 3

**Description:** An introduction to the discipline of anthropology: the study of human beings through time and

across cultures. This class is organized around select themes that allow students to explore the nature and relevance of anthropological methods, theories, and perspectives. These themes may include, but are not limited to, human origins, evolution and human behavior, gender roles, the links between environment and culture, and social stratification. A strong emphasis on the effects of globalization on human cultures, and the potential for anthropology research to address contemporary issues such as cultural and environmental sustainability, public health, and social equity.

### ANTH 211 - Cultural Anthropology

**Class Hours:** 3

**Lab/Discussion:** 0

**Credits:** 3

**Description:** Introduces the major concepts, theories, and research methods of cultural anthropology that are used to study and understand human culture in different parts of the world. An emphasis given to how traditional and nontraditional cultures undergo change as a result of globalization, and how cultural anthropologists study the social, economic, and political consequences that result from integration into an expanding and changing global economy. Topics covered may include, but are not limited to, social organization, economics, power and politics, race and ethnicity, language and communication, technology, religion and ritual, and sex and gender. A wide geographic coverage provides a basis for global comparisons of cultural similarities and differences among human societies.

### ANTH 213 - World Archaeology

**Class Hours:** 3

**Lab/Discussion:** 0

**Credits:** 3

**Description:** Archaeology is the study of past cultures and societies through their material remains. Explores the archaeologies of Western and non-Western societies and examines theory, methods, and techniques for investigating, reconstructing, interpreting, preserving, and learning from the past. Examines human cultural chronology from the appearance of human ancestors to the present through an examination of important social, economic, and ideological questions, as well as artifact remains. Includes the origins of food production, social inequality, and civilization.

### ANTH 222 - Biological Anthropology

**Class Hours:** 3  
**Lab/Discussion:** 0  
**Credits:** 3

**Description:** An introduction to the goals and techniques of biological anthropology with an emphasis on primatology, paleoanthropology, genetics, and osteology. Provides a basis for evaluating the role of biology in human behavior.

### **ANTH 233 - Language and Culture**

**Class Hours:** 3  
**Lab/Discussion:** 0  
**Credits:** 3

**Description:** Focuses on social and cultural functions of language. Particular emphasis given to problems in anthropology with respect to non-Western languages.

### **ANTH 240 - Introduction to Global Health**

**Class Hours:** 3  
**Lab/Discussion:** 0  
**Credits:** 3

**Description:** Explores the interdisciplinary study of global health and its relevance in our age of globalization as local medical systems are transformed by international integration. Defines the scope of global health and explores the methods of the subfield by utilizing ethnographic, theoretical, anthropological, and sociological readings to critically analyze the various factors that have contributed to the development of this global system. Investigates the relationship between culture and disease, different reproductive health practices, medical ethics, environmental factors in health, and social health disparities. Extends critical analysis to existing health systems across the globe and seeks ways for a positive role in supporting healthy individuals and communities.

### **ANTH 244 - Basic Archaeology**

**Class Hours:** 3  
**Lab/Discussion:** 0  
**Credits:** 3

**Description:** An introduction to the goals and methods of anthropological archaeology, with particular attention to the analysis of cultural chronology, past lifeways, and cultural process. Provides laboratory experience with artifacts and other archaeological data.

### **ANTH 271 - Cultural Area Studies: Africa**

**Class Hours:** 3  
**Lab/Discussion:** 0  
**Credits:** 3

**Description:** Critically evaluates media headlines about African issues and reaches beyond these headlines to appreciate the complexity and diversity of people's lives in sub-Saharan Africa and the diaspora. Course readings, assignments, and ethnographic films explore the nature of anthropology research in Africa, the impact of colonialism on social and political life, and the contemporary struggles of people to define their place in local, national, and global communities. Readings include ethnographic, historical, and popular accounts, as well as selections by African writers on issues of contemporary society, such as wildlife conservation, resource extraction, post-conflict development, food aid, and refugee relief and resettlement.

### **ANTH 272 - Culture Area: China**

**Class Hours:** 3  
**Lab/Discussion:** 0  
**Credits:** 3

**Description:** A broad introduction to Chinese culture and society from an anthropological perspective. Following an overview of China's geography and history, the course covers a range of topics pertaining to Chinese traditional culture, including marriage, family, education, governance, gender, religion, language, health, art, and music. Relies on cross-cultural comparisons to help locate Chinese culture and customs within a broader worldwide context. Also encourages students to consider the transformation (rather than elimination) of traditional cultural elements as globalization has come to play an increasingly important role in China's social and economic development.

### **ANTH 274 - Cultural Area Studies: Latin America**

**Class Hours:** 3  
**Lab/Discussion:** 0  
**Credits:** 3

**Description:** An overview of the diverse societies of Latin America from the perspectives of anthropology and Latin American studies. Through a historical, cross-cultural, and comparative approach, it explores the cultural, economic, political, and social life in many societies of this large and diverse region and transnational nature of many of these



societies as a result of globalization. Themes covered are: race, ethnicity, and gender as they appear in Latin America, political and economic processes, rural underdevelopment and urbanization, transnational movement and cultures, religion, and indigenous social movements.

### **ANTH 310 - Voyages of Discovery**

**Class Hours:** 3  
**Lab/Discussion:** 0  
**Credits:** 3

**Description:** Focuses on human diasporas through key explorations and explorers, spanning the period from 40,000 years ago to the late 19th century and touching on every inhabited continent. Through these voyages of discovery, it addresses the diffusion of ideas, the migration of peoples, technological development and its role in culture change, and the historical and cultural circumstances involved in geographic expansion. Cultures from across the globe and throughout time are discussed in terms of their expansion and their responses to the expansion of other cultures. Discusses the historical roots of globalism and its archaeologically visible results.

### **ANTH 314 - Contemporary Native American Cultures**

**Class Hours:** 3  
**Lab/Discussion:** 0  
**Credits:** 3

**Description:** Introduces Native American cultures of North America north of Mexico from an anthropological perspective with an emphasis on historical and contemporary cultural diversity. Emphasizes the history of culture change and continuity as well as current political, economic, and cultural issues among the Native nations of the United States and Canada.

### **ANTH 315 - North American Archaeology**

**Class Hours:** 3  
**Lab/Discussion:** 0  
**Credits:** 3

**Description:** A survey of North American prehistory with an emphasis on cultural ecology and technology. Attention is given to all geographic areas north of Mexico, but the focus is on the Eastern Woodlands.

### **ANTH 316 - Anthropology of Magic, Witchcraft, and Religion**

**Class Hours:** 3  
**Lab/Discussion:** 0  
**Credits:** 3

**Prerequisite:** ANTH 110 or ANTH 211 or permission  
**Description:** Explores nature, function, and characteristics of religion from the vantage point of anthropology. Draws from cross-cultural research to explore the varied meanings and roles of religious belief and practice in human life. Applies anthropological theory to understand and discuss religious phenomena including ritual, witchcraft, magic and divination, religious healers and altered states of consciousness, the paranormal, funerary practices, and the role of religion in a changing world.

### **ANTH 318 - Museum Methods**

**Class Hours:** 3  
**Lab/Discussion:** 0  
**Credits:** 3

**Description:** Lecture and laboratory course surveying the role of museums as social and educational institutions, types of museums, museum administration, and museum architecture. Procedures for collection, curation, preservation, and storage of anthropological and natural history specimens examined.

### **ANTH 320 - Archaeological Field School**

**Class Hours:** var  
**Credits:** 6

**Description:** An introduction to archaeological survey, field excavation, and laboratory processing. Field school students participate in one or more of the ongoing research projects of the IUP archaeology program.

### **ANTH 321 - Forensic Archaeology Field School**

**Class Hours:** var  
**Lab/Discussion:** 0  
**Credits:** 1-6

**Restriction:** Students must apply and be accepted to participate.

**Dual Listed:** ANTH 521

**Description:** Introduces hands-on forensic archaeological methods for survey, field excavation, and artifact processing. Receive on-site training and participate in forensic archaeological excavations.

**Note:**

- Lower-Level Class (ANTH 321): Students are expected to carry out forensic archaeology tasks, explain the challenges impacting site activities and decision making, initiate and complete relevant site activities, and deconstruct and interpret site formation processes.
- Upper-Level Class (ANTH 521): In addition to the requirements for the lower-level class, the students in the upper-level class are expected to demonstrate clear communication and critical-thinking skills and generate working hypotheses and interpretations as recovery efforts proceed.

### **ANTH 323 - Mesoamerican Archaeology**

**Class Hours:** 3

**Lab/Discussion:** 0

**Credits:** 3

**Description:** An introduction to the archaeology of Mesoamerica, which explores the natural and cultural diversity of the area south of the United States and north of lower Central America. Surveys the history of archaeological research in Mesoamerica and examines some of the specific methods of archaeological research that are unique to Mesoamerican archaeology. The focus is on three areas: the Gulf Coast and the Olmecs, the Valley of Mexico and its long history of settlement from the Tehuacan Valley through the Aztecs, and the southern Highlands and Lowlands inhabited by the Maya, although other regions of Mesoamerica are also discussed.

### **ANTH 325 - Archaeological Lab Methods**

**Class Hours:** 3

**Lab/Discussion:** 0

**Credits:** 3

**Dual Listed:** ANTH 525

**Description:** A hands-on introduction to the study of artifacts and other cultural materials recovered from archaeological excavations. Experience the specific methods of analysis in archaeological lab settings, focusing on the analysis of stone artifacts, pre-Columbian ceramics, and historic artifacts. Analytic techniques include classification, quantification of attributes, and reporting of the results of the analyses.

### **ANTH 333 - The Archaeology of Early China**

**Class Hours:** 3

**Lab/Discussion:** 0

**Credits:** 3

**Description:** An overview of the history, practice, and achievements of archaeology in China, with a focus on early China (up to the Han dynasty). A portion of the course is devoted to those discoveries that have shed light on important developments in China, including its early stone age occupation, the growth of agriculture, the emergence of civilization, as well as the construction of impressive structures (such as the Great Wall and the first emperor's terracotta army). Also discusses the ways in which Chinese and Western archaeology differ, as well as the role which nationalism and regionalism have played in archaeological research and interpretation in China.

### **ANTH 350 - Anthropology of Gender**

**Class Hours:** 3

**Lab/Discussion:** 0

**Credits:** 3

**Description:** Explores the primary category of social difference into which humans are universally socialized, which is the gendered nature of women's and men's experiences in the world from an anthropological perspective. An introduction to cross-cultural experiences of gender, and the social constructions of gender. Readings focus on the intersection of race, class, sexuality, and gender, and the impact on gender of technology, colonization, globalization, and the nation-state. Considers the experiences of men and women around the world from various frameworks, including reproductive, social, economic, post-colonial, and post-structural.

### **ANTH 352 - The Anthropology of Human Rights**

**Class Hours:** 3

**Lab/Discussion:** 0

**Credits:** 3

**Description:** Engages the concept of human rights as applied to situations in the contemporary world. Takes an interdisciplinary approach, with an emphasis on anthropology to examine the following principal questions: (1) What are the historical origins of contemporary ideas about human rights? (2) What are some of the foremost

human rights situations in the world today? (3) What are the political, economic, and cultural contexts in which human rights abuses occur? (4) What is the role of the committed (i.e., activist) anthropologist? Focuses on the interplay between the abuse of human rights, power, and culturally constructed difference, such as ethnicity and gender. Extends contemporary interpretations to existing social and political problems around the world to seek ways in which anthropologists can have a positive role to play in finding solutions to those problems.

### **ANTH 365 - Native North American Religions**

**Class Hours:** 3

**Lab/Discussion:** 0

**Credits:** 3

**Description:** An introduction to the indigenous religions of North America and to the peoples who practice these rich and varied approaches to the sacred. Not only examines major religious themes and dimensions (myth, ritual, ethics, etc.), but includes a historical perspective on Native North American lifeways. This perspective involves discussion of the clash with Euro-American values and contemporary native religious responses to social crisis and change.

**Previously Offered As:** (Also offered as RLST 365; may not be taken for duplicate credit.)

### **ANTH 370 - Latinos and Diasporas**

**Class Hours:** 3

**Lab/Discussion:** 0

**Credits:** 3

**Description:** Introduces students to the global and local dimensions of the changing Latino communities in the United States and examines the communities' multiple connections and dynamic interactions with Latin American diasporas. Toward this end, the course covers (1) theories on transnational communities, diasporas, the state, and citizenship; (2) Latino cultures and geography; (3) Latin American immigration and labor migration to the United States; and (4) the impact of Latin American diasporic networks on Latino and non-Latino communities.

**Cross-Listed:** (Cross-listed as LAS 370.)

### **ANTH 413 - Archaeology of Coasts**

**Class Hours:** 3

**Lab/Discussion:** 0

**Credits:** 3

**Description:** Explores the interaction between coastal environments and humans through examination of the archaeological record. Identifies coastal modifications by humans based on the archaeological record. Explores the processes that lead to the destruction or preservation of archaeological resources related to changing sea level. Provides the student the ability to examine the archeological record to understand the interactions between coastal environments, humans, and changing sea levels over the past 15,000 years.

### **ANTH 415 - Cultural Resource Management**

**Class Hours:** 3

**Lab/Discussion:** 0

**Credits:** 3

**Prerequisite:** ANTH 244 or instructor permission

**Description:** Provides an understanding of how cultural resources are being preserved and managed under current American laws and regulations with particular emphasis on historic properties, such as historic buildings and archaeological sites. Case studies and field trips are incorporated so that students gain a thorough understanding of key problems and issues in historic preservation and cultural resource management.

### **ANTH 420 - Environmental Anthropology**

**Class Hours:** 3

**Lab/Discussion:** 0

**Credits:** 3

**Prerequisite:** ANTH 110 or ANTH 211

**Description:** Introduces environmental anthropology, the study of the relationship between the natural environment and human social and cultural life. Illustrates the importance of understanding human-environment interactions in studying contemporary issues in global development, and in investigating the past. Explores major analytical and methodological approaches in environmental anthropology, including ecological anthropology, ethnoecology, political ecology, and environmental justice. (Titled Cultural Geography before 2016-17.)

### **ANTH 425 - Archaeological Theory and Research Design**

**Class Hours:** 3

**Lab/Discussion:** 0

**Credits:** 3

**Prerequisite:** ANTH 244

**Description:** Reviews the broad range of field, analytical, and interpretive methods adopted by archaeologists over the past century and guides students through the design and implementation of a research project of their own. Discussed against the backdrop of the discipline's constantly shifting theoretical setting, this survey also prepares students for the task of critically assessing published research conducted by other archaeologists and locating such research within this dynamic theoretical landscape.

### **ANTH 430 - Anthropology of Food**

**Class Hours:** 3

**Lab/Discussion:** 0

**Credits:** 3

**Description:** Focuses on the influences of biology, culture, political economy, and history on what and how peoples of the world eat. Readings, lectures, films, and projects link the dietary implications of foraging, crop domestication, state formation, and industrial capitalism to food choices and health. Examines various sociocultural practices relating to the uses of food in marking social difference, maintaining social relationships, and dealing with cultural constructions of health, illness, and the body. Considers the influence of the agricultural revolution, colonization, and globalization on the transformation of food meanings, practices, and availability.

### **ANTH 444 - Medical Anthropology**

**Class Hours:** 3

**Lab/Discussion:** 0

**Credits:** 3

**Prerequisite:** ANTH 110, ANTH 211, SOC 151 or SOC 161 or permission

**Description:** Focuses on the study of human confrontation with disease and illness and on the adaptive arrangements made by various human groups for dealing with these dangers. Health and disease are viewed from a broad array of micro and macro perspectives, e.g., evolutionary, ecological, and psychosocial. For nursing and social work students as well as social and biological science students.

### **ANTH 450 - Health Disparities**

**Class Hours:** 3

**Lab/Discussion:** 0

**Credits:** 3

**Prerequisite:** SOC 151 or ANTH 211 or with instructor permission

**Description:** Explores health status and healthcare disparities across groups based on race/ethnicity, gender, socioeconomic status/social class, nativity, refugee and citizen status, and other cultural and demographic characteristics. Uses a social determinants of health perspective to consider how social, cultural, environmental, political, and economic conditions produce unequal and inequitable health outcomes, with special focus on disadvantaged populations. Addresses agency and empowerment of populations seeking and accessing health and health care. Includes different levels of public health interventions that can improve health outcomes, better calibrate access to health care, and improve health equity within populations.

**Previously Offered As:** (Also offered as SOC 450; may not be taken for duplicate credit.)

### **ANTH 456 - Ethnographic Research Methods**

**Class Hours:** 3

**Lab/Discussion:** 0

**Credits:** 3

**Prerequisite:** ANTH 211 or instructor permission.

**Description:** Provides a background in qualitative and quantitative techniques used in anthropological research. Concentrates on the ethics of research with people, formulation of hypotheses, design and use of appropriate research techniques, and data analysis. Emphasizes development of field notes, interviewing techniques, developing genealogies, and participant observation.

### **ANTH 457 - Applied Anthropology**

**Class Hours:** 3

**Lab/Discussion:** 0

**Credits:** 3

**Prerequisite:** ANTH 456 or instructor permission.

**Description:** Focuses on the anthropologist as an agent of social change and bridges the gap between theories of cultural behavior and the policies that affect contemporary cultures. Examines the historical role of anthropologists in early public administration and explores the work of contemporary applied anthropologists in domains of practice such as international development, health, human

rights, business and marketing, the environment, education, and in their role as advocates for marginalized communities. Activities allow students to apply anthropological methods and concepts to better appreciate and communicate the value of these skills in varied professional settings.

### **ANTH 460 - Ethnographic Field School**

**Class Hours:** var  
**Lab/Discussion:** 0  
**Credits:** 3-6

**Prerequisite:** ANTH 211 or instructor permission  
**Description:** Ethnographic research training in the field. Emphasizes the application of qualitative research methods, the recording of data in research journals and the maintaining of field diaries, the categorizing and organizing of data, and the writing of research reports.

### **ANTH 470 - Environmental Archaeology**

**Class Hours:** 3  
**Lab/Discussion:** 0  
**Credits:** 3

**Description:** Explores past human interactions with the natural environment, including plants, animals, climate, and geologic landscapes. Incorporates hands-on practice in the scientific techniques used to reconstruct ancient environments, including analysis of pollen, sediments and soils, and microfauna. Uses computer software to graph and interpret data sets. Illustrates archaeological case studies designed to illustrate both how environmental conditions and natural hazards (e.g., volcanoes, tsunamis) impacted past human populations, as well as how people have altered and modified their environment through time. Examines these interactions using a diachronic and comparative perspective, from the evolution of hominins millions of years ago to the recent phenomenon of the Anthropocene.

### **ANTH 480 - Anthropology Seminar**

**Class Hours:** var  
**Credits:** 1-3

**Prerequisite:** 9cr in ANTH or permission  
**Description:** A seminar approach to the integration of the fields of anthropology. Assists the advanced student in understanding the nature of anthropology, the major theoretical issues, and the history of intellectual development.

### **ANTH 481 - Special Topics**

**Class Hours:** var  
**Credits:** 1-6

**May Be:** Special topics courses are offered on an experimental or temporary basis to explore topics that are not included in the established curriculum. A given topic may be offered under any special topic identity no more than three times. Special topics numbered 481 are primarily for upper-level undergraduate students.

### **ANTH 482 - Independent Study**

**Class Hours:** var  
**Credits:** 1-3

**Restriction:** Prior approval through advisor, faculty member, department chairperson, dean, and Office of the Provost

**Approved:** Approval is based on academic appropriateness and availability of resources. **Previously Offered As:** Students with an interest in independent study of a topic not offered in the curriculum may propose a plan of study in conjunction with a faculty member.

### **ANTH 483 - Honors Thesis**

**Class Hours:** var  
**Credits:** 1-6

**Restriction:** Admission to departmental honors program; prior approval through advisor, faculty member, department chairperson, dean, and Office of the Provost  
**Description:** An intensive, focused study involving independent research culminating in a written thesis approved by a thesis director and two faculty readers/committee members.

**May Be:** May be taken more than once to a maximum of 6cr.

### **ANTH 484 - Specialized Methods in Archaeology**

**Class Hours:** 3  
**Lab/Discussion:** 0  
**Credits:** 3

**Description:** An opportunity to learn specialized techniques and approaches presently in use in archaeology. In any one semester, the course concentrates on one of a range of possible themes, including lab methods, field

methods, statistical methods, computer applications, or text-based approaches. The specific topic varies but focuses on instructing in the mechanics of the selected technique, its application to real archaeological problems, and the interpretation of the results. May appeal to students from other disciplines who wish to gain applied expertise in a topic that is relevant to their own field of study. Interested students should contact the instructor to find out which topic will be taught in any one semester.

**May Be:** May be repeated for credit under a different methods title.

### **ANTH 486 - Historic Artifacts**

**Class Hours:** 3

**Lab/Discussion:** 0

**Credits:** 3

**Description:** Focuses on techniques for collecting, analyzing, and interpreting data from historic period (1500 to present) artifacts commonly found on North American archaeological sites. Analytic techniques, including classification, quantification of attributes, relating artifact patterns to human activities, and statistical interpretation are taught in a hands-on environment. Outlines the history of technology as a means to identify the age and use of artifacts. Considers that all objects occurred as a thought before they were made material and how to work backwards from the material to the thought.

### **ANTH 487 - Geoarchaeology**

**Class Hours:** 3

**Lab/Discussion:** 0

**Credits:** 3

**Prerequisite:** ANTH 244 or GEOS 200, or instructor permission

**Description:** Surveys geological methods and techniques used to investigate archaeological research questions. Includes sedimentary and geomorphic processes affecting the formation and preservation of archaeological sites; methods of paleoenvironment and paleoclimate reconstruction, and radiometric dating techniques. Illustrates the importance for archaeologists to understand the geological processes that affect archaeological sites—before, during, and after people have been there. Understanding these processes is crucial to accurately reconstructing the dynamics of human behavior.

### **ANTH 488 - Geophysical Applications in Archaeology**

**Class Hours:** 3

**Lab/Discussion:** 0

**Credits:** 3

**Description:** Provides the methodological and technological knowledge to apply various geophysical systems used in archaeological investigations. These systems may include, but are not limited to, Ground-Penetrating Radar, Magnetometry, Electrical Resistivity, Conductivity, and Susceptibility.

### **ANTH 489 - Prehistoric Technologies of Eastern North America**

**Class Hours:** 3

**Lab/Discussion:** 0

**Credits:** 3

**Description:** Introduces the prehistoric technologies of Eastern North America. Focuses on the material culture commonly recovered from pre-European Contact Native American archaeological sites, including stone, ceramic, bone, and native metal artifacts. Includes analytical techniques of classification, quantification, and interpretation linking artifacts to human behavior.

### **ANTH 490 - Applied Spatial Methods in Archaeology**

**Class Hours:** 3

**Lab/Discussion:** 0

**Credits:** 3

**Description:** Introduces methods used within archaeology to examine the spatial relationships between archaeological artifacts, features, and sites at various scales. Explores the strengths and weaknesses of various spatial methods in archaeology. Provides students with the ability to become knowledgeable consumers of these methods in future research and working environments.

### **ANTH 491 - Zooarchaeology**

**Class Hours:** 3

**Lab/Discussion:** 0

**Credits:** 3

**Description:** Introduces the archaeological specialty of zooarchaeology, which is the study of human-animal interactions through the analysis of archaeological remains from archaeological sites. Explores the basics of vertebrate osteology through lectures and hands-on exercises, as well

as the nature of various types of zooarchaeological interpretation such as studies of hunting and butchering practices, dietary importance, seasonality, domestication, paleopathology, and past environment.

### **ANTH 493 - Internship in Anthropology**

**Class Hours:** var

**Credits:** 3-12

**Restriction:** Instructor permission

**Description:** Offers practical experience in any of the specialized fields of anthropology (physical, social-cultural, archaeology, or linguistics). Each student develops objectives in consultation with a particular departmental faculty member who is supervising the internship. Detailed field notes and a major paper based on the experience are required.

### **ANTH 496 - Human Osteology**

**Class Hours:** 3

**Lab/Discussion:** 0

**Credits:** 3

**Description:** Intensive study of skeletal anatomy to facilitate identification of bones and bone fragments for archaeological and forensic purposes. Identify all bones in the human body and apply methods to determine sex, age, ancestry, and stature from skeletal remains.

### **ANTH 497 - Forensic Anthropology**

**Class Hours:** 3

**Lab/Discussion:** 0

**Credits:** 3

**Description:**

Critical examination and discussion of foundational and current methodological and theoretical approaches used in Forensic Anthropology.

Dual listed for graduate credit as ANTH597.

## **Applied Music**

### **APMU 101 - Piano I**

**Class Hours:** var

**Credits:** 1

**Prerequisite:**

**(Major Area)** Prerequisites for initial semester of study: Audition and acceptance to the area of concentration

**(Minor Area)** Prerequisites for initial semester of study: Audition and placement Prerequisite for subsequent semesters: Grade of "C" or better in the previous semester of study

**Description: (Major Area)** Private instrumental, vocal, or composition instruction for music majors in their primary area of concentration for up to eight semesters (four in composition). Includes technical studies, musical repertoire, and performance experiences at the professional level. Weekly half-hour lessons are given (2cr) for students enrolled in the BS and BA degree programs. Weekly one-hour lessons (4cr) are given for students enrolled in the BFA degree program only.

**(Minor Area)** Private instrumental or vocal instruction for music minors, or for music majors in their secondary or tertiary area of concentration for up to four semesters. Includes technical studies, musical repertoire, and performance experiences at a functional level. Students enroll for 1 credit and are given weekly half-hour lessons. Students may enroll in Levels I-IV only from the following list.

### **APMU 102 - Organ I**

**Class Hours:** var

**Credits:** 1

**Prerequisite:**

**(Major Area)** Prerequisites for initial semester of study: Audition and acceptance to the area of concentration

**(Minor Area)** Prerequisites for initial semester of study: Audition and placement Prerequisite for subsequent semesters: Grade of "C" or better in the previous semester of study

**Description: (Major Area)** Private instrumental, vocal, or composition instruction for music majors in their primary area of concentration for up to eight semesters (four in composition). Includes technical studies, musical repertoire, and performance experiences at the professional level. Weekly half-hour lessons are given (2cr) for students enrolled in the BS and BA degree programs. Weekly one-

hour lessons (4cr) are given for students enrolled in the BFA degree program only.

**(Minor Area)** Private instrumental or vocal instruction for music minors, or for music majors in their secondary or tertiary area of concentration for up to four semesters. Includes technical studies, musical repertoire, and performance experiences at a functional level. Students enroll for 1 credit and are given weekly half-hour lessons. Students may enroll in Levels I-IV only from the following list.

### **APMU 105 - Voice I**

**Class Hours:** var

**Credits:** 1

**Prerequisite:**

**(Major Area)** Prerequisites for initial semester of study: Audition and acceptance to the area of concentration

**(Minor Area)** Prerequisites for initial semester of study: Audition and placement Prerequisite for subsequent semesters: Grade of "C" or better in the previous semester of study

**Description: (Major Area)** Private instrumental, vocal, or composition instruction for music majors in their primary area of concentration for up to eight semesters (four in composition). Includes technical studies, musical repertoire, and performance experiences at the professional level. Weekly half-hour lessons are given (2cr) for students enrolled in the BS and BA degree programs. Weekly one-hour lessons (4cr) are given for students enrolled in the BFA degree program only.

**(Minor Area)** Private instrumental or vocal instruction for music minors, or for music majors in their secondary or tertiary area of concentration for up to four semesters. Includes technical studies, musical repertoire, and performance experiences at a functional level. Students enroll for 1 credit and are given weekly half-hour lessons. Students may enroll in Levels I-IV only from the following list.

### **APMU 106 - Violin I**

**Class Hours:** var

**Credits:** 1

**Prerequisite:**

**(Major Area)** Prerequisites for initial semester of study: Audition and acceptance to the area of concentration

**(Minor Area)** Prerequisites for initial semester of study: Audition and placement Prerequisite for subsequent semesters: Grade of "C" or better in the previous semester of study

**Description: (Major Area)** Private instrumental, vocal, or composition instruction for music majors in their primary area of concentration for up to eight semesters (four in composition). Includes technical studies, musical repertoire, and performance experiences at the professional level. Weekly half-hour lessons are given (2cr) for students enrolled in the BS and BA degree programs. Weekly one-hour lessons (4cr) are given for students enrolled in the BFA degree program only.

**(Minor Area)** Private instrumental or vocal instruction for music minors, or for music majors in their secondary or tertiary area of concentration for up to four semesters. Includes technical studies, musical repertoire, and performance experiences at a functional level. Students enroll for 1 credit and are given weekly half-hour lessons. Students may enroll in Levels I-IV only from the following list.

### **APMU 107 - Viola I**

**Class Hours:** var

**Credits:** 1

**Prerequisite:**

**(Major Area)** Prerequisites for initial semester of study: Audition and acceptance to the area of concentration

**(Minor Area)** Prerequisites for initial semester of study: Audition and placement Prerequisite for subsequent semesters: Grade of "C" or better in the previous semester of study

**Description: (Major Area)** Private instrumental, vocal, or composition instruction for music majors in their primary area of concentration for up to eight semesters (four in composition). Includes technical studies, musical repertoire, and performance experiences at the professional level. Weekly half-hour lessons are given (2cr) for students enrolled in the BS and BA degree programs. Weekly one-hour lessons (4cr) are given for students enrolled in the BFA degree program only.

**(Minor Area)** Private instrumental or vocal instruction for music minors, or for music majors in their secondary or tertiary area of concentration for up to four semesters. Includes technical studies, musical repertoire, and



performance experiences at a functional level. Students enroll for 1 credit and are given weekly half-hour lessons. Students may enroll in Levels I-IV only from the following list.

### **APMU 108 - Cello I**

**Class Hours:** var

**Credits:** 1

**Prerequisite:**

**(Major Area)** Prerequisites for initial semester of study: Audition and acceptance to the area of concentration

**(Minor Area)** Prerequisites for initial semester of study: Audition and placement Prerequisite for subsequent semesters: Grade of "C" or better in the previous semester of study

**Description: (Major Area)** Private instrumental, vocal, or composition instruction for music majors in their primary area of concentration for up to eight semesters (four in composition). Includes technical studies, musical repertoire, and performance experiences at the professional level. Weekly half-hour lessons are given (2cr) for students enrolled in the BS and BA degree programs. Weekly one-hour lessons (4cr) are given for students enrolled in the BFA degree program only.

**(Minor Area)** Private instrumental or vocal instruction for music minors, or for music majors in their secondary or tertiary area of concentration for up to four semesters. Includes technical studies, musical repertoire, and performance experiences at a functional level. Students enroll for 1 credit and are given weekly half-hour lessons. Students may enroll in Levels I-IV only from the following list.

### **APMU 109 - String Bass I**

**Class Hours:** var

**Credits:** 1

**Prerequisite:**

**(Major Area)** Prerequisites for initial semester of study: Audition and acceptance to the area of concentration

**(Minor Area)** Prerequisites for initial semester of study: Audition and placement Prerequisite for subsequent semesters: Grade of "C" or better in the previous semester of study

**Description: (Major Area)** Private instrumental, vocal, or composition instruction for music majors in their primary area of concentration for up to eight semesters (four in composition). Includes technical studies, musical repertoire, and performance experiences at the professional level. Weekly half-hour lessons are given (2cr) for students enrolled in the BS and BA degree programs. Weekly one-hour lessons (4cr) are given for students enrolled in the BFA degree program only.

**(Minor Area)** Private instrumental or vocal instruction for music minors, or for music majors in their secondary or tertiary area of concentration for up to four semesters. Includes technical studies, musical repertoire, and performance experiences at a functional level. Students enroll for 1 credit and are given weekly half-hour lessons. Students may enroll in Levels I-IV only from the following list.

### **APMU 110 - Flute I**

**Class Hours:** var

**Credits:** 1

**Prerequisite:**

**(Major Area)** Prerequisites for initial semester of study: Audition and acceptance to the area of concentration

**(Minor Area)** Prerequisites for initial semester of study: Audition and placement Prerequisite for subsequent semesters: Grade of "C" or better in the previous semester of study

**Description: (Major Area)** Private instrumental, vocal, or composition instruction for music majors in their primary area of concentration for up to eight semesters (four in composition). Includes technical studies, musical repertoire, and performance experiences at the professional level. Weekly half-hour lessons are given (2cr) for students enrolled in the BS and BA degree programs. Weekly one-hour lessons (4cr) are given for students enrolled in the BFA degree program only.

**(Minor Area)** Private instrumental or vocal instruction for music minors, or for music majors in their secondary or tertiary area of concentration for up to four semesters. Includes technical studies, musical repertoire, and performance experiences at a functional level. Students enroll for 1 credit and are given weekly half-hour lessons. Students may enroll in Levels I-IV only from the following list.

## APMU 111 - Clarinet I

**Class Hours:** var

**Credits:** 1

**Prerequisite:**

**(Major Area)** Prerequisites for initial semester of study: Audition and acceptance to the area of concentration

**(Minor Area)** Prerequisites for initial semester of study: Audition and placement Prerequisite for subsequent semesters: Grade of "C" or better in the previous semester of study

**Description: (Major Area)** Private instrumental, vocal, or composition instruction for music majors in their primary area of concentration for up to eight semesters (four in composition). Includes technical studies, musical repertoire, and performance experiences at the professional level. Weekly half-hour lessons are given (2cr) for students enrolled in the BS and BA degree programs. Weekly one-hour lessons (4cr) are given for students enrolled in the BFA degree program only.

**(Minor Area)** Private instrumental or vocal instruction for music minors, or for music majors in their secondary or tertiary area of concentration for up to four semesters. Includes technical studies, musical repertoire, and performance experiences at a functional level. Students enroll for 1 credit and are given weekly half-hour lessons. Students may enroll in Levels I-IV only from the following list.

## APMU 112 - Oboe I

**Class Hours:** var

**Credits:** 1

**Prerequisite:**

**(Major Area)** Prerequisites for initial semester of study: Audition and acceptance to the area of concentration

**(Minor Area)** Prerequisites for initial semester of study: Audition and placement Prerequisite for subsequent semesters: Grade of "C" or better in the previous semester of study

**Description: (Major Area)** Private instrumental, vocal, or composition instruction for music majors in their primary area of concentration for up to eight semesters (four in composition). Includes technical studies, musical repertoire, and performance experiences at the professional

level. Weekly half-hour lessons are given (2cr) for students enrolled in the BS and BA degree programs. Weekly one-hour lessons (4cr) are given for students enrolled in the BFA degree program only.

**(Minor Area)** Private instrumental or vocal instruction for music minors, or for music majors in their secondary or tertiary area of concentration for up to four semesters. Includes technical studies, musical repertoire, and performance experiences at a functional level. Students enroll for 1 credit and are given weekly half-hour lessons. Students may enroll in Levels I-IV only from the following list.

## APMU 113 - Bassoon I

**Class Hours:** var

**Credits:** 1

**Prerequisite:**

**(Major Area)** Prerequisites for initial semester of study: Audition and acceptance to the area of concentration

**(Minor Area)** Prerequisites for initial semester of study: Audition and placement Prerequisite for subsequent semesters: Grade of "C" or better in the previous semester of study

**Description: (Major Area)** Private instrumental, vocal, or composition instruction for music majors in their primary area of concentration for up to eight semesters (four in composition). Includes technical studies, musical repertoire, and performance experiences at the professional level. Weekly half-hour lessons are given (2cr) for students enrolled in the BS and BA degree programs. Weekly one-hour lessons (4cr) are given for students enrolled in the BFA degree program only.

**(Minor Area)** Private instrumental or vocal instruction for music minors, or for music majors in their secondary or tertiary area of concentration for up to four semesters. Includes technical studies, musical repertoire, and performance experiences at a functional level. Students enroll for 1 credit and are given weekly half-hour lessons. Students may enroll in Levels I-IV only from the following list.

## APMU 114 - Saxophone I

**Class Hours:** var

**Credits:** 1

**Prerequisite:**

**(Major Area)** Prerequisites for initial semester of study:  
Audition and acceptance to the area of concentration

**(Minor Area)** Prerequisites for initial semester of study:  
Audition and placement Prerequisite for subsequent  
semesters: Grade of "C" or better in the previous semester  
of study

**Description: (Major Area)** Private instrumental, vocal, or  
composition instruction for music majors in their primary  
area of concentration for up to eight semesters (four in  
composition). Includes technical studies, musical  
repertoire, and performance experiences at the professional  
level. Weekly half-hour lessons are given (2cr) for students  
enrolled in the BS and BA degree programs. Weekly one-  
hour lessons (4cr) are given for students enrolled in the  
BFA degree program only.

**(Minor Area)** Private instrumental or vocal instruction for  
music minors, or for music majors in their secondary or  
tertiary area of concentration for up to four semesters.  
Includes technical studies, musical repertoire, and  
performance experiences at a functional level. Students  
enroll for 1 credit and are given weekly half-hour lessons.  
Students may enroll in Levels I-IV only from the following  
list.

## APMU 115 - Trumpet I

**Class Hours:** var

**Credits:** 1

**Prerequisite:**

**(Major Area)** Prerequisites for initial semester of study:  
Audition and acceptance to the area of concentration

**(Minor Area)** Prerequisites for initial semester of study:  
Audition and placement Prerequisite for subsequent  
semesters: Grade of "C" or better in the previous semester  
of study

**Description: (Major Area)** Private instrumental, vocal, or  
composition instruction for music majors in their primary  
area of concentration for up to eight semesters (four in  
composition). Includes technical studies, musical  
repertoire, and performance experiences at the professional  
level. Weekly half-hour lessons are given (2cr) for students  
enrolled in the BS and BA degree programs. Weekly one-  
hour lessons (4cr) are given for students enrolled in the  
BFA degree program only.

**(Minor Area)** Private instrumental or vocal instruction for  
music minors, or for music majors in their secondary or  
tertiary area of concentration for up to four semesters.  
Includes technical studies, musical repertoire, and  
performance experiences at a functional level. Students  
enroll for 1 credit and are given weekly half-hour lessons.  
Students may enroll in Levels I-IV only from the following  
list.

## APMU 116 - French Horn I

**Class Hours:** var

**Credits:** 1

**Prerequisite:**

**(Major Area)** Prerequisites for initial semester of study:  
Audition and acceptance to the area of concentration

**(Minor Area)** Prerequisites for initial semester of study:  
Audition and placement Prerequisite for subsequent  
semesters: Grade of "C" or better in the previous semester  
of study

**Description: (Major Area)** Private instrumental, vocal, or  
composition instruction for music majors in their primary  
area of concentration for up to eight semesters (four in  
composition). Includes technical studies, musical  
repertoire, and performance experiences at the professional  
level. Weekly half-hour lessons are given (2cr) for students  
enrolled in the BS and BA degree programs. Weekly one-  
hour lessons (4cr) are given for students enrolled in the  
BFA degree program only.

**(Minor Area)** Private instrumental or vocal instruction for  
music minors, or for music majors in their secondary or  
tertiary area of concentration for up to four semesters.  
Includes technical studies, musical repertoire, and  
performance experiences at a functional level. Students  
enroll for 1 credit and are given weekly half-hour lessons.  
Students may enroll in Levels I-IV only from the following  
list.

## APMU 117 - Trombone I

**Class Hours:** var

**Credits:** 1

**Prerequisite:**

**(Major Area)** Prerequisites for initial semester of study:  
Audition and acceptance to the area of concentration

**(Minor Area)** Prerequisites for initial semester of study:  
Audition and placement Prerequisite for subsequent

semesters: Grade of "C" or better in the previous semester of study

**Description: (Major Area)** Private instrumental, vocal, or composition instruction for music majors in their primary area of concentration for up to eight semesters (four in composition). Includes technical studies, musical repertoire, and performance experiences at the professional level. Weekly half-hour lessons are given (2cr) for students enrolled in the BS and BA degree programs. Weekly one-hour lessons (4cr) are given for students enrolled in the BFA degree program only.

**(Minor Area)** Private instrumental or vocal instruction for music minors, or for music majors in their secondary or tertiary area of concentration for up to four semesters. Includes technical studies, musical repertoire, and performance experiences at a functional level. Students enroll for 1 credit and are given weekly half-hour lessons. Students may enroll in Levels I-IV only from the following list.

### APMU 118 - Euphonium I

**Class Hours:** var

**Credits:** 1

**Prerequisite:**

**(Major Area)** Prerequisites for initial semester of study: Audition and acceptance to the area of concentration

**(Minor Area)** Prerequisites for initial semester of study: Audition and placement Prerequisite for subsequent semesters: Grade of "C" or better in the previous semester of study

**Description: (Major Area)** Private instrumental, vocal, or composition instruction for music majors in their primary area of concentration for up to eight semesters (four in composition). Includes technical studies, musical repertoire, and performance experiences at the professional level. Weekly half-hour lessons are given (2cr) for students enrolled in the BS and BA degree programs. Weekly one-hour lessons (4cr) are given for students enrolled in the BFA degree program only.

**(Minor Area)** Private instrumental or vocal instruction for music minors, or for music majors in their secondary or tertiary area of concentration for up to four semesters. Includes technical studies, musical repertoire, and performance experiences at a functional level. Students enroll for 1 credit and are given weekly half-hour lessons.

Students may enroll in Levels I-IV only from the following list.

### APMU 119 - Tuba I

**Class Hours:** var

**Credits:** 1

**Prerequisite:**

**(Major Area)** Prerequisites for initial semester of study: Audition and acceptance to the area of concentration

**(Minor Area)** Prerequisites for initial semester of study: Audition and placement Prerequisite for subsequent semesters: Grade of "C" or better in the previous semester of study

**Description: (Major Area)** Private instrumental, vocal, or composition instruction for music majors in their primary area of concentration for up to eight semesters (four in composition). Includes technical studies, musical repertoire, and performance experiences at the professional level. Weekly half-hour lessons are given (2cr) for students enrolled in the BS and BA degree programs. Weekly one-hour lessons (4cr) are given for students enrolled in the BFA degree program only.

**(Minor Area)** Private instrumental or vocal instruction for music minors, or for music majors in their secondary or tertiary area of concentration for up to four semesters. Includes technical studies, musical repertoire, and performance experiences at a functional level. Students enroll for 1 credit and are given weekly half-hour lessons. Students may enroll in Levels I-IV only from the following list.

### APMU 120 - Percussion I

**Class Hours:** var

**Credits:** 1

**Prerequisite:**

**(Major Area)** Prerequisites for initial semester of study: Audition and acceptance to the area of concentration

**(Minor Area)** Prerequisites for initial semester of study: Audition and placement Prerequisite for subsequent semesters: Grade of "C" or better in the previous semester of study

**Description: (Major Area)** Private instrumental, vocal, or composition instruction for music majors in their primary

area of concentration for up to eight semesters (four in composition). Includes technical studies, musical repertoire, and performance experiences at the professional level. Weekly half-hour lessons are given (2cr) for students enrolled in the BS and BA degree programs. Weekly one-hour lessons (4cr) are given for students enrolled in the BFA degree program only.

**(Minor Area)** Private instrumental or vocal instruction for music minors, or for music majors in their secondary or tertiary area of concentration for up to four semesters. Includes technical studies, musical repertoire, and performance experiences at a functional level. Students enroll for 1 credit and are given weekly half-hour lessons. Students may enroll in Levels I-IV only from the following list.

### **APMU 121 - Guitar I**

**Class Hours:** var

**Credits:** 1

**Prerequisite:**

**(Major Area)** Prerequisites for initial semester of study: Audition and acceptance to the area of concentration

**(Minor Area)** Prerequisites for initial semester of study: Audition and placement Prerequisite for subsequent semesters: Grade of "C" or better in the previous semester of study

**Description: (Major Area)** Private instrumental, vocal, or composition instruction for music majors in their primary area of concentration for up to eight semesters (four in composition). Includes technical studies, musical repertoire, and performance experiences at the professional level. Weekly half-hour lessons are given (2cr) for students enrolled in the BS and BA degree programs. Weekly one-hour lessons (4cr) are given for students enrolled in the BFA degree program only.

**(Minor Area)** Private instrumental or vocal instruction for music minors, or for music majors in their secondary or tertiary area of concentration for up to four semesters. Includes technical studies, musical repertoire, and performance experiences at a functional level. Students enroll for 1 credit and are given weekly half-hour lessons. Students may enroll in Levels I-IV only from the following list.

### **APMU 125 - Composition I**

**Class Hours:** var

**Credits:** 1

**Prerequisite:**

**(Major Area)** Prerequisites for initial semester of study: Audition and acceptance to the area of concentration

**(Minor Area)** Prerequisites for initial semester of study: Audition and placement Prerequisite for subsequent semesters: Grade of "C" or better in the previous semester of study

**Description: (Major Area)** Private instrumental, vocal, or composition instruction for music majors in their primary area of concentration for up to eight semesters (four in composition). Includes technical studies, musical repertoire, and performance experiences at the professional level. Weekly half-hour lessons are given (2cr) for students enrolled in the BS and BA degree programs. Weekly one-hour lessons (4cr) are given for students enrolled in the BFA degree program only.

**(Minor Area)** Private instrumental or vocal instruction for music minors, or for music majors in their secondary or tertiary area of concentration for up to four semesters. Includes technical studies, musical repertoire, and performance experiences at a functional level. Students enroll for 1 credit and are given weekly half-hour lessons. Students may enroll in Levels I-IV only from the following list.

### **APMU 126 - Piano Proficiency Level I**

**Class Hours:** 0

**Lab/Discussion:** 0

**Credits:** 0

**Corequisite:** MUSC 154 or APMU 151

**Description:** Adjudicates the performance of students in piano (on a pass/fail basis) as partial fulfillment of the requirements for the BA, BFA, and BSEd music degree programs. In order to pass the Level I jury, students are expected to attain a basic level of piano proficiency.

**Previously Offered As:** (Offered as APMU 124 before 2016-17.)

### **APMU 127 - Piano Proficiency Level II**

**Class Hours:** 0

**Lab/Discussion:** 0

**Credits:** 0

**Corequisite:** APMU 251

**Description:** Adjudicates the performance of students in piano (on a pass/fail basis) as partial fulfillment of the requirements for the BSEd—Music program. In order to pass the Level II jury, students are expected to attain an intermediate level of piano proficiency.

**Previously Offered As:** (Offered as APMU 123 before 2016-17.)

## APMU 151 - Piano II

**Class Hours:** var

**Credits:** 1

**Prerequisite:**

**(Major Area)** Prerequisites for initial semester of study: Audition and acceptance to the area of concentration

**(Minor Area)** Prerequisites for initial semester of study: Audition and placement Prerequisite for subsequent semesters: Grade of "C" or better in the previous semester of study

**Description: (Major Area)** Private instrumental, vocal, or composition instruction for music majors in their primary area of concentration for up to eight semesters (four in composition). Includes technical studies, musical repertoire, and performance experiences at the professional level. Weekly half-hour lessons are given (2cr) for students enrolled in the BS and BA degree programs. Weekly one-hour lessons (4cr) are given for students enrolled in the BFA degree program only.

**(Minor Area)** Private instrumental or vocal instruction for music minors, or for music majors in their secondary or tertiary area of concentration for up to four semesters. Includes technical studies, musical repertoire, and performance experiences at a functional level. Students enroll for 1 credit and are given weekly half-hour lessons. Students may enroll in Levels I-IV only from the following list.

## APMU 152 - Organ II

**Class Hours:** var

**Credits:** 1

**Prerequisite:**

**(Major Area)** Prerequisites for initial semester of study: Audition and acceptance to the area of concentration

**(Minor Area)** Prerequisites for initial semester of study: Audition and placement Prerequisite for subsequent

semesters: Grade of "C" or better in the previous semester of study

**Description: (Major Area)** Private instrumental, vocal, or composition instruction for music majors in their primary area of concentration for up to eight semesters (four in composition). Includes technical studies, musical repertoire, and performance experiences at the professional level. Weekly half-hour lessons are given (2cr) for students enrolled in the BS and BA degree programs. Weekly one-hour lessons (4cr) are given for students enrolled in the BFA degree program only.

**(Minor Area)** Private instrumental or vocal instruction for music minors, or for music majors in their secondary or tertiary area of concentration for up to four semesters. Includes technical studies, musical repertoire, and performance experiences at a functional level. Students enroll for 1 credit and are given weekly half-hour lessons. Students may enroll in Levels I-IV only from the following list.

## APMU 155 - Voice II

**Class Hours:** var

**Credits:** 1

**Prerequisite:**

**(Major Area)** Prerequisites for initial semester of study: Audition and acceptance to the area of concentration

**(Minor Area)** Prerequisites for initial semester of study: Audition and placement Prerequisite for subsequent semesters: Grade of "C" or better in the previous semester of study

**Description: (Major Area)** Private instrumental, vocal, or composition instruction for music majors in their primary area of concentration for up to eight semesters (four in composition). Includes technical studies, musical repertoire, and performance experiences at the professional level. Weekly half-hour lessons are given (2cr) for students enrolled in the BS and BA degree programs. Weekly one-hour lessons (4cr) are given for students enrolled in the BFA degree program only.

**(Minor Area)** Private instrumental or vocal instruction for music minors, or for music majors in their secondary or tertiary area of concentration for up to four semesters. Includes technical studies, musical repertoire, and performance experiences at a functional level. Students enroll for 1 credit and are given weekly half-hour lessons.

Students may enroll in Levels I-IV only from the following list.

## APMU 156 - Violin II

**Class Hours:** var

**Credits:** 1

**Prerequisite:**

**(Major Area)** Prerequisites for initial semester of study: Audition and acceptance to the area of concentration

**(Minor Area)** Prerequisites for initial semester of study: Audition and placement Prerequisite for subsequent semesters: Grade of "C" or better in the previous semester of study

**Description: (Major Area)** Private instrumental, vocal, or composition instruction for music majors in their primary area of concentration for up to eight semesters (four in composition). Includes technical studies, musical repertoire, and performance experiences at the professional level. Weekly half-hour lessons are given (2cr) for students enrolled in the BS and BA degree programs. Weekly one-hour lessons (4cr) are given for students enrolled in the BFA degree program only.

**(Minor Area)** Private instrumental or vocal instruction for music minors, or for music majors in their secondary or tertiary area of concentration for up to four semesters. Includes technical studies, musical repertoire, and performance experiences at a functional level. Students enroll for 1 credit and are given weekly half-hour lessons. Students may enroll in Levels I-IV only from the following list.

## APMU 157 - Viola II

**Class Hours:** var

**Credits:** 1

**Prerequisite:**

**(Major Area)** Prerequisites for initial semester of study: Audition and acceptance to the area of concentration

**(Minor Area)** Prerequisites for initial semester of study: Audition and placement Prerequisite for subsequent semesters: Grade of "C" or better in the previous semester of study

**Description: (Major Area)** Private instrumental, vocal, or composition instruction for music majors in their primary

area of concentration for up to eight semesters (four in composition). Includes technical studies, musical repertoire, and performance experiences at the professional level. Weekly half-hour lessons are given (2cr) for students enrolled in the BS and BA degree programs. Weekly one-hour lessons (4cr) are given for students enrolled in the BFA degree program only.

**(Minor Area)** Private instrumental or vocal instruction for music minors, or for music majors in their secondary or tertiary area of concentration for up to four semesters. Includes technical studies, musical repertoire, and performance experiences at a functional level. Students enroll for 1 credit and are given weekly half-hour lessons. Students may enroll in Levels I-IV only from the following list.

## APMU 158 - Cello II

**Class Hours:** var

**Credits:** 1

**Prerequisite:**

**(Major Area)** Prerequisites for initial semester of study: Audition and acceptance to the area of concentration

**(Minor Area)** Prerequisites for initial semester of study: Audition and placement Prerequisite for subsequent semesters: Grade of "C" or better in the previous semester of study

**Description: (Major Area)** Private instrumental, vocal, or composition instruction for music majors in their primary area of concentration for up to eight semesters (four in composition). Includes technical studies, musical repertoire, and performance experiences at the professional level. Weekly half-hour lessons are given (2cr) for students enrolled in the BS and BA degree programs. Weekly one-hour lessons (4cr) are given for students enrolled in the BFA degree program only.

**(Minor Area)** Private instrumental or vocal instruction for music minors, or for music majors in their secondary or tertiary area of concentration for up to four semesters. Includes technical studies, musical repertoire, and performance experiences at a functional level. Students enroll for 1 credit and are given weekly half-hour lessons. Students may enroll in Levels I-IV only from the following list.

## APMU 159 - String Bass II

**Class Hours:** var  
**Credits:** 1

**Prerequisite:**

**(Major Area)** Prerequisites for initial semester of study:  
Audition and acceptance to the area of concentration

**(Minor Area)** Prerequisites for initial semester of study:  
Audition and placement Prerequisite for subsequent semesters: Grade of "C" or better in the previous semester of study

**Description: (Major Area)** Private instrumental, vocal, or composition instruction for music majors in their primary area of concentration for up to eight semesters (four in composition). Includes technical studies, musical repertoire, and performance experiences at the professional level. Weekly half-hour lessons are given (2cr) for students enrolled in the BS and BA degree programs. Weekly one-hour lessons (4cr) are given for students enrolled in the BFA degree program only.

**(Minor Area)** Private instrumental or vocal instruction for music minors, or for music majors in their secondary or tertiary area of concentration for up to four semesters. Includes technical studies, musical repertoire, and performance experiences at a functional level. Students enroll for 1 credit and are given weekly half-hour lessons. Students may enroll in Levels I-IV only from the following list.

## APMU 160 - Flute II

**Class Hours:** var  
**Credits:** 1

**Prerequisite:**

**(Major Area)** Prerequisites for initial semester of study:  
Audition and acceptance to the area of concentration

**(Minor Area)** Prerequisites for initial semester of study:  
Audition and placement Prerequisite for subsequent semesters: Grade of "C" or better in the previous semester of study

**Description: (Major Area)** Private instrumental, vocal, or composition instruction for music majors in their primary area of concentration for up to eight semesters (four in composition). Includes technical studies, musical repertoire, and performance experiences at the professional level. Weekly half-hour lessons are given (2cr) for students enrolled in the BS and BA degree programs. Weekly one-

hour lessons (4cr) are given for students enrolled in the BFA degree program only.

**(Minor Area)** Private instrumental or vocal instruction for music minors, or for music majors in their secondary or tertiary area of concentration for up to four semesters. Includes technical studies, musical repertoire, and performance experiences at a functional level. Students enroll for 1 credit and are given weekly half-hour lessons. Students may enroll in Levels I-IV only from the following list.

## APMU 161 - Clarinet II

**Class Hours:** var  
**Credits:** 1

**Prerequisite:**

**(Major Area)** Prerequisites for initial semester of study:  
Audition and acceptance to the area of concentration

**(Minor Area)** Prerequisites for initial semester of study:  
Audition and placement Prerequisite for subsequent semesters: Grade of "C" or better in the previous semester of study

**Description: (Major Area)** Private instrumental, vocal, or composition instruction for music majors in their primary area of concentration for up to eight semesters (four in composition). Includes technical studies, musical repertoire, and performance experiences at the professional level. Weekly half-hour lessons are given (2cr) for students enrolled in the BS and BA degree programs. Weekly one-hour lessons (4cr) are given for students enrolled in the BFA degree program only.

**(Minor Area)** Private instrumental or vocal instruction for music minors, or for music majors in their secondary or tertiary area of concentration for up to four semesters. Includes technical studies, musical repertoire, and performance experiences at a functional level. Students enroll for 1 credit and are given weekly half-hour lessons. Students may enroll in Levels I-IV only from the following list.

## APMU 162 - Oboe II

**Class Hours:** var  
**Credits:** 1

**Prerequisite:**

**(Major Area)** Prerequisites for initial semester of study:  
Audition and acceptance to the area of concentration



**(Minor Area)** Prerequisites for initial semester of study: Audition and placement Prerequisite for subsequent semesters: Grade of "C" or better in the previous semester of study

**Description: (Major Area)** Private instrumental, vocal, or composition instruction for music majors in their primary area of concentration for up to eight semesters (four in composition). Includes technical studies, musical repertoire, and performance experiences at the professional level. Weekly half-hour lessons are given (2cr) for students enrolled in the BS and BA degree programs. Weekly one-hour lessons (4cr) are given for students enrolled in the BFA degree program only.

**(Minor Area)** Private instrumental or vocal instruction for music minors, or for music majors in their secondary or tertiary area of concentration for up to four semesters. Includes technical studies, musical repertoire, and performance experiences at a functional level. Students enroll for 1 credit and are given weekly half-hour lessons. Students may enroll in Levels I-IV only from the following list.

### **APMU 163 - Bassoon II**

**Class Hours:** var  
**Credits:** 1

**Prerequisite:**

**(Major Area)** Prerequisites for initial semester of study: Audition and acceptance to the area of concentration

**(Minor Area)** Prerequisites for initial semester of study: Audition and placement Prerequisite for subsequent semesters: Grade of "C" or better in the previous semester of study

**Description: (Major Area)** Private instrumental, vocal, or composition instruction for music majors in their primary area of concentration for up to eight semesters (four in composition). Includes technical studies, musical repertoire, and performance experiences at the professional level. Weekly half-hour lessons are given (2cr) for students enrolled in the BS and BA degree programs. Weekly one-hour lessons (4cr) are given for students enrolled in the BFA degree program only.

**(Minor Area)** Private instrumental or vocal instruction for music minors, or for music majors in their secondary or tertiary area of concentration for up to four semesters. Includes technical studies, musical repertoire, and

performance experiences at a functional level. Students enroll for 1 credit and are given weekly half-hour lessons. Students may enroll in Levels I-IV only from the following list.

### **APMU 164 - Saxophone II**

**Class Hours:** var  
**Credits:** 1

**Prerequisite:**

**(Major Area)** Prerequisites for initial semester of study: Audition and acceptance to the area of concentration

**(Minor Area)** Prerequisites for initial semester of study: Audition and placement Prerequisite for subsequent semesters: Grade of "C" or better in the previous semester of study

**Description: (Major Area)** Private instrumental, vocal, or composition instruction for music majors in their primary area of concentration for up to eight semesters (four in composition). Includes technical studies, musical repertoire, and performance experiences at the professional level. Weekly half-hour lessons are given (2cr) for students enrolled in the BS and BA degree programs. Weekly one-hour lessons (4cr) are given for students enrolled in the BFA degree program only.

**(Minor Area)** Private instrumental or vocal instruction for music minors, or for music majors in their secondary or tertiary area of concentration for up to four semesters. Includes technical studies, musical repertoire, and performance experiences at a functional level. Students enroll for 1 credit and are given weekly half-hour lessons. Students may enroll in Levels I-IV only from the following list.

### **APMU 165 - Trumpet II**

**Class Hours:** var  
**Credits:** 1

**Prerequisite:**

**(Major Area)** Prerequisites for initial semester of study: Audition and acceptance to the area of concentration

**(Minor Area)** Prerequisites for initial semester of study: Audition and placement Prerequisite for subsequent semesters: Grade of "C" or better in the previous semester of study

**Description: (Major Area)** Private instrumental, vocal, or composition instruction for music majors in their primary area of concentration for up to eight semesters (four in composition). Includes technical studies, musical repertoire, and performance experiences at the professional level. Weekly half-hour lessons are given (2cr) for students enrolled in the BS and BA degree programs. Weekly one-hour lessons (4cr) are given for students enrolled in the BFA degree program only.

**(Minor Area)** Private instrumental or vocal instruction for music minors, or for music majors in their secondary or tertiary area of concentration for up to four semesters. Includes technical studies, musical repertoire, and performance experiences at a functional level. Students enroll for 1 credit and are given weekly half-hour lessons. Students may enroll in Levels I-IV only from the following list.

### **APMU 166 - French Horn II**

**Class Hours:** var  
**Credits:** 1

**Prerequisite:**

**(Major Area)** Prerequisites for initial semester of study: Audition and acceptance to the area of concentration

**(Minor Area)** Prerequisites for initial semester of study: Audition and placement Prerequisite for subsequent semesters: Grade of "C" or better in the previous semester of study

**Description: (Major Area)** Private instrumental, vocal, or composition instruction for music majors in their primary area of concentration for up to eight semesters (four in composition). Includes technical studies, musical repertoire, and performance experiences at the professional level. Weekly half-hour lessons are given (2cr) for students enrolled in the BS and BA degree programs. Weekly one-hour lessons (4cr) are given for students enrolled in the BFA degree program only.

**(Minor Area)** Private instrumental or vocal instruction for music minors, or for music majors in their secondary or tertiary area of concentration for up to four semesters. Includes technical studies, musical repertoire, and performance experiences at a functional level. Students enroll for 1 credit and are given weekly half-hour lessons. Students may enroll in Levels I-IV only from the following list.

### **APMU 167 - Trombone II**

**Class Hours:** var  
**Credits:** 1

**Prerequisite:**

**(Major Area)** Prerequisites for initial semester of study: Audition and acceptance to the area of concentration

**(Minor Area)** Prerequisites for initial semester of study: Audition and placement Prerequisite for subsequent semesters: Grade of "C" or better in the previous semester of study

**Description: (Major Area)** Private instrumental, vocal, or composition instruction for music majors in their primary area of concentration for up to eight semesters (four in composition). Includes technical studies, musical repertoire, and performance experiences at the professional level. Weekly half-hour lessons are given (2cr) for students enrolled in the BS and BA degree programs. Weekly one-hour lessons (4cr) are given for students enrolled in the BFA degree program only.

**(Minor Area)** Private instrumental or vocal instruction for music minors, or for music majors in their secondary or tertiary area of concentration for up to four semesters. Includes technical studies, musical repertoire, and performance experiences at a functional level. Students enroll for 1 credit and are given weekly half-hour lessons. Students may enroll in Levels I-IV only from the following list.

### **APMU 168 - Euphonium II**

**Class Hours:** var  
**Credits:** 1

**Prerequisite:**

**(Major Area)** Prerequisites for initial semester of study: Audition and acceptance to the area of concentration

**(Minor Area)** Prerequisites for initial semester of study: Audition and placement Prerequisite for subsequent semesters: Grade of "C" or better in the previous semester of study

**Description: (Major Area)** Private instrumental, vocal, or composition instruction for music majors in their primary area of concentration for up to eight semesters (four in composition). Includes technical studies, musical repertoire, and performance experiences at the professional

level. Weekly half-hour lessons are given (2cr) for students enrolled in the BS and BA degree programs. Weekly one-hour lessons (4cr) are given for students enrolled in the BFA degree program only.

**(Minor Area)** Private instrumental or vocal instruction for music minors, or for music majors in their secondary or tertiary area of concentration for up to four semesters. Includes technical studies, musical repertoire, and performance experiences at a functional level. Students enroll for 1 credit and are given weekly half-hour lessons. Students may enroll in Levels I-IV only from the following list.

## APMU 169 - Tuba II

**Class Hours:** var  
**Credits:** 1

**Prerequisite:**

**(Major Area)** Prerequisites for initial semester of study: Audition and acceptance to the area of concentration

**(Minor Area)** Prerequisites for initial semester of study: Audition and placement Prerequisite for subsequent semesters: Grade of "C" or better in the previous semester of study

**Description: (Major Area)** Private instrumental, vocal, or composition instruction for music majors in their primary area of concentration for up to eight semesters (four in composition). Includes technical studies, musical repertoire, and performance experiences at the professional level. Weekly half-hour lessons are given (2cr) for students enrolled in the BS and BA degree programs. Weekly one-hour lessons (4cr) are given for students enrolled in the BFA degree program only.

**(Minor Area)** Private instrumental or vocal instruction for music minors, or for music majors in their secondary or tertiary area of concentration for up to four semesters. Includes technical studies, musical repertoire, and performance experiences at a functional level. Students enroll for 1 credit and are given weekly half-hour lessons. Students may enroll in Levels I-IV only from the following list.

## APMU 170 - Percussion II

**Class Hours:** var  
**Credits:** 1

**Prerequisite:**

**(Major Area)** Prerequisites for initial semester of study: Audition and acceptance to the area of concentration

**(Minor Area)** Prerequisites for initial semester of study: Audition and placement Prerequisite for subsequent semesters: Grade of "C" or better in the previous semester of study

**Description: (Major Area)** Private instrumental, vocal, or composition instruction for music majors in their primary area of concentration for up to eight semesters (four in composition). Includes technical studies, musical repertoire, and performance experiences at the professional level. Weekly half-hour lessons are given (2cr) for students enrolled in the BS and BA degree programs. Weekly one-hour lessons (4cr) are given for students enrolled in the BFA degree program only.

**(Minor Area)** Private instrumental or vocal instruction for music minors, or for music majors in their secondary or tertiary area of concentration for up to four semesters. Includes technical studies, musical repertoire, and performance experiences at a functional level. Students enroll for 1 credit and are given weekly half-hour lessons. Students may enroll in Levels I-IV only from the following list.

## APMU 171 - Guitar II

**Class Hours:** var  
**Credits:** 1

**Prerequisite:**

**(Major Area)** Prerequisites for initial semester of study: Audition and acceptance to the area of concentration

**(Minor Area)** Prerequisites for initial semester of study: Audition and placement Prerequisite for subsequent semesters: Grade of "C" or better in the previous semester of study

**Description: (Major Area)** Private instrumental, vocal, or composition instruction for music majors in their primary area of concentration for up to eight semesters (four in composition). Includes technical studies, musical repertoire, and performance experiences at the professional level. Weekly half-hour lessons are given (2cr) for students enrolled in the BS and BA degree programs. Weekly one-hour lessons (4cr) are given for students enrolled in the BFA degree program only.

**(Minor Area)** Private instrumental or vocal instruction for music minors, or for music majors in their secondary or tertiary area of concentration for up to four semesters. Includes technical studies, musical repertoire, and performance experiences at a functional level. Students enroll for 1 credit and are given weekly half-hour lessons. Students may enroll in Levels I-IV only from the following list.

### **APMU 201 - Piano III**

**Class Hours:** var

**Credits:** 1

**Prerequisite:**

**(Major Area)** Prerequisites for initial semester of study: Audition and acceptance to the area of concentration

**(Minor Area)** Prerequisites for initial semester of study: Audition and placement Prerequisite for subsequent semesters: Grade of "C" or better in the previous semester of study

**Description: (Major Area)** Private instrumental, vocal, or composition instruction for music majors in their primary area of concentration for up to eight semesters (four in composition). Includes technical studies, musical repertoire, and performance experiences at the professional level. Weekly half-hour lessons are given (2cr) for students enrolled in the BS and BA degree programs. Weekly one-hour lessons (4cr) are given for students enrolled in the BFA degree program only.

**(Minor Area)** Private instrumental or vocal instruction for music minors, or for music majors in their secondary or tertiary area of concentration for up to four semesters. Includes technical studies, musical repertoire, and performance experiences at a functional level. Students enroll for 1 credit and are given weekly half-hour lessons. Students may enroll in Levels I-IV only from the following list.

### **APMU 202 - Organ III**

**Class Hours:** var

**Credits:** 1

**Prerequisite:**

**(Major Area)** Prerequisites for initial semester of study: Audition and acceptance to the area of concentration

**(Minor Area)** Prerequisites for initial semester of study: Audition and placement Prerequisite for subsequent

semesters: Grade of "C" or better in the previous semester of study

**Description: (Major Area)** Private instrumental, vocal, or composition instruction for music majors in their primary area of concentration for up to eight semesters (four in composition). Includes technical studies, musical repertoire, and performance experiences at the professional level. Weekly half-hour lessons are given (2cr) for students enrolled in the BS and BA degree programs. Weekly one-hour lessons (4cr) are given for students enrolled in the BFA degree program only.

**(Minor Area)** Private instrumental or vocal instruction for music minors, or for music majors in their secondary or tertiary area of concentration for up to four semesters. Includes technical studies, musical repertoire, and performance experiences at a functional level. Students enroll for 1 credit and are given weekly half-hour lessons. Students may enroll in Levels I-IV only from the following list.

### **APMU 203 - Harpsichord III**

**Class Hours:** var

**Credits:** 1

**Prerequisite:**

**(Major Area)** Prerequisites for initial semester of study: Audition and acceptance to the area of concentration

**(Minor Area)** Prerequisites for initial semester of study: Audition and placement Prerequisite for subsequent semesters: Grade of "C" or better in the previous semester of study

**Description: (Major Area)** Private instrumental, vocal, or composition instruction for music majors in their primary area of concentration for up to eight semesters (four in composition). Includes technical studies, musical repertoire, and performance experiences at the professional level. Weekly half-hour lessons are given (2cr) for students enrolled in the BS and BA degree programs. Weekly one-hour lessons (4cr) are given for students enrolled in the BFA degree program only.

**(Minor Area)** Private instrumental or vocal instruction for music minors, or for music majors in their secondary or tertiary area of concentration for up to four semesters. Includes technical studies, musical repertoire, and performance experiences at a functional level. Students enroll for 1 credit and are given weekly half-hour lessons.

Students may enroll in Levels I-IV only from the following list.

## APMU 205 - Voice II

**Class Hours:** var

**Credits:** 1

**Prerequisite:**

**(Major Area)** Prerequisites for initial semester of study: Audition and acceptance to the area of concentration

**(Minor Area)** Prerequisites for initial semester of study: Audition and placement Prerequisite for subsequent semesters: Grade of "C" or better in the previous semester of study

**Description: (Major Area)** Private instrumental, vocal, or composition instruction for music majors in their primary area of concentration for up to eight semesters (four in composition). Includes technical studies, musical repertoire, and performance experiences at the professional level. Weekly half-hour lessons are given (2cr) for students enrolled in the BS and BA degree programs. Weekly one-hour lessons (4cr) are given for students enrolled in the BFA degree program only.

**(Minor Area)** Private instrumental or vocal instruction for music minors, or for music majors in their secondary or tertiary area of concentration for up to four semesters. Includes technical studies, musical repertoire, and performance experiences at a functional level. Students enroll for 1 credit and are given weekly half-hour lessons. Students may enroll in Levels I-IV only from the following list.

## APMU 206 - Violin III

**Class Hours:** var

**Credits:** 1

**Prerequisite:**

**(Major Area)** Prerequisites for initial semester of study: Audition and acceptance to the area of concentration

**(Minor Area)** Prerequisites for initial semester of study: Audition and placement Prerequisite for subsequent semesters: Grade of "C" or better in the previous semester of study

**Description: (Major Area)** Private instrumental, vocal, or composition instruction for music majors in their primary

area of concentration for up to eight semesters (four in composition). Includes technical studies, musical repertoire, and performance experiences at the professional level. Weekly half-hour lessons are given (2cr) for students enrolled in the BS and BA degree programs. Weekly one-hour lessons (4cr) are given for students enrolled in the BFA degree program only.

**(Minor Area)** Private instrumental or vocal instruction for music minors, or for music majors in their secondary or tertiary area of concentration for up to four semesters. Includes technical studies, musical repertoire, and performance experiences at a functional level. Students enroll for 1 credit and are given weekly half-hour lessons. Students may enroll in Levels I-IV only from the following list.

## APMU 207 - Viola III

**Class Hours:** var

**Credits:** 1

**Prerequisite:**

**(Major Area)** Prerequisites for initial semester of study: Audition and acceptance to the area of concentration

**(Minor Area)** Prerequisites for initial semester of study: Audition and placement Prerequisite for subsequent semesters: Grade of "C" or better in the previous semester of study

**Description: (Major Area)** Private instrumental, vocal, or composition instruction for music majors in their primary area of concentration for up to eight semesters (four in composition). Includes technical studies, musical repertoire, and performance experiences at the professional level. Weekly half-hour lessons are given (2cr) for students enrolled in the BS and BA degree programs. Weekly one-hour lessons (4cr) are given for students enrolled in the BFA degree program only.

**(Minor Area)** Private instrumental or vocal instruction for music minors, or for music majors in their secondary or tertiary area of concentration for up to four semesters. Includes technical studies, musical repertoire, and performance experiences at a functional level. Students enroll for 1 credit and are given weekly half-hour lessons. Students may enroll in Levels I-IV only from the following list.

## APMU 208 - Cello III

**Class Hours:** var  
**Credits:** 1

**Prerequisite:**

**(Major Area)** Prerequisites for initial semester of study:  
Audition and acceptance to the area of concentration

**(Minor Area)** Prerequisites for initial semester of study:  
Audition and placement Prerequisite for subsequent semesters: Grade of "C" or better in the previous semester of study

**Description: (Major Area)** Private instrumental, vocal, or composition instruction for music majors in their primary area of concentration for up to eight semesters (four in composition). Includes technical studies, musical repertoire, and performance experiences at the professional level. Weekly half-hour lessons are given (2cr) for students enrolled in the BS and BA degree programs. Weekly one-hour lessons (4cr) are given for students enrolled in the BFA degree program only.

**(Minor Area)** Private instrumental or vocal instruction for music minors, or for music majors in their secondary or tertiary area of concentration for up to four semesters. Includes technical studies, musical repertoire, and performance experiences at a functional level. Students enroll for 1 credit and are given weekly half-hour lessons. Students may enroll in Levels I-IV only from the following list.

### APMU 209 - String Bass III

**Class Hours:** var  
**Credits:** 1

**Prerequisite:**

**(Major Area)** Prerequisites for initial semester of study:  
Audition and acceptance to the area of concentration

**(Minor Area)** Prerequisites for initial semester of study:  
Audition and placement Prerequisite for subsequent semesters: Grade of "C" or better in the previous semester of study

**Description: (Major Area)** Private instrumental, vocal, or composition instruction for music majors in their primary area of concentration for up to eight semesters (four in composition). Includes technical studies, musical repertoire, and performance experiences at the professional level. Weekly half-hour lessons are given (2cr) for students enrolled in the BS and BA degree programs. Weekly one-

hour lessons (4cr) are given for students enrolled in the BFA degree program only.

**(Minor Area)** Private instrumental or vocal instruction for music minors, or for music majors in their secondary or tertiary area of concentration for up to four semesters. Includes technical studies, musical repertoire, and performance experiences at a functional level. Students enroll for 1 credit and are given weekly half-hour lessons. Students may enroll in Levels I-IV only from the following list.

### APMU 210 - Flute III

**Class Hours:** var  
**Credits:** 1

**Prerequisite:**

**(Major Area)** Prerequisites for initial semester of study:  
Audition and acceptance to the area of concentration

**(Minor Area)** Prerequisites for initial semester of study:  
Audition and placement Prerequisite for subsequent semesters: Grade of "C" or better in the previous semester of study

**Description: (Major Area)** Private instrumental, vocal, or composition instruction for music majors in their primary area of concentration for up to eight semesters (four in composition). Includes technical studies, musical repertoire, and performance experiences at the professional level. Weekly half-hour lessons are given (2cr) for students enrolled in the BS and BA degree programs. Weekly one-hour lessons (4cr) are given for students enrolled in the BFA degree program only.

**(Minor Area)** Private instrumental or vocal instruction for music minors, or for music majors in their secondary or tertiary area of concentration for up to four semesters. Includes technical studies, musical repertoire, and performance experiences at a functional level. Students enroll for 1 credit and are given weekly half-hour lessons. Students may enroll in Levels I-IV only from the following list.

### APMU 211 - Clarinet III

**Class Hours:** var  
**Credits:** 1

**Prerequisite:**

**(Major Area)** Prerequisites for initial semester of study:  
Audition and acceptance to the area of concentration

**(Minor Area)** Prerequisites for initial semester of study: Audition and placement Prerequisite for subsequent semesters: Grade of "C" or better in the previous semester of study

**Description: (Major Area)** Private instrumental, vocal, or composition instruction for music majors in their primary area of concentration for up to eight semesters (four in composition). Includes technical studies, musical repertoire, and performance experiences at the professional level. Weekly half-hour lessons are given (2cr) for students enrolled in the BS and BA degree programs. Weekly one-hour lessons (4cr) are given for students enrolled in the BFA degree program only.

**(Minor Area)** Private instrumental or vocal instruction for music minors, or for music majors in their secondary or tertiary area of concentration for up to four semesters. Includes technical studies, musical repertoire, and performance experiences at a functional level. Students enroll for 1 credit and are given weekly half-hour lessons. Students may enroll in Levels I-IV only from the following list.

### APMU 212 - Oboe III

**Class Hours:** var  
**Credits:** 1

**Prerequisite:**

**(Major Area)** Prerequisites for initial semester of study: Audition and acceptance to the area of concentration

**(Minor Area)** Prerequisites for initial semester of study: Audition and placement Prerequisite for subsequent semesters: Grade of "C" or better in the previous semester of study

**Description: (Major Area)** Private instrumental, vocal, or composition instruction for music majors in their primary area of concentration for up to eight semesters (four in composition). Includes technical studies, musical repertoire, and performance experiences at the professional level. Weekly half-hour lessons are given (2cr) for students enrolled in the BS and BA degree programs. Weekly one-hour lessons (4cr) are given for students enrolled in the BFA degree program only.

**(Minor Area)** Private instrumental or vocal instruction for music minors, or for music majors in their secondary or tertiary area of concentration for up to four semesters. Includes technical studies, musical repertoire, and

performance experiences at a functional level. Students enroll for 1 credit and are given weekly half-hour lessons. Students may enroll in Levels I-IV only from the following list.

### APMU 213 - Bassoon III

**Class Hours:** var  
**Credits:** 1

**Prerequisite:**

**(Major Area)** Prerequisites for initial semester of study: Audition and acceptance to the area of concentration

**(Minor Area)** Prerequisites for initial semester of study: Audition and placement Prerequisite for subsequent semesters: Grade of "C" or better in the previous semester of study

**Description: (Major Area)** Private instrumental, vocal, or composition instruction for music majors in their primary area of concentration for up to eight semesters (four in composition). Includes technical studies, musical repertoire, and performance experiences at the professional level. Weekly half-hour lessons are given (2cr) for students enrolled in the BS and BA degree programs. Weekly one-hour lessons (4cr) are given for students enrolled in the BFA degree program only.

**(Minor Area)** Private instrumental or vocal instruction for music minors, or for music majors in their secondary or tertiary area of concentration for up to four semesters. Includes technical studies, musical repertoire, and performance experiences at a functional level. Students enroll for 1 credit and are given weekly half-hour lessons. Students may enroll in Levels I-IV only from the following list.

### APMU 214 - Saxophone III

**Class Hours:** var  
**Credits:** 1

**Prerequisite:**

**(Major Area)** Prerequisites for initial semester of study: Audition and acceptance to the area of concentration

**(Minor Area)** Prerequisites for initial semester of study: Audition and placement Prerequisite for subsequent semesters: Grade of "C" or better in the previous semester of study

**Description: (Major Area)** Private instrumental, vocal, or composition instruction for music majors in their primary area of concentration for up to eight semesters (four in composition). Includes technical studies, musical repertoire, and performance experiences at the professional level. Weekly half-hour lessons are given (2cr) for students enrolled in the BS and BA degree programs. Weekly one-hour lessons (4cr) are given for students enrolled in the BFA degree program only.

**(Minor Area)** Private instrumental or vocal instruction for music minors, or for music majors in their secondary or tertiary area of concentration for up to four semesters. Includes technical studies, musical repertoire, and performance experiences at a functional level. Students enroll for 1 credit and are given weekly half-hour lessons. Students may enroll in Levels I-IV only from the following list.

### APMU 215 - Trumpet III

**Class Hours:** var  
**Credits:** 1

**Prerequisite:**

**(Major Area)** Prerequisites for initial semester of study: Audition and acceptance to the area of concentration

**(Minor Area)** Prerequisites for initial semester of study: Audition and placement Prerequisite for subsequent semesters: Grade of "C" or better in the previous semester of study

**Description: (Major Area)** Private instrumental, vocal, or composition instruction for music majors in their primary area of concentration for up to eight semesters (four in composition). Includes technical studies, musical repertoire, and performance experiences at the professional level. Weekly half-hour lessons are given (2cr) for students enrolled in the BS and BA degree programs. Weekly one-hour lessons (4cr) are given for students enrolled in the BFA degree program only.

**(Minor Area)** Private instrumental or vocal instruction for music minors, or for music majors in their secondary or tertiary area of concentration for up to four semesters. Includes technical studies, musical repertoire, and performance experiences at a functional level. Students enroll for 1 credit and are given weekly half-hour lessons. Students may enroll in Levels I-IV only from the following list.

### APMU 216 - French Horn III

**Class Hours:** var  
**Credits:** 1

**Prerequisite:**

**(Major Area)** Prerequisites for initial semester of study: Audition and acceptance to the area of concentration

**(Minor Area)** Prerequisites for initial semester of study: Audition and placement Prerequisite for subsequent semesters: Grade of "C" or better in the previous semester of study

**Description: (Major Area)** Private instrumental, vocal, or composition instruction for music majors in their primary area of concentration for up to eight semesters (four in composition). Includes technical studies, musical repertoire, and performance experiences at the professional level. Weekly half-hour lessons are given (2cr) for students enrolled in the BS and BA degree programs. Weekly one-hour lessons (4cr) are given for students enrolled in the BFA degree program only.

**(Minor Area)** Private instrumental or vocal instruction for music minors, or for music majors in their secondary or tertiary area of concentration for up to four semesters. Includes technical studies, musical repertoire, and performance experiences at a functional level. Students enroll for 1 credit and are given weekly half-hour lessons. Students may enroll in Levels I-IV only from the following list.

### APMU 217 - Trombone III

**Class Hours:** var  
**Credits:** 1

**Prerequisite:**

**(Major Area)** Prerequisites for initial semester of study: Audition and acceptance to the area of concentration

**(Minor Area)** Prerequisites for initial semester of study: Audition and placement Prerequisite for subsequent semesters: Grade of "C" or better in the previous semester of study

**Description: (Major Area)** Private instrumental, vocal, or composition instruction for music majors in their primary area of concentration for up to eight semesters (four in composition). Includes technical studies, musical repertoire, and performance experiences at the professional



level. Weekly half-hour lessons are given (2cr) for students enrolled in the BS and BA degree programs. Weekly one-hour lessons (4cr) are given for students enrolled in the BFA degree program only.

**(Minor Area)** Private instrumental or vocal instruction for music minors, or for music majors in their secondary or tertiary area of concentration for up to four semesters. Includes technical studies, musical repertoire, and performance experiences at a functional level. Students enroll for 1 credit and are given weekly half-hour lessons. Students may enroll in Levels I-IV only from the following list.

### **APMU 218 - Euphonium III**

**Class Hours:** var  
**Credits:** 1

**Prerequisite:**

**(Major Area)** Prerequisites for initial semester of study: Audition and acceptance to the area of concentration

**(Minor Area)** Prerequisites for initial semester of study: Audition and placement Prerequisite for subsequent semesters: Grade of "C" or better in the previous semester of study

**Description: (Major Area)** Private instrumental, vocal, or composition instruction for music majors in their primary area of concentration for up to eight semesters (four in composition). Includes technical studies, musical repertoire, and performance experiences at the professional level. Weekly half-hour lessons are given (2cr) for students enrolled in the BS and BA degree programs. Weekly one-hour lessons (4cr) are given for students enrolled in the BFA degree program only.

**(Minor Area)** Private instrumental or vocal instruction for music minors, or for music majors in their secondary or tertiary area of concentration for up to four semesters. Includes technical studies, musical repertoire, and performance experiences at a functional level. Students enroll for 1 credit and are given weekly half-hour lessons. Students may enroll in Levels I-IV only from the following list.

### **APMU 219 - Tuba III**

**Class Hours:** var  
**Credits:** 1

**Prerequisite:**

**(Major Area)** Prerequisites for initial semester of study: Audition and acceptance to the area of concentration

**(Minor Area)** Prerequisites for initial semester of study: Audition and placement Prerequisite for subsequent semesters: Grade of "C" or better in the previous semester of study

**Description: (Major Area)** Private instrumental, vocal, or composition instruction for music majors in their primary area of concentration for up to eight semesters (four in composition). Includes technical studies, musical repertoire, and performance experiences at the professional level. Weekly half-hour lessons are given (2cr) for students enrolled in the BS and BA degree programs. Weekly one-hour lessons (4cr) are given for students enrolled in the BFA degree program only.

**(Minor Area)** Private instrumental or vocal instruction for music minors, or for music majors in their secondary or tertiary area of concentration for up to four semesters. Includes technical studies, musical repertoire, and performance experiences at a functional level. Students enroll for 1 credit and are given weekly half-hour lessons. Students may enroll in Levels I-IV only from the following list.

### **APMU 220 - Percussion III**

**Class Hours:** var  
**Credits:** 1

**Prerequisite:**

**(Major Area)** Prerequisites for initial semester of study: Audition and acceptance to the area of concentration

**(Minor Area)** Prerequisites for initial semester of study: Audition and placement Prerequisite for subsequent semesters: Grade of "C" or better in the previous semester of study

**Description: (Major Area)** Private instrumental, vocal, or composition instruction for music majors in their primary area of concentration for up to eight semesters (four in composition). Includes technical studies, musical repertoire, and performance experiences at the professional level. Weekly half-hour lessons are given (2cr) for students enrolled in the BS and BA degree programs. Weekly one-hour lessons (4cr) are given for students enrolled in the BFA degree program only.

**(Minor Area)** Private instrumental or vocal instruction for music minors, or for music majors in their secondary or tertiary area of concentration for up to four semesters. Includes technical studies, musical repertoire, and performance experiences at a functional level. Students enroll for 1 credit and are given weekly half-hour lessons. Students may enroll in Levels I-IV only from the following list.

### **APMU 221 - Guitar III**

**Class Hours:** var

**Credits:** 1

**Prerequisite:**

**(Major Area)** Prerequisites for initial semester of study: Audition and acceptance to the area of concentration

**(Minor Area)** Prerequisites for initial semester of study: Audition and placement Prerequisite for subsequent semesters: Grade of "C" or better in the previous semester of study

**Description: (Major Area)** Private instrumental, vocal, or composition instruction for music majors in their primary area of concentration for up to eight semesters (four in composition). Includes technical studies, musical repertoire, and performance experiences at the professional level. Weekly half-hour lessons are given (2cr) for students enrolled in the BS and BA degree programs. Weekly one-hour lessons (4cr) are given for students enrolled in the BFA degree program only.

**(Minor Area)** Private instrumental or vocal instruction for music minors, or for music majors in their secondary or tertiary area of concentration for up to four semesters. Includes technical studies, musical repertoire, and performance experiences at a functional level. Students enroll for 1 credit and are given weekly half-hour lessons. Students may enroll in Levels I-IV only from the following list.

### **APMU 225 - Composition II**

**Class Hours:** var

**Credits:** 1

**Prerequisite:**

**(Major Area)** Prerequisites for initial semester of study: Audition and acceptance to the area of concentration

**(Minor Area)** Prerequisites for initial semester of study: Audition and placement Prerequisite for subsequent

semesters: Grade of "C" or better in the previous semester of study

**Description: (Major Area)** Private instrumental, vocal, or composition instruction for music majors in their primary area of concentration for up to eight semesters (four in composition). Includes technical studies, musical repertoire, and performance experiences at the professional level. Weekly half-hour lessons are given (2cr) for students enrolled in the BS and BA degree programs. Weekly one-hour lessons (4cr) are given for students enrolled in the BFA degree program only.

**(Minor Area)** Private instrumental or vocal instruction for music minors, or for music majors in their secondary or tertiary area of concentration for up to four semesters. Includes technical studies, musical repertoire, and performance experiences at a functional level. Students enroll for 1 credit and are given weekly half-hour lessons. Students may enroll in Levels I-IV only from the following list.

### **APMU 227 - Capstone Jury: Secondary Instrument**

**Class Hours:** 0

**Lab/Discussion:** 0

**Credits:** 0

**Prerequisite:** Must be taken during the fourth semester of APMU Applied Music (secondary instrument)

**Description:** Adjudicates the performance of students in a secondary performance area (on a pass/fail basis). To pass the secondary jury, students are expected to perform at a functional level. All students who undertake four semesters of secondary applied study must complete a capstone jury, but those in the BSEd—Music program with a voice concentration take APMU 127 in lieu of 227.

### **APMU 251 - Piano IV**

**Class Hours:** var

**Credits:** 1

**Prerequisite:**

**(Major Area)** Prerequisites for initial semester of study: Audition and acceptance to the area of concentration

**(Minor Area)** Prerequisites for initial semester of study: Audition and placement Prerequisite for subsequent semesters: Grade of "C" or better in the previous semester of study

**Description: (Major Area)** Private instrumental, vocal, or composition instruction for music majors in their primary area of concentration for up to eight semesters (four in composition). Includes technical studies, musical repertoire, and performance experiences at the professional level. Weekly half-hour lessons are given (2cr) for students enrolled in the BS and BA degree programs. Weekly one-hour lessons (4cr) are given for students enrolled in the BFA degree program only.

**(Minor Area)** Private instrumental or vocal instruction for music minors, or for music majors in their secondary or tertiary area of concentration for up to four semesters. Includes technical studies, musical repertoire, and performance experiences at a functional level. Students enroll for 1 credit and are given weekly half-hour lessons. Students may enroll in Levels I-IV only from the following list.

### **APMU 252 - Organ IV**

**Class Hours:** var  
**Credits:** 1

**Prerequisite:**

**(Major Area)** Prerequisites for initial semester of study: Audition and acceptance to the area of concentration

**(Minor Area)** Prerequisites for initial semester of study: Audition and placement Prerequisite for subsequent semesters: Grade of "C" or better in the previous semester of study

**Description: (Major Area)** Private instrumental, vocal, or composition instruction for music majors in their primary area of concentration for up to eight semesters (four in composition). Includes technical studies, musical repertoire, and performance experiences at the professional level. Weekly half-hour lessons are given (2cr) for students enrolled in the BS and BA degree programs. Weekly one-hour lessons (4cr) are given for students enrolled in the BFA degree program only.

**(Minor Area)** Private instrumental or vocal instruction for music minors, or for music majors in their secondary or tertiary area of concentration for up to four semesters. Includes technical studies, musical repertoire, and performance experiences at a functional level. Students enroll for 1 credit and are given weekly half-hour lessons. Students may enroll in Levels I-IV only from the following list.

### **APMU 255 - Voice III**

**Class Hours:** var  
**Credits:** 1

**Prerequisite:**

**(Major Area)** Prerequisites for initial semester of study: Audition and acceptance to the area of concentration

**(Minor Area)** Prerequisites for initial semester of study: Audition and placement Prerequisite for subsequent semesters: Grade of "C" or better in the previous semester of study

**Description: (Major Area)** Private instrumental, vocal, or composition instruction for music majors in their primary area of concentration for up to eight semesters (four in composition). Includes technical studies, musical repertoire, and performance experiences at the professional level. Weekly half-hour lessons are given (2cr) for students enrolled in the BS and BA degree programs. Weekly one-hour lessons (4cr) are given for students enrolled in the BFA degree program only.

**(Minor Area)** Private instrumental or vocal instruction for music minors, or for music majors in their secondary or tertiary area of concentration for up to four semesters. Includes technical studies, musical repertoire, and performance experiences at a functional level. Students enroll for 1 credit and are given weekly half-hour lessons. Students may enroll in Levels I-IV only from the following list.

### **APMU 256 - Violin IV**

**Class Hours:** var  
**Credits:** 1

**Prerequisite:**

**(Major Area)** Prerequisites for initial semester of study: Audition and acceptance to the area of concentration

**(Minor Area)** Prerequisites for initial semester of study: Audition and placement Prerequisite for subsequent semesters: Grade of "C" or better in the previous semester of study

**Description: (Major Area)** Private instrumental, vocal, or composition instruction for music majors in their primary area of concentration for up to eight semesters (four in composition). Includes technical studies, musical repertoire, and performance experiences at the professional

level. Weekly half-hour lessons are given (2cr) for students enrolled in the BS and BA degree programs. Weekly one-hour lessons (4cr) are given for students enrolled in the BFA degree program only.

**(Minor Area)** Private instrumental or vocal instruction for music minors, or for music majors in their secondary or tertiary area of concentration for up to four semesters. Includes technical studies, musical repertoire, and performance experiences at a functional level. Students enroll for 1 credit and are given weekly half-hour lessons. Students may enroll in Levels I-IV only from the following list.

### **APMU 257 - Viola IV**

**Class Hours:** var  
**Credits:** 1

**Prerequisite:**

**(Major Area)** Prerequisites for initial semester of study: Audition and acceptance to the area of concentration

**(Minor Area)** Prerequisites for initial semester of study: Audition and placement Prerequisite for subsequent semesters: Grade of "C" or better in the previous semester of study

**Description: (Major Area)** Private instrumental, vocal, or composition instruction for music majors in their primary area of concentration for up to eight semesters (four in composition). Includes technical studies, musical repertoire, and performance experiences at the professional level. Weekly half-hour lessons are given (2cr) for students enrolled in the BS and BA degree programs. Weekly one-hour lessons (4cr) are given for students enrolled in the BFA degree program only.

**(Minor Area)** Private instrumental or vocal instruction for music minors, or for music majors in their secondary or tertiary area of concentration for up to four semesters. Includes technical studies, musical repertoire, and performance experiences at a functional level. Students enroll for 1 credit and are given weekly half-hour lessons. Students may enroll in Levels I-IV only from the following list.

### **APMU 258 - Cello IV**

**Class Hours:** var  
**Credits:** 1

**Prerequisite:**

**(Major Area)** Prerequisites for initial semester of study: Audition and acceptance to the area of concentration

**(Minor Area)** Prerequisites for initial semester of study: Audition and placement Prerequisite for subsequent semesters: Grade of "C" or better in the previous semester of study

**Description: (Major Area)** Private instrumental, vocal, or composition instruction for music majors in their primary area of concentration for up to eight semesters (four in composition). Includes technical studies, musical repertoire, and performance experiences at the professional level. Weekly half-hour lessons are given (2cr) for students enrolled in the BS and BA degree programs. Weekly one-hour lessons (4cr) are given for students enrolled in the BFA degree program only.

**(Minor Area)** Private instrumental or vocal instruction for music minors, or for music majors in their secondary or tertiary area of concentration for up to four semesters. Includes technical studies, musical repertoire, and performance experiences at a functional level. Students enroll for 1 credit and are given weekly half-hour lessons. Students may enroll in Levels I-IV only from the following list.

### **APMU 259 - String Bass IV**

**Class Hours:** var  
**Credits:** 1

**Prerequisite:**

**(Major Area)** Prerequisites for initial semester of study: Audition and acceptance to the area of concentration

**(Minor Area)** Prerequisites for initial semester of study: Audition and placement Prerequisite for subsequent semesters: Grade of "C" or better in the previous semester of study

**Description: (Major Area)** Private instrumental, vocal, or composition instruction for music majors in their primary area of concentration for up to eight semesters (four in composition). Includes technical studies, musical repertoire, and performance experiences at the professional level. Weekly half-hour lessons are given (2cr) for students enrolled in the BS and BA degree programs. Weekly one-hour lessons (4cr) are given for students enrolled in the BFA degree program only.

**(Minor Area)** Private instrumental or vocal instruction for music minors, or for music majors in their secondary or tertiary area of concentration for up to four semesters. Includes technical studies, musical repertoire, and performance experiences at a functional level. Students enroll for 1 credit and are given weekly half-hour lessons. Students may enroll in Levels I-IV only from the following list.

### **APMU 260 - Flute IV**

**Class Hours:** var

**Credits:** 1

**Prerequisite:**

**(Major Area)** Prerequisites for initial semester of study: Audition and acceptance to the area of concentration

**(Minor Area)** Prerequisites for initial semester of study: Audition and placement Prerequisite for subsequent semesters: Grade of "C" or better in the previous semester of study

**Description: (Major Area)** Private instrumental, vocal, or composition instruction for music majors in their primary area of concentration for up to eight semesters (four in composition). Includes technical studies, musical repertoire, and performance experiences at the professional level. Weekly half-hour lessons are given (2cr) for students enrolled in the BS and BA degree programs. Weekly one-hour lessons (4cr) are given for students enrolled in the BFA degree program only.

**(Minor Area)** Private instrumental or vocal instruction for music minors, or for music majors in their secondary or tertiary area of concentration for up to four semesters. Includes technical studies, musical repertoire, and performance experiences at a functional level. Students enroll for 1 credit and are given weekly half-hour lessons. Students may enroll in Levels I-IV only from the following list.

### **APMU 261 - Clarinet IV**

**Class Hours:** var

**Credits:** 1

**Prerequisite:**

**(Major Area)** Prerequisites for initial semester of study: Audition and acceptance to the area of concentration

**(Minor Area)** Prerequisites for initial semester of study: Audition and placement Prerequisite for subsequent

semesters: Grade of "C" or better in the previous semester of study

**Description: (Major Area)** Private instrumental, vocal, or composition instruction for music majors in their primary area of concentration for up to eight semesters (four in composition). Includes technical studies, musical repertoire, and performance experiences at the professional level. Weekly half-hour lessons are given (2cr) for students enrolled in the BS and BA degree programs. Weekly one-hour lessons (4cr) are given for students enrolled in the BFA degree program only.

**(Minor Area)** Private instrumental or vocal instruction for music minors, or for music majors in their secondary or tertiary area of concentration for up to four semesters. Includes technical studies, musical repertoire, and performance experiences at a functional level. Students enroll for 1 credit and are given weekly half-hour lessons. Students may enroll in Levels I-IV only from the following list.

### **APMU 262 - Oboe IV**

**Class Hours:** var

**Credits:** 1

**Prerequisite:**

**(Major Area)** Prerequisites for initial semester of study: Audition and acceptance to the area of concentration

**(Minor Area)** Prerequisites for initial semester of study: Audition and placement Prerequisite for subsequent semesters: Grade of "C" or better in the previous semester of study

**Description: (Major Area)** Private instrumental, vocal, or composition instruction for music majors in their primary area of concentration for up to eight semesters (four in composition). Includes technical studies, musical repertoire, and performance experiences at the professional level. Weekly half-hour lessons are given (2cr) for students enrolled in the BS and BA degree programs. Weekly one-hour lessons (4cr) are given for students enrolled in the BFA degree program only.

**(Minor Area)** Private instrumental or vocal instruction for music minors, or for music majors in their secondary or tertiary area of concentration for up to four semesters. Includes technical studies, musical repertoire, and performance experiences at a functional level. Students enroll for 1 credit and are given weekly half-hour lessons.

Students may enroll in Levels I-IV only from the following list.

### **APMU 263 - Bassoon IV**

**Class Hours:** var

**Credits:** 1

**Prerequisite:**

**(Major Area)** Prerequisites for initial semester of study: Audition and acceptance to the area of concentration

**(Minor Area)** Prerequisites for initial semester of study: Audition and placement Prerequisite for subsequent semesters: Grade of "C" or better in the previous semester of study

**Description: (Major Area)** Private instrumental, vocal, or composition instruction for music majors in their primary area of concentration for up to eight semesters (four in composition). Includes technical studies, musical repertoire, and performance experiences at the professional level. Weekly half-hour lessons are given (2cr) for students enrolled in the BS and BA degree programs. Weekly one-hour lessons (4cr) are given for students enrolled in the BFA degree program only.

**(Minor Area)** Private instrumental or vocal instruction for music minors, or for music majors in their secondary or tertiary area of concentration for up to four semesters. Includes technical studies, musical repertoire, and performance experiences at a functional level. Students enroll for 1 credit and are given weekly half-hour lessons. Students may enroll in Levels I-IV only from the following list.

### **APMU 264 - Saxophone IV**

**Class Hours:** var

**Credits:** 1

**Prerequisite:**

**(Major Area)** Prerequisites for initial semester of study: Audition and acceptance to the area of concentration

**(Minor Area)** Prerequisites for initial semester of study: Audition and placement Prerequisite for subsequent semesters: Grade of "C" or better in the previous semester of study

**Description: (Major Area)** Private instrumental, vocal, or composition instruction for music majors in their primary

area of concentration for up to eight semesters (four in composition). Includes technical studies, musical repertoire, and performance experiences at the professional level. Weekly half-hour lessons are given (2cr) for students enrolled in the BS and BA degree programs. Weekly one-hour lessons (4cr) are given for students enrolled in the BFA degree program only.

**(Minor Area)** Private instrumental or vocal instruction for music minors, or for music majors in their secondary or tertiary area of concentration for up to four semesters. Includes technical studies, musical repertoire, and performance experiences at a functional level. Students enroll for 1 credit and are given weekly half-hour lessons. Students may enroll in Levels I-IV only from the following list.

### **APMU 265 - Trumpet IV**

**Class Hours:** var

**Credits:** 1

**Prerequisite:**

**(Major Area)** Prerequisites for initial semester of study: Audition and acceptance to the area of concentration

**(Minor Area)** Prerequisites for initial semester of study: Audition and placement Prerequisite for subsequent semesters: Grade of "C" or better in the previous semester of study

**Description: (Major Area)** Private instrumental, vocal, or composition instruction for music majors in their primary area of concentration for up to eight semesters (four in composition). Includes technical studies, musical repertoire, and performance experiences at the professional level. Weekly half-hour lessons are given (2cr) for students enrolled in the BS and BA degree programs. Weekly one-hour lessons (4cr) are given for students enrolled in the BFA degree program only.

**(Minor Area)** Private instrumental or vocal instruction for music minors, or for music majors in their secondary or tertiary area of concentration for up to four semesters. Includes technical studies, musical repertoire, and performance experiences at a functional level. Students enroll for 1 credit and are given weekly half-hour lessons. Students may enroll in Levels I-IV only from the following list.

### **APMU 266 - French Horn IV**

**Class Hours:** var  
**Credits:** 1

**Prerequisite:**

**(Major Area)** Prerequisites for initial semester of study:  
Audition and acceptance to the area of concentration

**(Minor Area)** Prerequisites for initial semester of study:  
Audition and placement Prerequisite for subsequent semesters: Grade of "C" or better in the previous semester of study

**Description: (Major Area)** Private instrumental, vocal, or composition instruction for music majors in their primary area of concentration for up to eight semesters (four in composition). Includes technical studies, musical repertoire, and performance experiences at the professional level. Weekly half-hour lessons are given (2cr) for students enrolled in the BS and BA degree programs. Weekly one-hour lessons (4cr) are given for students enrolled in the BFA degree program only.

**(Minor Area)** Private instrumental or vocal instruction for music minors, or for music majors in their secondary or tertiary area of concentration for up to four semesters. Includes technical studies, musical repertoire, and performance experiences at a functional level. Students enroll for 1 credit and are given weekly half-hour lessons. Students may enroll in Levels I-IV only from the following list.

### APMU 267 - Trombone IV

**Class Hours:** var  
**Credits:** 1

**Prerequisite:**

**(Major Area)** Prerequisites for initial semester of study:  
Audition and acceptance to the area of concentration

**(Minor Area)** Prerequisites for initial semester of study:  
Audition and placement Prerequisite for subsequent semesters: Grade of "C" or better in the previous semester of study

**Description: (Major Area)** Private instrumental, vocal, or composition instruction for music majors in their primary area of concentration for up to eight semesters (four in composition). Includes technical studies, musical repertoire, and performance experiences at the professional level. Weekly half-hour lessons are given (2cr) for students enrolled in the BS and BA degree programs. Weekly one-

hour lessons (4cr) are given for students enrolled in the BFA degree program only.

**(Minor Area)** Private instrumental or vocal instruction for music minors, or for music majors in their secondary or tertiary area of concentration for up to four semesters. Includes technical studies, musical repertoire, and performance experiences at a functional level. Students enroll for 1 credit and are given weekly half-hour lessons. Students may enroll in Levels I-IV only from the following list.

### APMU 268 - Euphonium IV

**Class Hours:** var  
**Credits:** 1

**Prerequisite:**

**(Major Area)** Prerequisites for initial semester of study:  
Audition and acceptance to the area of concentration

**(Minor Area)** Prerequisites for initial semester of study:  
Audition and placement Prerequisite for subsequent semesters: Grade of "C" or better in the previous semester of study

**Description: (Major Area)** Private instrumental, vocal, or composition instruction for music majors in their primary area of concentration for up to eight semesters (four in composition). Includes technical studies, musical repertoire, and performance experiences at the professional level. Weekly half-hour lessons are given (2cr) for students enrolled in the BS and BA degree programs. Weekly one-hour lessons (4cr) are given for students enrolled in the BFA degree program only.

**(Minor Area)** Private instrumental or vocal instruction for music minors, or for music majors in their secondary or tertiary area of concentration for up to four semesters. Includes technical studies, musical repertoire, and performance experiences at a functional level. Students enroll for 1 credit and are given weekly half-hour lessons. Students may enroll in Levels I-IV only from the following list.

### APMU 269 - Tuba IV

**Class Hours:** var  
**Credits:** 1

**Prerequisite:**

**(Major Area)** Prerequisites for initial semester of study:  
Audition and acceptance to the area of concentration

**(Minor Area)** Prerequisites for initial semester of study: Audition and placement Prerequisite for subsequent semesters: Grade of "C" or better in the previous semester of study

**Description: (Major Area)** Private instrumental, vocal, or composition instruction for music majors in their primary area of concentration for up to eight semesters (four in composition). Includes technical studies, musical repertoire, and performance experiences at the professional level. Weekly half-hour lessons are given (2cr) for students enrolled in the BS and BA degree programs. Weekly one-hour lessons (4cr) are given for students enrolled in the BFA degree program only.

**(Minor Area)** Private instrumental or vocal instruction for music minors, or for music majors in their secondary or tertiary area of concentration for up to four semesters. Includes technical studies, musical repertoire, and performance experiences at a functional level. Students enroll for 1 credit and are given weekly half-hour lessons. Students may enroll in Levels I-IV only from the following list.

### **APMU 270 - Percussion IV**

**Class Hours:** var  
**Credits:** 1

**Prerequisite:**

**(Major Area)** Prerequisites for initial semester of study: Audition and acceptance to the area of concentration

**(Minor Area)** Prerequisites for initial semester of study: Audition and placement Prerequisite for subsequent semesters: Grade of "C" or better in the previous semester of study

**Description: (Major Area)** Private instrumental, vocal, or composition instruction for music majors in their primary area of concentration for up to eight semesters (four in composition). Includes technical studies, musical repertoire, and performance experiences at the professional level. Weekly half-hour lessons are given (2cr) for students enrolled in the BS and BA degree programs. Weekly one-hour lessons (4cr) are given for students enrolled in the BFA degree program only.

**(Minor Area)** Private instrumental or vocal instruction for music minors, or for music majors in their secondary or tertiary area of concentration for up to four semesters. Includes technical studies, musical repertoire, and

performance experiences at a functional level. Students enroll for 1 credit and are given weekly half-hour lessons. Students may enroll in Levels I-IV only from the following list.

### **APMU 271 - Guitar IV**

**Class Hours:** var  
**Credits:** 1

**Prerequisite:**

**(Major Area)** Prerequisites for initial semester of study: Audition and acceptance to the area of concentration

**(Minor Area)** Prerequisites for initial semester of study: Audition and placement Prerequisite for subsequent semesters: Grade of "C" or better in the previous semester of study

**Description: (Major Area)** Private instrumental, vocal, or composition instruction for music majors in their primary area of concentration for up to eight semesters (four in composition). Includes technical studies, musical repertoire, and performance experiences at the professional level. Weekly half-hour lessons are given (2cr) for students enrolled in the BS and BA degree programs. Weekly one-hour lessons (4cr) are given for students enrolled in the BFA degree program only.

**(Minor Area)** Private instrumental or vocal instruction for music minors, or for music majors in their secondary or tertiary area of concentration for up to four semesters. Includes technical studies, musical repertoire, and performance experiences at a functional level. Students enroll for 1 credit and are given weekly half-hour lessons. Students may enroll in Levels I-IV only from the following list.

### **APMU 301 - Piano V**

**Class Hours:** var  
**Credits:** 1

**Prerequisite:**

**(Major Area)** Prerequisites for initial semester of study: Audition and acceptance to the area of concentration

**(Minor Area)** Prerequisites for initial semester of study: Audition and placement Prerequisite for subsequent semesters: Grade of "C" or better in the previous semester of study



**Description: (Major Area)** Private instrumental, vocal, or composition instruction for music majors in their primary area of concentration for up to eight semesters (four in composition). Includes technical studies, musical repertoire, and performance experiences at the professional level. Weekly half-hour lessons are given (2cr) for students enrolled in the BS and BA degree programs. Weekly one-hour lessons (4cr) are given for students enrolled in the BFA degree program only.

**(Minor Area)** Private instrumental or vocal instruction for music minors, or for music majors in their secondary or tertiary area of concentration for up to four semesters. Includes technical studies, musical repertoire, and performance experiences at a functional level. Students enroll for 1 credit and are given weekly half-hour lessons. Students may enroll in Levels I-IV only from the following list.

### **APMU 302 - Organ V**

**Class Hours:** var  
**Credits:** 1

**Prerequisite:**

**(Major Area)** Prerequisites for initial semester of study: Audition and acceptance to the area of concentration

**(Minor Area)** Prerequisites for initial semester of study: Audition and placement Prerequisite for subsequent semesters: Grade of "C" or better in the previous semester of study

**Description: (Major Area)** Private instrumental, vocal, or composition instruction for music majors in their primary area of concentration for up to eight semesters (four in composition). Includes technical studies, musical repertoire, and performance experiences at the professional level. Weekly half-hour lessons are given (2cr) for students enrolled in the BS and BA degree programs. Weekly one-hour lessons (4cr) are given for students enrolled in the BFA degree program only.

**(Minor Area)** Private instrumental or vocal instruction for music minors, or for music majors in their secondary or tertiary area of concentration for up to four semesters. Includes technical studies, musical repertoire, and performance experiences at a functional level. Students enroll for 1 credit and are given weekly half-hour lessons. Students may enroll in Levels I-IV only from the following list.

### **APMU 305 - Voice IV**

**Class Hours:** var  
**Credits:** 1

**Prerequisite:**

**(Major Area)** Prerequisites for initial semester of study: Audition and acceptance to the area of concentration

**(Minor Area)** Prerequisites for initial semester of study: Audition and placement Prerequisite for subsequent semesters: Grade of "C" or better in the previous semester of study

**Description: (Major Area)** Private instrumental, vocal, or composition instruction for music majors in their primary area of concentration for up to eight semesters (four in composition). Includes technical studies, musical repertoire, and performance experiences at the professional level. Weekly half-hour lessons are given (2cr) for students enrolled in the BS and BA degree programs. Weekly one-hour lessons (4cr) are given for students enrolled in the BFA degree program only.

**(Minor Area)** Private instrumental or vocal instruction for music minors, or for music majors in their secondary or tertiary area of concentration for up to four semesters. Includes technical studies, musical repertoire, and performance experiences at a functional level. Students enroll for 1 credit and are given weekly half-hour lessons. Students may enroll in Levels I-IV only from the following list.

### **APMU 306 - Violin V**

**Class Hours:** var  
**Credits:** 1

**Prerequisite:**

**(Major Area)** Prerequisites for initial semester of study: Audition and acceptance to the area of concentration

**(Minor Area)** Prerequisites for initial semester of study: Audition and placement Prerequisite for subsequent semesters: Grade of "C" or better in the previous semester of study

**Description: (Major Area)** Private instrumental, vocal, or composition instruction for music majors in their primary area of concentration for up to eight semesters (four in composition). Includes technical studies, musical repertoire, and performance experiences at the professional

level. Weekly half-hour lessons are given (2cr) for students enrolled in the BS and BA degree programs. Weekly one-hour lessons (4cr) are given for students enrolled in the BFA degree program only.

**(Minor Area)** Private instrumental or vocal instruction for music minors, or for music majors in their secondary or tertiary area of concentration for up to four semesters. Includes technical studies, musical repertoire, and performance experiences at a functional level. Students enroll for 1 credit and are given weekly half-hour lessons. Students may enroll in Levels I-IV only from the following list.

### **APMU 307 - Viola V**

**Class Hours:** var  
**Credits:** 1

**Prerequisite:**

**(Major Area)** Prerequisites for initial semester of study: Audition and acceptance to the area of concentration

**(Minor Area)** Prerequisites for initial semester of study: Audition and placement Prerequisite for subsequent semesters: Grade of "C" or better in the previous semester of study

**Description: (Major Area)** Private instrumental, vocal, or composition instruction for music majors in their primary area of concentration for up to eight semesters (four in composition). Includes technical studies, musical repertoire, and performance experiences at the professional level. Weekly half-hour lessons are given (2cr) for students enrolled in the BS and BA degree programs. Weekly one-hour lessons (4cr) are given for students enrolled in the BFA degree program only.

**(Minor Area)** Private instrumental or vocal instruction for music minors, or for music majors in their secondary or tertiary area of concentration for up to four semesters. Includes technical studies, musical repertoire, and performance experiences at a functional level. Students enroll for 1 credit and are given weekly half-hour lessons. Students may enroll in Levels I-IV only from the following list.

### **APMU 308 - Cello V**

**Class Hours:** var  
**Credits:** 1

**Prerequisite:**

**(Major Area)** Prerequisites for initial semester of study: Audition and acceptance to the area of concentration

**(Minor Area)** Prerequisites for initial semester of study: Audition and placement Prerequisite for subsequent semesters: Grade of "C" or better in the previous semester of study

**Description: (Major Area)** Private instrumental, vocal, or composition instruction for music majors in their primary area of concentration for up to eight semesters (four in composition). Includes technical studies, musical repertoire, and performance experiences at the professional level. Weekly half-hour lessons are given (2cr) for students enrolled in the BS and BA degree programs. Weekly one-hour lessons (4cr) are given for students enrolled in the BFA degree program only.

**(Minor Area)** Private instrumental or vocal instruction for music minors, or for music majors in their secondary or tertiary area of concentration for up to four semesters. Includes technical studies, musical repertoire, and performance experiences at a functional level. Students enroll for 1 credit and are given weekly half-hour lessons. Students may enroll in Levels I-IV only from the following list.

### **APMU 309 - String Bass V**

**Class Hours:** var  
**Credits:** 1

**Prerequisite:**

**(Major Area)** Prerequisites for initial semester of study: Audition and acceptance to the area of concentration

**(Minor Area)** Prerequisites for initial semester of study: Audition and placement Prerequisite for subsequent semesters: Grade of "C" or better in the previous semester of study

**Description: (Major Area)** Private instrumental, vocal, or composition instruction for music majors in their primary area of concentration for up to eight semesters (four in composition). Includes technical studies, musical repertoire, and performance experiences at the professional level. Weekly half-hour lessons are given (2cr) for students enrolled in the BS and BA degree programs. Weekly one-hour lessons (4cr) are given for students enrolled in the BFA degree program only.

**(Minor Area)** Private instrumental or vocal instruction for music minors, or for music majors in their secondary or tertiary area of concentration for up to four semesters. Includes technical studies, musical repertoire, and performance experiences at a functional level. Students enroll for 1 credit and are given weekly half-hour lessons. Students may enroll in Levels I-IV only from the following list.

### **APMU 310 - Flute V**

**Class Hours:** var

**Credits:** 1

**Prerequisite:**

**(Major Area)** Prerequisites for initial semester of study: Audition and acceptance to the area of concentration

**(Minor Area)** Prerequisites for initial semester of study: Audition and placement Prerequisite for subsequent semesters: Grade of "C" or better in the previous semester of study

**Description: (Major Area)** Private instrumental, vocal, or composition instruction for music majors in their primary area of concentration for up to eight semesters (four in composition). Includes technical studies, musical repertoire, and performance experiences at the professional level. Weekly half-hour lessons are given (2cr) for students enrolled in the BS and BA degree programs. Weekly one-hour lessons (4cr) are given for students enrolled in the BFA degree program only.

**(Minor Area)** Private instrumental or vocal instruction for music minors, or for music majors in their secondary or tertiary area of concentration for up to four semesters. Includes technical studies, musical repertoire, and performance experiences at a functional level. Students enroll for 1 credit and are given weekly half-hour lessons. Students may enroll in Levels I-IV only from the following list.

### **APMU 311 - Clarinet V**

**Class Hours:** var

**Credits:** 1

**Prerequisite:**

**(Major Area)** Prerequisites for initial semester of study: Audition and acceptance to the area of concentration

**(Minor Area)** Prerequisites for initial semester of study: Audition and placement Prerequisite for subsequent

semesters: Grade of "C" or better in the previous semester of study

**Description: (Major Area)** Private instrumental, vocal, or composition instruction for music majors in their primary area of concentration for up to eight semesters (four in composition). Includes technical studies, musical repertoire, and performance experiences at the professional level. Weekly half-hour lessons are given (2cr) for students enrolled in the BS and BA degree programs. Weekly one-hour lessons (4cr) are given for students enrolled in the BFA degree program only.

**(Minor Area)** Private instrumental or vocal instruction for music minors, or for music majors in their secondary or tertiary area of concentration for up to four semesters. Includes technical studies, musical repertoire, and performance experiences at a functional level. Students enroll for 1 credit and are given weekly half-hour lessons. Students may enroll in Levels I-IV only from the following list.

### **APMU 312 - Oboe V**

**Class Hours:** var

**Credits:** 1

**Prerequisite:**

**(Major Area)** Prerequisites for initial semester of study: Audition and acceptance to the area of concentration

**(Minor Area)** Prerequisites for initial semester of study: Audition and placement Prerequisite for subsequent semesters: Grade of "C" or better in the previous semester of study

**Description: (Major Area)** Private instrumental, vocal, or composition instruction for music majors in their primary area of concentration for up to eight semesters (four in composition). Includes technical studies, musical repertoire, and performance experiences at the professional level. Weekly half-hour lessons are given (2cr) for students enrolled in the BS and BA degree programs. Weekly one-hour lessons (4cr) are given for students enrolled in the BFA degree program only.

**(Minor Area)** Private instrumental or vocal instruction for music minors, or for music majors in their secondary or tertiary area of concentration for up to four semesters. Includes technical studies, musical repertoire, and performance experiences at a functional level. Students enroll for 1 credit and are given weekly half-hour lessons.

Students may enroll in Levels I-IV only from the following list.

### **APMU 313 - Bassoon V**

**Class Hours:** var

**Credits:** 1

**Prerequisite:**

**(Major Area)** Prerequisites for initial semester of study: Audition and acceptance to the area of concentration

**(Minor Area)** Prerequisites for initial semester of study: Audition and placement Prerequisite for subsequent semesters: Grade of "C" or better in the previous semester of study

**Description: (Major Area)** Private instrumental, vocal, or composition instruction for music majors in their primary area of concentration for up to eight semesters (four in composition). Includes technical studies, musical repertoire, and performance experiences at the professional level. Weekly half-hour lessons are given (2cr) for students enrolled in the BS and BA degree programs. Weekly one-hour lessons (4cr) are given for students enrolled in the BFA degree program only.

**(Minor Area)** Private instrumental or vocal instruction for music minors, or for music majors in their secondary or tertiary area of concentration for up to four semesters. Includes technical studies, musical repertoire, and performance experiences at a functional level. Students enroll for 1 credit and are given weekly half-hour lessons. Students may enroll in Levels I-IV only from the following list.

### **APMU 314 - Saxophone V**

**Class Hours:** var

**Credits:** 1

**Prerequisite:**

**(Major Area)** Prerequisites for initial semester of study: Audition and acceptance to the area of concentration

**(Minor Area)** Prerequisites for initial semester of study: Audition and placement Prerequisite for subsequent semesters: Grade of "C" or better in the previous semester of study

**Description: (Major Area)** Private instrumental, vocal, or composition instruction for music majors in their primary

area of concentration for up to eight semesters (four in composition). Includes technical studies, musical repertoire, and performance experiences at the professional level. Weekly half-hour lessons are given (2cr) for students enrolled in the BS and BA degree programs. Weekly one-hour lessons (4cr) are given for students enrolled in the BFA degree program only.

**(Minor Area)** Private instrumental or vocal instruction for music minors, or for music majors in their secondary or tertiary area of concentration for up to four semesters. Includes technical studies, musical repertoire, and performance experiences at a functional level. Students enroll for 1 credit and are given weekly half-hour lessons. Students may enroll in Levels I-IV only from the following list.

### **APMU 315 - Trumpet V**

**Class Hours:** var

**Credits:** 1

**Prerequisite:**

**(Major Area)** Prerequisites for initial semester of study: Audition and acceptance to the area of concentration

**(Minor Area)** Prerequisites for initial semester of study: Audition and placement Prerequisite for subsequent semesters: Grade of "C" or better in the previous semester of study

**Description: (Major Area)** Private instrumental, vocal, or composition instruction for music majors in their primary area of concentration for up to eight semesters (four in composition). Includes technical studies, musical repertoire, and performance experiences at the professional level. Weekly half-hour lessons are given (2cr) for students enrolled in the BS and BA degree programs. Weekly one-hour lessons (4cr) are given for students enrolled in the BFA degree program only.

**(Minor Area)** Private instrumental or vocal instruction for music minors, or for music majors in their secondary or tertiary area of concentration for up to four semesters. Includes technical studies, musical repertoire, and performance experiences at a functional level. Students enroll for 1 credit and are given weekly half-hour lessons. Students may enroll in Levels I-IV only from the following list.

### **APMU 316 - French Horn V**

**Class Hours:** var  
**Credits:** 1

**Prerequisite:**

**(Major Area)** Prerequisites for initial semester of study:  
Audition and acceptance to the area of concentration

**(Minor Area)** Prerequisites for initial semester of study:  
Audition and placement Prerequisite for subsequent semesters: Grade of "C" or better in the previous semester of study

**Description: (Major Area)** Private instrumental, vocal, or composition instruction for music majors in their primary area of concentration for up to eight semesters (four in composition). Includes technical studies, musical repertoire, and performance experiences at the professional level. Weekly half-hour lessons are given (2cr) for students enrolled in the BS and BA degree programs. Weekly one-hour lessons (4cr) are given for students enrolled in the BFA degree program only.

**(Minor Area)** Private instrumental or vocal instruction for music minors, or for music majors in their secondary or tertiary area of concentration for up to four semesters. Includes technical studies, musical repertoire, and performance experiences at a functional level. Students enroll for 1 credit and are given weekly half-hour lessons. Students may enroll in Levels I-IV only from the following list.

### APMU 317 - Trombone V

**Class Hours:** var  
**Credits:** 1

**Prerequisite:**

**(Major Area)** Prerequisites for initial semester of study:  
Audition and acceptance to the area of concentration

**(Minor Area)** Prerequisites for initial semester of study:  
Audition and placement Prerequisite for subsequent semesters: Grade of "C" or better in the previous semester of study

**Description: (Major Area)** Private instrumental, vocal, or composition instruction for music majors in their primary area of concentration for up to eight semesters (four in composition). Includes technical studies, musical repertoire, and performance experiences at the professional level. Weekly half-hour lessons are given (2cr) for students enrolled in the BS and BA degree programs. Weekly one-

hour lessons (4cr) are given for students enrolled in the BFA degree program only.

**(Minor Area)** Private instrumental or vocal instruction for music minors, or for music majors in their secondary or tertiary area of concentration for up to four semesters. Includes technical studies, musical repertoire, and performance experiences at a functional level. Students enroll for 1 credit and are given weekly half-hour lessons. Students may enroll in Levels I-IV only from the following list.

### APMU 318 - Euphonium V

**Class Hours:** var  
**Credits:** 1

**Prerequisite:**

**(Major Area)** Prerequisites for initial semester of study:  
Audition and acceptance to the area of concentration

**(Minor Area)** Prerequisites for initial semester of study:  
Audition and placement Prerequisite for subsequent semesters: Grade of "C" or better in the previous semester of study

**Description: (Major Area)** Private instrumental, vocal, or composition instruction for music majors in their primary area of concentration for up to eight semesters (four in composition). Includes technical studies, musical repertoire, and performance experiences at the professional level. Weekly half-hour lessons are given (2cr) for students enrolled in the BS and BA degree programs. Weekly one-hour lessons (4cr) are given for students enrolled in the BFA degree program only.

**(Minor Area)** Private instrumental or vocal instruction for music minors, or for music majors in their secondary or tertiary area of concentration for up to four semesters. Includes technical studies, musical repertoire, and performance experiences at a functional level. Students enroll for 1 credit and are given weekly half-hour lessons. Students may enroll in Levels I-IV only from the following list.

### APMU 319 - Tuba V

**Class Hours:** var  
**Credits:** 1

**Prerequisite:**

**(Major Area)** Prerequisites for initial semester of study:  
Audition and acceptance to the area of concentration

**(Minor Area)** Prerequisites for initial semester of study: Audition and placement Prerequisite for subsequent semesters: Grade of "C" or better in the previous semester of study

**Description: (Major Area)** Private instrumental, vocal, or composition instruction for music majors in their primary area of concentration for up to eight semesters (four in composition). Includes technical studies, musical repertoire, and performance experiences at the professional level. Weekly half-hour lessons are given (2cr) for students enrolled in the BS and BA degree programs. Weekly one-hour lessons (4cr) are given for students enrolled in the BFA degree program only.

**(Minor Area)** Private instrumental or vocal instruction for music minors, or for music majors in their secondary or tertiary area of concentration for up to four semesters. Includes technical studies, musical repertoire, and performance experiences at a functional level. Students enroll for 1 credit and are given weekly half-hour lessons. Students may enroll in Levels I-IV only from the following list.

### APMU 320 - Percussion V

**Class Hours:** var  
**Credits:** 1

**Prerequisite:**

**(Major Area)** Prerequisites for initial semester of study: Audition and acceptance to the area of concentration

**(Minor Area)** Prerequisites for initial semester of study: Audition and placement Prerequisite for subsequent semesters: Grade of "C" or better in the previous semester of study

**Description: (Major Area)** Private instrumental, vocal, or composition instruction for music majors in their primary area of concentration for up to eight semesters (four in composition). Includes technical studies, musical repertoire, and performance experiences at the professional level. Weekly half-hour lessons are given (2cr) for students enrolled in the BS and BA degree programs. Weekly one-hour lessons (4cr) are given for students enrolled in the BFA degree program only.

**(Minor Area)** Private instrumental or vocal instruction for music minors, or for music majors in their secondary or tertiary area of concentration for up to four semesters. Includes technical studies, musical repertoire, and

performance experiences at a functional level. Students enroll for 1 credit and are given weekly half-hour lessons. Students may enroll in Levels I-IV only from the following list.

### APMU 321 - Guitar V

**Class Hours:** var  
**Credits:** 1

**Prerequisite:**

**(Major Area)** Prerequisites for initial semester of study: Audition and acceptance to the area of concentration

**(Minor Area)** Prerequisites for initial semester of study: Audition and placement Prerequisite for subsequent semesters: Grade of "C" or better in the previous semester of study

**Description: (Major Area)** Private instrumental, vocal, or composition instruction for music majors in their primary area of concentration for up to eight semesters (four in composition). Includes technical studies, musical repertoire, and performance experiences at the professional level. Weekly half-hour lessons are given (2cr) for students enrolled in the BS and BA degree programs. Weekly one-hour lessons (4cr) are given for students enrolled in the BFA degree program only.

**(Minor Area)** Private instrumental or vocal instruction for music minors, or for music majors in their secondary or tertiary area of concentration for up to four semesters. Includes technical studies, musical repertoire, and performance experiences at a functional level. Students enroll for 1 credit and are given weekly half-hour lessons. Students may enroll in Levels I-IV only from the following list.

### APMU 325 - Composition III

**Class Hours:** var  
**Credits:** 1

**Prerequisite:**

**(Major Area)** Prerequisites for initial semester of study: Audition and acceptance to the area of concentration

**(Minor Area)** Prerequisites for initial semester of study: Audition and placement Prerequisite for subsequent semesters: Grade of "C" or better in the previous semester of study

**Description: (Major Area)** Private instrumental, vocal, or composition instruction for music majors in their primary area of concentration for up to eight semesters (four in composition). Includes technical studies, musical repertoire, and performance experiences at the professional level. Weekly half-hour lessons are given (2cr) for students enrolled in the BS and BA degree programs. Weekly one-hour lessons (4cr) are given for students enrolled in the BFA degree program only.

**(Minor Area)** Private instrumental or vocal instruction for music minors, or for music majors in their secondary or tertiary area of concentration for up to four semesters. Includes technical studies, musical repertoire, and performance experiences at a functional level. Students enroll for 1 credit and are given weekly half-hour lessons. Students may enroll in Levels I-IV only from the following list.

### **APMU 351 - Piano VI**

**Class Hours:** var  
**Credits:** 1

**Prerequisite:**

**(Major Area)** Prerequisites for initial semester of study: Audition and acceptance to the area of concentration

**(Minor Area)** Prerequisites for initial semester of study: Audition and placement Prerequisite for subsequent semesters: Grade of "C" or better in the previous semester of study

**Description: (Major Area)** Private instrumental, vocal, or composition instruction for music majors in their primary area of concentration for up to eight semesters (four in composition). Includes technical studies, musical repertoire, and performance experiences at the professional level. Weekly half-hour lessons are given (2cr) for students enrolled in the BS and BA degree programs. Weekly one-hour lessons (4cr) are given for students enrolled in the BFA degree program only.

**(Minor Area)** Private instrumental or vocal instruction for music minors, or for music majors in their secondary or tertiary area of concentration for up to four semesters. Includes technical studies, musical repertoire, and performance experiences at a functional level. Students enroll for 1 credit and are given weekly half-hour lessons. Students may enroll in Levels I-IV only from the following list.

### **APMU 352 - Organ VI**

**Class Hours:** var  
**Credits:** 1

**Prerequisite:**

**(Major Area)** Prerequisites for initial semester of study: Audition and acceptance to the area of concentration

**(Minor Area)** Prerequisites for initial semester of study: Audition and placement Prerequisite for subsequent semesters: Grade of "C" or better in the previous semester of study

**Description: (Major Area)** Private instrumental, vocal, or composition instruction for music majors in their primary area of concentration for up to eight semesters (four in composition). Includes technical studies, musical repertoire, and performance experiences at the professional level. Weekly half-hour lessons are given (2cr) for students enrolled in the BS and BA degree programs. Weekly one-hour lessons (4cr) are given for students enrolled in the BFA degree program only.

**(Minor Area)** Private instrumental or vocal instruction for music minors, or for music majors in their secondary or tertiary area of concentration for up to four semesters. Includes technical studies, musical repertoire, and performance experiences at a functional level. Students enroll for 1 credit and are given weekly half-hour lessons. Students may enroll in Levels I-IV only from the following list.

### **APMU 355 - Voice VI**

**Class Hours:** var  
**Credits:** 1

**Prerequisite:**

**(Major Area)** Prerequisites for initial semester of study: Audition and acceptance to the area of concentration

**(Minor Area)** Prerequisites for initial semester of study: Audition and placement Prerequisite for subsequent semesters: Grade of "C" or better in the previous semester of study

**Description: (Major Area)** Private instrumental, vocal, or composition instruction for music majors in their primary area of concentration for up to eight semesters (four in composition). Includes technical studies, musical repertoire, and performance experiences at the professional

level. Weekly half-hour lessons are given (2cr) for students enrolled in the BS and BA degree programs. Weekly one-hour lessons (4cr) are given for students enrolled in the BFA degree program only.

**(Minor Area)** Private instrumental or vocal instruction for music minors, or for music majors in their secondary or tertiary area of concentration for up to four semesters. Includes technical studies, musical repertoire, and performance experiences at a functional level. Students enroll for 1 credit and are given weekly half-hour lessons. Students may enroll in Levels I-IV only from the following list.

### **APMU 356 - Violin VI**

**Class Hours:** var  
**Credits:** 1

**Prerequisite:**

**(Major Area)** Prerequisites for initial semester of study: Audition and acceptance to the area of concentration

**(Minor Area)** Prerequisites for initial semester of study: Audition and placement Prerequisite for subsequent semesters: Grade of "C" or better in the previous semester of study

**Description: (Major Area)** Private instrumental, vocal, or composition instruction for music majors in their primary area of concentration for up to eight semesters (four in composition). Includes technical studies, musical repertoire, and performance experiences at the professional level. Weekly half-hour lessons are given (2cr) for students enrolled in the BS and BA degree programs. Weekly one-hour lessons (4cr) are given for students enrolled in the BFA degree program only.

**(Minor Area)** Private instrumental or vocal instruction for music minors, or for music majors in their secondary or tertiary area of concentration for up to four semesters. Includes technical studies, musical repertoire, and performance experiences at a functional level. Students enroll for 1 credit and are given weekly half-hour lessons. Students may enroll in Levels I-IV only from the following list.

### **APMU 357 - Viola VI**

**Class Hours:** var  
**Credits:** 1

**Prerequisite:**

**(Major Area)** Prerequisites for initial semester of study: Audition and acceptance to the area of concentration

**(Minor Area)** Prerequisites for initial semester of study: Audition and placement Prerequisite for subsequent semesters: Grade of "C" or better in the previous semester of study

**Description: (Major Area)** Private instrumental, vocal, or composition instruction for music majors in their primary area of concentration for up to eight semesters (four in composition). Includes technical studies, musical repertoire, and performance experiences at the professional level. Weekly half-hour lessons are given (2cr) for students enrolled in the BS and BA degree programs. Weekly one-hour lessons (4cr) are given for students enrolled in the BFA degree program only.

**(Minor Area)** Private instrumental or vocal instruction for music minors, or for music majors in their secondary or tertiary area of concentration for up to four semesters. Includes technical studies, musical repertoire, and performance experiences at a functional level. Students enroll for 1 credit and are given weekly half-hour lessons. Students may enroll in Levels I-IV only from the following list.

### **APMU 358 - Cello VI**

**Class Hours:** var  
**Credits:** 1

**Prerequisite:**

**(Major Area)** Prerequisites for initial semester of study: Audition and acceptance to the area of concentration

**(Minor Area)** Prerequisites for initial semester of study: Audition and placement Prerequisite for subsequent semesters: Grade of "C" or better in the previous semester of study

**Description: (Major Area)** Private instrumental, vocal, or composition instruction for music majors in their primary area of concentration for up to eight semesters (four in composition). Includes technical studies, musical repertoire, and performance experiences at the professional level. Weekly half-hour lessons are given (2cr) for students enrolled in the BS and BA degree programs. Weekly one-hour lessons (4cr) are given for students enrolled in the BFA degree program only.



**(Minor Area)** Private instrumental or vocal instruction for music minors, or for music majors in their secondary or tertiary area of concentration for up to four semesters. Includes technical studies, musical repertoire, and performance experiences at a functional level. Students enroll for 1 credit and are given weekly half-hour lessons. Students may enroll in Levels I-IV only from the following list.

### **APMU 359 - String Bass VI**

**Class Hours:** var

**Credits:** 1

**Prerequisite:**

**(Major Area)** Prerequisites for initial semester of study: Audition and acceptance to the area of concentration

**(Minor Area)** Prerequisites for initial semester of study: Audition and placement Prerequisite for subsequent semesters: Grade of "C" or better in the previous semester of study

**Description: (Major Area)** Private instrumental, vocal, or composition instruction for music majors in their primary area of concentration for up to eight semesters (four in composition). Includes technical studies, musical repertoire, and performance experiences at the professional level. Weekly half-hour lessons are given (2cr) for students enrolled in the BS and BA degree programs. Weekly one-hour lessons (4cr) are given for students enrolled in the BFA degree program only.

**(Minor Area)** Private instrumental or vocal instruction for music minors, or for music majors in their secondary or tertiary area of concentration for up to four semesters. Includes technical studies, musical repertoire, and performance experiences at a functional level. Students enroll for 1 credit and are given weekly half-hour lessons. Students may enroll in Levels I-IV only from the following list.

### **APMU 360 - Flute VI**

**Class Hours:** var

**Credits:** 1

**Prerequisite:**

**(Major Area)** Prerequisites for initial semester of study: Audition and acceptance to the area of concentration

**(Minor Area)** Prerequisites for initial semester of study: Audition and placement Prerequisite for subsequent

semesters: Grade of "C" or better in the previous semester of study

**Description: (Major Area)** Private instrumental, vocal, or composition instruction for music majors in their primary area of concentration for up to eight semesters (four in composition). Includes technical studies, musical repertoire, and performance experiences at the professional level. Weekly half-hour lessons are given (2cr) for students enrolled in the BS and BA degree programs. Weekly one-hour lessons (4cr) are given for students enrolled in the BFA degree program only.

**(Minor Area)** Private instrumental or vocal instruction for music minors, or for music majors in their secondary or tertiary area of concentration for up to four semesters. Includes technical studies, musical repertoire, and performance experiences at a functional level. Students enroll for 1 credit and are given weekly half-hour lessons. Students may enroll in Levels I-IV only from the following list.

### **APMU 361 - Clarinet VI**

**Class Hours:** var

**Credits:** 1

**Prerequisite:**

**(Major Area)** Prerequisites for initial semester of study: Audition and acceptance to the area of concentration

**(Minor Area)** Prerequisites for initial semester of study: Audition and placement Prerequisite for subsequent semesters: Grade of "C" or better in the previous semester of study

**Description: (Major Area)** Private instrumental, vocal, or composition instruction for music majors in their primary area of concentration for up to eight semesters (four in composition). Includes technical studies, musical repertoire, and performance experiences at the professional level. Weekly half-hour lessons are given (2cr) for students enrolled in the BS and BA degree programs. Weekly one-hour lessons (4cr) are given for students enrolled in the BFA degree program only.

**(Minor Area)** Private instrumental or vocal instruction for music minors, or for music majors in their secondary or tertiary area of concentration for up to four semesters. Includes technical studies, musical repertoire, and performance experiences at a functional level. Students enroll for 1 credit and are given weekly half-hour lessons.

Students may enroll in Levels I-IV only from the following list.

### **APMU 362 - Oboe VI**

**Class Hours:** var

**Credits:** 1

**Prerequisite:**

**(Major Area)** Prerequisites for initial semester of study: Audition and acceptance to the area of concentration

**(Minor Area)** Prerequisites for initial semester of study: Audition and placement Prerequisite for subsequent semesters: Grade of "C" or better in the previous semester of study

**Description: (Major Area)** Private instrumental, vocal, or composition instruction for music majors in their primary area of concentration for up to eight semesters (four in composition). Includes technical studies, musical repertoire, and performance experiences at the professional level. Weekly half-hour lessons are given (2cr) for students enrolled in the BS and BA degree programs. Weekly one-hour lessons (4cr) are given for students enrolled in the BFA degree program only.

**(Minor Area)** Private instrumental or vocal instruction for music minors, or for music majors in their secondary or tertiary area of concentration for up to four semesters. Includes technical studies, musical repertoire, and performance experiences at a functional level. Students enroll for 1 credit and are given weekly half-hour lessons. Students may enroll in Levels I-IV only from the following list.

### **APMU 363 - Bassoon VI**

**Class Hours:** var

**Credits:** 1

**Prerequisite:**

**(Major Area)** Prerequisites for initial semester of study: Audition and acceptance to the area of concentration

**(Minor Area)** Prerequisites for initial semester of study: Audition and placement Prerequisite for subsequent semesters: Grade of "C" or better in the previous semester of study

**Description: (Major Area)** Private instrumental, vocal, or composition instruction for music majors in their primary

area of concentration for up to eight semesters (four in composition). Includes technical studies, musical repertoire, and performance experiences at the professional level. Weekly half-hour lessons are given (2cr) for students enrolled in the BS and BA degree programs. Weekly one-hour lessons (4cr) are given for students enrolled in the BFA degree program only.

**(Minor Area)** Private instrumental or vocal instruction for music minors, or for music majors in their secondary or tertiary area of concentration for up to four semesters. Includes technical studies, musical repertoire, and performance experiences at a functional level. Students enroll for 1 credit and are given weekly half-hour lessons. Students may enroll in Levels I-IV only from the following list.

### **APMU 364 - Saxophone VI**

**Class Hours:** var

**Credits:** 1

**Prerequisite:**

**(Major Area)** Prerequisites for initial semester of study: Audition and acceptance to the area of concentration

**(Minor Area)** Prerequisites for initial semester of study: Audition and placement Prerequisite for subsequent semesters: Grade of "C" or better in the previous semester of study

**Description: (Major Area)** Private instrumental, vocal, or composition instruction for music majors in their primary area of concentration for up to eight semesters (four in composition). Includes technical studies, musical repertoire, and performance experiences at the professional level. Weekly half-hour lessons are given (2cr) for students enrolled in the BS and BA degree programs. Weekly one-hour lessons (4cr) are given for students enrolled in the BFA degree program only.

**(Minor Area)** Private instrumental or vocal instruction for music minors, or for music majors in their secondary or tertiary area of concentration for up to four semesters. Includes technical studies, musical repertoire, and performance experiences at a functional level. Students enroll for 1 credit and are given weekly half-hour lessons. Students may enroll in Levels I-IV only from the following list.

### **APMU 365 - Trumpet VI**

**Class Hours:** var  
**Credits:** 1

**Prerequisite:**

**(Major Area)** Prerequisites for initial semester of study:  
Audition and acceptance to the area of concentration

**(Minor Area)** Prerequisites for initial semester of study:  
Audition and placement Prerequisite for subsequent semesters: Grade of "C" or better in the previous semester of study

**Description: (Major Area)** Private instrumental, vocal, or composition instruction for music majors in their primary area of concentration for up to eight semesters (four in composition). Includes technical studies, musical repertoire, and performance experiences at the professional level. Weekly half-hour lessons are given (2cr) for students enrolled in the BS and BA degree programs. Weekly one-hour lessons (4cr) are given for students enrolled in the BFA degree program only.

**(Minor Area)** Private instrumental or vocal instruction for music minors, or for music majors in their secondary or tertiary area of concentration for up to four semesters. Includes technical studies, musical repertoire, and performance experiences at a functional level. Students enroll for 1 credit and are given weekly half-hour lessons. Students may enroll in Levels I-IV only from the following list.

### APMU 366 - French Horn VI

**Class Hours:** var  
**Credits:** 1

**Prerequisite:**

**(Major Area)** Prerequisites for initial semester of study:  
Audition and acceptance to the area of concentration

**(Minor Area)** Prerequisites for initial semester of study:  
Audition and placement Prerequisite for subsequent semesters: Grade of "C" or better in the previous semester of study

**Description: (Major Area)** Private instrumental, vocal, or composition instruction for music majors in their primary area of concentration for up to eight semesters (four in composition). Includes technical studies, musical repertoire, and performance experiences at the professional level. Weekly half-hour lessons are given (2cr) for students enrolled in the BS and BA degree programs. Weekly one-

hour lessons (4cr) are given for students enrolled in the BFA degree program only.

**(Minor Area)** Private instrumental or vocal instruction for music minors, or for music majors in their secondary or tertiary area of concentration for up to four semesters. Includes technical studies, musical repertoire, and performance experiences at a functional level. Students enroll for 1 credit and are given weekly half-hour lessons. Students may enroll in Levels I-IV only from the following list.

### APMU 367 - Trombone VI

**Class Hours:** var  
**Credits:** 1

**Prerequisite:**

**(Major Area)** Prerequisites for initial semester of study:  
Audition and acceptance to the area of concentration

**(Minor Area)** Prerequisites for initial semester of study:  
Audition and placement Prerequisite for subsequent semesters: Grade of "C" or better in the previous semester of study

**Description: (Major Area)** Private instrumental, vocal, or composition instruction for music majors in their primary area of concentration for up to eight semesters (four in composition). Includes technical studies, musical repertoire, and performance experiences at the professional level. Weekly half-hour lessons are given (2cr) for students enrolled in the BS and BA degree programs. Weekly one-hour lessons (4cr) are given for students enrolled in the BFA degree program only.

**(Minor Area)** Private instrumental or vocal instruction for music minors, or for music majors in their secondary or tertiary area of concentration for up to four semesters. Includes technical studies, musical repertoire, and performance experiences at a functional level. Students enroll for 1 credit and are given weekly half-hour lessons. Students may enroll in Levels I-IV only from the following list.

### APMU 368 - Euphonium VI

**Class Hours:** var  
**Credits:** 1

**Prerequisite:**

**(Major Area)** Prerequisites for initial semester of study:  
Audition and acceptance to the area of concentration

**(Minor Area)** Prerequisites for initial semester of study: Audition and placement Prerequisite for subsequent semesters: Grade of "C" or better in the previous semester of study

**Description: (Major Area)** Private instrumental, vocal, or composition instruction for music majors in their primary area of concentration for up to eight semesters (four in composition). Includes technical studies, musical repertoire, and performance experiences at the professional level. Weekly half-hour lessons are given (2cr) for students enrolled in the BS and BA degree programs. Weekly one-hour lessons (4cr) are given for students enrolled in the BFA degree program only.

**(Minor Area)** Private instrumental or vocal instruction for music minors, or for music majors in their secondary or tertiary area of concentration for up to four semesters. Includes technical studies, musical repertoire, and performance experiences at a functional level. Students enroll for 1 credit and are given weekly half-hour lessons. Students may enroll in Levels I-IV only from the following list.

### APMU 369 - Tuba VI

**Class Hours:** var  
**Credits:** 1

**Prerequisite:**

**(Major Area)** Prerequisites for initial semester of study: Audition and acceptance to the area of concentration

**(Minor Area)** Prerequisites for initial semester of study: Audition and placement Prerequisite for subsequent semesters: Grade of "C" or better in the previous semester of study

**Description: (Major Area)** Private instrumental, vocal, or composition instruction for music majors in their primary area of concentration for up to eight semesters (four in composition). Includes technical studies, musical repertoire, and performance experiences at the professional level. Weekly half-hour lessons are given (2cr) for students enrolled in the BS and BA degree programs. Weekly one-hour lessons (4cr) are given for students enrolled in the BFA degree program only.

**(Minor Area)** Private instrumental or vocal instruction for music minors, or for music majors in their secondary or tertiary area of concentration for up to four semesters. Includes technical studies, musical repertoire, and

performance experiences at a functional level. Students enroll for 1 credit and are given weekly half-hour lessons. Students may enroll in Levels I-IV only from the following list.

### APMU 370 - Percussion VI

**Class Hours:** var  
**Credits:** 1

**Prerequisite:**

**(Major Area)** Prerequisites for initial semester of study: Audition and acceptance to the area of concentration

**(Minor Area)** Prerequisites for initial semester of study: Audition and placement Prerequisite for subsequent semesters: Grade of "C" or better in the previous semester of study

**Description: (Major Area)** Private instrumental, vocal, or composition instruction for music majors in their primary area of concentration for up to eight semesters (four in composition). Includes technical studies, musical repertoire, and performance experiences at the professional level. Weekly half-hour lessons are given (2cr) for students enrolled in the BS and BA degree programs. Weekly one-hour lessons (4cr) are given for students enrolled in the BFA degree program only.

**(Minor Area)** Private instrumental or vocal instruction for music minors, or for music majors in their secondary or tertiary area of concentration for up to four semesters. Includes technical studies, musical repertoire, and performance experiences at a functional level. Students enroll for 1 credit and are given weekly half-hour lessons. Students may enroll in Levels I-IV only from the following list.

### APMU 371 - Guitar VI

**Class Hours:** var  
**Credits:** 1

**Prerequisite:**

**(Major Area)** Prerequisites for initial semester of study: Audition and acceptance to the area of concentration

**(Minor Area)** Prerequisites for initial semester of study: Audition and placement Prerequisite for subsequent semesters: Grade of "C" or better in the previous semester of study

**Description: (Major Area)** Private instrumental, vocal, or composition instruction for music majors in their primary area of concentration for up to eight semesters (four in composition). Includes technical studies, musical repertoire, and performance experiences at the professional level. Weekly half-hour lessons are given (2cr) for students enrolled in the BS and BA degree programs. Weekly one-hour lessons (4cr) are given for students enrolled in the BFA degree program only.

**(Minor Area)** Private instrumental or vocal instruction for music minors, or for music majors in their secondary or tertiary area of concentration for up to four semesters. Includes technical studies, musical repertoire, and performance experiences at a functional level. Students enroll for 1 credit and are given weekly half-hour lessons. Students may enroll in Levels I-IV only from the following list.

### **APMU 401 - Piano VII**

**Class Hours:** var  
**Credits:** 1

**Prerequisite:**

**(Major Area)** Prerequisites for initial semester of study: Audition and acceptance to the area of concentration

**(Minor Area)** Prerequisites for initial semester of study: Audition and placement Prerequisite for subsequent semesters: Grade of "C" or better in the previous semester of study

**Description: (Major Area)** Private instrumental, vocal, or composition instruction for music majors in their primary area of concentration for up to eight semesters (four in composition). Includes technical studies, musical repertoire, and performance experiences at the professional level. Weekly half-hour lessons are given (2cr) for students enrolled in the BS and BA degree programs. Weekly one-hour lessons (4cr) are given for students enrolled in the BFA degree program only.

**(Minor Area)** Private instrumental or vocal instruction for music minors, or for music majors in their secondary or tertiary area of concentration for up to four semesters. Includes technical studies, musical repertoire, and performance experiences at a functional level. Students enroll for 1 credit and are given weekly half-hour lessons. Students may enroll in Levels I-IV only from the following list.

### **APMU 402 - Organ VII**

**Class Hours:** var  
**Credits:** 1

**Prerequisite:**

**(Major Area)** Prerequisites for initial semester of study: Audition and acceptance to the area of concentration

**(Minor Area)** Prerequisites for initial semester of study: Audition and placement Prerequisite for subsequent semesters: Grade of "C" or better in the previous semester of study

**Description: (Major Area)** Private instrumental, vocal, or composition instruction for music majors in their primary area of concentration for up to eight semesters (four in composition). Includes technical studies, musical repertoire, and performance experiences at the professional level. Weekly half-hour lessons are given (2cr) for students enrolled in the BS and BA degree programs. Weekly one-hour lessons (4cr) are given for students enrolled in the BFA degree program only.

**(Minor Area)** Private instrumental or vocal instruction for music minors, or for music majors in their secondary or tertiary area of concentration for up to four semesters. Includes technical studies, musical repertoire, and performance experiences at a functional level. Students enroll for 1 credit and are given weekly half-hour lessons. Students may enroll in Levels I-IV only from the following list.

### **APMU 405 - Voice VII**

**Class Hours:** var  
**Credits:** 1

**Prerequisite:**

**(Major Area)** Prerequisites for initial semester of study: Audition and acceptance to the area of concentration

**(Minor Area)** Prerequisites for initial semester of study: Audition and placement Prerequisite for subsequent semesters: Grade of "C" or better in the previous semester of study

**Description: (Major Area)** Private instrumental, vocal, or composition instruction for music majors in their primary area of concentration for up to eight semesters (four in composition). Includes technical studies, musical repertoire, and performance experiences at the professional

level. Weekly half-hour lessons are given (2cr) for students enrolled in the BS and BA degree programs. Weekly one-hour lessons (4cr) are given for students enrolled in the BFA degree program only.

**(Minor Area)** Private instrumental or vocal instruction for music minors, or for music majors in their secondary or tertiary area of concentration for up to four semesters. Includes technical studies, musical repertoire, and performance experiences at a functional level. Students enroll for 1 credit and are given weekly half-hour lessons. Students may enroll in Levels I-IV only from the following list.

### **APMU 406 - Violin VII**

**Class Hours:** var

**Credits:** 1

**Prerequisite:**

**(Major Area)** Prerequisites for initial semester of study: Audition and acceptance to the area of concentration

**(Minor Area)** Prerequisites for initial semester of study: Audition and placement Prerequisite for subsequent semesters: Grade of "C" or better in the previous semester of study

**Description: (Major Area)** Private instrumental, vocal, or composition instruction for music majors in their primary area of concentration for up to eight semesters (four in composition). Includes technical studies, musical repertoire, and performance experiences at the professional level. Weekly half-hour lessons are given (2cr) for students enrolled in the BS and BA degree programs. Weekly one-hour lessons (4cr) are given for students enrolled in the BFA degree program only.

**(Minor Area)** Private instrumental or vocal instruction for music minors, or for music majors in their secondary or tertiary area of concentration for up to four semesters. Includes technical studies, musical repertoire, and performance experiences at a functional level. Students enroll for 1 credit and are given weekly half-hour lessons. Students may enroll in Levels I-IV only from the following list.

### **APMU 407 - Viola VII**

**Class Hours:** var

**Credits:** 1

**Prerequisite:**

**(Major Area)** Prerequisites for initial semester of study: Audition and acceptance to the area of concentration

**(Minor Area)** Prerequisites for initial semester of study: Audition and placement Prerequisite for subsequent semesters: Grade of "C" or better in the previous semester of study

**Description: (Major Area)** Private instrumental, vocal, or composition instruction for music majors in their primary area of concentration for up to eight semesters (four in composition). Includes technical studies, musical repertoire, and performance experiences at the professional level. Weekly half-hour lessons are given (2cr) for students enrolled in the BS and BA degree programs. Weekly one-hour lessons (4cr) are given for students enrolled in the BFA degree program only.

**(Minor Area)** Private instrumental or vocal instruction for music minors, or for music majors in their secondary or tertiary area of concentration for up to four semesters. Includes technical studies, musical repertoire, and performance experiences at a functional level. Students enroll for 1 credit and are given weekly half-hour lessons. Students may enroll in Levels I-IV only from the following list.

### **APMU 408 - Cello VII**

**Class Hours:** var

**Credits:** 1

**Prerequisite:**

**(Major Area)** Prerequisites for initial semester of study: Audition and acceptance to the area of concentration

**(Minor Area)** Prerequisites for initial semester of study: Audition and placement Prerequisite for subsequent semesters: Grade of "C" or better in the previous semester of study

**Description: (Major Area)** Private instrumental, vocal, or composition instruction for music majors in their primary area of concentration for up to eight semesters (four in composition). Includes technical studies, musical repertoire, and performance experiences at the professional level. Weekly half-hour lessons are given (2cr) for students enrolled in the BS and BA degree programs. Weekly one-hour lessons (4cr) are given for students enrolled in the BFA degree program only.

**(Minor Area)** Private instrumental or vocal instruction for music minors, or for music majors in their secondary or tertiary area of concentration for up to four semesters. Includes technical studies, musical repertoire, and performance experiences at a functional level. Students enroll for 1 credit and are given weekly half-hour lessons. Students may enroll in Levels I-IV only from the following list.

### **APMU 410 - Flute VII**

**Class Hours:** var

**Credits:** 1

**Prerequisite:**

**(Major Area)** Prerequisites for initial semester of study: Audition and acceptance to the area of concentration

**(Minor Area)** Prerequisites for initial semester of study: Audition and placement Prerequisite for subsequent semesters: Grade of "C" or better in the previous semester of study

**Description: (Major Area)** Private instrumental, vocal, or composition instruction for music majors in their primary area of concentration for up to eight semesters (four in composition). Includes technical studies, musical repertoire, and performance experiences at the professional level. Weekly half-hour lessons are given (2cr) for students enrolled in the BS and BA degree programs. Weekly one-hour lessons (4cr) are given for students enrolled in the BFA degree program only.

**(Minor Area)** Private instrumental or vocal instruction for music minors, or for music majors in their secondary or tertiary area of concentration for up to four semesters. Includes technical studies, musical repertoire, and performance experiences at a functional level. Students enroll for 1 credit and are given weekly half-hour lessons. Students may enroll in Levels I-IV only from the following list.

### **APMU 411 - Clarinet VII**

**Class Hours:** var

**Credits:** 1

**Prerequisite:**

**(Major Area)** Prerequisites for initial semester of study: Audition and acceptance to the area of concentration

**(Minor Area)** Prerequisites for initial semester of study: Audition and placement Prerequisite for subsequent

semesters: Grade of "C" or better in the previous semester of study

**Description: (Major Area)** Private instrumental, vocal, or composition instruction for music majors in their primary area of concentration for up to eight semesters (four in composition). Includes technical studies, musical repertoire, and performance experiences at the professional level. Weekly half-hour lessons are given (2cr) for students enrolled in the BS and BA degree programs. Weekly one-hour lessons (4cr) are given for students enrolled in the BFA degree program only.

**(Minor Area)** Private instrumental or vocal instruction for music minors, or for music majors in their secondary or tertiary area of concentration for up to four semesters. Includes technical studies, musical repertoire, and performance experiences at a functional level. Students enroll for 1 credit and are given weekly half-hour lessons. Students may enroll in Levels I-IV only from the following list.

### **APMU 412 - Oboe VII**

**Class Hours:** var

**Credits:** 1

**Prerequisite:**

**(Major Area)** Prerequisites for initial semester of study: Audition and acceptance to the area of concentration

**(Minor Area)** Prerequisites for initial semester of study: Audition and placement Prerequisite for subsequent semesters: Grade of "C" or better in the previous semester of study

**Description: (Major Area)** Private instrumental, vocal, or composition instruction for music majors in their primary area of concentration for up to eight semesters (four in composition). Includes technical studies, musical repertoire, and performance experiences at the professional level. Weekly half-hour lessons are given (2cr) for students enrolled in the BS and BA degree programs. Weekly one-hour lessons (4cr) are given for students enrolled in the BFA degree program only.

**(Minor Area)** Private instrumental or vocal instruction for music minors, or for music majors in their secondary or tertiary area of concentration for up to four semesters. Includes technical studies, musical repertoire, and performance experiences at a functional level. Students enroll for 1 credit and are given weekly half-hour lessons.

Students may enroll in Levels I-IV only from the following list.

### **APMU 413 - Bassoon VII**

**Class Hours:** var

**Credits:** 1

**Prerequisite:**

**(Major Area)** Prerequisites for initial semester of study: Audition and acceptance to the area of concentration

**(Minor Area)** Prerequisites for initial semester of study: Audition and placement Prerequisite for subsequent semesters: Grade of "C" or better in the previous semester of study

**Description: (Major Area)** Private instrumental, vocal, or composition instruction for music majors in their primary area of concentration for up to eight semesters (four in composition). Includes technical studies, musical repertoire, and performance experiences at the professional level. Weekly half-hour lessons are given (2cr) for students enrolled in the BS and BA degree programs. Weekly one-hour lessons (4cr) are given for students enrolled in the BFA degree program only.

**(Minor Area)** Private instrumental or vocal instruction for music minors, or for music majors in their secondary or tertiary area of concentration for up to four semesters. Includes technical studies, musical repertoire, and performance experiences at a functional level. Students enroll for 1 credit and are given weekly half-hour lessons. Students may enroll in Levels I-IV only from the following list.

### **APMU 414 - Saxophone VII**

**Class Hours:** var

**Credits:** 1

**Prerequisite:**

**(Major Area)** Prerequisites for initial semester of study: Audition and acceptance to the area of concentration

**(Minor Area)** Prerequisites for initial semester of study: Audition and placement Prerequisite for subsequent semesters: Grade of "C" or better in the previous semester of study

**Description: (Major Area)** Private instrumental, vocal, or composition instruction for music majors in their primary

area of concentration for up to eight semesters (four in composition). Includes technical studies, musical repertoire, and performance experiences at the professional level. Weekly half-hour lessons are given (2cr) for students enrolled in the BS and BA degree programs. Weekly one-hour lessons (4cr) are given for students enrolled in the BFA degree program only.

**(Minor Area)** Private instrumental or vocal instruction for music minors, or for music majors in their secondary or tertiary area of concentration for up to four semesters. Includes technical studies, musical repertoire, and performance experiences at a functional level. Students enroll for 1 credit and are given weekly half-hour lessons. Students may enroll in Levels I-IV only from the following list.

### **APMU 415 - Trumpet VII**

**Class Hours:** var

**Credits:** 1

**Prerequisite:**

**(Major Area)** Prerequisites for initial semester of study: Audition and acceptance to the area of concentration

**(Minor Area)** Prerequisites for initial semester of study: Audition and placement Prerequisite for subsequent semesters: Grade of "C" or better in the previous semester of study

**Description: (Major Area)** Private instrumental, vocal, or composition instruction for music majors in their primary area of concentration for up to eight semesters (four in composition). Includes technical studies, musical repertoire, and performance experiences at the professional level. Weekly half-hour lessons are given (2cr) for students enrolled in the BS and BA degree programs. Weekly one-hour lessons (4cr) are given for students enrolled in the BFA degree program only.

**(Minor Area)** Private instrumental or vocal instruction for music minors, or for music majors in their secondary or tertiary area of concentration for up to four semesters. Includes technical studies, musical repertoire, and performance experiences at a functional level. Students enroll for 1 credit and are given weekly half-hour lessons. Students may enroll in Levels I-IV only from the following list.

### **APMU 416 - French Horn VII**



**Class Hours:** var  
**Credits:** 1

**Prerequisite:**

**(Major Area)** Prerequisites for initial semester of study:  
Audition and acceptance to the area of concentration

**(Minor Area)** Prerequisites for initial semester of study:  
Audition and placement Prerequisite for subsequent semesters: Grade of "C" or better in the previous semester of study

**Description: (Major Area)** Private instrumental, vocal, or composition instruction for music majors in their primary area of concentration for up to eight semesters (four in composition). Includes technical studies, musical repertoire, and performance experiences at the professional level. Weekly half-hour lessons are given (2cr) for students enrolled in the BS and BA degree programs. Weekly one-hour lessons (4cr) are given for students enrolled in the BFA degree program only.

**(Minor Area)** Private instrumental or vocal instruction for music minors, or for music majors in their secondary or tertiary area of concentration for up to four semesters. Includes technical studies, musical repertoire, and performance experiences at a functional level. Students enroll for 1 credit and are given weekly half-hour lessons. Students may enroll in Levels I-IV only from the following list.

### APMU 417 - Trombone VII

**Class Hours:** var  
**Credits:** 1

**Prerequisite:**

**(Major Area)** Prerequisites for initial semester of study:  
Audition and acceptance to the area of concentration

**(Minor Area)** Prerequisites for initial semester of study:  
Audition and placement Prerequisite for subsequent semesters: Grade of "C" or better in the previous semester of study

**Description: (Major Area)** Private instrumental, vocal, or composition instruction for music majors in their primary area of concentration for up to eight semesters (four in composition). Includes technical studies, musical repertoire, and performance experiences at the professional level. Weekly half-hour lessons are given (2cr) for students enrolled in the BS and BA degree programs. Weekly one-

hour lessons (4cr) are given for students enrolled in the BFA degree program only.

**(Minor Area)** Private instrumental or vocal instruction for music minors, or for music majors in their secondary or tertiary area of concentration for up to four semesters. Includes technical studies, musical repertoire, and performance experiences at a functional level. Students enroll for 1 credit and are given weekly half-hour lessons. Students may enroll in Levels I-IV only from the following list.

### APMU 418 - Euphonium VII

**Class Hours:** var  
**Credits:** 1

**Prerequisite:**

**(Major Area)** Prerequisites for initial semester of study:  
Audition and acceptance to the area of concentration

**(Minor Area)** Prerequisites for initial semester of study:  
Audition and placement Prerequisite for subsequent semesters: Grade of "C" or better in the previous semester of study

**Description: (Major Area)** Private instrumental, vocal, or composition instruction for music majors in their primary area of concentration for up to eight semesters (four in composition). Includes technical studies, musical repertoire, and performance experiences at the professional level. Weekly half-hour lessons are given (2cr) for students enrolled in the BS and BA degree programs. Weekly one-hour lessons (4cr) are given for students enrolled in the BFA degree program only.

**(Minor Area)** Private instrumental or vocal instruction for music minors, or for music majors in their secondary or tertiary area of concentration for up to four semesters. Includes technical studies, musical repertoire, and performance experiences at a functional level. Students enroll for 1 credit and are given weekly half-hour lessons. Students may enroll in Levels I-IV only from the following list.

### APMU 419 - Tuba VII

**Class Hours:** var  
**Credits:** 1

**Prerequisite:**

**(Major Area)** Prerequisites for initial semester of study:  
Audition and acceptance to the area of concentration

**(Minor Area)** Prerequisites for initial semester of study: Audition and placement Prerequisite for subsequent semesters: Grade of "C" or better in the previous semester of study

**Description: (Major Area)** Private instrumental, vocal, or composition instruction for music majors in their primary area of concentration for up to eight semesters (four in composition). Includes technical studies, musical repertoire, and performance experiences at the professional level. Weekly half-hour lessons are given (2cr) for students enrolled in the BS and BA degree programs. Weekly one-hour lessons (4cr) are given for students enrolled in the BFA degree program only.

**(Minor Area)** Private instrumental or vocal instruction for music minors, or for music majors in their secondary or tertiary area of concentration for up to four semesters. Includes technical studies, musical repertoire, and performance experiences at a functional level. Students enroll for 1 credit and are given weekly half-hour lessons. Students may enroll in Levels I-IV only from the following list.

## APMU 420 - Percussion VII

**Class Hours:** var  
**Credits:** 1

**Prerequisite:**

**(Major Area)** Prerequisites for initial semester of study: Audition and acceptance to the area of concentration

**(Minor Area)** Prerequisites for initial semester of study: Audition and placement Prerequisite for subsequent semesters: Grade of "C" or better in the previous semester of study

**Description: (Major Area)** Private instrumental, vocal, or composition instruction for music majors in their primary area of concentration for up to eight semesters (four in composition). Includes technical studies, musical repertoire, and performance experiences at the professional level. Weekly half-hour lessons are given (2cr) for students enrolled in the BS and BA degree programs. Weekly one-hour lessons (4cr) are given for students enrolled in the BFA degree program only.

**(Minor Area)** Private instrumental or vocal instruction for music minors, or for music majors in their secondary or tertiary area of concentration for up to four semesters. Includes technical studies, musical repertoire, and

performance experiences at a functional level. Students enroll for 1 credit and are given weekly half-hour lessons. Students may enroll in Levels I-IV only from the following list.

## APMU 421 - Guitar VII

**Class Hours:** var  
**Credits:** 1

**Prerequisite:**

**(Major Area)** Prerequisites for initial semester of study: Audition and acceptance to the area of concentration

**(Minor Area)** Prerequisites for initial semester of study: Audition and placement Prerequisite for subsequent semesters: Grade of "C" or better in the previous semester of study

**Description: (Major Area)** Private instrumental, vocal, or composition instruction for music majors in their primary area of concentration for up to eight semesters (four in composition). Includes technical studies, musical repertoire, and performance experiences at the professional level. Weekly half-hour lessons are given (2cr) for students enrolled in the BS and BA degree programs. Weekly one-hour lessons (4cr) are given for students enrolled in the BFA degree program only.

**(Minor Area)** Private instrumental or vocal instruction for music minors, or for music majors in their secondary or tertiary area of concentration for up to four semesters. Includes technical studies, musical repertoire, and performance experiences at a functional level. Students enroll for 1 credit and are given weekly half-hour lessons. Students may enroll in Levels I-IV only from the following list.

## APMU 425 - Composition IV

**Class Hours:** var  
**Credits:** 1

**Prerequisite:**

**(Major Area)** Prerequisites for initial semester of study: Audition and acceptance to the area of concentration

**(Minor Area)** Prerequisites for initial semester of study: Audition and placement Prerequisite for subsequent semesters: Grade of "C" or better in the previous semester of study

**Description: (Major Area)** Private instrumental, vocal, or composition instruction for music majors in their primary area of concentration for up to eight semesters (four in composition). Includes technical studies, musical repertoire, and performance experiences at the professional level. Weekly half-hour lessons are given (2cr) for students enrolled in the BS and BA degree programs. Weekly one-hour lessons (4cr) are given for students enrolled in the BFA degree program only.

**(Minor Area)** Private instrumental or vocal instruction for music minors, or for music majors in their secondary or tertiary area of concentration for up to four semesters. Includes technical studies, musical repertoire, and performance experiences at a functional level. Students enroll for 1 credit and are given weekly half-hour lessons. Students may enroll in Levels I-IV only from the following list.

### **APMU 427 - Capstone Jury: Primary Instrument**

**Class Hours:** 0

**Lab/Discussion:** 0

**Credits:** 0

**Prerequisite:** Must be taken during the final semester of APMU Applied Music (primary instrument) required by program

**Description:** Adjudicates the performance of students in their respective primary performance area (on a pass/fail basis) as partial fulfillment of the requirements for the BA, BFA, and BSEd music degree programs. To pass the primary jury, students are expected to perform at a professional level.

**Previously Offered As:** (Offered as APMU 122 before 2016-17.)

### **APMU 451 - Piano VIII**

**Class Hours:** var

**Credits:** 1

**Prerequisite:**

**(Major Area)** Prerequisites for initial semester of study: Audition and acceptance to the area of concentration

**(Minor Area)** Prerequisites for initial semester of study: Audition and placement Prerequisite for subsequent semesters: Grade of "C" or better in the previous semester of study

**Description: (Major Area)** Private instrumental, vocal, or composition instruction for music majors in their primary area of concentration for up to eight semesters (four in composition). Includes technical studies, musical repertoire, and performance experiences at the professional level. Weekly half-hour lessons are given (2cr) for students enrolled in the BS and BA degree programs. Weekly one-hour lessons (4cr) are given for students enrolled in the BFA degree program only.

**(Minor Area)** Private instrumental or vocal instruction for music minors, or for music majors in their secondary or tertiary area of concentration for up to four semesters. Includes technical studies, musical repertoire, and performance experiences at a functional level. Students enroll for 1 credit and are given weekly half-hour lessons. Students may enroll in Levels I-IV only from the following list.

### **APMU 452 - Organ VIII**

**Class Hours:** var

**Credits:** 1

**Prerequisite:**

**(Major Area)** Prerequisites for initial semester of study: Audition and acceptance to the area of concentration

**(Minor Area)** Prerequisites for initial semester of study: Audition and placement Prerequisite for subsequent semesters: Grade of "C" or better in the previous semester of study

**Description: (Major Area)** Private instrumental, vocal, or composition instruction for music majors in their primary area of concentration for up to eight semesters (four in composition). Includes technical studies, musical repertoire, and performance experiences at the professional level. Weekly half-hour lessons are given (2cr) for students enrolled in the BS and BA degree programs. Weekly one-hour lessons (4cr) are given for students enrolled in the BFA degree program only.

**(Minor Area)** Private instrumental or vocal instruction for music minors, or for music majors in their secondary or tertiary area of concentration for up to four semesters. Includes technical studies, musical repertoire, and performance experiences at a functional level. Students enroll for 1 credit and are given weekly half-hour lessons. Students may enroll in Levels I-IV only from the following list.

## APMU 455 - Voice VIII

**Class Hours:** var

**Credits:** 1

**Prerequisite:**

**(Major Area)** Prerequisites for initial semester of study: Audition and acceptance to the area of concentration

**(Minor Area)** Prerequisites for initial semester of study: Audition and placement Prerequisite for subsequent semesters: Grade of "C" or better in the previous semester of study

**Description: (Major Area)** Private instrumental, vocal, or composition instruction for music majors in their primary area of concentration for up to eight semesters (four in composition). Includes technical studies, musical repertoire, and performance experiences at the professional level. Weekly half-hour lessons are given (2cr) for students enrolled in the BS and BA degree programs. Weekly one-hour lessons (4cr) are given for students enrolled in the BFA degree program only.

**(Minor Area)** Private instrumental or vocal instruction for music minors, or for music majors in their secondary or tertiary area of concentration for up to four semesters. Includes technical studies, musical repertoire, and performance experiences at a functional level. Students enroll for 1 credit and are given weekly half-hour lessons. Students may enroll in Levels I-IV only from the following list.

## APMU 456 - Violin VIII

**Class Hours:** var

**Credits:** 1

**Prerequisite:**

**(Major Area)** Prerequisites for initial semester of study: Audition and acceptance to the area of concentration

**(Minor Area)** Prerequisites for initial semester of study: Audition and placement Prerequisite for subsequent semesters: Grade of "C" or better in the previous semester of study

**Description: (Major Area)** Private instrumental, vocal, or composition instruction for music majors in their primary area of concentration for up to eight semesters (four in composition). Includes technical studies, musical repertoire, and performance experiences at the professional

level. Weekly half-hour lessons are given (2cr) for students enrolled in the BS and BA degree programs. Weekly one-hour lessons (4cr) are given for students enrolled in the BFA degree program only.

**(Minor Area)** Private instrumental or vocal instruction for music minors, or for music majors in their secondary or tertiary area of concentration for up to four semesters. Includes technical studies, musical repertoire, and performance experiences at a functional level. Students enroll for 1 credit and are given weekly half-hour lessons. Students may enroll in Levels I-IV only from the following list.

## APMU 460 - Flute VIII

**Class Hours:** var

**Credits:** 1

**Prerequisite:**

**(Major Area)** Prerequisites for initial semester of study: Audition and acceptance to the area of concentration

**(Minor Area)** Prerequisites for initial semester of study: Audition and placement Prerequisite for subsequent semesters: Grade of "C" or better in the previous semester of study

**Description: (Major Area)** Private instrumental, vocal, or composition instruction for music majors in their primary area of concentration for up to eight semesters (four in composition). Includes technical studies, musical repertoire, and performance experiences at the professional level. Weekly half-hour lessons are given (2cr) for students enrolled in the BS and BA degree programs. Weekly one-hour lessons (4cr) are given for students enrolled in the BFA degree program only.

**(Minor Area)** Private instrumental or vocal instruction for music minors, or for music majors in their secondary or tertiary area of concentration for up to four semesters. Includes technical studies, musical repertoire, and performance experiences at a functional level. Students enroll for 1 credit and are given weekly half-hour lessons. Students may enroll in Levels I-IV only from the following list.

## APMU 461 - Clarinet VIII

**Class Hours:** var

**Credits:** 1

**Prerequisite:**

**(Major Area)** Prerequisites for initial semester of study:  
Audition and acceptance to the area of concentration

**(Minor Area)** Prerequisites for initial semester of study:  
Audition and placement Prerequisite for subsequent semesters: Grade of "C" or better in the previous semester of study

**Description: (Major Area)** Private instrumental, vocal, or composition instruction for music majors in their primary area of concentration for up to eight semesters (four in composition). Includes technical studies, musical repertoire, and performance experiences at the professional level. Weekly half-hour lessons are given (2cr) for students enrolled in the BS and BA degree programs. Weekly one-hour lessons (4cr) are given for students enrolled in the BFA degree program only.

**(Minor Area)** Private instrumental or vocal instruction for music minors, or for music majors in their secondary or tertiary area of concentration for up to four semesters. Includes technical studies, musical repertoire, and performance experiences at a functional level. Students enroll for 1 credit and are given weekly half-hour lessons. Students may enroll in Levels I-IV only from the following list.

### APMU 462 - Oboe VIII

**Class Hours:** var  
**Credits:** 1

**Prerequisite:**

**(Major Area)** Prerequisites for initial semester of study:  
Audition and acceptance to the area of concentration

**(Minor Area)** Prerequisites for initial semester of study:  
Audition and placement Prerequisite for subsequent semesters: Grade of "C" or better in the previous semester of study

**Description: (Major Area)** Private instrumental, vocal, or composition instruction for music majors in their primary area of concentration for up to eight semesters (four in composition). Includes technical studies, musical repertoire, and performance experiences at the professional level. Weekly half-hour lessons are given (2cr) for students enrolled in the BS and BA degree programs. Weekly one-hour lessons (4cr) are given for students enrolled in the BFA degree program only.

**(Minor Area)** Private instrumental or vocal instruction for music minors, or for music majors in their secondary or tertiary area of concentration for up to four semesters. Includes technical studies, musical repertoire, and performance experiences at a functional level. Students enroll for 1 credit and are given weekly half-hour lessons. Students may enroll in Levels I-IV only from the following list.

### APMU 464 - Saxophone VIII

**Class Hours:** var  
**Credits:** 1

**Prerequisite:**

**(Major Area)** Prerequisites for initial semester of study:  
Audition and acceptance to the area of concentration

**(Minor Area)** Prerequisites for initial semester of study:  
Audition and placement Prerequisite for subsequent semesters: Grade of "C" or better in the previous semester of study

**Description: (Major Area)** Private instrumental, vocal, or composition instruction for music majors in their primary area of concentration for up to eight semesters (four in composition). Includes technical studies, musical repertoire, and performance experiences at the professional level. Weekly half-hour lessons are given (2cr) for students enrolled in the BS and BA degree programs. Weekly one-hour lessons (4cr) are given for students enrolled in the BFA degree program only.

**(Minor Area)** Private instrumental or vocal instruction for music minors, or for music majors in their secondary or tertiary area of concentration for up to four semesters. Includes technical studies, musical repertoire, and performance experiences at a functional level. Students enroll for 1 credit and are given weekly half-hour lessons. Students may enroll in Levels I-IV only from the following list.

### APMU 465 - Trumpet VIII

**Class Hours:** var  
**Credits:** 1

**Prerequisite:**

**(Major Area)** Prerequisites for initial semester of study:  
Audition and acceptance to the area of concentration

**(Minor Area)** Prerequisites for initial semester of study:  
Audition and placement Prerequisite for subsequent

semesters: Grade of "C" or better in the previous semester of study

**Description: (Major Area)** Private instrumental, vocal, or composition instruction for music majors in their primary area of concentration for up to eight semesters (four in composition). Includes technical studies, musical repertoire, and performance experiences at the professional level. Weekly half-hour lessons are given (2cr) for students enrolled in the BS and BA degree programs. Weekly one-hour lessons (4cr) are given for students enrolled in the BFA degree program only.

**(Minor Area)** Private instrumental or vocal instruction for music minors, or for music majors in their secondary or tertiary area of concentration for up to four semesters. Includes technical studies, musical repertoire, and performance experiences at a functional level. Students enroll for 1 credit and are given weekly half-hour lessons. Students may enroll in Levels I-IV only from the following list.

### APMU 466 - French Horn VIII

**Class Hours:** var

**Credits:** 1

**Prerequisite:**

**(Major Area)** Prerequisites for initial semester of study: Audition and acceptance to the area of concentration

**(Minor Area)** Prerequisites for initial semester of study: Audition and placement Prerequisite for subsequent semesters: Grade of "C" or better in the previous semester of study

**Description: (Major Area)** Private instrumental, vocal, or composition instruction for music majors in their primary area of concentration for up to eight semesters (four in composition). Includes technical studies, musical repertoire, and performance experiences at the professional level. Weekly half-hour lessons are given (2cr) for students enrolled in the BS and BA degree programs. Weekly one-hour lessons (4cr) are given for students enrolled in the BFA degree program only.

**(Minor Area)** Private instrumental or vocal instruction for music minors, or for music majors in their secondary or tertiary area of concentration for up to four semesters. Includes technical studies, musical repertoire, and performance experiences at a functional level. Students enroll for 1 credit and are given weekly half-hour lessons.

Students may enroll in Levels I-IV only from the following list.

### APMU 467 - Trombone VIII

**Class Hours:** var

**Credits:** 1

**Prerequisite:**

**(Major Area)** Prerequisites for initial semester of study: Audition and acceptance to the area of concentration

**(Minor Area)** Prerequisites for initial semester of study: Audition and placement Prerequisite for subsequent semesters: Grade of "C" or better in the previous semester of study

**Description: (Major Area)** Private instrumental, vocal, or composition instruction for music majors in their primary area of concentration for up to eight semesters (four in composition). Includes technical studies, musical repertoire, and performance experiences at the professional level. Weekly half-hour lessons are given (2cr) for students enrolled in the BS and BA degree programs. Weekly one-hour lessons (4cr) are given for students enrolled in the BFA degree program only.

**(Minor Area)** Private instrumental or vocal instruction for music minors, or for music majors in their secondary or tertiary area of concentration for up to four semesters. Includes technical studies, musical repertoire, and performance experiences at a functional level. Students enroll for 1 credit and are given weekly half-hour lessons. Students may enroll in Levels I-IV only from the following list.

### APMU 468 - Euphonium VIII

**Class Hours:** var

**Credits:** 1

**Prerequisite:**

**(Major Area)** Prerequisites for initial semester of study: Audition and acceptance to the area of concentration

**(Minor Area)** Prerequisites for initial semester of study: Audition and placement Prerequisite for subsequent semesters: Grade of "C" or better in the previous semester of study

**Description: (Major Area)** Private instrumental, vocal, or composition instruction for music majors in their primary

area of concentration for up to eight semesters (four in composition). Includes technical studies, musical repertoire, and performance experiences at the professional level. Weekly half-hour lessons are given (2cr) for students enrolled in the BS and BA degree programs. Weekly one-hour lessons (4cr) are given for students enrolled in the BFA degree program only.

**(Minor Area)** Private instrumental or vocal instruction for music minors, or for music majors in their secondary or tertiary area of concentration for up to four semesters. Includes technical studies, musical repertoire, and performance experiences at a functional level. Students enroll for 1 credit and are given weekly half-hour lessons. Students may enroll in Levels I-IV only from the following list.

### **APMU 469 - Tuba VIII**

**Class Hours:** var

**Credits:** 1

**Prerequisite:**

**(Major Area)** Prerequisites for initial semester of study: Audition and acceptance to the area of concentration

**(Minor Area)** Prerequisites for initial semester of study: Audition and placement Prerequisite for subsequent semesters: Grade of "C" or better in the previous semester of study

**Description: (Major Area)** Private instrumental, vocal, or composition instruction for music majors in their primary area of concentration for up to eight semesters (four in composition). Includes technical studies, musical repertoire, and performance experiences at the professional level. Weekly half-hour lessons are given (2cr) for students enrolled in the BS and BA degree programs. Weekly one-hour lessons (4cr) are given for students enrolled in the BFA degree program only.

**(Minor Area)** Private instrumental or vocal instruction for music minors, or for music majors in their secondary or tertiary area of concentration for up to four semesters. Includes technical studies, musical repertoire, and performance experiences at a functional level. Students enroll for 1 credit and are given weekly half-hour lessons. Students may enroll in Levels I-IV only from the following list.

### **APMU 471 - Guitar VIII**

**Class Hours:** var

**Credits:** 1

**Prerequisite:**

**(Major Area)** Prerequisites for initial semester of study: Audition and acceptance to the area of concentration

**(Minor Area)** Prerequisites for initial semester of study: Audition and placement Prerequisite for subsequent semesters: Grade of "C" or better in the previous semester of study

**Description: (Major Area)** Private instrumental, vocal, or composition instruction for music majors in their primary area of concentration for up to eight semesters (four in composition). Includes technical studies, musical repertoire, and performance experiences at the professional level. Weekly half-hour lessons are given (2cr) for students enrolled in the BS and BA degree programs. Weekly one-hour lessons (4cr) are given for students enrolled in the BFA degree program only.

**(Minor Area)** Private instrumental or vocal instruction for music minors, or for music majors in their secondary or tertiary area of concentration for up to four semesters. Includes technical studies, musical repertoire, and performance experiences at a functional level. Students enroll for 1 credit and are given weekly half-hour lessons. Students may enroll in Levels I-IV only from the following list.

### **APMU 480 - Wind and Percussion Pedagogy**

**Class Hours:** 2

**Lab/Discussion:** 0

**Credits:** 2

**Prerequisite:** Completion of six semesters of APMU at the 4cr level; concurrent enrollment with seventh or eighth semester of APMU, or instructor permission

**Description:** The study of specific techniques of, and pedagogical approaches for, woodwind, brass, or percussion instruments in both individual and classroom situations.

## **Art Education**

### **ARED 101 - Introduction to Art Education**

**Class Hours:** 3  
**Lab/Discussion:** 0  
**Credits:** 3

**Restriction:** Art Education Major or Instructor Permission  
**Description:** Introduces theoretical and contextual foundations that support contemporary art education theory and practice in a variety of settings including schools, museums, and community-based programs. Serves as the first of a sequence of courses in the Art Education major and should be taken the second semester of the first year or of admission to the major. Provides a foundation for the rest of the courses in the major. Conducted in a participatory seminar format that includes selected field experiences with public P-12 schools, museums, and community art programs.

### **ARED 215 - Issues in Art Education**

**Class Hours:** 3  
**Lab/Discussion:** 0  
**Credits:** 3

**Prerequisite:** ARED 101

**Description:** An overview of issues in the field of art education. Provides students with foundational texts and theories that constitute the field of art education as it exists in schools, community-based contexts, and museums. Examines multiple populations of learners including special populations through discussion, direct instruction, and collaborative projects. Synthesizes contemporary art education as a dynamic scholarly field.

### **ARED 281 - Special Topics**

**Class Hours:** var  
**Credits:** 1-3

**Restriction:** As appropriate to course content  
**Description:** Offered on an experimental or temporary basis to explore topics not included in the established curriculum. A given topic may be offered under any special topic identity no more than three times. Special topics numbered 281 are offered primarily for lower-level undergraduate students.

### **ARED 317 - Art in K-6 Programs**

**Class Hours:** 3  
**Lab/Discussion:** 0  
**Credits:** 3

**Restriction:** Admission to Step 1 of the 3-Step Process  
**Description:** Examines children's artistic development in relation to teaching art in K-6 settings. Explores types of art programs, planning, motivation, content, and evaluation of art lessons for all students in elementary art classes, including those with special needs. Students apply theories and knowledge to the design of instructional curricula, units, and lessons, as well as practice and critique the delivery of instruction.

### **ARED 318 - Art in 7-12 Programs**

**Class Hours:** 3  
**Lab/Discussion:** 0  
**Credits:** 3

**Restriction:** Admission to Step 1 of the 3-Step Process  
**Description:** Explores a number of practical and theoretical approaches related to the teaching of studio art in 7-12 public school settings. Of primary interest is the potential for application of college-level art theories and techniques, along with exploring a variety of research writing techniques. Also provides information regarding the teaching of art with special needs populations.

### **ARED 320 - Art Criticism and Aesthetics in K-12 Programs**

**Class Hours:** 3  
**Lab/Discussion:** 0  
**Credits:** 3

**Prerequisite:** ARED 215 (minimum C grade) and art education major

**Description:** Secure the knowledge and skills necessary to teach a program of comprehensive art that includes the discipline of art criticism. Establishes theoretical frameworks for writing intelligently and talking about art with students from a critical perspective. Also provides opportunities for developing curricular and pedagogical materials appropriate for teaching art K-12.

### **ARED 423 - Community-Based and Museum Art Education**

**Class Hours:** 3  
**Lab/Discussion:** 0  
**Credits:** 3

**Prerequisite:** ARED 215

**Description:** Examines theories, issues and practices related to art education within community-based and



museum settings. Includes art and children's museums, community art programs, after-school programs, public and collaborative art programs, and emerging organizations, programs, and resources. In these settings, art educators work with a diversity of learners that may include children, adults, community activists and cultural workers, as well as with a diversity of art processes and media. Examines relationships between theory and practice and collaborates with community and museum-based organizations.

Dual listed for graduate credit as ARED 523.

### **ARED 424 - Special Populations in Art Education**

**Class Hours:** 3  
**Lab/Discussion:** 0  
**Credits:** 3

**Prerequisite:** ARED 215

**Description:** Focuses on special populations as learners in multiple art education contexts including schools, community-based programs, and museums. Includes, but is not limited to, learners with special needs, English Language Learners, and learners across the life span. Examines Universal Design in education (UDL), therapeutic art education contexts, and curriculum design for multiple learners.

Dual listed for graduate credit as ARED 524.

## **Art History**

### **ARHI 100 - Arts of the 20th Century**

**Class Hours:** 3  
**Lab/Discussion:** 0  
**Credits:** 3

**Restriction:** Art majors and minors only

**Description:** A study of art in the US during 1900-1960 in light of historical events and in the broader context of political, philosophical, religious, and social developments, including women and underrepresented groups as subjects, creators, and patrons of the arts. An introductory course for incoming art majors. Primary focus on painting, photography, and film.

### **ARHI 101 - Introduction to Art**

**Class Hours:** 3  
**Lab/Discussion:** 0

**Credits:** 3

**Description:** Introduces the elements of visual expression, past and present. Students gain an understanding of the processes of art making and the motivations and goals of artists across time. Students learn how various factors, including religion, politics, and literature, affect the creation of the arts of any given period or region.

### **ARHI 103 - How Design Changes the World**

**Class Hours:** 3  
**Lab/Discussion:** 0  
**Credits:** 3

**Description:** Explores the impact of design on the modern world with an emphasis on the design process as a method for solving a variety of functional, aesthetic, and societal problems.

### **ARHI 205 - Ancient to Medieval Art**

**Class Hours:** 3  
**Lab/Discussion:** 0  
**Credits:** 3

**Description:** Examines a selection of art and architectural forms from the Prehistoric period through the late Middle Ages, in relation to the political, social, economic, and religious forces that have shaped Western cultures.

### **ARHI 207 - Renaissance to Modern Art**

**Class Hours:** 3  
**Lab/Discussion:** 0  
**Credits:** 3

**Description:** Studies art from the Renaissance through the Modern periods in western Europe in light of historical events and in the broader context of political, philosophical, religious, and social developments, including women and underrepresented groups as subjects, creators, and patrons of the arts. Issues of exoticism, Orientalism, and colonialism are discussed.

### **ARHI 224 - Introduction to Asian Art**

**Class Hours:** 3  
**Lab/Discussion:** 0  
**Credits:** 3

**Description:** Examines a selection of art and architectural forms from China, Japan, and India, ancient and modern. Students are introduced to religious and secular sculpture, painting, and ceramics, as well as the philosophical, political, and social forces that prompted their creation.

### **ARHI 301 - Design History**

**Class Hours:** 3  
**Credits:** 3

**Description:** Covers design in architecture, fashion, craft, furniture, interior, textile, graphic arts, and illustration in their social, cultural, economic, political, technical, and aesthetic contexts. Considers materials, technology, and debates informing the configuration of things such as Modernism, gender, race, class and taste, as well as the changing role of the designer, and the effects of shifting lifestyles on patterns of production and consumption.

### **ARHI 407 - Medieval Art**

**Class Hours:** 3  
**Lab/Discussion:** 0  
**Credits:** 3

**Description:** Art and architecture of Europe during the Middle Ages, beginning with early Christian and Byzantine and concluding with the Gothic period. Dual listed for graduate credit as ARHI 507.

### **ARHI 408 - Italian Renaissance Art**

**Class Hours:** 3  
**Lab/Discussion:** 0  
**Credits:** 3

**Description:** Italian art from 1400s through 1650 and Mannerist movement. Special attention paid to great masters of the period. Dual listed for graduate credit as ARHI 508.

### **ARHI 409 - Baroque and Rococo Art**

**Class Hours:** 3  
**Lab/Discussion:** 0  
**Credits:** 3

**Description:** A general survey of art from 1575 to 1775, includes architecture, sculpture, painting, and other arts. Dual listed for graduate credit as ARHI 509.

### **ARHI 412 - Classical Art**

**Class Hours:** 3  
**Lab/Discussion:** 0  
**Credits:** 3

**Description:** A historical survey of the architecture, painting, sculpture, and minor arts of the classical period of Greece and Rome, including the Minoan, Mycenaean, and Etruscan cultures.

### **ARHI 413 - Senior Seminar**

**Class Hours:** 3  
**Lab/Discussion:** 0  
**Credits:** 3

**Description:** Helps students develop adequate vocabularies and methods to be used in discussion and criticism of works of art.

### **ARHI 417 - Byzantine Art**

**Class Hours:** 3  
**Lab/Discussion:** 0  
**Credits:** 3

**Prerequisite:** ARHI 205 or instructor permission  
**Description:** Investigates the art and architecture produced in the Byzantine Empire, with a concentration on the years between 324, the year Constantine founded Constantinople, and 1453, the date the Turks conquered the city. Consisting of lectures, discussions, videos, and field trips, the course emphasizes cross-cultural contacts between Byzantium, Islam, and the West.

### **ARHI 420 - Art Museums, Art Libraries, and Visual Resources**

**Class Hours:** 3  
**Lab/Discussion:** 0  
**Credits:** 3

**Prerequisite:** ARHI 100, ARHI 101, or instructor permission  
**Description:** Explores and introduces professions in art museums, art libraries, and visual resources. Includes a brief history of art collecting and an introduction to the major art museums in the United States, including their origins and current status. Presents past and contemporary art practices in museums and special collection environments, including the essential functions of art

libraries, visual resources collections, and curatorial practices. Covers current challenges and controversies facing art museums and collections. Provides relevant practical experiences including field trips and guest lectures.

### **ARHI 423 - Art of Japan**

**Class Hours:** 3  
**Lab/Discussion:** 0  
**Credits:** 3

**Description:** Introduces the history and aesthetics of Japanese art, from antiquity to the present. Lectures focus on major works of painting, sculpture, architecture, prints, ceramics, and other works from antiquity to present. Close attention is paid to their historical contexts and underlying themes. These include religious influences, the imperial court, the tea ceremony, and modern life. The interaction of Japan with its neighbors is also considered.

### **ARHI 425 - Arts of China**

**Class Hours:** 3  
**Lab/Discussion:** 0  
**Credits:** 3

**Description:** Surveys art selected from the five millennia of Chinese art and culture. Examines sculpture, architecture, and painting from the Neolithic period through the 20th century. Issues of religion, patronage, and popular culture are included.

### **ARHI 493 - Internship**

**Class Hours:** var  
**Credits:** 3-12

**Description:** For art history majors who wish to receive practical experience working within professional situations that relate to the student's artistic and occupational goals.

## **Art (Studio)**

### **ART 111 - Figure Drawing**

**Class Hours:** 0  
**Lab/Discussion:** 6  
**Credits:** 3

**Description:** A foundation course in drawing, including a

study of the structure of drawing and composition with a variety of media and subject matter.

### **ART 112 - Fundamentals of Drawing**

**Class Hours:** 0  
**Lab/Discussion:** 6  
**Credits:** 3

**Description:** Seeks to integrate basic principles and fundamentals of drawing and design.

### **ART 113 - 3D Design and Digital Fabrication**

**Class Hours:** 0  
**Lab/Discussion:** 6  
**Credits:** 3

**Description:** Introduces computer aided design and digital fabrication with an emphasis on the elements and principles of design in three dimensions. Facilitates civic engagement and collaboration with public facing projects that feature original contributions of student research.

### **ART 114 - Color and Two-Dimensional Design**

**Class Hours:** 0  
**Lab/Discussion:** 6  
**Credits:** 3

**Description:** Focuses on the consistent properties of color and the manner in which two-dimensional design can be organized. Gives specific attention to the complex interactions of color within two-dimensional design.

### **ART 211 - Painting**

**Class Hours:** 0  
**Lab/Discussion:** 6  
**Credits:** 3

**Description:** An introduction to painting in which a variety of materials, techniques, and approaches are explored.

### **ART 213 - Woodworking: Function and Form**

**Class Hours:** 0  
**Lab/Discussion:** 6

**Credits:** 3

**Description:** Involves the study of woodworking and furniture design as it relates to the individual designer-artist. Students experience a formal background in both woodworking technique and the application of design.

### **ART 214 - Ceramics**

**Class Hours:** 3

**Lab/Discussion:** 3

**Credits:** 3

**Description:** Introduces the processes, techniques, and aesthetics of the ceramics medium with an examination of historical and contemporary approaches. Emphasis is placed on basic hand building methods and techniques.

### **ART 215 - Sculpture**

**Class Hours:** 0

**Lab/Discussion:** 6

**Credits:** 3

**Description:** An introduction to sculpture with an emphasis on study of form as well as visualizing in the third dimension.

### **ART 216 - Jewelry and Metals**

**Class Hours:** 0

**Lab/Discussion:** 6

**Credits:** 3

**Prerequisite:** ART 113 or instructor permission

**Description:** An introduction to jewelry and metals with an emphasis on the design and creation of functional and nonfunctional art objects. Basic processes of metal fabrication is the focus.

### **ART 217 - Print Media**

**Class Hours:** 0

**Lab/Discussion:** 6

**Credits:** 3

**Description:** An introduction to basic techniques of print media including planographic, relief, and electronic processes.

### **ART 218 - Introduction to Graphic Design**

**Class Hours:** 0

**Lab/Discussion:** 6

**Credits:** 3

**Prerequisite:** ART 112, ART 114

**Description:** A survey of graphic design, exploring creative problem-solving techniques. Introduces the importance of concept development, aesthetics, symbolism, typography, and computer method. Studio experience provides a wide range of experiences for the beginning graphic design student. Projects, problems, and exercises will deal with skills, principles, application, and theory.

### **ART 221 - Principles of Illustration**

**Class Hours:** 0

**Lab/Discussion:** 6

**Credits:** 3

**Prerequisite:** ART 218

**Description:** Introduces essential processes and techniques used in illustration. Emphasizes the artist's role in critically interpreting and enhancing textual information.

### **ART 226 - Typography**

**Class Hours:** 0

**Lab/Discussion:** 6

**Credits:** 3

**Prerequisite:** ART 114

**Description:** Introduces type and typographic systems utilized in graphic design.

### **ART 281 - Special Topics**

**Class Hours:** var

**Credits:** 1-3

**Prerequisite:** As appropriate to course content

**Description:** Offered on an experimental or temporary basis to explore topics not included in the established curriculum. A given topic may be offered under any special topic identity no more than three times. Special topics numbered 281 are offered primarily for lower-level undergraduate students.

### **ART 300 - Arts Administration and Curatorial Practice**

**Class Hours:** 0

**Lab/Discussion:** 6

**Credits:** 3

**Description:** Focuses on gallery management and arts administration. Consists of curation, installation and promotion of visual art events using campus galleries, providing professional experience and career preparedness.

### **ART 355 - Intermediate Graphic Design and Illustration**

**Class Hours:** 0

**Lab/Discussion:** 6

**Credits:** 3

**Prerequisite:** ART 218

**Description:** An intermediate-level study in graphic design focusing on digital illustration, complex typography, and publication design. Studio experience focuses on current professional 2D digital illustration software.

### **ART 356 - Intermediate Layout and Composition for Print and Interactive Media**

**Class Hours:** 0

**Lab/Discussion:** 6

**Credits:** 3

**Prerequisite:** ART 218; ART 355 (recommended)

**Description:** An intermediate level study in graphic design, researching publication and web layout, grid systems, and multipage design on both the printed page and in interactive media. Studio experience focuses on current professional software used for publication design.

### **ART 400 - Professional Practices**

**Class Hours:** 3

**Lab/Discussion:** 0

**Credits:** 3

**Prerequisite:** Senior status

**Restriction:** BFA or BA studio majors only

**Description:** Professional practices for the visual artist. Major issues may include the development of a thesis exhibition, résumé development, an artist's professional image, portfolio development, marketing skills, career opportunities, and grant writing.

### **ART 421 - Advanced Drawing**

**Class Hours:** 0

**Lab/Discussion:** 6

**Credits:** 3

**Prerequisite:** ART 111, ART 112

**Description:** Meets the needs of the student who has some background in the field. Problems of composition, two- and three-dimensional relationships, and surface are on an individual basis.

### **ART 423 - Drawing: Materials and Process**

**Class Hours:** 0

**Lab/Discussion:** 6

**Credits:** 3

**Prerequisite:** ART 112

**Description:** Investigates essential materials and processes used in contemporary drawing (course is repeatable up to 9 credits).

### **ART 424 - Drawing: Ideation and Concept**

**Class Hours:** 0

**Lab/Discussion:** 6

**Credits:** 3

**Prerequisite:** ART 112

**Description:** Investigates ideational and conceptual skills utilized in contemporary drawing and design (course is repeatable for up to 9 credits).

### **ART 448 - Brand Design**

**Class Hours:** 1.5

**Lab/Discussion:** 2

**Credits:** 3

**Prerequisite:** ART 114

**Description:** An integrated study of branding concepts in marketing and art including aesthetics in commercial art, design of brand and corporate identity trademarks, theories of brand marketing and business strategy, customer touchpoints in brand communication, and branding as a corporate strategy.

**Previously Offered As:** (Also offered as MKTG 448; may not be taken for duplicate credit.)

### **ART 451 - Advanced Woodworking: Function and Form**

**Class Hours:** 0  
**Lab/Discussion:** 6  
**Credits:** 3

**Prerequisite:** ART 213

**Description:** Offers advanced training and skills involving the study of contemporary furniture design and woodworking. Emphasizes a technical and aesthetic point of view.

### **ART 452 - Advanced Ceramics**

**Class Hours:** 0  
**Lab/Discussion:** 6  
**Credits:** 3

**Prerequisite:** ART 214

**Description:** Continued exploration of the field of ceramic production, along with kiln firing and glaze formulation.

### **ART 453 - Advanced Sculpture**

**Class Hours:** 0  
**Lab/Discussion:** 6  
**Credits:** 3

**Prerequisite:** ART 215

**Description:** An opportunity to pursue independent study in sculpture. Materials and processes are individually chosen and the work related to broadening concepts.

### **ART 454 - Advanced Painting**

**Class Hours:** 0  
**Lab/Discussion:** 6  
**Credits:** 3

**Prerequisite:** ART 211

**Description:** Individual experimentation and exploration by the painter and investigation of the various technical approaches.

### **ART 455 - 3D Modeling and Animation**

**Class Hours:** var  
**Credits:** 3-6

**Prerequisite:** ART 218, ART 355; instructor permission required for 6cr studio; Recommended ART 356

**Description:** Introduces three-dimensional modeling and rendering for illustration and animation. Studio experience focuses on current professional 3-D software.

### **ART 456 - Advanced Web and Interactive Design**

**Class Hours:** var  
**Credits:** 3-6

**Prerequisite:** ART 218, ART 355; instructor permission required for 6cr studio; Recommended ART 356, ART 455

**Description:** An exploration of web page and interactive design. Studio experience focuses on current professional web and interactive software.

### **ART 457 - Advanced Print Media**

**Class Hours:** var  
**Credits:** 3-6

**Prerequisite:** ART 217, permission required for 6cr studio

**Description:** Student elects to study a print media process or processes in greater depth and works toward developing personal visual language and techniques ranging from the traditional to the nontraditional.

### **ART 460 - Advanced Jewelry and Metals**

**Class Hours:** 0  
**Lab/Discussion:** 6  
**Credits:** 3

**Prerequisite:** ART 216 or permission

**Description:** Technical expertise is further developed to challenge each individual to understand the relationship of concept to the completed object, whether it is jewelry, holloware, or a nonfunctional object. Various techniques are investigated in pursuit of a personal expression and aesthetic.

**Repeated:** May be repeated for credit.

### **ART 465 - Advanced Illustration**

**Class Hours:** 0  
**Lab/Discussion:** 6-12  
**Credits:** 3-6

**Prerequisite:** ART 221, ART 355

**Description:** Explores advanced techniques and processes used in illustration. Emphasizes the development of personal style and professional portfolio development (course is repeatable up to 9 credits).

## ART 466 - Digital Image Synthesis for the Designer and Illustrator

**Class Hours:** 0  
**Lab/Discussion:** 6  
**Credits:** 3

**Prerequisite:** ART 355

**Description:** Explores compositing and synthesizing digital images as a workflow method and image making tool for graphic designers and illustrators. Focuses on the use of technology to blend artistic processes into a useful workflow across a wide variety of commercial art media, including layout, advertisement, marketing campaigns, web design, and as a reference for illustrative work (course is repeatable up to 6 credits).

## ART 478 - Career Practices for Designers and Illustrators

**Class Hours:** 3  
**Lab/Discussion:** 0  
**Credits:** 3

**Prerequisite:** ART 218 and Senior Standing

**Description:** Examines career practices for graphic designers and illustrators. Includes resume development, biography writing, self-promotional strategies, and financial literacy for commercial artists are explored. Provides individualized designs for the completion of their professional portfolio.

## ART 481 - Special Topics

**Class Hours:** var  
**Credits:** 1-3

**Description:** May provide an in-depth study of a narrowly defined area of the discipline. Subject matter may change with repeated offering of the course.

**Repeated:** May be repeated for credit.

## ART 482 - Independent Study

**Class Hours:** var  
**Credits:** 1-3

**Restriction:** Prior approval through advisor, faculty member, department chairperson, dean, and Office of the Provost

**Description:** Students with interest in independent study of a topic not offered in the curriculum may propose a plan of

study in conjunction with a faculty member.

**Approved:** Approval is based on academic appropriateness and availability of resources.

## ART 493 - Internship

**Class Hours:** var  
**Credits:** 3-12

**Description:** For art majors who wish to receive practical experience working within professional situations that relate to the student's artistic and occupational goals.

## Asian Studies

### ASIA 200 - Introduction to Asian Studies

**Class Hours:** 3  
**Lab/Discussion:** 0  
**Credits:** 3

**Description:** Introduces the study of Asian societies. Examines different regions of Asia and also different academic disciplines and how they create knowledge about Asia.

### ASIA 244 - Samurai and Gongfu Heroes: Masculinity in East Asia

**Class Hours:** 3  
**Lab/Discussion:** 0  
**Credits:** 3

**Description:** Explores what it means to be a man, from the haohan of China to the Men of High Purpose of Japan and beyond. Analyses stories, films, and official histories that have encouraged Chinese and Japanese people to emulate the great heroes of the past and how these people and their stories have been re-used in modern Asia.

**Cross-Listed:** HIST 244 **Note:** May not be taken for duplicate credit.

### ASIA 483 - Honors Thesis

**Class Hours:** 3  
**Lab/Discussion:** 0  
**Credits:** 3

**Prerequisite:** 3.25 cumulative GPA; 3.5 GPA in Asian Studies courses

**Restriction:** Asian Studies minor, departmental

permission. Approval is based on academic appropriateness and availability of resources.

**Description:** A two-semester sequence of research and writing, culminating in an honors thesis or project. Honors theses are completed individually under the direction of a professor who specializes in the student's area of interest and are approved by a thesis committee comprising the thesis director and two others.

**Repeated:** May be taken twice for a total of 6cr.

## Business Communication

### BCOM 321 - Business and Interpersonal Communications

**Class Hours:** 3

**Lab/Discussion:** 0

**Credits:** 3

**Prerequisite:** ENGL 101 or ENGL 103; and ENGL 202

**Description:** A study of communication theory and principles as applied to business situations and practices; development of communication skills in areas of communication such as speaking, writing, listening, and nonverbal communicating. Emphasizes building effective interpersonal relations in a business environment.

**Previously Offered As:** (Offered as BTST 321 before 2014-15.)

### BCOM 342 - Intercultural Business Communication

**Class Hours:** 3

**Lab/Discussion:** 0

**Credits:** 3

**Prerequisite:** Junior standing

**Description:** An in-depth study and theoretical understanding of intercultural business communication, including international, national, ethnic, racial, and socioeconomic cultures. Explore practices, trends, and difficulties of people primarily identified with one culture attempting to interact with people of another culture through speaking, listening, writing, and nonverbal means. Problems of intercultural communication situations for business are pinpointed, elements of the problems clarified, and guidelines projected for problem mitigation.

**Previously Offered As:** (Offered as BTST 342 before 2014-15.)

## Biochemistry

### BIOC 290 - Biochemistry Seminar I

**Class Hours:** 1

**Lab/Discussion:** 0

**Credits:** 1

**Restriction:** Biochemistry major or instructor permission

**Description:** Provides undergraduate research and career possibilities based on a degree in biochemistry or chemistry. Includes presentations by research faculty in biochemistry, chemistry and departments across the university.

### BIOC 301 - Foundations of Biochemistry

**Class Hours:** 3

**Lab/Discussion:** 0

**Credits:** 3

**Prerequisite:** BIOL 202 and a grade of "C" or better in CHEM 231

**Description:** A foundation in biochemical principles emphasizing the structure/function relationships of proteins, carbohydrates, nucleic acids, and lipids. Catalysis by enzymes, including reaction mechanisms, kinetics, and regulation of activity are considered in detail. The structure of biological membranes and transport of both solutes and signals across membranes are explored. Assumes an understanding of eukaryotic cell structure and organic chemistry of major functional groups.

### BIOC 311 - Biochemistry Laboratory I

**Class Hours:** 1

**Lab/Discussion:** 3

**Credits:** 2

**Prerequisite or Corequisite:** CHEM 351 or BIOC 301

**Description:** Presents an overview of the theoretical understanding and practical, hands-on learning of biochemical laboratory techniques, focusing on protein purification and characterization. Introduces common techniques that are currently used in biochemistry research.

### BIOC 402 - Advanced Biochemistry

**Class Hours:** 3

**Lab/Discussion:** 0

**Credits:** 3

**Prerequisite:** Grade of "C" or better in BIOC 301



**Description:** Examination of biochemical processes with a focus on metabolism. Central pathways considered in detail, including regulatory mechanisms and hormonal signaling. Other selected processes and integration of mammalian metabolism are explored. Assumes an understanding of concepts relating to structure/function relationships for biomolecules, biological membranes, and signaling included in BIOC 301.

### **BIOC 412 - Advanced Biochemistry Laboratory II**

**Class Hours:** 1  
**Lab/Discussion:** 3  
**Credits:** 2

**Prerequisite:** Grade of C or better in BIOC 311  
**Description:** Presents an overview of the theoretical understanding and practical, hands-on learning of computational biochemistry and bioengineering laboratory techniques, focusing on protein structure-function studies, engineering and characterization. Introduces advanced biochemical techniques that are currently used in biochemistry research.

### **BIOC 480 - Biochemistry Seminar II**

**Class Hours:** 1  
**Lab/Discussion:** 0  
**Credits:** 1

**Prerequisite:** BIOC 301 or CHEM 351

**Description:** Discusses the current trends in biochemical thought along with biomedical and scientific ethics. Includes skills for critical reading of different forms of scientific literature and communications along with the important elements of different types of scientific writing such as research proposals, and communications required in a biochemical or biomedical work environment.

### **BIOC 481 - Special Topics in Biochemistry**

**Class Hours:** var  
**Credits:** 1-3

**Prerequisite:** BIOC 402 or CHEM 351  
**Description:** A lecture-discussion course of recent biochemical topics or those of unique interest. Topic and instructors to change annually.

### **BIOC 482 - Independent Research in Biochemistry**

**Class Hours:** var  
**Credits:** 1-3

**Prerequisite:** BIOC 402, BIOC 412, permission by program coordinator  
**Description:** Student conducts a research project in any area of biochemistry. Work supervised by faculty. Does not involve regular class or lab hours.  
**Approved:** Enrollment by permission only.

### **BIOC 490 - Biochemistry Senior Seminar**

**Class Hours:** 1  
**Lab/Discussion:** 0  
**Credits:** 1

**Prerequisite:** BIOC 480  
**Description:** A discussion of recent trends in biochemical thought. Oral and written reports on assigned readings, and library or laboratory research. Guest lecturers. The combination BIOC 480-490 counts as one writing-intensive course. (Also offered as CHEM 490. These courses may be substituted for each other and be used interchangeably for D/F repeats but may not be counted for duplicate credit.)

## **Biology**

### **BIOL 103 - Life on Earth**

**Class Hours:** 3  
**Lab/Discussion:** 2  
**Credits:** 4

**Description:** Introduces ecology, conservation, and evolutionary biology, emphasizing how ecological change caused by human activities impacts plant and animal populations, communities, and ecosystems and how living things interact with each other and the physical environment. Applies scientific method to learn fundamental concepts and explore problems in ecology and conservation.

### **BIOL 104 - Human Biology: How the Human Body Works**

**Class Hours:** 3  
**Lab/Discussion:** 2

**Credits:** 4

**Description:** Introduces functions of the human body using disease as a mechanism. Explores the internal milieu of the body and how the different body systems affect this balance. Gain an appreciation for the human body and its interactions with the environment.

### **BIOL 105 - Cell Biology**

**Class Hours:** 3

**Lab/Discussion:** 0

**Credits:** 3

**Description:** Introduces concepts and applications for understanding human biological function from the point of view of cellular biology.

### **BIOL 106 - Human Genetics and Health**

**Class Hours:** 3

**Lab/Discussion:** 0

**Credits:** 3

**Description:** Demonstrates how genetics and molecular biology contribute to human health with emphasis on inherited diseases, genetic therapies, and individualized medicine. Introduces the therapeutic uses of stem cells, the genetics of cancer, and the utilization of vaccines in the treatment and prevention of human disease.

### **BIOL 107 - Introduction to Forensic Biology**

**Class Hours:** 3

**Lab/Discussion:** 0

**Credits:** 3

**Description:** Overviews the basic principles underlying modern applications of biology in forensic science. Explores the science of forensic biology, traditionally known as serology, and the broad scope of laboratory tests used to investigate crimes involving DNA, blood, and other body fluids. Focuses on the issues related to DNA fingerprinting as they apply to public or legal proceedings in the law enforcement arena.

### **BIOL 115 - Biotic Diversity of North America**

**Class Hours:** 3

**Lab/Discussion:** 0

**Credits:** 3

**Description:** Introduces students to the plants, animals, interactions, and functions of major North American aquatic and terrestrial biomes, and explores the impact of changes in climate, biodiversity, energy demands, and human population growth on these ecosystems.

### **BIOL 116 - Human Genetics and Health Laboratory**

**Class Hours:** 0

**Lab/Discussion:** 2

**Credits:** 1

**Description:** Demonstrates our broad reliance on genetics through application of molecular and genetic tools to investigate aspects of disease, inheritance, microbial/viral infection, and antibiotic resistance.

### **BIOL 117 - Understanding HIV Biology and AIDS**

**Class Hours:** 3

**Lab/Discussion:** 0

**Credits:** 3

**Description:** Introduces the mode of infection and prevention of AIDS virus which are used as an illustration of biological principles. Profiles biological indicators for HIV disease and its progression to AIDS. Emphasizes therapeutic and non-therapeutic approaches to treat HIV infections.

### **BIOL 118 - The History of Pain**

**Class Hours:** 3

**Lab/Discussion:** 0

**Credits:** 3

**Description:** Describes the anatomical and physiological foundation of pain based on contemporary science. Examines the history of scientific theories and hypotheses about understanding the pain mechanism. Introduces students to the status of pain in various societies throughout the ages.

### **BIOL 119 - Emerging Diseases**

**Class Hours:** 3  
**Lab/Discussion:** 0  
**Credits:** 3

**Description:** Provides an understanding of the biological basis of infectious diseases and the social, historical and ethical consequences of these types of afflictions. Covers background material such as the germ theory of disease and the cell theory at an introductory level. Includes specific cases of emerging or reemerging infectious diseases with emphasis on current events relating to disease outbreaks.

## **BIOL 150 - Human Anatomy**

**Class Hours:** 3  
**Lab/Discussion:** 3  
**Credits:** 4

**Description:** A study of the functional and systematic anatomy of humans. Laboratory studies focus on models of human organs and systems along with a dissected human cadaver. Also includes mammals whose anatomy is then related to the human condition.

## **BIOL 200 - Medical Terminology**

**Class Hours:** 2  
**Lab/Discussion:** 0  
**Credits:** 2

**Description:** Requires students to not only learn vocabulary, but also the proper pronunciation of medical terms. A class limit is requested to accommodate pedagogical approaches to developing oral pronunciation skills.

## **BIOL 201 - Principles of Ecology and Evolution**

**Class Hours:** 3  
**Lab/Discussion:** 3  
**Credits:** 4

**Restriction:** For science majors only  
**Description:** An introduction to ecology, including physiological and behavioral ecology, population and community ecology, and ecosystem and landscape ecology, and to evolution, including natural selection and population genetics, speciation, and phylogenetic history and systematics of life. Develops skills in the use of the scientific method. For science majors.

## **BIOL 202 - Principles of Cell and Molecular Biology**

**Class Hours:** 3  
**Lab/Discussion:** 3  
**Credits:** 4

**Description:** An introduction to the structure and function of prokaryotic and eukaryotic cells and their cellular biochemistry, with emphasis on the genetic flow of information from DNA to RNA to protein and the regulatory events, including cell-cell communication, that instruct these pathways. Develops skills in the use of the scientific method. For science majors.

**Previously Offered As:** (Offered as BIOL 111 before 2015-16.)

## **BIOL 203 - Principles of Genetics and Development**

**Class Hours:** 3  
**Lab/Discussion:** 3  
**Credits:** 4

**Prerequisite:** BIOL 202

**Description:** Introduces the science of genetics, with an emphasis on the basic principles of Mendelian genetics, the genetics of populations, molecular genetics, and the genetics of development. For science majors.

**Previously Offered As:** (Offered as BIOL 263 before 2015-16.)

## **BIOL 205 - Ecological Methods**

**Class Hours:** 2  
**Lab/Discussion:** 2  
**Credits:** 3

**Prerequisite:** BIOL 201; MATH 216 or MATH 217

**Description:** Introduces the standard approaches for hypothesis testing in biological research, including experimental design, data collection, and data analysis. Emphasizes the analysis and interpretation of ecological data sets. Computer instruction focuses on software programs commonly used for biological data analysis.

## **BIOL 210 - Plant Biology**

**Class Hours:** 3  
**Lab/Discussion:** 0  
**Credits:** 3

**Prerequisite:** BIOL 201

**Description:** Explores the diversity, form, and function of vascular and nonvascular plants. Focuses on the evolutionary innovations that distinguish different taxonomic groups of plants. Topics include plant anatomy and physiology, growth and development, plant classification, plant ecology, and genetically modified foods. Discusses ways that plants are important to humans, ranging from food and lumber to sequestering carbon dioxide. An in-depth exploration of crop plants, including the science of biotechnology.

### **BIOL 211 - Investigative Biological Forensics**

**Class Hours:** 3

**Lab/Discussion:** 0

**Credits:** 3

**Prerequisite:** BIOL 107 or equivalent

**Description:** The lecture-only course examines how to collect and analyze biological evidences found on clothing, bones, insects, plants, weapons, and other surfaces to help identify victims and support criminal investigations. Covers a variety of subjects intimately linked including forensic anatomy, odontology, anthropology, pathology, entomology, botany, and environmental contamination. Presents case studies for each set of biological materials like insects, plants, bones, and fluids. Features in-depth discussion and writing.

### **BIOL 220 - General Zoology**

**Class Hours:** 2

**Lab/Discussion:** 3

**Credits:** 3

**Prerequisite:** BIOL 201

**Description:** Examines the evolution, form, and function of all major animal phyla, from sponges through chordates. Interactive lecture-laboratory sessions follow a phylogenetic approach to the animal kingdom and incorporate essentials of animal ecology, physiology, functional morphology, and behavior.

### **BIOL 221 - Environmental Health and Protection**

**Class Hours:** 3

**Lab/Discussion:** 3

**Credits:** 4

**Prerequisite:** 4cr BIOL lab course and 4cr CHEM lab course

**Description:** Surveys indoor and outdoor environmental health hazards. Hazards are addressed from the standpoint of their source and nature, human health effects, measurement and control, and management.

### **BIOL 240 - Human Physiology**

**Class Hours:** 3

**Lab/Discussion:** 2

**Credits:** 4

**Prerequisite:** BIOL 150 or BIOL 203 or KHSS 221

**Description:** The study of the mechanisms, but with the human organism functions. Mechanisms covered range from the molecular/subcellular to the tissue, organ, and organism levels. Organ systems examined include the nervous, muscular, cardiovascular, respiratory, endocrine, renal, digestive, and reproductive. Emphasizes three major themes: (1) that organ functions are dependent on the underlying molecular and cellular processes, (2) that all organ systems use biological control systems to maintain organ homeostasis, and (3) that each organ function is closely controlled and dependent on the interaction/integration with functions from other organ systems.

**Previously Offered As:** (Offered as BIOL 151 before 2015-16.)

### **BIOL 241 - Introductory Medical Microbiology**

**Class Hours:** 3

**Lab/Discussion:** 3

**Credits:** 4

**Prerequisite:** BIOL 203 or BIOL 240

**Description:** An introduction to medical microbiology that focuses on the structure, biology, and genetics of microbes in relation to human disease and to bacteriology as well as bacterial, viral, fungal pathogens and the mechanisms of disease. Prepares student for advance study in microbiology and the health sciences. Standard methods and techniques are emphasized in laboratory.

### **BIOL 250 - Principles of Microbiology**

**Class Hours:** 3

**Lab/Discussion:** 3

**Credits:** 4

**Prerequisite:** BIOL 112 or BIOL 203 or instructor permission

**Description:** An introduction to microbiology focusing on the fundamental principles of microbial structure, modes of reproduction, genetics, and physiology. Emphasizes the importance of microbes in ecological, industrial, immunological, and epidemiological processes. Standard microbiological methods and techniques are emphasized in laboratory.

## **BIOL 261 - Ornithology**

**Class Hours:** 2

**Lab/Discussion:** 3

**Credits:** 3

**Description:** A study of birds of the region. Indoor laboratory as well as early-morning and possibly weekend field trips required.

## **BIOL 300 - Genetics in Medicine and Nutrition**

**Class Hours:** 3

**Lab/Discussion:** 0

**Credits:** 3

**Prerequisite:** BIOL 203 or BIOL 241

**Description:** Examines how our genes play a role in disease and diet. Includes a fundamental background of genetics, as well as specific diseases that are caused by defective genes. Explores how nutrition interacts with the genome and its impact on health and disease.

## **BIOL 301 - Fundamentals of Epidemiology**

**Class Hours:** 3

**Lab/Discussion:** 0

**Credits:** 3

**Prerequisite:** MATH 216 or MATH 217

**Description:** Introduces epidemiologic principles, concepts, and methods used to study the distribution and determinants of diseases in populations. Includes public health and clinical applications. Covers the history of epidemiology, dynamics of disease transmission, measures of disease frequency and association, study designs, causation, and also considers ethics and public policy issues in epidemiology.

**Previously Offered As:** (Offered as BIOL 460 before 2016-17.)

## **BIOL 310 - Applied Entomology and Zoonoses**

**Class Hours:** 2

**Lab/Discussion:** 3

**Credits:** 3

**Prerequisite:** BIOL 201, BIOL 220

**Description:** A study of the measures for abatement or control of arthropods, rodents, birds, and other disease vectors of public importance; selection, chemistry, formulation, and safe application of insecticides, rodenticides, and fumigants; pesticing equipment; application of biological and other measures of control.

## **BIOL 313 - Forensic Analysis of DNA**

**Class Hours:** 3

**Lab/Discussion:** 0

**Credits:** 3

**Prerequisite:** BIOL 203 or BIOL 211

**Description:** The lecture-only course introduces the identification and assessment of biological evidence in criminal matters using DNA. Presents routinely used broad-based protocols for DNA typing, sample collection, and techniques applied in quality assurance during DNA profiling. Covers important questions about the use of DNA by criminal justice system.

## **BIOL 323 - Introduction to Toxicology and Risk Assessment**

**Class Hours:** 3

**Lab/Discussion:** 0

**Credits:** 3

**Prerequisite:** BIOL 104 or BIOL 203; CHEM 101 or CHEM 111 or CHEM 113; CHEM 102 or CHEM 112 or CHEM 114

**Description:** A study of uptake, distribution, metabolism, and excretion of environmental chemicals; mechanisms of their toxicity; and their effects on major organ systems. Knowledge of these topics is applied to risk assessment procedures.

## **BIOL 331 - Developmental Biology**

**Class Hours:** 2

**Lab/Discussion:** 3

**Credits:** 3

**Prerequisite:** BIOL 203

**Description:** Studies cellular, molecular, and genetic control of embryonic and post-embryonic development. Introduces the principles of cell differentiation, stem cell behavior, and how cell fate decisions are coupled to the morphogenesis of tissues/organs. Emphasizes how the loss of developmental signaling pathways lead to the onset of human disease.

### **BIOL 342 - Comparative Vertebrate Anatomy**

**Class Hours:** 2

**Lab/Discussion:** 3

**Credits:** 3

**Prerequisite:** BIOL 201

**Description:** An investigation of the comparative structure and function of the vertebrate body emphasizing the diverse solutions to the problem of design for survival and the evolutionary mechanisms that provide those solutions. Meets twice per week for 2.5 hours. Each meeting includes both lecture and laboratory experiences.

### **BIOL 352 - Comparative Animal Physiology**

**Class Hours:** 2

**Lab/Discussion:** 3

**Credits:** 3

**Prerequisite:** BIOL 202; not open to students that have completed fewer than 30 credits

**Description:** Explores integrated physiological adaptations of animals to changing biological demands and environmental conditions. Includes examination of mechanisms at molecular, cellular, systems and organismal level. Investigates case studies of physiological function and adaptation relevant to veterinary science, wildlife and aquatic biology and conservation.

### **BIOL 362 - Ecology**

**Class Hours:** 3

**Lab/Discussion:** 0

**Credits:** 3

**Prerequisite:** BIOL 201

**Description:** Explores relationships between living things and their environment at population, community, and ecosystem scales. Includes global change and the influence

of human activities on ecological interactions and processes.

### **BIOL 364 - Immunology**

**Class Hours:** 2

**Lab/Discussion:** 3

**Credits:** 3

**Prerequisite:** BIOL 241

**Description:** Studies the principles, cellular and molecular interactions of innate and adaptive immune mechanisms. Emphasizes the relationship between basic immunology and clinical immunologic diseases. Applies major modern techniques used in immunology.

### **BIOL 372 - Conservation of Plant and Animal Resources**

**Class Hours:** 2

**Lab/Discussion:** 3

**Credits:** 3

**Prerequisite:** BIOL 201 and BIOL 202 or BIOL 103 and BIOL 104

**Description:** Focuses on accepted practices in field of conservation. Demonstrates conservation in practice via field instruction of ecological methodology and presentations by professionals. Weekend field trips may be included.

### **BIOL 402 - Advanced Human Anatomy**

**Class Hours:** 3

**Lab/Discussion:** 3

**Credits:** 4

**Prerequisite:** BIOL 202; not open to students who have successfully completed BIOL 150; not open to students who have completed fewer than 60cr.

**Description:** An intensive study of the gross anatomical structures and their functions within the human body. Explores the organization and integration of the human body on a region-by-region basis. For each region of the body, students observe all structures within that region simultaneously. This approach allows students to appreciate the integration of different biological systems within the body. Laboratory sessions center on regional cadaver dissection by groups of students to appreciate 3-D anatomical relationships.

## **BIOL 404 - Forest Ecosystem Restoration**

**Class Hours:** 3  
**Lab/Discussion:** 0  
**Credits:** 3

**Prerequisite:** BIOL 210 or BIOL 362  
**Dual Listed:** BIOL 604

**Description:** Focuses on applying an understanding of ecosystem disturbance, sound ecological principles, and plant's requirements to develop or assess forest restoration plans. Utilizes a combination of formal lecture, student led discussions of the current literature, and field experiences to provide students a broad understanding of forest restoration with an emphasis on regionally important examples. Requires participation in field trip(s).

## **BIOL 405 - The Biology of the Cell - Critical Thinking**

**Class Hours:** 2  
**Lab/Discussion:** 0  
**Credits:** 2

**Prerequisite:** BIOL 203; CHEM 231

**Description:** Introduces the cellular and modular mechanism by which individual cells grow, receive, and respond to internal and external signals and move. Discusses the latest advances in the discipline; students are expected to use current literature on their own as a means of building critical-thinking skills. Emphasizes individual and group activities.

## **BIOL 409 - Pharmacology Principles and Applications**

**Class Hours:** 3  
**Lab/Discussion:** 0  
**Credits:** 3

**Prerequisite:** BIOL 106 or BIOL 202 or BIOL 240  
**Description:** Explores the principles of the interactions of chemicals with biological systems in the context of human diseases of varied etiology (e.g. genetic, environmental) and clinical presentation. Introduces the general principles of pharmacokinetics and pharmacodynamics, integrating analysis at multiple biological levels (molecular, cellular, systems, organismal) to develop a broad view of the interaction of drugs with biological systems. Develops skills in pharmacological analysis through examination of

actual and simulated sets of data. Examines applications of principles to specific fields of pharmacology (e.g., neuro-, cardiovascular, immuno-, endocrine, cancer) and explores the discovery and development of new medications using examples from recent scientific and clinical trial literature.

## **BIOL 410 - Molecular Biology Topics**

**Class Hours:** 3  
**Lab/Discussion:** 0  
**Credits:** 3

**Prerequisite:** BIOL 203 or 263 or BIOC 301 or CHEM 351

**Description:** Involves the study of biological phenomena in molecular terms. Focuses on recombinant DNA principles as they relate to prokaryotes and eukaryotes. Emphasizes the modern methods used in recombinant DNA technology.

## **BIOL 411 - Forensic Biology Laboratory Operations**

**Class Hours:** 2  
**Lab/Discussion:** 2  
**Credits:** 4

**Prerequisite:** BIOL 203 or BIOL 313

**Description:** A broad-based learning experience in multiple areas of Biological Forensics with special emphasis in unique nucleic acid and protein signature(s) patterns associated with the forensic biological evidence. Applies the theory and practice of presumptive and confirmatory testing methods on materials of forensic interest. Features in-depth discussion that integrates advanced characterization of biological evidences as it relates to criminal investigation and interpretation of the criminal justice system.

## **BIOL 420 - Entomology Principles and Practice**

**Class Hours:** 2  
**Lab/Discussion:** 3  
**Credits:** 3

**Prerequisite:** BIOL 103 or BIOL 201

**Description:** Introduces the biology of insects, including identification and classification. Enables collecting of live insects from different habitats and observation of behavior and ecological roles during outdoor laboratory

activities. Emphasizes characteristics unique to insects, such as pollination, metamorphosis, sociality, host plant specificity, and population control.

### **BIOL 425 - Herpetology**

**Class Hours:** 2

**Lab/Discussion:** 3

**Credits:** 3

**Prerequisite:** BIOL 103 or BIOL 201

**Description:** Introduces the scientific study of amphibians, reptiles, turtles, and crocodylians, including the taxonomy, phylogenetic relationships, evolutionary history and fossil record, structure and development, natural history, and conservation of each group. Provides field-based exercises and/or field trips as part of the laboratory, which may also include specimen examination and identification, guest speakers, and discussions of both classic and recent scientific literature in herpetology.

### **BIOL 430 - Gene Editing Tools in Medicine and Biotechnology**

**Class Hours:** 3

**Lab/Discussion:** 0

**Credits:** 3

**Prerequisite:** BIOL 203

**Description:** Explains concepts and techniques involved in modern biotechnology as it relates to genome engineering. Understands the principles and techniques governing the gene editing tools such as CRISPR in microbiology, agriculture, animal sciences, and human health. Emphasizes acquisition of the knowledge and skills necessary to undertake gene editing using CRISPR. Addresses issues concerning their ethical, legal, and social implications in the United States and the world.

### **BIOL 431 - Ichthyology**

**Class Hours:** 3

**Lab/Discussion:** 3

**Credits:** 3

**Prerequisite:** BIOL 103 or BIOL 201 and Sophomore status

**Description:** Introduces the biology, taxonomy, natural history, and conservation of freshwater and marine fishes. Examines the morphological and physiological adaptations that have allowed fish, the most diverse group of vertebrates, to thrive across a wide array of environments

throughout the globe. Lab emphasizes field collection and identification of fish found in Pennsylvania and the Great Lakes region, but select representatives from other families are also covered. Critically evaluates published scientific papers related to fish biology, physiology, and evolution.

### **BIOL 450 - Field Biology at Pymatuning Laboratory of Ecology**

**Class Hours:** 3

**Lab/Discussion:** 3

**Credits:** 4

**Description:** During the summer session, various field courses are offered through the Pymatuning Laboratory of Ecology. The offerings vary, depending on the summer. Possible offerings include Field Methods in Ecology and Conservation, Fish Ecology, Behavioral Ecology, Aquatic Botany, Forest Ecology, and Wildlife Conservation. Information regarding specific offerings is available from the department in the spring.

### **BIOL 451 - Evolutionary Biology**

**Class Hours:** 3

**Lab/Discussion:** 0

**Credits:** 3

**Prerequisite:** BIOL 201, BIOL 203

**Description:** Surveys evolution and evolutionary biology, including the history of evolutionary theory, natural selection, microevolutionary and macroevolutionary processes, and the phylogenetic history and classification of life on earth. Utilizes a combination of formal lecture, learning current methods in population-level and phylogenetic analysis, and presenting and leading peer discussions of important and current research in the field.

### **BIOL 455 - Animal Behavior**

**Class Hours:** 3

**Lab/Discussion:** 0

**Credits:** 3

**Prerequisite:** Not open to students who have fewer than 60 credits

**Description:** Offers a comparative and integrative overview of how and why animals as diverse as insects and humans behave the way that they do, linking behaviors to the brain, genes, and hormones, as well as to the surrounding ecological and social environments. Demonstrates how researchers use scientific logic to study



the underlying mechanisms and evolutionary bases of behavior, with emphasis on how evolutionary theory unifies the various subdisciplines within animal behavior.

### **BIOL 456 - Ecological Toxicology**

**Class Hours:** 2

**Lab/Discussion:** 3

**Credits:** 3

**Prerequisite:** BIOL 202; CHEM 112

**Description:** Studies the impact of chemical pollutants and other stresses on nonhuman biological systems from the subcellular to ecosystem levels. An ecological risk assessment is conducted in the field and laboratory settings.

### **BIOL 462 - Vertebrate Endocrinology**

**Class Hours:** 3

**Lab/Discussion:** 0

**Credits:** 3

**Prerequisite:** BIOL 203 or CHEM 351

**Description:** Examines how hormones, or cell signaling molecules, are produced in specific endocrine tissues and alter the physiology of the of respective target tissues.

### **BIOL 463 - Freshwater Ecology**

**Class Hours:** 2

**Lab/Discussion:** 3

**Credits:** 3

**Prerequisite:** BIOL 103 or BIOL 201 or GEOG 343

**Description:** Investigate the physical, chemical, and biological aspects of inland waters and their interrelationships. Laboratory activities focus on field techniques to collect and analyze data from riverine and lake ecosystems. (Saturday and Sunday labs may be required.)

**May Be:** (Saturday or Sunday labs may be required.)

### **BIOL 466 - Principles of Virology**

**Class Hours:** 3

**Lab/Discussion:** 0

**Credits:** 3

**Prerequisite:** BIOL 203 or CHEM 351

**Description:** Topics include structure, classification, assay, and transmission of viruses; methods used in the study of viruses; viral replication, gene expression, and gene regulation; host-viral interactions and subviral pathogens.

### **BIOL 469 - Circadian Rhythms and Sleep**

**Class Hours:** 3

**Lab/Discussion:** 0

**Credits:** 3

**Prerequisite:** BIOL 104 or BIOL 203 or BIOL 240

**Description:** Introduces the functions and mechanisms of biological clocks and rhythms in humans and animals, focusing primarily on circadian, or daily, rhythms. Examines how biological clocks keep time and influence behavior and physiology from the molecular level. Explains how circadian rhythms control sleep-wake and other important neurological functions to optimize biological fitness. Explores the consequences of disrupted circadian timing on physical and psychological health and performance.

### **BIOL 470 - Ecology Capstone**

**Class Hours:** 3

**Lab/Discussion:** 0

**Credits:** 3

**Prerequisite:** BIOL 372, BIOL 205 or GEOG 316

**Description:** Applies skills gained throughout ecology program to design and execute a field research project that addresses regional conservation problems. Synthesizes findings through appropriate application of statistics and mapping software. Communicates findings with peers and outside entities in oral and written form.

### **BIOL 471 - Identification of Trees and Shrubs**

**Class Hours:** 3

**Lab/Discussion:** 0

**Credits:** 3

**Description:** Identifies and studies trees and shrubs growing throughout the eastern forests of the United States. Emphasizes: 1) field identification using botanical features, 2) taxonomic classification, and 3) understanding the ecological role and the cultural significance of each plant. Weekend field trips may be required.

## **BIOL 474 - Wild Flora of the Northeastern US**

**Class Hours:** 3  
**Lab/Discussion:** 0  
**Credits:** 3

**Description:** Survey seasonal herbaceous flora in the northeastern portion of North America (with emphasis on the herbaceous plants of Pennsylvania). Focuses on field identification of representative individuals by common names and botanical families, use of floral formulas to describe plant parts and reproductive strategies, and current research in the field.

## **BIOL 475 - Mammalogy**

**Class Hours:** 2  
**Lab/Discussion:** 3  
**Credits:** 3

**Prerequisite:** BIOL 201 and a minimum of 30 credits  
**Description:** Reviews mammalian biology including systematics, evolution, distribution, anatomical and physiological adaptations, behaviors, habitats, and ecology. Discusses mammalian biology using taxonomic orders from around the world. Focuses on identification, natural history, and methods of study for mammals native to Pennsylvania. Participation in off-campus field activities required.

## **BIOL 476 - Parasitology**

**Class Hours:** 2  
**Lab/Discussion:** 3  
**Credits:** 3

**Prerequisite:** BIOL 202  
**Description:** Studies parasitic protozoa, flatworms and roundworms. Emphasizes species parasitizing humans and includes their classification, structure, biochemistry, physiology, molecular biology, pathogenicity, ecology, and epidemiology.

## **BIOL 477 - Neurobiology**

**Class Hours:** 3  
**Lab/Discussion:** 0  
**Credits:** 3

**Prerequisite:** BIOL 202 or BIOL 240 or any 300-level PSYC course

**Description:** Presents the underlying mechanisms through which the nervous system mediates behavior, from the molecular to the organismal level. Emphasizes two major themes: (1) the roles of synapses and neuronal excitability in shaping the input/output functions of neurons and neuronal networks and (2) the role of neuronal development and neuronal experience upon resultant neuronal organization.

## **BIOL 479 - Neurobiology of Addiction**

**Class Hours:** 3  
**Lab/Discussion:** 0  
**Credits:** 3

**Prerequisite:** BIOL 104 or BIOL 203 or BIOL 240  
**Description:** Examines the biological foundations of addiction, with special emphasis on cellular and molecular mechanisms. Studies: (1) the effects of a wide range of drugs of abuse on brain function, (2) the neural circuitry of addiction, (3) the neurobiological influence of genes and environment on drug taking, and (4) the biological basis for traits linked to drug use, such as personality, memory, and mood. Discusses how cutting-edge biological methods are answering key questions about addiction and how the results of such research can be used to improve clinical treatment.

## **BIOL 480 - Biology Seminar**

**Class Hours:** 1  
**Lab/Discussion:** 0  
**Credits:** 1

**Description:** Discusses recent trends and issues in science, and examines differing viewpoints and current research.

## **BIOL 481 - Special Topics**

**Class Hours:** var  
**Credits:** 1-3

**Prerequisite:** As appropriate to course content  
**Description:** Course varies from semester to semester, covering diverse topics in specific areas of biology.

## **BIOL 482 - Independent Study**

**Class Hours:** var  
**Credits:** 1-3

**Prerequisite:** A 2.5 cumulative GPA and in major courses

is required.

**Restriction:** Prior approval through advisor, faculty member, department chairperson, dean, and Office of the Provost.

**Description:** Students with interest in independent study of a topic not offered in the curriculum may propose a plan of study in conjunction with a faculty member. Work is supervised by a faculty member, but does not involve regular class or laboratory hours.

**Approved:** Approval is based on academic appropriateness and availability of resources.

### **BIOL 483 - Honors Thesis/Independent Study**

**Class Hours:** var

**Credits:** 1-6

**Restriction:** Admission to departmental honors program; prior approval through advisor, faculty member, department chairperson, dean, and Office of the Provost

**Description:** An intensive, focused study involving independent research culminating in a written thesis approved by a thesis director and two faculty readers/committee members.

**Repeated:** May be taken more than once to a maximum of 6cr.

### **BIOL 484 - Honors Seminar**

**Class Hours:** 2

**Lab/Discussion:** 0

**Credits:** 2

**Restriction:** Admission to the Biology Honors Program

**Description:** Selected topics in biology. Use of the literature in preparation for advanced course work and BIOL 483. Analyzes the literature, develops a literature review, and develops a thesis proposal. Guest speakers provide additional exposure to major areas of biology.

### **BIOL 490 - Field Studies in Biology**

**Class Hours:** var

**Credits:** 1-4

**Restriction:** Instructor permission required.

**Description:** Explores the rich diversity and ecology of the flora and fauna that inhabit specialized regions of Pennsylvania, the United States, or other countries through various specialized field courses instructed by biology faculty. Emphasizes ecology, behavior, and natural history

of organisms in their natural surroundings. Develops a broader understanding of biodiversity conservation, climate change, and sustainable development threats and solutions. Locations may vary; themes may include tropical biodiversity and sustainability, ecology of islands and coastal systems, ecology of tropical montane forests, tropical herpetology, Appalachian biodiversity, and others. Must meet travel and living expenses.

**Repeated:** May be taken more than once for credit and grade if content is different.

### **BIOL 493 - Biology Internship**

**Class Hours:** var

**Credits:** 3-12

**Prerequisite:** Biology major with at least 60cr, 2.5 cumulative GPA, and permission of the director of internships and the chairperson

**Description:** Selected students have the opportunity, under department supervision, to gain off-campus practical experience in area of interest. Only 6cr may be applied toward major; total number of credits is decided in consultation involving student, his/her advisor, and director of internships.

## **Business Law**

### **BLAW 235 - Legal Environment of Business**

**Class Hours:** 3

**Lab/Discussion:** 0

**Credits:** 3

**Description:** Explores the current American legal system by providing an introduction to a variety of legal topics important to all individuals and businesses. Topics must include sources of law, the court system and basic procedures, tort law, criminal law, and contracts. Topics may also include legal research and intellectual property. Ethical issues and international law are integrated throughout.

### **BLAW 336 - Law of Business Organizations**

**Class Hours:** 3

**Lab/Discussion:** 0

**Credits:** 3

**Prerequisite:** BLAW 235

**Description:** A study of the law dealing with commercial paper, agency, partnerships, corporations, and bankruptcy.

## **BLAW 440 - Business Negotiations**

**Class Hours:** 3

**Lab/Discussion:** 0

**Credits:** 3

**Prerequisite:** BLAW 235, Jr Business Core, and Junior Standing

**Description:** Covers the basic theories and strategies of negotiation in the business environment and provides instruction and practice to develop Negotiation skills. Focuses on the knowledge and skills needed in intercompany and intracompany negotiations. Focuses on neither collective bargaining nor labor relations. Open to all majors meeting the prerequisites.

## **BLAW 441 - The Law of Property Oil and Gas Leasing I**

**Class Hours:** 3

**Lab/Discussion:** 0

**Credits:** 3

**Prerequisite:** BLAW 235

**Description:** Gives students an understanding of fundamental energy law, including oil and gas law. Includes analysis of natural resource leases and contracts, rights and ownership of the mineral estate, law of capture, contracts, clauses, and covenants of the oil and gas lease, oil and gas operating agreements, title and conveyance of oil and gas leases, pooling and utilization on private and federal lands, easements and right of ways in connection with natural resource exploration, environmental considerations and impacts of natural resource drilling and exploration, the legal structure of the energy industry, (Public Utility Holding Company Act, Federal Energy Regulatory Commission) land use restrictions, and eminent domain.

## **Business and Technology Education**

### **BTED 411 - Methods in Business and Information Technology I**

**Class Hours:** 3

**Lab/Discussion:** 0

**Credits:** 3

**Prerequisite:** EDSP 102, PSYC 101, and completion of the freshman and sophomore courses in the student's major areas

**Description:** Includes instruction in the general methods of teaching and evaluating business courses. A major emphasis is on the planning for instruction. Creative techniques and procedures for effectively teaching and managing the classroom are evaluated. Opportunities are provided to incorporate appropriate content and materials to allow for students with special learning needs. Current issues in vocational education such as advisory committees, adult education, and federal legislation are included.

### **BTED 412 - Methods in Business and Information Technology II**

**Class Hours:** 3

**Lab/Discussion:** 0

**Credits:** 3

**Prerequisite:** BTED 411

**Description:** Includes instruction in the methods of teaching and evaluating both the technology-oriented and cognitive-related courses in business education. An emphasis is placed on planning instruction, developing methods and strategies for making effective classroom presentations, delivering instruction, and managing the classroom. Opportunities are provided to undertake the responsibilities assigned to the business classroom teacher incorporating appropriate content and materials to allow for students with special learning needs. Further, the prospective teacher is given opportunities to assume the teaching role competencies and research current trends in the field.

## **Chemistry**

### **CHEM 100 - Preparatory Chemistry**

**Class Hours:** 1

**Lab/Discussion:** 0

**Credits:** 1

**Corequisite:** CHEM 111

**Description:** Discusses fundamental terminology, calculations, and concepts of chemistry. For students without appropriate math placement or who have limited preparation in chemistry. Provides support for students enrolled in CHEM 111 and may not be used toward any major, minor or Liberal Studies. Restricted to students in

the Kopchick College of Natural Sciences and Mathematics and the College of Health and Human Services. Students who have earned a "C" or better in a higher number chemistry course may not take this course.

### **CHEM 101 - College Chemistry I**

**Class Hours:** 3  
**Lab/Discussion:** 2  
**Credits:** 4

**Description:** Basic principles and concepts of inorganic chemistry are developed using atomic and molecular structure with illustrative examples from descriptive chemistry. The laboratory portion illustrates physical and chemical properties in a qualitative and quantitative manner. For selected majors within the College of Health and Human Services and to fulfill the Liberal Studies Natural Science Laboratory Sequence requirement.

### **CHEM 102 - College Chemistry II**

**Class Hours:** 3  
**Lab/Discussion:** 2  
**Credits:** 4

**Prerequisite:** CHEM 101 or CHEM 111

**Description:** Fundamental principles and concepts of organic chemistry and biochemistry are studied. Deals primarily with structural features of organic compounds, the chemistry of functional groups, and practical examples and uses of organic compounds. The laboratory portion illustrates properties and reactions of representative organic compounds. For selected majors within the College of Health and Human Services and to fulfill the Liberal Studies Natural Science Laboratory Sequence requirement.

### **CHEM 103 - Introduction to Chemistry for Health Sciences**

**Class Hours:** 3  
**Lab/Discussion:** 2  
**Credits:** 4

**Description:** Survey of key concepts of general and organic chemistry, with special emphasis on the application of these concepts to the health professions. Topics include measurements, chemical equations, gasses, solutions, acids and bases, hydrocarbons and organic functional groups. Course includes a laboratory component that focuses on quantitative skills. For selected majors within the College

of Health and Human Services and to fulfill the Liberal Studies natural science laboratory requirement.

### **CHEM 105 - The Forensic Chemistry of CSI**

**Class Hours:** 3  
**Lab/Discussion:** 0  
**Credits:** 3

**Description:** For students who would like to learn about forensic chemistry and the basic science needed to understand it. Chemical concepts on the level of an introductory chemistry course and their applications to forensic science are explored in detail. Topics include the forensic analysis of drugs, fibers, glass, fingerprints, arson, questioned documents, and other types of physical evidence. Other topics include how forensic science is portrayed in novels, movies, computer games, and TV and the methods used in forensic evidence collection at a crime scene. Course cannot be used to fulfill the requirements for a chemistry major or minor

### **CHEM 107 - Chemistry of Food and Beverages**

**Class Hours:** 3  
**Lab/Discussion:** 0  
**Credits:** 3

**Description:** Introduces the key concepts of general, organic, and biochemistry explained by their roles in food and beverages. Includes elements, molecules, bonding, functional groups and structural geometry, acids and bases, chemical equations and reactions, solutions, and gases. For non-science majors to fulfill the Liberal Studies natural science requirement.

### **CHEM 111 - General Chemistry I**

**Credits:** 4

**Description:** An introductory course for science and preprofessional health majors. First half of a two-semester sequence designed to give students the foundation of knowledge and laboratory techniques required to successfully complete a degree program in the sciences or gain entry into professional health programs. Topics include atomic theory, an introduction to chemical reactions, stoichiometry, gas laws, thermochemistry, chemical bonding, and molecular geometry.

## CHEM 112 - General Chemistry II

**Credits:** 4

**Prerequisite:** CHEM 111 or CHEM 113

**Description:** An introductory course for science and preprofessional health majors. Second half of a two-semester sequence designed to give students the foundation of knowledge and laboratory techniques required to successfully complete a degree program in the sciences, or gain entry into professional health programs. Topics include the solid states, solution theory, kinetics, equilibrium, thermodynamics, acids and bases, and electrochemistry.

## CHEM 113 - Advanced General Chemistry I

**Credits:** 4

**Description:** and solid state, and solution theory. Topics are covered in greater depth and with more challenging problem solving than General Chemistry. For majors within the College of Natural Sciences and Mathematics and to fulfill the Liberal Studies Natural Science Laboratory Sequence requirement for those students.

## CHEM 114 - Advanced General Chemistry II

**Class Hours:** 3

**Lab/Discussion:** 3

**Credits:** 4

**Prerequisite:** Grade of "C" or better in CHEM 113

**Description:** A continuation of Advanced General Chemistry I. Topics include solutions, chemical kinetics, equilibrium and thermodynamics, acids and bases, buffers, and electrochemistry. Topics are covered in greater depth and with more challenging problem solving than General Chemistry. For majors within the College of Natural Sciences and Mathematics and to fulfill the Liberal Studies Natural Science Laboratory Sequence requirement for those students.

## CHEM 231 - Organic Chemistry I

**Class Hours:** 3

**Lab/Discussion:** 4

**Credits:** 4

**Prerequisite:** CHEM 112 or CHEM 114

**Description:** A study of compounds of carbon, with a special emphasis on structure-reactivity relationships. Laboratory work emphasizes methods of separation and purification of organic compounds.

## CHEM 255 - Biochemistry for Health Sciences

**Class Hours:** 3

**Lab/Discussion:** 0

**Credits:** 3

**Prerequisite:** CHEM 103 or instructor permission

**Description:** Introductory course for selected students in the College of Health and Human Services that focuses on the fundamentals of biochemistry. Provides a basic understanding of biomolecular processes so that this knowledge can be utilized to understand current and future aspects of molecular therapeutics. For selected majors within the College of Health and Human Services and to fulfill the Liberal Studies natural science nonlaboratory requirement.

## CHEM 290 - Chemistry Seminar I

**Class Hours:** 1

**Lab/Discussion:** 0

**Credits:** 1

**Restriction:** Chemistry major or instructor permission

**Description:** Provides knowledge to students concerning undergraduate research and career possibilities based on a degree in chemistry or biochemistry. Much of this class consists of presentations to students by research faculty in chemistry, biochemistry, and other departments across the university.

## CHEM 314 - Inorganic Chemistry

**Class Hours:** 3

**Lab/Discussion:** 3

**Credits:** 4

**Prerequisite:** CHEM 112 or CHEM 114

**Description:** Surveys chemical compounds and conceptual models. Includes symmetry and bonding theory, acid-base models, solids, coordination and organometallic complexes and bioinorganic chemistry. The laboratory portion builds on experimental skills and provides hands-on examples of lecture concepts.

## CHEM 325 - Analytical Chemistry I

**Class Hours:** 3  
**Lab/Discussion:** 3  
**Credits:** 4

**Prerequisite:** CHEM 231

**Description:** An introduction to the principles of analytical chemistry, including gravimetric, volumetric, and basic instrumental analysis. Special emphasis is placed on both perfecting the student's laboratory technique and on the application of general chemical knowledge through problem solving.

## **CHEM 332 - Organic Chemistry II**

**Class Hours:** 3  
**Lab/Discussion:** 3  
**Credits:** 4

**Prerequisite:** CHEM 231

**Description:** A continuation of Organic Chemistry I, with an introduction to spectroscopic techniques. Laboratory work emphasizes the synthesis of representative compounds.

## **CHEM 341 - Physical Chemistry I**

**Class Hours:** 4  
**Lab/Discussion:** 0  
**Credits:** 4

**Prerequisite:** PHYS 112 or PHYS 132; MATH 126; grade of "C" or better in CHEM 112 or CHEM 114

**Description:** Foundations of chemical thermodynamics, equilibria, kinetics, quantum mechanics, and spectroscopy.

## **CHEM 343 - Physical Chemistry Laboratory I**

**Class Hours:** 0  
**Lab/Discussion:** 3  
**Credits:** 1

**Prerequisite:** CHEM 341 (may be taken concurrently)

**Description:** Experiments illustrating application of fundamental laws to actual systems.

## **CHEM 351 - Biochemistry**

**Class Hours:** 4  
**Lab/Discussion:** 0  
**Credits:** 4

**Prerequisite:** CHEM 231

**Description:** A study of chemistry and biological functions of carbohydrates, lipids, proteins, minerals, vitamins, and hormones.

## **CHEM 390 - Chemistry Seminar II**

**Class Hours:** 1  
**Lab/Discussion:** 0  
**Credits:** 1

**Prerequisite:** CHEM 290 or CHEM 332 or instructor permission

**Description:** Presents the skills necessary to design research proposals, to search for and apply to pre- and post-degree external academic research experiences and workplace opportunities, and to understand their roles and expectations for ethical research and publications.

## **CHEM 402 - Advanced Chemistry Lab-Synthesis and Characterization**

**Class Hours:** 1  
**Lab/Discussion:** 3  
**Credits:** 2

**Prerequisite:** CHEM 332

**Description:** Applies advanced laboratory techniques to a variety of systems; intended for chemistry majors. Topics come from across chemistry, and uses techniques such as synthesis, computation and physical characterization to gain experience with a wide spectrum of laboratory skills. An in-depth project is included in this course.

## **CHEM 403 - Advanced Chemistry Lab-Separation and Analysis**

**Class Hours:** 1  
**Lab/Discussion:** 3  
**Credits:** 2

**Prerequisite:** CHEM 332

**Description:** Applies advanced laboratory techniques to a variety of systems; intended for chemistry majors. Topics come from across chemistry, and uses will use techniques such as separation, computation, spectroscopy and electrochemistry to gain experience with a wide spectrum of laboratory skills. An in-depth project is included in this course.

## **CHEM 411 - Advanced Inorganic Chemistry**

**Class Hours:** 2  
**Lab/Discussion:** 3  
**Credits:** 3

**Prerequisite:** CHEM 314, CHEM 341

**Description:** Discussion of advanced theories of atomic structure, chemical bonding, acids and bases, coordination compounds, and selected topics. In the laboratory portion, techniques used in the synthesis and characterization of inorganic compounds are explored.

## **CHEM 426 - Advanced Analytical Chemistry**

**Class Hours:** 3  
**Lab/Discussion:** 0  
**Credits:** 3

**Prerequisite:** CHEM 325

**Description:** A more detailed examination of the principles of analytical chemistry. Student learns theoretical and practical aspects of sampling, data acquisition, and spectroscopic, electrochemical, chromatographic, thermal, mass spectrometric, and affinity methods of analysis.

**Previously Offered As:** CHEM 326

## **CHEM 431 - Organic Molecular Structure Determination**

**Class Hours:** 3  
**Lab/Discussion:** 0  
**Credits:** 3

**Prerequisite:** CHEM 231-CHEM 332 (CHEM 332 may be taken concurrently)

**Description:** Examines modern and advanced methods of elucidation of the structures of organic molecules, including NMR, MS, and IR. Discusses the fundamental physical and chemical principles of each method. Focuses on structure determination by interpretation of data (spectra), either individually or combined. Emphasizes structure determination as currently applied in the chemical industry.

## **CHEM 435 - Current Topics in Organic Chemistry**

**Class Hours:** 3  
**Lab/Discussion:** 0  
**Credits:** 3

**Prerequisite:** CHEM 332 and CHEM 341

**Description:** Selected topics of current interest covered. Possible topics include reaction mechanisms, molecular spectroscopy, stereochemistry, natural products, heterocyclics, polymer chemistry, and organic synthesis.

## **CHEM 442 - Advanced Physical Chemistry**

**Class Hours:** 3  
**Lab/Discussion:** 0  
**Credits:** 3

**Prerequisite:** CHEM 341, MATH 225 (may be taken concurrently)

**Description:** In-depth exploration and applications of chemical thermodynamics, equilibria, kinetics, quantum mechanics, and spectroscopy.

## **CHEM 444 - Advanced Physical Chemistry Laboratory**

**Class Hours:** 0  
**Lab/Discussion:** 3  
**Credits:** 1

**Prerequisite:** CHEM 343; must be taken after or concurrent with CHEM 442

**Description:** An extension of CHEM 343; experiments related to chemical kinetics, molecular spectroscopy, and other topics of physical chemistry.

## **CHEM 461 - Modern Diffraction**

**Class Hours:** 3  
**Lab/Discussion:** 0  
**Credits:** 3

**Prerequisite:** CHEM 112 or CHEM 114 and PHYS 112 or PHYS 132

**Description:** Investigates advances in crystallography and its applications to modern science. Emphasizes powder diffraction, including Rietveld analysis. Develops proficiency in data collection, phase analysis, and structure refinement and shows how crystallographic science can address scientific problems.

## **CHEM 481 - Special Topics**



**Class Hours:** var  
**Credits:** 1-3

**Prerequisite:** As appropriate to course content  
**Description:** Offered on an experimental or temporary basis to explore topics not included in the established curriculum. A given topic may be offered under any special topic identity no more than three times. Special topics numbered 481 are primarily for upper-level undergraduate students.

### **CHEM 490 - Chemistry Senior Seminar**

**Class Hours:** 1  
**Lab/Discussion:** 0  
**Credits:** 1

**Prerequisite:** CHEM 390  
**Description:** A discussion of recent trends in chemical thought. Oral and written reports on assigned readings, library, or laboratory research. Guest lecturers. A seminar course to provide knowledge to students regarding effective oral and written scientific communication. Students refine their skills in reading and evaluating research papers from the literature, write a formal research paper, and present a research seminar. The combination of CHEM 390 and CHEM 490 counts as one writing-intensive course. (Also offered as BIOC 490. These courses may be substituted for each other and be used interchangeably for D/F repeats but may not be counted for duplicate credit.)

### **CHEM 493 - Internship in Chemistry**

**Class Hours:** var  
**Credits:** 4-9

**Prerequisite:** CHEM 111 or CHEM 113, CHEM 112 or CHEM 114, CHEM 231, CHEM 232, CHEM 321, CHEM 341, junior status, and departmental approval  
**Description:** Full-time involvement in an actual "on-the-job" situation in an industrial or research laboratory under the tutelage of a selected preceptor. A department faculty member works closely with the student and preceptor and assumes responsibility for making the final evaluation and assigning a grade.

### **CHEM 498 - Problems in Chemistry**

**Class Hours:** var  
**Credits:** 3

**Prerequisite:** CHEM 231 and permission of chairperson

**Description:** Supervised undergraduate research, in conjunction with a faculty member in the Chemistry Department.

## **Chinese**

### **CHIN 101 - Beginning Chinese Language and Culture I**

**Class Hours:** 3  
**Lab/Discussion:** 0  
**Credits:** 3

**Description:** Develops Chinese language proficiency. Understands and applies the Chinese language in real-life situations at the beginning level, focusing on the three modes of communication, i.e., interpretive (listening and reading), interpersonal and presentational (speaking and writing). Also analyzes selected products, practices, and perspectives in Chinese cultures, and compares and contrasts them with those in one's own culture.

### **CHIN 102 - Elementary Chinese II**

**Class Hours:** 4  
**Lab/Discussion:** 0  
**Credits:** 4

**Prerequisite:** CHIN 101  
**Description:** A continuation of Elementary Chinese I, focusing on the three modes of communication—interpretive listening and reading, interpersonal speaking and writing, and presentational speaking and writing—to build proficiency in using the Chinese language in real-life situations. Also imparts knowledge of Chinese culture and society. Attendance is required. May not register for or take a D/F repeat in CHIN 102 when credit has already been received for a higher-numbered Chinese course.

### **CHIN 201 - Intermediate Chinese**

**Class Hours:** 4  
**Lab/Discussion:** 0  
**Credits:** 4

**Prerequisite:** CHIN 102  
**Description:** A continuation of previous work on the three modes of communication: interpretive listening and reading, interpersonal speaking and writing, and presentational speaking and writing, so that students can function in everyday situations. Also imparts knowledge of

Chinese culture and society. Liberal Studies credit is given. Attendance is required. May not register for or take a D/F repeat in CHIN 201 when credit has already been received for a higher-numbered Chinese course.

### **CHIN 281 - Special Topics**

**Class Hours:** var  
**Credits:** 1-3

**Description:** Offered on an experimental or temporary basis to explore topics not included in the established curriculum. A given topic may be offered under any special topic identity no more than three times. Special topics numbered 481 are primarily for upper-level undergraduate students. Designed to meet the special needs of a student group.

### **CHIN 482 - Independent Study**

**Class Hours:** var  
**Credits:** 1-3

**Description:** Offered on an experimental or temporary basis to explore topics not included in the established curriculum. A given topic may be offered under any special topic identity no more than three times. Special topics numbered 481 are primarily for upper-level undergraduate students. Designed to meet the special needs of a student group.

## **College of Arts and Humanities**

### **ARHU 122 - Big Ideas I: Ancient to Enlightenment**

**Class Hours:** 3  
**Lab/Discussion:** 0  
**Credits:** 3

**Description:** Introduces transformative literature from around the world, ancient to enlightenment periods. Develops foundational reading, writing, and analytical skills, as well as productive habits of mind. Integrates and embeds the humanities, providing preparation for and an advantage in the workplace.

### **ARHU 123 - Big Ideas II: Enlightenment to Present**

**Class Hours:** 3  
**Lab/Discussion:** 0  
**Credits:** 3

**Description:** Surveys transformative literature from around the world, enlightenment to present. Develops foundational reading, writing, and analytical skills, as well as productive habits of mind. Integrates and embeds the humanities, providing preparation for and an advantage in the workplace.

### **ARHU 142 - Introduction to Secondary Social Studies Education**

**Class Hours:** 2  
**Lab/Discussion:** 0  
**Credits:** 2

**Restriction:** Secondary Social Studies Education or History Majors in first year of study or with the consent of instructor.

**Description:** Introduces the foundational concepts and practices in social studies education, the vocabulary of social studies education, and the qualities and best practices of an effective social studies educator.

### **ARHU 342 - Social Studies Teaching Lab**

**Class Hours:** 0  
**Lab/Discussion:** 2  
**Credits:** 2

**Prerequisite:** Social Studies Education major and EDUC 242

**Corequisite:** EDUC 342

**Description:** A laboratory experience providing the opportunity to explore and experiment with strategies and methodologies connected with teaching in the various disciplines of the social studies. Offers hands-on experience with public school students in a controlled setting. Allows students to experience middle and high school settings as well as build a repertoire of social studies teaching methodologies that enables them to complete EDUC 342 more effectively.

### **ARHU 343 - Applied Practice in Secondary English Language Arts**

**Class Hours:** 1  
**Lab/Discussion:** 0  
**Credits:** 1

**Prerequisite:** EDUC 242

**Corequisite:** Concurrent with EDUC 342

**Description:** In conjunction with EDUC 342, prepares candidates for field experience in secondary English language arts. Students continue to develop skills for school-site observation, are introduced to philosophical models of classroom management, and receive instruction about completing the Step 2 portfolio requirement. Provides opportunity for students to apply understanding of pedagogical content knowledge to observation and lesson design and to familiarize themselves with teacher research methodology.

## ARHU 461 - Big Ideas Capstone

**Class Hours:** var

**Credits:** 1-3

**Restriction:** Junior or senior standing; Big Ideas certificate; 2.5 cumulative grade point average; Certificate director's approval

**Description:** Supervised experience in conjunction with IUP course work, lab work, or in a public/private organization that compliments on-going research by situating that work within a humanities and liberal arts context and a public presentation.

## Communications Media

### COMM 101 - Introduction to Communications, Media, and Culture

**Class Hours:** 3

**Lab/Discussion:** 0

**Credits:** 3

**Description:** Required of communications media majors. An introduction to the evolution, status, and future of communications media. Explores intrapersonal communication through self-assessment, values clarification, and feedback; interpersonal communication through interviews, observations, case studies, and gaming; and mass communications through the examination of the processes and the technology utilized to disseminate and manage information. Career paths, field applications, professional associations, and the primary literature are investigated.

### COMM 102 - Skills for Media Writing

**Class Hours:** 3

**Lab/Discussion:** 0

**Credits:** 3

**Description:** Introduces the fundamental skills and styles used by professional writers in the digital media and communications industries. Applies industry-standard style guidelines to editing writing. Covers the ways of viewing media writing as critical consumers of information and for converting that understanding into content that reaches mass audiences in various print and digital platforms.

### COMM 143 - Media Wellness

**Class Hours:** 3

**Lab/Discussion:** 0

**Credits:** 3

**Description:** Helps students understand how media affects wellness. Analyzes and evaluates media consumption and media effects (both positive and negative) in a variety of genres including traditional and social media. Explores concepts of media literacy including evaluation and analysis of media content. Successful completion of this course fulfills the Liberal Studies Dimensions of Wellness requirement. Other 143 courses also fulfill this requirement, and any of these courses may be substituted for each other and may be used interchangeably for D/F repeats but may not be counted for duplicate credit.

### COMM 150 - Media Aesthetics

**Class Hours:** 3

**Lab/Discussion:** 0

**Credits:** 3

**Prerequisite or Corequisite:** COMM 101 or JRNL 105

**Description:** Examines the theoretical assumptions of sight, sound, and motion as applied to the design of communication products for different media formats. Demonstrates strategies for creative composition. Discusses psychological and physiological implications of images.

### COMM 201 - Internet and Multimedia

**Class Hours:** 3

**Lab/Discussion:** 0

**Credits:** 3

**Prerequisite:** BTED/COSC 101/IFMG 101 or prior exposure to word processing and electronic mail

**Description:** Focuses on the evaluation of information and multimedia resources available on electronic networks when doing research in an area of one's choice. Information literacy course for students to gain a more in-depth understanding of the information resources available electronically and of how to utilize them more effectively in communicating. Students learn how to access and utilize these resources for two-way communications and support for decision making while incorporating selected elements in multimedia presentations of their own design.

**May Be:** (BTED/COMM/COSC 201/IFMG/LIBR 201 may be used interchangeably for D/F repeats and may not be counted for duplicate credit.)

### **COMM 205 - Making Presentations with Media**

**Class Hours:** 3

**Lab/Discussion:** 0

**Credits:** 3

**Prerequisite:** COMM 101

**Description:** An introduction to basic presentation skills, emphasizing the use of media to enhance presentations. Students research, organize, and write presentations; design appropriate media; and deliver individual and team presentations.

### **COMM 206 - History and Theory of Making Games**

**Class Hours:** 3

**Lab/Discussion:** 0

**Credits:** 3

**Prerequisite:** COMM 150

**Description:** Explores the origins of games and game play into the contemporary era of video and electronic games. Introduces the history of the games industry and the process of how games are created. Analyze games through an ethical and developmental framework, as well as explores how games are used for entertainment, teaching, and training.

### **COMM 207 - Online Media Production**

**Class Hours:** 3

**Lab/Discussion:** 0

**Credits:** 3

**Description:** Examines the development and production of media for online applications such as video sharing and

social media sites. Discusses management, as well as the fiscal, ethical, and technological issues surrounding online media. Requires students to complete a production project where they develop and produce audio, video and other digital media components for online distribution for a social media campaign.

### **COMM 230 - Global Media and Communication**

**Class Hours:** 3

**Lab/Discussion:** 0

**Credits:** 3

**Description:** Provides an overview of global media and international communications. Describes how international communication and development of global media has influenced relationships among nations and among people with different cultural backgrounds. Covers social, economic and political situations prior to and after globalization, which include global issues that intersects with media ownership, access to media, and the impact of media communications on culture and people living in developed and developing countries. Analyzes how understanding global media and communication can enhance students to think critically, respect their own identities, history and culture as well as others.

### **COMM 240 - Communications Graphics**

**Class Hours:** 3

**Lab/Discussion:** 0

**Credits:** 3

**Prerequisite:** COMM 101 or JRNL 105, communications media major or minor, photography and digital imaging certificate or digital history certificate enrollment or permission

**Description:** An introduction to graphic design concepts and related processes and techniques for a variety of forms of presentation media including television, multimedia, and online communications for educational, corporate training, and communications specialists. Both two- and three-dimensional design and basic animation concepts are explored. Hands-on experiences using a variety of graphic software applications.

### **COMM 249 - Basic Audio Production**

**Class Hours:** 3

**Lab/Discussion:** 0

**Credits:** 3

**Prerequisite:** COMM 101 or JRNL 105, communications media major or minor, popular music studies certificate, audio production certificate, or digital history certificate enrollment or permission

**Description:** Theory and practice of audio production, developing an understanding of the techniques of audio recording as well as the ability to make sound recordings. Addresses recording and mixing techniques and the use of audio software. Offers exposure to recording for various media. Provides hands-on experience through labs and projects to be completed outside of class.

### COMM 251 - Television Production

**Class Hours:** 3

**Lab/Discussion:** 0

**Credits:** 3

**Prerequisite:** COMM 101 or JRNL 105, communications media major or minor, photography and digital imaging certificate enrollment or permission

**Description:** Develops basic skills in television production and direction. Consideration of operating problems of a television studio, as well as functions, limitations, and capabilities of television equipment and facilities.

### COMM 261 - Teamwork and Communication Skills for College and Career

**Class Hours:** 3

**Lab/Discussion:** 0

**Credits:** 3

**Description:** Focuses on developing teamwork and communication skills for the presentation of career-oriented, technically rich information. Applies foundational theories of communication and the rhetoric of public communication and use that understanding to present academic research, data, and technical information orally and in written form. Prepares students to engage audiences, frame and present arguments, and develop the ability to present their topic and its significance in technical and non-technical settings. Explores different types of presentation situations including team oral presentations, team written reports, poster session presentations, platform presentations, symposia, and panel discussions. Prepares students to produce appropriate media to supplement their presentations. Presentations are video recorded for individual, peer, and instructor evaluation.

### COMM 270 - Sport Communication

**Class Hours:** 3

**Lab/Discussion:** 0

**Credits:** 3

**Prerequisite:** ENGL 101 or ENGL 103

**Description:** Provides an overview of sport communication, focusing on different communicative contexts including interpersonal, organizational, and public communication. Emphasizes media relations and the skills essential for sport communication professionals, including handling media interactions, crises, and integration of positive public relation strategies. (Also offered as KHSS 270; may not be taken for duplicate credit.)

### COMM 271 - Beginning Photography

**Class Hours:** 3

**Lab/Discussion:** 0

**Credits:** 3

**Prerequisite:** COMM 101 or JRNL 105, communications media major or minor, interior design major, photography and digital imaging certificate or digital history certificate enrollment or permission

**Description:** Develops students' abilities in the practice and application of photography as a tool for communications and as a creative pursuit. Emphasizes proper technical skills and creative application of the medium. Covers topics such as camera operation, image editing, and image analysis.

### COMM 281 - Special Topics

**Class Hours:** var

**Credits:** 1-3

**Prerequisite:** As appropriate to course content

**Description:** Offered on an experimental or temporary basis to explore topics not included in the established curriculum. A given topic may be offered under any special topic identity no more than three times. Special topics numbered 281 are offered primarily for lower-level undergraduate students.

### COMM 302 - Research in Communications Media

**Class Hours:** 3

**Lab/Discussion:** 0

**Credits:** 3

**Prerequisite:** COMM 150; ENGL 101 or ENGL 103; and ENGL 202 (grade of "C" or better)

**Description:** Provides knowledge of the resource materials and research strategies used in the communications media field. Students design basic data gathering instruments, collect data, and assimilate information from various sources and data into communication products, services, or documents.

### **COMM 303 - Scriptwriting**

**Class Hours:** 3

**Lab/Discussion:** 0

**Credits:** 3

**Prerequisite:** COMM 101 or JRNL 105; ENGL 101 or ENGL 103; and ENGL 202 (grades of "C" or better) or permission

**Description:** An introduction to the design of media materials and script writing. Style and techniques of writing are analyzed. Classroom emphasis is on writing critiques, and revision of designs and scripts. Scripts for audio, multimedia presentations, and motion picture and television productions are written. May be offered under a different topic area such as: COMM 303 Scriptwriting: Comedy or COMM 303 Scriptwriting: Drama. May be repeated for a maximum of six credits under a different topic area. Students who need to D/F repeat COMM 303 may repeat the course under a different variable title.

### **COMM 306 - 2-D Digital Game Development**

**Class Hours:** 3

**Lab/Discussion:** 0

**Credits:** 3

**Prerequisite:** COMM 206

**Description:** Examines the theory and development of digital games. Topics explored include the logics of gameplay, the process of game development, gaming technology, and the psychology of gaming. The history and organization of the gaming industry are also examined. Students also create deliverables around a game concept they develop in the process of completing the course.

### **COMM 315 - Persuasive Media Writing**

**Class Hours:** 3

**Lab/Discussion:** 0

**Credits:** 3

**Prerequisite:** COMM 101 or JRNL 105; ENGL 101 or ENGL 103; and ENGL 202 (grades of "C" or better)

**Description:** Introduces concepts of writing persuasive announcements, such as commercials and promotional messages, and other content for digital media. Analyzes persuasive media announcements, and incorporates writing with the use of evidence, emotion, and reasoning to reach audiences. Aids in understanding how to create media messages that influence audience attitudes and behaviors.

### **COMM 325 - Gender in Media**

**Class Hours:** 3

**Lab/Discussion:** 0

**Credits:** 3

**Description:** An overview of women in media (including television, film, radio, the Internet, etc.) and the historical development, along with social context that influence women's involvement in the media, both nationally and internationally. Analyzes topics related to media effect theories and portrayal of women in media that influence some of the issues women face in their gender roles. Also identifies key women in media from the past and present and their contributions to the field.

### **COMM 335 - Communications Consulting and Project Management**

**Class Hours:** 3

**Lab/Discussion:** 0

**Credits:** 3

**Prerequisite:** COMM 101 or JRNL 105

**Description:** Presents the theoretical views and clinical applications of consulting skills and practices associated with and needed by communication professionals. Presented are the functions and role of the consultant, the client's perspective on consulting, hiring a consultant, ethics in consulting, personal assessment tests, and related literature and models.

### **COMM 340 - Advanced Communication Graphics**

**Class Hours:** 3

**Lab/Discussion:** 0

**Credits:** 3

**Prerequisite:** COMM 240, permission

**Description:** An in-depth experience in planning and preparing graphic materials commonly used in the communications profession; graphic materials include design, photosketching, lettering, slide titling and duplication, preparation of camera-ready art, lithographic film and master layout sheets, professional slide flat production and photocopy, large-format transparency production, color key, and color systems.

### **COMM 345 - Television Criticism**

**Class Hours:** 3  
**Lab/Discussion:** 0  
**Credits:** 3

**Prerequisite:** COMM 150 or instructor permission  
**Description:** The medium of television offers a unique environment for development and delivery of information, entertainment, and news. Explores and analyzes television programming. Includes examination of genres ranging from situation comedy to drama to miniseries and made-for-TV movies.

### **COMM 348 - Animation**

**Class Hours:** 3  
**Lab/Discussion:** 0  
**Credits:** 3

**Prerequisite:** COMM 150  
**Description:** Introduces traditional and digital animation techniques and offers practical experience in planning and producing animated sequences. Includes a history of animation and theories of animation, both applied and as a communication medium. Practice in designing, drawing, modeling, simulating, creating, and texturing animated sequences; preparation of character designs; story boards and cue sheets; integration of visual effects, animation, and sound.

### **COMM 349 - Radio Production**

**Class Hours:** 3  
**Lab/Discussion:** 0  
**Credits:** 3

**Prerequisite:** COMM 101 or JRNL 105; communications media major or minor, audio production certificate enrollment or permission  
**Description:** An introduction to production techniques as they pertain to radio. Exposure to programming, scripting, producing programs, intros, outros, commercials, public

service announcements, station identifications, and promotional announcements. Also deals with the interaction of a radio station with national networks and with the real-life concerns of deadlines.

### **COMM 350 - Digital Storytelling**

**Class Hours:** 3  
**Lab/Discussion:** 0  
**Credits:** 3

**Prerequisite:** COMM 249 or COMM 251 or COMM 349; cannot be taken concurrently; communications media major or communications media minor or audio certificate status  
**Description:** Introduces the process of documentary style storytelling through digital media, including podcasting and vlogging. Evaluates the history of these digital platforms and how they are used to tell stories. This production course affords opportunities to produce story content to enhance storytelling abilities within a given media format.

### **COMM 351 - Advanced Video Production**

**Class Hours:** 3  
**Lab/Discussion:** 0  
**Credits:** 3

**Prerequisite:** COMM 251  
**Description:** A production course that emphasizes advanced field production techniques. Some of the topics covered include; field lighting, video post-production editing with A-B roll, on-line editing, and non-linear editing. Provides hands-on experience through projects and field trips. May be offered under a different topic area such as: COMM 351 Advanced Video Production: Documentary Video or COMM 351 Advanced Video Production: Music Videos. May be repeated for a maximum of six credits under a different topic area. Students who need to D/F repeat COMM 351 may repeat the course under a different variable title.

### **COMM 354 - Media Law and Policy**

**Class Hours:** 3  
**Lab/Discussion:** 0  
**Credits:** 3

**Prerequisite:** COMM 150 or instructor permission  
**Description:** Surveys areas of law and policy regulating commercial and consumer use of media technologies. Covers law and policy pertaining to broadcasting and cable, intellectual property, station licensing and renewal,

defamation, privacy, Internet regulation. Examines the historical development of the FCC and its jurisdictions. Discusses case studies along with the relevancy of some laws as they pertain to today's mediated society. (Titled Broadcast Regulation before 2015-16.)

### **COMM 355 - Editing for Video and Film**

**Class Hours:** 3  
**Lab/Discussion:** 0  
**Credits:** 3

**Prerequisite:** COMM 251

**Description:** Explores the art of video and film post-production and editing techniques utilizing editing software. Reviews editing theory to edit audio, video, film, and graphic footages. Covers advanced topics such as adding visual (VFX) and sound (SFX) effects.

### **COMM 360 - Digital Sports Production**

**Class Hours:** 3  
**Lab/Discussion:** 0  
**Credits:** 3

**Restriction:** Instructor permission

**Description:** An introduction to the pre-production, production, and post-production processes of live and recorded sporting events. Engagement in all aspects of the production process, including live production for webcasting, video-recording and editing sporting events. Attendance and participation is required in the production of selected local sporting events, which may include nights and weekends outside of regular class time. This course may be repeated one time for a maximum of six credits.

### **COMM 371 - Advanced Photography**

**Class Hours:** 3  
**Lab/Discussion:** 0  
**Credits:** 3

**Prerequisite:** COMM 271, permission

**Description:** Develops camera and print-making skills to the degree that salon-quality photographic prints can be produced. Students will understand the photographic processes utilized in producing a high-quality negative and print to the extent that they can manipulate those processes to communicate an intended message with their photographs. Emphasizes camera and print control as well as composition and negative and print manipulation.

### **COMM 374 - Documentary Photography**

**Class Hours:** 3  
**Lab/Discussion:** 0  
**Credits:** 3

**Prerequisite:** Junior/senior standing, COMM 101 or JRNL 105, or permission

**Description:** Prepares students to photograph documentary content that explores aspects of historical significance, cultural value, social change, and social injustice. Explores the differences and similarities between documentary photography and purely aesthetic photography to capture images focused on social and historical value. Calls for students to critically analyze documentary images, projects, photographers, and the societal impact they have made to create new and influential images for modern and future utilization. Students are required to have access to a digital camera.

### **COMM 375 - Mass Media and Behavior**

**Class Hours:** 3  
**Lab/Discussion:** 0  
**Credits:** 3

**Prerequisite:** PSYC 101 and junior or senior status

**Description:** Theory and research on the influence of the mass media on human behavior and attitudes. Topics include the effects of news and political advertising on public opinion; the effects of racist and sexist portrayals; and the effects of violence and pornography on aggressive behavior. (Also offered as PSYC 375; may be taken only once.)

### **COMM 390 - Practicum in Communications**

**Class Hours:** var  
**Credits:** 1-3

**Restriction:** Communications media major, department permission

**Description:** A specialized study under the supervision of a faculty sponsor. Students make media service contributions to department and campus media-related facilities, while receiving credit. For each practicum credit, students will log a minimum of 90 hours of service. A maximum of 6 practicum credits can be used within a 120-credit degree program. The combination of practicum and internship credits cannot exceed 15 credits.



## COMM 395 - Career Planning in Communications Media

**Class Hours:** 1  
**Lab/Discussion:** 0  
**Credits:** 1

**Prerequisite:** Junior/senior status  
**Restriction:** Communications media major only  
**Description:** Serves as the primary skill-building and strategy-seeking experience for the internship program and later career entry and growth. Extensive writing, research, and individual counseling are involved.

## COMM 400 - Professional Preparation

**Class Hours:** 3  
**Lab/Discussion:** 0  
**Credits:** 3

**Prerequisite:** Junior or Senior Standing  
**Restriction:** Major in Communications Media  
**Description:** Explores short- and long-term career goals for entering the professional world, creating materials for self-marketing and managing the transition from college to internship to the workplace in fields related but not limited to broadcasting, media production, media marketing, and media relations.

## COMM 401 - Media Programming and Promotion

**Class Hours:** 3  
**Lab/Discussion:** 0  
**Credits:** 3

**Description:** Explores the process and practice of promoting media outlets and the content on those outlets. Engages in an understanding of the purpose and methods of developing, launching, scheduling, and evaluating programming on traditional and newer media platforms. Using those concepts, aids in an understanding of promoting that media content by providing instruction in developing, writing and executing promotional concepts to gain audiences for specific media outlets.

## COMM 403 - Multimedia News Writing

**Class Hours:** 3  
**Lab/Discussion:** 0  
**Credits:** 3

**Prerequisite:** COMM 101 or JRNL 105; ENGL 101 or ENGL 103; and ENGL 202 (grades of "C" or better) or permission

**Description:** Introduces students to various styles and script formats used in writing news scripts for multiple media platforms including radio, television and online content. Analyzes news-related theories and the legal and ethical responsibilities of news writers and producers. Focuses on writing skills for different platforms.

## COMM 406 - 3-D Game and Simulation Design and Development

**Class Hours:** 3  
**Lab/Discussion:** 0  
**Credits:** 3

**Prerequisite:** COMM 348  
**Description:** Examines the theory and development of 3-D digital games and simulations from a communications media perspective. Learners are exposed to topics such as the logical structure of 3-D games and simulations, 3-D game technology, and the process of 3-D digital game development. Learners are also exposed to the history and organizational structure of the 3-D game industry as well as its theory and history.

## COMM 407 - Television Feature Production

**Class Hours:** 3  
**Lab/Discussion:** 0  
**Credits:** 3

**Prerequisite:** COMM 251  
**Description:** Teaches the creative and technical elements necessary to produce feature programming for television. Combines theory and practice, with an emphasis on practice. Provides knowledge and skills on video capture, audio pick-up and mixing, and lighting design for field production and in-studio production. Produces feature stories for television, which includes filming on and off campus, script writing, interviewing, and editing as practiced at an international level.

## COMM 408 - Media Field Studies

**Class Hours:** 3  
**Lab/Discussion:** 0  
**Credits:** 3

**Prerequisite:** COMM 101 or JRNL 105, junior standing,

and instructor permission

**Description:** A hands-on course to help students learn about the production process involving on-location production. Has three distinct phases: Students begin with research and preproduction tasks on campus, may travel to a remote site to collect additional information and images, and use those images to complete a production; students are responsible for travel expenses.

## COMM 414 - Music, Media, and Culture

**Class Hours:** 3

**Lab/Discussion:** 0

**Credits:** 3

**Prerequisite:** Communications media major or minor, or popular music studies certificate

**Restriction:** Junior standing

**Description:** Examines the intersections between media technologies, popular music, and culture. May include technology's constant influence in musical performance, production, and distribution; the music industry's marketing of popular music; popular music's relationship to cultural identity (e.g., race, gender, sexuality); and music as a cultural practice.

## COMM 420 - Media Portrayal of Crime

**Class Hours:** 3

**Lab/Discussion:** 0

**Credits:** 3

**Prerequisite:** COMM 101 or JRNL 105 or CRIM 101 or departmental permission

**Description:** An examination of the portrayal of crime in the media (television, film, newspapers, music, video games, electronic/Internet). This includes, but is not limited to, victims, offenders, criminal justice actors, and the criminal justice system. Of importance is how the media select what is newsworthy and how they describe and/or alter criminal justice issues. Attention is paid to the media's influence on perceptions of crime, the ethics behind the media's perceptual influence, criminology and criminal justice issues of the general population, and the resultant criminal justice policies. Seminar based.

**Previously Offered As:** (Also offered as CRIM 420; may not be taken as duplicate credit.)

## COMM 440 - Multimedia Production

**Class Hours:** 3

**Lab/Discussion:** 0

**Credits:** 3

**Prerequisite:** COMM 240 or instructor permission

**Description:** Presents the processes and techniques of planning, designing, and producing used with interactive multimedia. Provides hands-on experiences in the use of graphics, audio, animation, video, and authoring software applications to produce an aesthetically acceptable product that meets specific objectives. Meets the needs of educational media, corporate training, and communications specialists.

## COMM 445 - Cinematic Directors

**Class Hours:** 3

**Lab/Discussion:** 0

**Credits:** 3

**Prerequisite:** COMM 150 or instructor permission

**Description:** Analyzes examples of classical cinematic techniques, identifies, through research and watching film, classical techniques of cinema as well as the preproduction, production, and post-production required to successfully utilize them. Offers a context and critical tools for a better understanding of the moving image in its different manifestations.

## COMM 449 - Advanced Audio Recording Techniques

**Class Hours:** 3

**Lab/Discussion:** 0

**Credits:** 3

**Prerequisite:** COMM 249, permission

**Dual Listed:** May be dual listed with COMM 549

**Description:** Sound recording utilizing advanced techniques and concentrating on specific applications. Students participate in an intensive lab experience utilizing the most advanced equipment available. Emphasizes application, editing, signal processing, and multitrack recording. Student is expected to produce a sound recording for a specific use of professional quality. May be offered under a different topic area such as: COMM 449 Advanced Audio Recording Techniques: Music Recording or COMM 449 Advanced Audio Recording Techniques: Instructional Media. May be repeated for a maximum of six credits under a different topic area. Students who need to D/F repeat COMM 449 may repeat the course under a different variable title.

## **COMM 451 - Multimedia News Production**

**Class Hours:** 3  
**Lab/Discussion:** 0  
**Credits:** 3

**Prerequisite:** COMM 251 or permission  
**Description:** Engages in reporting and presenting broadcast news programs. Content and assignments include analysis of news and public affairs broadcasting.

## **COMM 460 - Disturbing Trends in Communication Technology**

**Class Hours:** 3  
**Lab/Discussion:** 0  
**Credits:** 3

**Prerequisite:** COMM 150  
**Description:** Examines recent and developing trends in media technology, with particular attention to technologies and applications that come at some social cost. Engages in the broader cultural debates surrounding technologies and their use. Draws on historically rooted ethical frameworks to assess how we can develop and implement new technologies that are responsible in their real-world applications.

## **COMM 470 - Media Management and Sales**

**Class Hours:** 3  
**Lab/Discussion:** 0  
**Credits:** 3

**Prerequisite:** COMM 150  
**Description:** Explores two essential functions of contemporary media: management of media organizations and content, and providing economic viability to media outlets through the selling of commercial time and space to clients. Investigates the fundamental theories and principles of managing media organizations as well as sales strategies including the use of audience ratings and analytics. Examines the process of researching media organizations and developing strategies to sell media content to clients.

## **COMM 471 - Advanced Image Editing**

**Class Hours:** 3  
**Lab/Discussion:** 0

**Credits:** 3

**Prerequisite:** COMM 271 or permission  
**Description:** An introduction to the use of electronic still photography (ESP) for the capture, recording, and transfer of still images and the use of computers for the storage, manipulation, and output of color and black and white photography. Extensive training in the use of software packages for image enhancement, restoration, and manipulation is provided. Students learn the applications of this technology to the print media and examine the ethical and legal issues of image manipulation.

## **COMM 474 - Commercial Photography**

**Class Hours:** 3  
**Lab/Discussion:** 0  
**Credits:** 3

**Prerequisite:** COMM 371 or instructor permission  
**Description:** Develops abilities in the practice and application of commercial and editorial photography. Provides an understanding of the business of being a freelance photographer, as well as opportunities for collaborations and individual assignments.

## **COMM 475 - Senior Portfolio Presentation**

**Class Hours:** 1  
**Lab/Discussion:** 0  
**Credits:** 1

**Prerequisite:** Communications media majors only and COMM 395  
**Description:** Students compile and present a series of works produced through previous communications media courses and activities. The result is a portfolio suitable for presentation to a potential employer. The portfolio may include examples of student works from a variety of subject areas.

## **COMM 477 - Freelancing and Entrepreneurship in Media**

**Class Hours:** 3  
**Lab/Discussion:** 0  
**Credits:** 3

**Prerequisite:** Junior standing  
**Restriction:** COMM Major or Minor  
**Description:** Explores the professional fields of freelance,

enterprise start-up and entrepreneurship in media and communication. Surveys professional, financial and legal responsibilities for freelance and self-employed media professionals. Identifies and compares different types of freelance and media businesses to develop business plans.

## **COMM 480 - Seminar in Communications Media**

**Class Hours:** 3

**Lab/Discussion:** 0

**Credits:** 3

**Prerequisite:** Junior or senior standing

**Restriction:** Other Prerequisites as appropriate to course content

**Description:** A seminar in selected communications issues or problems. Includes the reading and review of the current literature as appropriate to the major topic presented in the seminar.

## **COMM 481 - Special Topics**

**Class Hours:** var

**Credits:** 1-3

**Prerequisite:** As appropriate to course content

**Description:** Offered on an experimental or temporary basis to explore topics not included in the established curriculum. A given topic may be offered under any special topic identity no more than three times. Special topics numbered 481 are primarily for upper-level undergraduate students.

## **COMM 493 - Internship**

**Class Hours:** 9

**Lab/Discussion:** 0

**Credits:** 9

**Prerequisite:** COMM 400 with a C or better, 2.0 GPA

**Description:** Supervised professional summer work experience in communications media. Internship sites reflect the academic goals of the department and are approved and administered by a department coordinator. Location, duties, duration of internship, and work hours are tailored to students' career goals. Sites represent a broad spectrum of communications and media in business, education, health, or other agencies. Students must complete 360 hours of internship work experience and a culminating internship project. A maximum of 15 credits of internship and/or practicum are permitted toward a degree

program. Students whose internship responsibilities include regular contact with minors are required to take the Protection of Minors Training. All internship sites are required to be compliant with University internship policies and requirements.

## **Computer Science**

### **COSC 101 - Computer Literacy**

**Class Hours:** 3

**Lab/Discussion:** 0

**Credits:** 3

**Description:** An introductory course providing fundamental understanding of computers. Familiarizes students with the interaction of computer hardware and software. Emphasizes the application of microcomputers, the use of productivity software (word processing, spreadsheet management, file and database management, presentation graphics, web browsers, search strategies, and e-mail), and the social and ethical aspects of the impact of computers on society. (Does not count toward computer science major.) Note: cross-listed as BTED/IFMG 101. Any of these courses may be substituted for each other and may be used interchangeably for D/F repeats but may not be counted for duplicate credit.

### **COSC 105 - Fundamentals of Computer Science**

**Class Hours:** 3

**Lab/Discussion:** 0

**Credits:** 3

**Description:** The first course for computer science majors. Required of all computer science students; appropriate for other Natural Sciences and Mathematics students. Topics include the fundamental concepts of computer architecture, algorithm development and analysis, programming languages, software engineering, data organization and representation, and systems software. A hands-on introduction to computer usage with an emphasis on terminology and the underlying connections within the discipline.

### **COSC 110 - Problem Solving and Structured Programming**

**Class Hours:** 3

**Lab/Discussion:** 0

**Credits:** 3

**Description:** An introduction to the development of algorithmic solutions to a variety of problems and the development of computer programs to implement the solutions. Explores standard programming structures used to introduce fundamental algorithmic/programming concepts including variables, assignments, conditionals, loops, functions, and arrays and their role in problems solving. Emphasizes structured programming in the development of algorithm solutions to common problems. Object-oriented paradigm is introduced at a basic level.

### **COSC 143 - Cyber Wellness**

**Class Hours:** 3

**Lab/Discussion:** 0

**Credits:** 3

**Description:** Investigates the different categories of cyber wellness and how they affect emotional, physical, social, and intellectual wellness. Focuses on demonstrating intellectual agility and creativity in order to maintain physical wellness while using technology. Examines the effect technological changes have had on various disciplines and their impacts on society in relation to health and wellness. Discusses theories and principles related to the physical, mental, social, and emotional aspects of personal computer usage including cyberspace. Completion of COSC 143 fulfills the Liberal Studies Dimensions of Wellness requirement. Other 143 courses will also fulfill this requirement, and any of these courses may be substituted for each other and may be used interchangeably for D/F repeats but may not be counted for duplicate credit.

### **COSC 210 - Object-Oriented and GUI Programming**

**Class Hours:** 3

**Lab/Discussion:** 0

**Credits:** 3

**Prerequisite:** COSC 108 or COSC 110

**Description:** An in-depth introduction to the Object-Oriented Programming (OOP) paradigm, including encapsulation, inheritance, and polymorphism. Focuses on designing, implementing, and using objects. Includes an introduction to Graphical User Interface (GUI) design and programming.

### **COSC 216 - Introduction to Cyber Security**

**Class Hours:** 3

**Lab/Discussion:** 0

**Credits:** 3

**Prerequisite:** COSC 110

**Description:** Introduces the fundamental theory and concepts for cybersecurity including security principles, ethical and professional issues in cybersecurity, attack strategies, risk management, access control, integrity management, cryptography basics, security protocols, and strategies for defending computers and networks. Includes practical hands-on learning activities to enhance understanding and to apply the theory and concepts.

### **COSC 220 - Enterprise Computing**

**Class Hours:** 3

**Lab/Discussion:** 0

**Credits:** 3

**Prerequisite:** COSC 110

**Description:** Introduces the use of mainframe computers in the development of enterprise computing applications. Includes mainframe programming language such as COBOL, program design using top-down techniques, program and project documentation, sequential and random file algorithms, integrated file systems, and features of enterprise computing such as data transfer formats.

### **COSC 300 - Computer Organization and Assembly Language**

**Class Hours:** 3

**Lab/Discussion:** 0

**Credits:** 3

**Prerequisite:** COSC 110 or equivalent

**Description:** A discussion of the basic computer architecture elements: gates, combinational and sequential logic, hardware arithmetic, CPU, and memory structure. An examination of the languages of machines: representation of data, addressing techniques, symbolic coding, assembly, and linking. Problem solving using assembly language.

### **COSC 310 - Data Structures and Algorithms**

**Class Hours:** 3

**Lab/Discussion:** 0

**Credits:** 3

**Prerequisite:** COSC 210

**Description:** Fundamental concepts of data design and implementation, data abstraction, data structures, arrays, linked-lists, stacks, queues, recursion, trees, graphs, and hashing. Also covers sorting algorithms, divide and conquer techniques, greedy methods, and analysis of algorithms. The object-oriented paradigm is employed using an object-oriented language.

## **COSC 319 - Software Engineering Concepts**

**Class Hours:** 3  
**Lab/Discussion:** 0  
**Credits:** 3

**Prerequisite:** COSC 310 or instructor permission  
**Description:** Software engineering concepts include the collection of tools, procedures, methodologies, and accumulated knowledge about the development and maintenance of software-based systems. Strongly suggested for any student planning to take an internship in computer science. After an overview of the phases of the software life cycle, current methodologies, tools, and techniques being applied to each phase are discussed in depth with localized exercises given to reinforce learning of concepts.

## **COSC 341 - Introduction to Database Management Systems**

**Class Hours:** 3  
**Lab/Discussion:** 0  
**Credits:** 3

**Prerequisite:** COSC 110, COSC 210  
**Description:** Provides fundamental knowledge of, and practical experience with, database concepts. Includes study of information concepts and the realization of those concepts using the relational data model. Practical experience gained in designing and constructing data models and using SQL to interface to both multiuser DBMS packages and to desktop DBMS packages.

## **COSC 343 - Introduction to Numerical Methods**

**Class Hours:** 3  
**Lab/Discussion:** 0  
**Credits:** 3

**Prerequisite:** COSC 110, MATH 121 or MATH 125  
**Description:** Algorithmic methods for function evaluation, roots of equations, solutions to systems of linear equations,

function interpolation, numerical differentiation, and integration and use of spline functions for curve fitting. The focus is on managing and measuring errors in computation. Also offered as MATH 343; either COSC 343 or MATH 343 may be substituted for the other and may be used interchangeably for D/F repeats but may not be counted for duplicate credit.

## **COSC 345 - Computer Networks**

**Class Hours:** 3  
**Lab/Discussion:** 0  
**Credits:** 3

**Prerequisite:** COSC 110; MATH 121 or MATH 125; and MATH 214 or MATH 216 or MATH 217; or equivalents  
**Description:** Covers data communications, computer network architectures, functions of various network layers, communication protocols, internetworking, emerging high-speed networks.

## **COSC 352 - LAN Design and Installation**

**Class Hours:** 3  
**Lab/Discussion:** 0  
**Credits:** 3

**Prerequisite:** BTST 273 or IFMG 250 or COSC 108 or COSC 110  
**Description:** A study of fundamental local area networking concepts. A detailed study of the basics of local area network (LAN) technology. A comparative study of commercially available LAN systems and products. Features a hands-on laboratory implementation of a LAN. Cross-listed as IFMG 352. Either course may be substituted for the other for D/F repeats but may not be taken for duplicate credit.

## **COSC 355 - Computer Graphics**

**Class Hours:** 3  
**Lab/Discussion:** 0  
**Credits:** 3

**Prerequisite:** Grade of "C" or better in COSC 310 and junior status  
**Description:** Introduces computer graphics hardware and software. Explores and implements 2-D and 3-D modeling and transformations, viewing transformations, projections, rendering techniques, lighting, and shading using a current cross-platform 3-D graphics API. Includes creation of complex, photorealistic images, and animation principles.

## COSC 356 - Network Security

**Class Hours:** 3  
**Lab/Discussion:** 0  
**Credits:** 3

**Prerequisite:** COSC 216 and either COSC 345 or COSC 352/IFMG 352

**Description:** Explores mechanisms for protecting networks against attacks. Emphasizes network security applications that are used on the Internet and for corporate networks. Investigates various networking security standards and studies methods for enforcing and enhancing those standards.

## COSC 362 - Unix Systems

**Class Hours:** 3  
**Lab/Discussion:** 0  
**Credits:** 3

**Prerequisite:** COSC 310 or instructor permission

**Description:** An introduction to the features, syntax, applications, and history of Unix. Coverage includes utilities, system administration, development environments, and networking concerns including distributed systems, client-server computing, and providing Web services.

## COSC 365 - Web Application Development

**Class Hours:** 3  
**Lab/Discussion:** 0  
**Credits:** 3

**Prerequisite:** COSC 310 and COSC 341

**Description:** Covers the fundamental architecture of web-based applications. Presents client-side application development using markup languages such as XHTML/CSS, forms, scripting languages such as JavaScript and PHP, asynchronous updating of data such as AJAX, database access using SQL. Projects include development of distributed applications on the Internet. Includes best practices in usability, internationalization, security, and W3C accessibility standards for web applications.

## COSC 380 - Seminar on the Computer Profession and Ethics

**Class Hours:** 2  
**Lab/Discussion:** 0  
**Credits:** 2

**Restriction:** Instructor permission

**Description:** Reading, review, and discussion of the current literature of computer science and industry trade journals; effective oral presentations; employment prospects. Topics on computer ethics and review of case studies on computer ethics from professional journals with discussion of the issues involved. Should be taken the semester before an internship or the first semester of the senior year. Should not be taken at the same time as COSC 480.

## COSC 405 - Artificial Intelligence

**Class Hours:** 3  
**Lab/Discussion:** 0  
**Credits:** 3

**Prerequisite:** Grade of "C" or better in COSC 310

**Description:** Introduces the field of artificial intelligence. Explores and implements solutions using classical and modern artificial intelligence techniques. Includes state space search, logical inference, expert systems, optimization, knowledge representation, machine learning, handling uncertainty, and soft computing.

## COSC 410 - Computer Architecture

**Class Hours:** 3  
**Lab/Discussion:** 0  
**Credits:** 3

**Prerequisite:** COSC 300, COSC 310

**Description:** Introduces the underlying working principles of electronic computers. Discusses the organization and architecture of computer components. Expounds on details of memory hierarchy, I/O organization, computer arithmetic, processor and control unit design, instruction set architecture, instruction-level parallelism, and the ways functional components interact together.

## COSC 420 - Modern Programming Languages

**Class Hours:** 3  
**Lab/Discussion:** 0  
**Credits:** 3

**Prerequisite:** COSC 310

**Description:** A comparative survey of programming language paradigms. Includes an examination of the properties, applications, syntax, and semantics of selected object-oriented, functional, and declarative programming languages.

### **COSC 424 - Compiler Construction**

**Class Hours:** 3  
**Lab/Discussion:** 0  
**Credits:** 3

**Prerequisite:** COSC 300, COSC 310

**Description:** Relates the formal concepts of automata and language theory to the practicality of constructing a high-level language translator. The structures and techniques used in lexical analysis, parsing, syntax-directed translation, intermediate and object code generation, and optimization are emphasized.

### **COSC 427 - Introduction to Cryptography**

**Class Hours:** 3  
**Lab/Discussion:** 0  
**Credits:** 3

**Prerequisite:** COSC 310 and MATH 309

**Description:** Fundamental concepts of encoding and/or encrypting information, cryptographic protocols and techniques, various cryptographic algorithms, and security of information are covered in depth.

### **COSC 429 - Digital Forensics**

**Class Hours:** 3  
**Lab/Discussion:** 0  
**Credits:** 3

**Prerequisite:** COSC 110 or equivalent programming course, junior standing or instructor permission

**Description:** Takes a detailed, hands-on approach to the use of computer technology in investigating computer crime. From network security breaches to child pornography, the common bridge is the demonstration that particular electronic media contains incriminating evidence. Using modern forensic tools and techniques, students learn how to conduct a structured investigative process to determine exactly what happened and who was responsible, and to perform this investigation in such a way that the results are useful in criminal proceedings. Real-world case studies are used to provide a better understanding of security issues. Unique forensics issues associated with

various operating systems including Linux/Windows operating systems and associated applications are covered.

### **COSC 430 - Introduction to Systems Programming**

**Class Hours:** 3  
**Lab/Discussion:** 0  
**Credits:** 3

**Prerequisite:** Grade of "C" or better in COSC 300 and COSC 310 or instructor permission

**Description:** An in-depth introduction to a systems programming, system programming language(s) and application of those language(s) to systems-level problems. The focus is on programming constructs that are closely aligned with the architecture of a digital computer including those providing portability between platforms, dynamic allocation and management of virtual memory, complex in-memory data structures, reading/writing binary data using sequential and random access, pointer arithmetic/manipulation, and interaction between threads/processes.

### **COSC 432 - Introduction to Operating Systems**

**Class Hours:** 3  
**Lab/Discussion:** 0  
**Credits:** 3

**Prerequisite:** COSC 300, COSC 310 or equivalents

**Description:** Introduces the principles of operating system design and implementation. Includes interrupt services, process states and transitions, threads, scheduling algorithms, synchronization tools, deadlocks, virtualization, memory management of (main and virtual), storage devices management, file systems, and operating systems security.

### **COSC 454 - Information Assurance Administration**

**Class Hours:** 3  
**Lab/Discussion:** 0  
**Credits:** 3

**Prerequisite:** COSC 216 or instructor permission

**Description:** Explores the various issues pertinent to maintaining acceptable levels of information security within organizations. Addresses issues involved in administering and managing information security systems.



Intended to raise awareness of information security issues across organizations.

### **COSC 460 - Theory of Computation**

**Class Hours:** 3  
**Lab/Discussion:** 0  
**Credits:** 3

**Prerequisite:** COSC 310 or instructor permission  
**Description:** Formal methods for describing and analyzing programming languages and algorithms. Covers Backus-Naur forms, productions, regular expressions, introduction to automata theory, Turing machines, and recent concepts in algorithm theory computability.

### **COSC 465 - Web Services**

**Class Hours:** 3  
**Lab/Discussion:** 0  
**Credits:** 3

**Prerequisite:** COSC 341 and COSC 365  
**Description:** Studies the development of Web services. Presents an in-depth understanding of server-side technologies for Web services including RPC, SOAP, and RESTful. Emphasis is placed on the use of XML and JSON to support multi-party heterogeneous distributed applications and includes XML fundamentals (e.g., DTDs, XML schemas, and DOM), and Web services (e.g., SOAP and WSDL,). Students complete hands-on projects utilizing current technologies to develop their own Web services and use existing Web services.

### **COSC 471 - Cloud Computing**

**Class Hours:** 3  
**Lab/Discussion:** 0  
**Credits:** 3

**Prerequisite:** COSC 210  
**Description:** Provides analytical and practical coverage of cloud computing and web services. Focuses on the technology, frameworks and associated standards: cloud models, cloud platforms and scalability. Compares advantages and disadvantages of cloud computing platforms, identify security and privacy issues in cloud computing, and analyze performance, scalability, and availability of the underlying cloud technologies and software. Deploys applications over a commercial cloud infrastructure such as AWS or Windows Azure.

### **COSC 473 - Software Engineering Practice**

**Class Hours:** 3  
**Lab/Discussion:** 0  
**Credits:** 3

**Prerequisite:** COSC 319 or instructor permission  
**Description:** Planning, design, and implementation of large software systems using software engineering techniques. Students work on project teams on real or realistic software development projects. Credit for either COSC 473 or COSC 493, but not both, may count toward computer science major requirements for graduation; the other course credits will be counted as free electives.

### **COSC 480 - Seminar on Technical Topics**

**Class Hours:** 0  
**Lab/Discussion:** 1  
**Credits:** 1

**Prerequisite:** See text below  
**Description:** Reading, review, and discussion of the current literature of computer science and industry professional and technical journals; oral presentations. Should be taken the last semester of the senior year. Should not be taken at the same time as COSC 380.

### **COSC 482 - Independent Study**

**Class Hours:** var  
**Credits:** 1-4

**Restriction:** Prior approval through advisor, faculty member, department chairperson, dean, and Office of the Provost  
**Description:** Students with interest in independent study of a topic not offered in the curriculum may propose a plan of study in conjunction with a faculty member.  
**Approved:** Approval based on academic appropriateness and availability of resources.

### **COSC 492 - Internship in Management Information Systems**

**Class Hours:** var  
**Lab/Discussion:** 0  
**Credits:** 3-12

**Restriction:** Junior Standing and Department permission  
**Description:** Provides on-the-job experience in

management information systems and information technology with private and government employers. Integrates a supervised learning experience that combines the student's academic background with practical experience related to the student's major area of interest. Requires periodic consultation with a faculty member and employer evaluations. Requires completion of related academic work and writing intensive components in the form of progress reports, final reports, and oral presentations. Forty hours of supervised internship is equivalent to one academic credit hour. The course can be repeated for a maximum of 12 credits.

**Repeated:** May be taken up to four times for a total of 12 credits.

### **COSC 493 - Internship in Computer Science**

**Class Hours:** var

**Lab/Discussion:** 0

**Credits:** 3-12

**Prerequisite:** Junior standing

**Restriction:** Department permission

**Description:** Provides on-the-job experience in computer science with private and government employers. Requirements include periodic consultation with a faculty member and employer evaluations. Requires completion of related academic work in the form of progress reports, final report, and oral presentation. Internship is either 3 credit hours over a minimum of 6 weeks, 6 credit hours over a minimum of 12 weeks, or 12 credit hours over a minimum of 23 weeks. The 6cr option may be taken twice. (Writing-intensive course. As such, internship requires completion of designated writing-intensive components.)

**Repeated:** May be taken up to 3 times for a maximum total of 12 credits.

## **Criminology**

### **CRIM 101 - Crime and Justice Systems**

**Class Hours:** 3

**Lab/Discussion:** 0

**Credits:** 3

**Description:** Introduces the field of criminology through the examination of historical data, statistical information, theories of criminal causation, social control of behavior, development of laws, evaluation of criminal justice system policies, procedures, and trends. Emphasizes terminology of the field, an awareness of the methods of inquiry utilized

in the field, and examination of personal attitudes and values regarding crime and responses to crime.

### **CRIM 102 - Survey of Criminology**

**Class Hours:** 3

**Lab/Discussion:** 0

**Credits:** 3

**Description:** Provides an understanding of the discipline of criminology through an examination of its theories, basic assumptions, and definitions.

### **CRIM 205 - Policing and the Community**

**Class Hours:** 3

**Lab/Discussion:** 0

**Credits:** 3

**Prerequisite:** CRIM 101 or CRIM 102

**Description:** Introduces the history, function, and role of law enforcement in American communities. Emphasizes the multi-dimensional work of policing with discussions about strategies employed to combat and prevent crime. Examines organizational and personal factors of policing, as well as their connections to the structure and composition of the communities serviced. Stresses the concepts of Principled Criminal Justice and Police Legitimacy, presenting the opportunity for a Criminal Justice Training Center Certificate of Training. Offers prevailing and dissenting perspectives about current issues in policing.

### **CRIM 210 - Criminal Law**

**Class Hours:** 3

**Lab/Discussion:** 0

**Credits:** 3

**Prerequisite:** CRIM 101 or CRIM 102 or departmental permission

**Description:** A study of the history and sources of criminal law coupled with an analysis of the substantive elements of specific crimes.

### **CRIM 215 - Survey of Courts and the Criminal Justice System**

**Class Hours:** 3

**Lab/Discussion:** 0

**Credits:** 3

**Prerequisite:** CRIM 101 or CRIM 102 or departmental permission

**Description:** Examines the historical background, the traditions, and the legal principles that underlie the courts as an integral component of the American system of criminal justice. Both differences and similarities inherent within the state and federal court processes are analyzed, and the procedures through which the criminal courts uphold the basic rights and liberties of all United States citizens, both victims and the accused, are explored. The dynamics of the judiciary are considered through examination of the critical foundation of the judicial process. A primary focus is placed on understanding the respective roles played by judges, prosecuting attorneys, defense counsel, police, probation officers, and other court-related personnel in the criminal court process.

### **CRIM 225 - Survey of Corrections**

**Class Hours:** 3

**Lab/Discussion:** 0

**Credits:** 3

**Prerequisite:** CRIM 101 or CRIM 102 or departmental permission

**Description:** States and emphasizes the role of corrections in the social control of human behavior. Includes the history of corrections, classic and contemporary thought about the role of corrections in the criminal justice system, and a survey of correctional methods and alternatives with an emphasis on the use of incarceration.

### **CRIM 235 - Survey of Juvenile Justice and Juvenile Law**

**Class Hours:** 3

**Lab/Discussion:** 0

**Credits:** 3

**Prerequisite:** CRIM 101 or CRIM 102 or departmental permission

**Description:** Provides an understanding of the juvenile justice system and the various cases and legislative initiatives that have affected juvenile justice policy, in addition to examining the evolution of the juvenile justice system and the transformation of the current issues in juvenile justice in the United States. Attention is also focused on juvenile justice policies and procedures in other countries.

### **CRIM 255 - Law, Social Control, and Society**

**Class Hours:** 3

**Lab/Discussion:** 0

**Credits:** 3

**Prerequisite:** CRIM 101 or CRIM 102 or departmental permission

**Description:** The evolution and development of the modern legal system. Topics include civil, criminal, and administration law, the legal profession, legal systems in American society, and the law as one of many instruments of social control and social change.

### **CRIM 306 - Criminological Research Methods**

**Class Hours:** 3

**Lab/Discussion:** 0

**Credits:** 3

**Prerequisite:** CRIM 101, CRIM 102, junior standing

**Description:** An introduction to the basic criminological research methods designed to prepare the student to understand and participate in quantitative and qualitative research.

### **CRIM 321 - Cybersecurity and Loss Prevention**

**Class Hours:** 3

**Lab/Discussion:** 0

**Credits:** 3

**Prerequisite:** CRIM 101 or CRIM 102

**Description:** Addresses the cybersecurity threat from a more comprehensive standpoint. Challenges students to recognize and understand security concerns from multiple perspectives, ranging from the insider threat to threats involving the actual physical components. Exposure to a design methodology, associated system components modules, and basic security principles is featured. Students also are exposed to the private and public responses to computer security problems, including the insider threat, domestic and foreign terrorism, and a number of unique computer crimes and solutions to deal with these crimes. The importance of a sound security policy in the overall management of any organization is addressed.

### **CRIM 323 - Cybersecurity and the Law**

**Class Hours:** 3

**Lab/Discussion:** 0

**Credits:** 3

**Prerequisite:** CRIM 101 or CRIM 102

**Description:** Examines the scope of cybercrime and its impact on today's system of criminal justice. Includes cybercrime and the Bill of Rights, computer-based economic crime, electronic commerce, ethical challenges, and the Computer Fraud and Abuse Act. Includes an analysis of the legal considerations facing law enforcement and cybersecurity professionals who deal with the problem of discovering, investigating, and prosecuting cybercrime.

### **CRIM 344 - Terrorism**

**Class Hours:** 3

**Lab/Discussion:** 0

**Credits:** 3

**Prerequisite:** CRIM 101 or CRIM 102 or instructor permission

**Description:** An in-depth study of the legal and international issues that the United States faces in response to combating international terrorism. The emphasis is placed on identifying causes of terrorism and the most plausible threats; terrorist networks, their commonalities and differences, and the difficulty in countering; and determining appropriate responses, to include political and legal implications, threat analysis, physical security, and target hardening.

**Previously Offered As:** (Also offered as PLSC 344; may not be taken as duplicate credit.)

### **CRIM 354 - White-Collar Crime**

**Class Hours:** 3

**Lab/Discussion:** 0

**Credits:** 3

**Prerequisite:** CRIM 101 or CRIM 102

**Description:** An introduction to various topics and issues relating to white-collar crime. Theories and measurements of white-collar, corporate, organizational, occupational, workplace, and organized crimes are presented and compared. Prevention, legal issues, and control strategies are presented.

### **CRIM 374 - Environmental Crime and Justice**

**Class Hours:** 3

**Lab/Discussion:** 0

**Credits:** 3

**Prerequisite:** CRIM 101 or CRIM 102

**Description:** Introduces the developing area of criminological solutions to environmental problems. Issues addressed include the nature of environmental offenders and victims, the variety of approaches to achieving environmental justice, and criminal justice solutions to specific environmental problems.

### **CRIM 384 - Violence and Victimology**

**Class Hours:** 3

**Lab/Discussion:** 0

**Credits:** 3

**Prerequisite:** CRIM 101 or CRIM 102

**Description:** Introduces the leading theories and research in the area of violent criminal behavior and victimization. A special emphasis is on patterns of violent offending and victimization over time, victim-offender relationships, and the experience of victims in the criminal justice system. Addresses major violent crimes including murder, rape, robbery, and assault.

### **CRIM 391 - Substance Use and Abuse in Criminal Justice**

**Class Hours:** 3

**Lab/Discussion:** 0

**Credits:** 3

**Prerequisite:** CRIM 101 or CRIM 102

**Description:** A study of substance use and abuse confronting American society. Alcohol and drug use and abuse education, philosophy, physiological effects, and education, philosophy, physiological effects, and social aspects are examined in terms of control measures and public safety.

### **CRIM 394 - Crime and Delinquency Prevention**

**Class Hours:** 3

**Lab/Discussion:** 0

**Credits:** 3

**Prerequisite:** CRIM 101 or CRIM 102 or departmental permission

**Description:** Examines various crime and delinquency prevention policies and programs. Topics include the historical development of crime and delinquency prevention methods, theoretical applications to prevention efforts, and research findings on program effectiveness.

The importance of research design in evaluating prevention programs also is considered.

### **CRIM 400 - Theoretical Criminology**

**Class Hours:** 3  
**Lab/Discussion:** 0  
**Credits:** 3

**Prerequisite:** CRIM 101, CRIM 102, junior standing  
**Description:** A review and critical analysis of the major criminological theories beginning with the Classical School; psychological, sociological, economic, biological, and political theories of crime and its causes are included.

### **CRIM 401 - Contemporary Issues in Criminology**

**Class Hours:** 3  
**Lab/Discussion:** 0  
**Credits:** 3

**Prerequisite:** CRIM 101, CRIM 102, junior standing  
**Description:** An examination of the nature and extent of crime in modern western society. Emphasizes issues selected from, but not limited to, emerging patterns of violence, organized crime, white-collar crime, victimless crime, corruption, and those crime control strategies deemed appropriate in a democracy.

### **CRIM 403 - Dilemmas in Criminology and Criminal Justice**

**Class Hours:** 3  
**Lab/Discussion:** 0  
**Credits:** 3

**Prerequisite:** CRIM 101, CRIM 102, junior standing  
**Description:** An overview of prominent ethical issues facing professionals in criminology and criminal justice, with an emphasis on encouraging individual students to explore their own ethical and moral systems and how they make ethical/moral decisions. Primarily discussion/seminar oriented.

### **CRIM 410 - Race, Ethnicity, Social Structure, and Crime**

**Class Hours:** 3  
**Lab/Discussion:** 0  
**Credits:** 3

**Prerequisite:** CRIM 101, CRIM 102

**Description:** Introduces the art of thinking critically about the social construction of race, ethnicity, and social class in crime and crime control, with special focus on the United States.

### **CRIM 420 - Media Portrayal of Crime**

**Class Hours:** 3  
**Lab/Discussion:** 0  
**Credits:** 3

**Prerequisite:** CRIM 101, JRNL 105, or COMM 101, or departmental permission

**Description:** An examination of the portrayal of crime in the media (television, film, newspapers, music, video games, electronic/Internet). This includes, but is not limited to, victims, offenders, criminal justice actors, and the criminal justice system. Of importance is how the media select what is newsworthy and how they describe and/or alter criminal justice issues. Attention is paid to the media's influence on perceptions of crime, the ethics behind the media's perceptual influence, criminology and criminal justice issues of the general population and the resultant criminal justice policies. Seminar based.

**Previously Offered As:** (Also offered as COMM 420; may not be taken as duplicate credit.)

### **CRIM 450 - Women and Crime**

**Class Hours:** 3  
**Lab/Discussion:** 0  
**Credits:** 3

**Prerequisite:** CRIM 101 or CRIM 102

**Description:** A study of the nature and extent of women's crime, theories of female criminality, processing of women offenders through the criminal justice system, the response of police and court officials to women as victims of crime, and opportunities for women as employees in criminal justice agencies.

### **CRIM 470 - Comparative Study of Justice**

**Class Hours:** 3  
**Lab/Discussion:** 0  
**Credits:** 3

**Prerequisite:** CRIM 101 or CRIM 102

**Description:** A comparison of American systems of administration of justice with those of other nations.

## CRIM 493 - Internship

**Class Hours:** var

**Credits:** 3-12

**Prerequisite:** CRIM 101, CRIM 102, 12cr from CRIM courses, 2.5 overall GPA, and junior standing

**Description:** A structured field placement designed to broaden the educational experience through observation and participation in work assignments in government or private sectors. Six credits can be applied to the major requirements.

## Critical Languages

### CRLG 101 - Arabic I

**Credits:** 3

**Description:** Basic vocabulary and pronunciation in the target language. Oral/aural skills are stressed

### CRLG 101-120 - Critical Languages I

**Class Hours:** 3

**Lab/Discussion:** 0

**Credits:** 3

**Description:** Basic vocabulary and pronunciation in the target language. Oral/aural skills are stressed.

### CRLG 109 - Korean I

**Credits:** 3

**Description:** Basic vocabulary and pronunciation in the target language. Oral/aural skills

### CRLG 112 - Russian I

**Credits:** 3

**Description:** Basic vocabulary and pronunciation in the target language. Oral/aural skills

### CRLG 151 - Arabic II

**Credits:** 3

**Prerequisite:** CRLG 101 or acceptable equivalent

**Description:** A continuation of the first-semester course. Depending on the language being studied, reading and writing may be introduced at this level

### CRLG 151-170 - Critical Languages II

**Class Hours:** 3

**Lab/Discussion:** 0

**Credits:** 3

**Prerequisite:** Level I or acceptable equivalent

**Description:** A continuation of the first-semester course. Depending on the language being studied, reading and writing may be introduced at this level.

### CRLG 159 - Korean II

**Credits:** 3

**Prerequisite:** CRLG 109 or acceptable equivalent

**Description:** A continuation of the first-semester course. Depending on the language being studied, reading and writing may be introduced at this level

### CRLG 162 - Russian II

**Credits:** 3

**Prerequisite:** CRLG 112 or acceptable equivalent

**Description:** A continuation of the first-semester course. Depending on the language being studied, reading and writing may be introduced at this level

### CRLG 201 - Arabic III

**Credits:** 3

**Prerequisite:** CRLG 151 or acceptable equivalent

**Description:** A continuation of the first-semester course. Depending on the language being studied, reading and writing may be introduced at this level

### CRLG 201-220 - Critical Languages III

**Class Hours:** 3

**Lab/Discussion:** 0

**Credits:** 3

**Prerequisite:** Level II or acceptable equivalent

**Description:** At this first intermediate level, students begin to develop a degree of oral proficiency that varies with the

language studied. Reading and writing are studied in all languages by this level.

### **CRLG 209 - Korean III**

**Credits:** 3

**Prerequisite:** CRLG 159 or acceptable equivalent

### **CRLG 212 - Russian III**

**Credits:** 3

**Prerequisite:** CRLG 162 or acceptable equivalent

### **CRLG 251 - Arabic IV**

**Credits:** 3

**Prerequisite:** CRLG 201 or acceptable equivalent

**Description:** By the end of this course, the student should be able to communicate in simple terms with an educated native speaker on a topic with which the student is familiar. Ability in reading and writing varies with language

### **CRLG 251-270 - Critical Languages IV**

**Class Hours:** 3

**Lab/Discussion:** 0

**Credits:** 3

**Prerequisite:** Level III or acceptable equivalent

**Description:** By the end of this course, the student should be able to communicate in simple terms with an educated native speaker on a topic with which the student is familiar. Ability in reading and writing varies with language.

### **CRLG 259 - Korean IV**

**Credits:** 3

**Prerequisite:** CRLG 209 or acceptable equivalent

**Description:** By the end of this course, the student should be able to communicate in simple terms with an educated native speaker on a topic with which the student is familiar. Ability in reading and writing varies with language

### **CRLG 262 - Russian IV**

**Credits:** 3

**Prerequisite:** CRLG 212 or acceptable equivalent

**Description:** By the end of this course, the student should be able to communicate in simple terms with an educated native speaker on a topic with which the student is familiar. Ability in reading and writing varies with language

## **Dance**

### **DANC 102 - Introduction to Dance**

**Class Hours:** 3

**Lab/Discussion:** 0

**Credits:** 3

**Description:** Explores dance as communication, ritual, social engagement, entertainment, and as an art form. Dance history, genealogy, aesthetics, critical analysis and response, and the creative process are examined. Class experience includes viewing and critical analysis of professional dance works, attending at least two live productions, and engaging in the creative process in practice and performance.

### **DANC 150 - Fundamentals of Dance**

**Class Hours:** 3

**Lab/Discussion:** 0

**Credits:** 3

**Description:** A basic dance technique that sequentially develops the elements of movement (space, time, force) into a variety of dance genres and period styles. Covers special care and safety of the instrument—the body.

### **DANC 210 - Dance and Somatics**

**Class Hours:** 3

**Lab/Discussion:** 0

**Credits:** 3

**Description:** Investigates movement, emphasizing internal perception including traditional and contemporary techniques based in Conditioning, Psychotherapy, and Spiritual Movement as they apply to dance and health. Pilates Based Exercise, Yoga, Contact Improvisation, Alexander Technique, and Body Work methods will be embodied and analyzed with emphasis placed on safe practices. Open to dancers, actors, athletes and non-dancers of all levels.

### **DANC 220 - Women and Dance**

**Class Hours:** 3  
**Lab/Discussion:** 0  
**Credits:** 3

**Description:** Explores gender roles through experiential movement and the embodiment of popular key genres and dances including current trends. An interdisciplinary, multi-perspective, survey of the roles of women and dance from a historical, cultural, and spiritual vantage point followed by reflective writing and discussion. Requires a final performance project.

### **DANC 250 - Beginning Modern Dance**

**Class Hours:** 3  
**Lab/Discussion:** 0  
**Credits:** 3

**Description:** Beginning modern dance technique. An introduction to the beginning elements of the choreographic process. Examines the historical development and cultural influences on the changing philosophies of modern dance performance. Performance of creative work required.

### **DANC 260 - Beginning Jazz Dance**

**Class Hours:** 3  
**Lab/Discussion:** 0  
**Credits:** 3

**Description:** Beginning jazz technique, dynamics, and selected styles that reflect an era or culture characteristic of jazz movement and music from the 1920s through the present. An introduction to the beginning elements of the choreographic process. Performance of creative work required.

### **DANC 270 - Beginning Ballroom and Tap Dance**

**Class Hours:** 3  
**Lab/Discussion:** 0  
**Credits:** 3

**Description:** A sequential development of beginning tap and ballroom dance techniques in the context of the historical development and period styles. Performance of creative work is required.

### **DANC 280 - Beginning Ballet**

**Class Hours:** 3  
**Lab/Discussion:** 0  
**Credits:** 3

**Description:** A sequential development of beginning barre and center techniques that progress to link movement phrasing into dance sequences and choreography. The historical periods of development and the status of the art today are examined in a cultural context, which includes gender and minority influences. Performance of creative work is required.

### **DANC 290 - Ethnic Dance**

**Class Hours:** 3  
**Lab/Discussion:** 0  
**Credits:** 3

**Description:** Includes dance techniques from a variety of indigenous forms from western and eastern cultures. Presented in the historical and social context. An emphasis is given to the needs of theater production.

### **DANC 350 - Intermediate Modern I**

**Class Hours:** 3  
**Lab/Discussion:** 0  
**Credits:** 3

**Prerequisite:** DANC 250 or by permission of the instructor  
**Description:** Furthers the development of the dancer at the intermediate level in Modern technique. Integrates both technique and artistic growth, along with increased knowledge of artists and styles of the genre. Includes active participation in all class exercises and performances, analyzes, interprets, and composes original choreography based on historical and current works.

### **DANC 351 - Choreography**

**Class Hours:** 3  
**Lab/Discussion:** 0  
**Credits:** 3

**Prerequisite:** Three introductory- or advanced-level dance classes from DANC 250, DANC 260, DANC 270, DANC 280, DANC 290, DANC 485, or instructor permission  
**Description:** Introduces the necessary choreographic tools needed to manipulate dance as a medium to create dance works. Students learn and use various approaches to the choreographic process to create dance works, one of which



will be presented in a public showing at the end of the semester.

### **DANC 353 - Dance Curriculum and Instruction**

**Class Hours:** 3  
**Lab/Discussion:** 0  
**Credits:** 3

**Prerequisite:** Three introductory- or advanced-level dance classes from DANC 250, DANC 260, DANC 270, DANC 280, DANC 290, DANC 485, or instructor permission

**Description:** Introduces the necessary teaching skills and curriculum development needed to understand the pedagogical structure for teaching dance. Students learn the approaches to teaching that are unique to dance and will learn to design dance curriculum.

### **DANC 354 - Pedagogy of Ballet I**

**Class Hours:** 3  
**Lab/Discussion:** 0  
**Credits:** 3

**Prerequisite:** DANC 380 or instructor permission

**Description:** Studies the methods of teaching ballet from a multi-perspective approach from pre-ballet to beginning levels for children and adults. Researches age appropriate ballet exercises, historical ballet perspectives, pedagogical philosophies of ballet, critical analysis of ballet, ballet terminology, five methods of teaching ballet, safe teaching practices, kinesiology, gender, adaptive and current developments.

### **DANC 355 - Dance Production: Administration to Creation**

**Class Hours:** 3  
**Lab/Discussion:** 0  
**Credits:** 3

**Prerequisite:** Two introductory- or advanced-level dance classes from DANC 250, DANC 260, DANC 270, DANC 280, DANC 290, DANC 485, or instructor permission

**Description:** A sequential development of the dance production process from audition to opening, focusing on the practical application to private studio and academic and professional settings. Explores the evolution of dance production and the future of dance, from both administrative and artistic perspectives, taking into consideration the constantly changing world of technology.

### **DANC 360 - Intermediate Jazz I**

**Class Hours:** 3  
**Lab/Discussion:** 0  
**Credits:** 3

**Prerequisite:** DANC 260 or by permission of the instructor  
**Description:** Furthers the development of the dancer at the intermediate level in Jazz technique. Integrates both technique and artistic growth, along with increased knowledge of artists and styles of the genre. Includes active participation in all class exercises and performances, analyzes, interprets, and composes original choreography based on historical and current works.

### **DANC 380 - Intermediate Ballet I**

**Class Hours:** 3  
**Lab/Discussion:** 0  
**Credits:** 3

**Prerequisite:** DANC 280 or by permission of the instructor  
**Description:** Develop and perform ballet technique by combining the Vaganova, Cecchetti, and French training methods of teaching. Classes will include a warm-up, barre work, center work (au milieu) and large movements across the floor (grand allegro). Students will actively participate in all class exercises and performances, analyze, interpret, and compose historical, current, and original works at an intermediate level.

### **DANC 450 - Intermediate Modern II**

**Class Hours:** 3  
**Lab/Discussion:** 0  
**Credits:** 3

**Prerequisite:** DANC 250 and DANC 350, or by permission of the instructor

**Description:** Furthers the development of the dancer at the advanced intermediate level in Modern technique. Development in dance requires the integration of both technique and artistic growth, along with increased knowledge of artists and styles of the genre. Students will actively participate in all class exercises and performances, analyze, interpret, and compose original choreography based on historical and current works at an advanced intermediate level.

### **DANC 460 - Intermediate Jazz II**

**Class Hours:** 3  
**Lab/Discussion:** 0  
**Credits:** 3

**Prerequisite:** DANC 260 and DANC 360, or by permission of the instructor

**Description:** Furthers the development of the dancer at the advanced intermediate level in Jazz technique. Development in dance requires the integration of both technique and artistic growth, along with increased knowledge of artists and styles of the genre. Students will actively participate in all class exercises and performances, analyze, interpret, and compose original choreography based on historical and current works at an advanced intermediate level.

### **DANC 480 - Intermediate Ballet II**

**Class Hours:** 3  
**Lab/Discussion:** 0  
**Credits:** 3

**Prerequisite:** DANC 380 or by permission of the instructor

**Description:** Furthers the development of the dancer at an advanced intermediate level in ballet technique by combining the Vaganova, Cecchetti, and French training methods of teaching. Classes will include a warm-up, barre work, center work (au milieu) and large movements across the floor (grand allegro). Students will actively participate in all class exercises and performances, analyze, interpret, and compose historical, current, and original works at an advanced intermediate level.

### **DANC 481 - Special Topics**

**Class Hours:** var  
**Lab/Discussion:** 0  
**Credits:** 1-6

**Prerequisite:** As appropriate to course content

**Description:** Offered on an experimental or temporary basis to explore topics not included in the established curriculum. A given topic may be offered under any special topic identity no more than three times. Special topics numbered 481 are primarily for upper-level undergraduate students.

### **DANC 485 - Dance Studio**

**Class Hours:** 3  
**Lab/Discussion:** 0

**Credits:** 3

**Prerequisite:** DANC 250 or DANC 260 or DANC 270 or DANC 280 (beginning technique class taken must be the specific dance genre of the Dance Studio class offered); or by instructor permission

**Description:** Furthers the development of the dancer at the intermediate level of a specified genre of dance.

Development in dance requires the integration of both technique and artistic development. The specific genres vary from semester to semester, including modern, ballet, tap, and jazz as alternating semester options.

**Repeated:** May be repeated with a different focus each time.

### **DANC 486 - Practicum in Dance**

**Class Hours:** var  
**Lab/Discussion:** 0  
**Credits:** 0-2

**Restriction:** Dance major standing or instructor permission

**Description:** Develops skills through artistic practice of performance, production, choreography and professional improvement. Engages with faculty-led, professionally modeled productions of dance concerts, ballets, musicals, operas, and dance immersions. Increases competency in dance, choreography, directing, stage management, design/technology, dance research and professional immersion opportunities in a focused area of interest and certification. Repeatable course required of all dance majors.

### **DANC 487 - Practicum in Dance Senior Project**

**Class Hours:** 1  
**Lab/Discussion:** 0  
**Credits:** 1

**Description:** Develops and presents a culminating capstone experience through individualized instruction. Students will synthesize prior learning and experiences into a project proposal that is uniquely suited to their post-graduation plan. To realize their proposal, students will apply professional practices and methods to document research, preparation, program/document development and production/performance/presentation. Each project will culminate in a form of public presentation.

## **Early Childhood Education**

## **ECED 112 - Childhood Development Birth–Age 5**

**Class Hours:** 3  
**Lab/Discussion:** 0  
**Credits:** 3

**Description:** Presents the foundations, theoretical, and practical aspects of the development of young children, focusing on various learning theories/theorists and the developmental stages and needs of children from birth through age five. Examines the various stages of child development with a focus on a review of the research, theories, and theoretical program models, and types of early childhood programs; discusses available community resources, professional organizations, and standards of ethical behavior and practice all in an exploration of child development and contemporary educational, cultural, social, and emotional issues for children, ages birth to five and their families.

## **ECED 117 - Family, Community, and School Relationships in a Diverse Society**

**Class Hours:** 3  
**Lab/Discussion:** 0  
**Credits:** 3

**Description:** Develop a strong understanding and deep appreciation of the diversity among families, communities, and school cultures in the United States. Locate and develop curricular materials and teaching strategies appropriate to this country's diversity. Recognize families and communities as competent and resourceful systems. Critically examine ways to collaborate with family members and community agencies to support students with and without disabilities. Focus on legal and philosophical bases for supporting families in making important decisions affecting their children.

## **ECED 200 - Introduction to Early Childhood Education**

**Class Hours:** 3  
**Lab/Discussion:** 0  
**Credits:** 3

**Restriction:** Early childhood education/special education major or early childhood education major

**Description:** Introduces prospective teachers to the historical, sociological, and political aspects of early

childhood education. An emphasis is placed on appreciating diversity in the early childhood classroom and on developing keen observation strategies to both heighten understanding of children and evaluate programs that serve them.

## **ECED 215 - The Developing Child: K-4th Grade**

**Class Hours:** 3  
**Lab/Discussion:** 0  
**Credits:** 3

**Description:** Introduces the interrelationships among the various aspects of child development in grades K-4, its relevant theories and educational applications. Through literature review, critique of theories, observation, and large and small group activities, students learn child development principles and how they may be applied in K-4 educational settings to foster successful learning.

**Previously Offered As:** (Offered as ELED 215 Child Development before 2015-16.)

## **ECED 221 - Literature for the Young Child and Adolescent**

**Class Hours:** 3  
**Lab/Discussion:** 0  
**Credits:** 3

**Restriction:** Early childhood education/special education major

**Description:** A survey of literature for children from preschool to adolescence. Selection and evaluation criteria for various genres, including visual and literary elements, are the foundation. Emphasis will also be placed on multicultural literature and literature for diverse learners. Stresses motivational approaches for encouraging children's engagement with and response to literature.

## **ECED 250 - Language Development**

**Class Hours:** 3  
**Lab/Discussion:** 0  
**Credits:** 3

**Restriction:** Early childhood education/special education, early childhood education, or speech-language pathology majors.

**Description:** Acquaints students with the process of children's language acquisition and development through expressive skills and language comprehension.

Observation, documentation, and assessment of language development across the areas of listening, speaking, writing, drawing, and reading are explored from both a theoretical and practical perspective.

### **ECED 280 - Maximizing Learning: Engaging All Learners**

**Class Hours:** 3  
**Lab/Discussion:** 0  
**Credits:** 3

**Restriction:** Teacher Education Major

**Description:** Examine competencies specific to the science of teaching, the organization and management of functional learning environments, and the design, implementation, and evaluation of developmentally appropriate learning experiences. Explore models of teaching, lesson and unit planning, technology integration, and creating a P-4, 4-8, P12, and/or 7-12 classroom environment that is conducive to learning.

### **ECED 310 - Science, Health, and Safety for All PreK to Grade 4 Learners**

**Class Hours:** 3  
**Lab/Discussion:** 0  
**Credits:** 3

**Restriction:** Early childhood education/special education major or early childhood education major, admission to Teacher Education Step 1

**Description:** Examines strategies for teaching science and health concepts; design of lessons that integrate science, health, and safety; and learning how to become role models for children. Students develop knowledge of how to design lessons with appropriate content and methods for young children.

### **ECED 314 - Creative Experiences and Play for All PreK to Grade 4 Learners**

**Class Hours:** 3  
**Lab/Discussion:** 0  
**Credits:** 3

**Restriction:** Early childhood education/special education or early childhood education major.

**Description:** Provides teacher candidates with the knowledge and skills necessary to incorporate creative arts and play experiences into a comprehensive early childhood inclusive curriculum. Integration of creative experiences

and play to enhance and encourage the development of all PreK to grade 4 learners is emphasized, as is the historical, theoretical, and research base for the integration of play and creative experiences into fully inclusive settings.

### **ECED 351 - Literacy for the Emergent Reader: PreK to Grade 1 Learners**

**Class Hours:** 3  
**Lab/Discussion:** 0  
**Credits:** 3

**Restriction:** Early Childhood Education/Special Education Major or Early Childhood Education Major

**Description:** Provides early childhood teachers with various strategies, techniques, and materials related to developing early literacy in children. Current research and practical applications are interwoven to ensure a systematic coverage of the most recent methods and best practices. Focuses on the development of speaking, listening, reading, and writing skills for PreK to Grade 1 learners.

### **ECED 411 - Social Studies for All PreK to Grade 4 Learners**

**Class Hours:** 3  
**Lab/Discussion:** 0  
**Credits:** 3

**Restriction:** Early childhood education/special education major or early childhood education major, admission to Teacher Education Step 1

**Description:** An overview of social concepts related to geography, history, economics, civics and government, and citizenship. Prepares teacher candidates to offer classroom instruction to all preK to grade 4 learners, which builds civic competence and enables students to use skills of collaboration, decision making, and problem solving.

### **ECED 425 - Methods of Teaching and Assessing Language Arts: Pre-K to Grade 4 Learners**

**Class Hours:** 3  
**Lab/Discussion:** 0  
**Credits:** 3

**Restriction:** Early Childhood Education (ECED) major or Special Education PreK-12 (SPCE) major

**Description:** Emphasizes the art of communication as an interrelated process. Develops and integrates language arts

throughout the curriculum. Explores methods for teaching and assessing developmentally- appropriate oral and written communication, spelling, handwriting, and vocabulary. Gives special emphasis to developmental writing approaches.

### **ECED 451 - Literacy for the Developing Reader: Grades 2-4 Learners**

**Class Hours:** 3  
**Lab/Discussion:** 0  
**Credits:** 3

**Restriction:** Early childhood education/special education major or early childhood education major, admission to Teacher Education Step 1  
**Description:** Provides preservice teachers with theoretical context, as well as various strategies, techniques, and materials related to teaching literacy skills, developing positive dispositions toward literacy, and fostering supportive environments for literacy development. Instructional issues, specifically related to teaching reading to young children, children with disabilities, and English language learners, are investigated. Contemporary research on theoretical perspectives and best practices, as well as practical application, is interwoven to ensure a balanced approach to the most effective instructional practices.

### **ECED 499 - Advocacy and Collaboration in Diverse Families and Communities**

**Class Hours:** 3  
**Lab/Discussion:** 0  
**Credits:** 3

**Description:** Provides students with understanding and skills in multicultural approaches to education that enable them to recognize and respect the diversities that all their students bring to school and to also become effective advocates as they collaborate successfully with diverse families and communities.

## **Economics**

### **ECON 101 - Basic Economics**

**Class Hours:** 3  
**Lab/Discussion:** 0  
**Credits:** 3

**Description:** Scarcity, role of prices in determining

production and the allocation of resources, business cycle analysis, policy options for reducing unemployment and inflation, economic role of government, international trade, and selected current economic problems are studied. For those who do not plan to take more than 3cr of economics. Note: May not be taken after successful completion of or concurrent registration in any other Economics course.

### **ECON 121 - Principles of Macroeconomics**

**Class Hours:** 3  
**Lab/Discussion:** 0  
**Credits:** 3

**Description:** Nature and methodology of economics; mixed capitalism and market economy; national income; employment theory, including economics of fiscal policy; money, banking, and Federal Reserve System; international trade and finance.

### **ECON 122 - Principles of Microeconomics**

**Class Hours:** 3  
**Lab/Discussion:** 0  
**Credits:** 3

**Description:** Economics of firm; theory of consumer demand; determination of price and output in different market structures; distribution of income; economic growth.

### **ECON 143 - Financial Wellness**

**Class Hours:** 3  
**Lab/Discussion:** 0  
**Credits:** 3

**Description:** Theories and principles related to the physical, social, and emotional wellness aspects of individual money management. Information is focused on building a sound financial foundation as a college student and can be applied throughout the life span to ensure future financial well-being. Successful completion fulfills the Liberal Studies Dimensions of Wellness requirement.

### **ECON 223 - Economics of Crime**

**Class Hours:** 3  
**Lab/Discussion:** 0

**Credits:** 3

**Description:** Economic analysis of criminal activity and its impact on the allocation of scarce resources. Uses fundamental economic models to explain crimes against people, property crime, "victimless crime," and organized crime.

### **ECON 239 - Economics of Sports**

**Class Hours:** 3

**Lab/Discussion:** 0

**Credits:** 3

**Description:** Introduces and develops the economic way of thinking as it applies to the sports industry. Topics covered include the organizational structure of major American sports leagues (e.g., revenue sharing, salary restrictions, and competitive balance), labor issues in sports (e.g., free agency, reserve clause, unions, strikes, and discrimination), the legal relationship between sports and government (e.g., the relationship between antitrust law and sports), and the issue of sports and public finance (e.g., location and financing of sports franchise and public ownership of stadiums and arenas).

### **ECON 281 - Special Topics**

**Class Hours:** var

**Credits:** 1-3

**Prerequisite:** As appropriate to course content

**Description:** Offered on an experimental or temporary basis to explore topics not included in the established curriculum. A given topic may be offered under any special topic identity no more than three times. Special topics numbered 281 are offered primarily for lower-level undergraduate students.

### **ECON 325 - Monetary Economics I**

**Class Hours:** 3

**Lab/Discussion:** 0

**Credits:** 3

**Prerequisite:** ECON 121, ECON 122

**Description:** Organization, operation, and economic significance of US monetary institutions; commercial banks and Federal Reserve System; survey of monetary theory and policy; mechanism of international payments.

### **ECON 330 - Labor Economics**

**Class Hours:** 3

**Lab/Discussion:** 0

**Credits:** 3

**Prerequisite:** ECON 121, ECON 122

**Description:** History, structure, and operation of trade unions and employer organizations; major federal labor legislation; collective bargaining theory; wage determination; current labor problems.

### **ECON 331 - Industrial Organization**

**Class Hours:** 3

**Lab/Discussion:** 0

**Credits:** 3

**Prerequisite:** ECON 122 or instructor permission

**Description:** Social effectiveness of industries analyzed through measures of market structure, market conduct, and market performance.

### **ECON 335 - Public Finance**

**Class Hours:** 3

**Lab/Discussion:** 0

**Credits:** 3

**Prerequisite:** ECON 121, ECON 122, or instructor permission

**Description:** Taxation and expenditure theory at the federal level; federal budget and debt considerations; public sector impact on economy.

### **ECON 338 - Poverty in Africa**

**Class Hours:** 3

**Lab/Discussion:** 0

**Credits:** 3

**Prerequisite:** ECON 101 or ECON 121 or ECON 122

**Description:** Examines African poverty as an economic as well as a social phenomenon. It investigates the many sided nature of poverty and the importance of going beyond generalizations about the poor, including the various causes of poverty in Africa. It stresses the powerful ill effects of a combination of sluggish past economic growth, widening income inequalities, and anti-poverty strategies implemented by many African nations.

### **ECON 345 - International Trade**

**Class Hours:** 3  
**Lab/Discussion:** 0  
**Credits:** 3

**Prerequisite:** ECON 121 and ECON 122  
**Dual Listed:** May be dual listed with ECON 545.

**Description:** Explains the microeconomic segment of international specialization and change. Analyzes the theories of international trade and their application to commercial policies, historical survey and examination of current problems of international trade, and the institutional setting of international trade.

### **ECON 346 - International Finance**

**Class Hours:** 3  
**Lab/Discussion:** 0  
**Credits:** 3

**Prerequisite:** ECON 121 and ECON 122  
**Dual Listed:** May be dual listed with ECON 546.

**Description:** Demonstrates comprehension of international finance theory pertaining to the foreign exchange market, including the determinants of the supply and demand of foreign currency. Applies theory to current events affecting exchange rate fluctuations.

### **ECON 355 - Statistics for Economists**

**Class Hours:** 3  
**Lab/Discussion:** 0  
**Credits:** 3

**Prerequisite:** ECON 121 or ECON 122 or instructor permission  
**Description:** An introduction to economic statistics, including frequency distributions, probability, distributions of random variables, functions of random variables, and tests of economic hypotheses.

### **ECON 356 - Introduction to Econometrics**

**Class Hours:** 3  
**Lab/Discussion:** 0  
**Credits:** 3

**Prerequisite:** ECON 355 or its equivalent or instructor permission  
**Description:** An introduction to econometrics, including

linear normal regression models of two or more random variables, special econometric problems, and solutions of simultaneous equations.

### **ECON 360 - Health Economics**

**Class Hours:** 3  
**Lab/Discussion:** 0  
**Credits:** 3

**Prerequisite:** ECON 101 or ECON 122  
**Description:** Analyzes the market for healthcare: demand by individual consumers and supply by health workers and hospitals. Considers the problems of information, risk, and externalities in making health decisions and the role of insurance. Explores public health policies, both in a world and domestic context. Introduces economic methods for program/policy research: elasticity estimation, cost-benefit analysis, and supply-demand modeling.

### **ECON 361 - Environmental Economics**

**Class Hours:** 3  
**Lab/Discussion:** 0  
**Credits:** 3

**Prerequisite:** ECON 101 or ECON 122  
**Description:** An examination of economic costs and benefits of environmental control and modification. Techniques of economic analysis are used to understand economic aspects of environmental problems and contribute toward their solution.

### **ECON 362 - Global Poverty and Health**

**Class Hours:** 3  
**Lab/Discussion:** 0  
**Credits:** 3

**Prerequisite:** ECON 101 or ECON 122  
**Description:** Researches information related to global trends in health and poverty and examines theories related to the economic, social, and political forces behind these trends. Economically analyzes the barriers preventing greater access to and usage of health services in poor communities, such as asymmetric information, monopoly provision, and externalities. Critically examines health service provision from opposite economic spectrums: (1) as Global Public Goods and (2) as micro-programs targeting specific populations. Covers case studies of health initiatives in developing countries and their economic impacts.

## ECON 421 - Macroeconomic Analysis

**Class Hours:** 3  
**Lab/Discussion:** 0  
**Credits:** 3

**Prerequisite:** ECON 121, ECON 122 and (MATH 107/MATH 108 or MATH 121 or MATH 125); or instructor permission

**Description:** Emphasizes aggregate income levels and problems of unemployment, inflation, and growth. Covers consumption and investment theories and the role of fiscal and monetary policy.

## ECON 422 - Microeconomic Analysis

**Class Hours:** 3  
**Lab/Discussion:** 0  
**Credits:** 3

**Prerequisite:** ECON 121, ECON 122, MATH 121 or equivalent

**Description:** Consumer behavior, theory of the firm, theory of exchange, market structures, distribution, general equilibrium theory, welfare economics.

## ECON 434 - Managerial Economics

**Class Hours:** 3  
**Lab/Discussion:** 0  
**Credits:** 3

**Prerequisite:** ECON 121, ECON 122, and (MATH 107/MATH 108 or MATH 121 or MATH 125)

**Description:** Applications of economic theory using algebra, elementary statistics, and calculus to solve managerial optimization problems including problems of forecasting and risk.

## ECON 456 - Advanced Econometrics

**Class Hours:** 3  
**Lab/Discussion:** 0  
**Credits:** 3

**Prerequisite:** ECON 356 or equivalent or instructor permission

**Dual Listed:** May be dual listed with ECON 556.

**Description:** Extends the theory and practice of econometrics knowledge and skill set developed in an introductory econometrics course. Demonstrates greater

proficiency in econometric analysis and research skills through additional exposure to the scholarly literature. Considers a variety of topics related to regression analysis, including violations of the Classical assumptions, extensions of the basic regression model, and advanced regression techniques.

## ECON 493 - Internship in Economics

**Class Hours:** var  
**Credits:** 2-12

**Restriction:** Economics major who has completed at least 12cr in economics and has at least a 2.5 GPA in the major and in all course work

**Description:** Provides on-the-job experience in economics positions with private and governmental employers. The student is also required to complete related academic work in the form of papers and selected readings. Number of credits earned depends on the nature of the job and amount of time involved in internship. A maximum of 6cr earned in this course may be counted toward the 30cr in economics requirement for economics majors.

## Early Childhood/Special Education

### ECSP 112 - Growth and Development: Typical and Atypical

**Class Hours:** 3  
**Lab/Discussion:** 0  
**Credits:** 3

**Description:** Presents the foundations, theories, and research findings on human growth from conception, including basic embryogenesis, up to early adolescence. Examines various aspects of child development with an emphasis on biological, cultural, educational, and parental influences that shape children, as well as selective examples of typical and atypical cognitive, physical, and social-emotional development.

### ECSP 340 - Introduction to Classroom and Behavior Management

**Class Hours:** 3  
**Lab/Discussion:** 01  
**Credits:** 3



**Restriction:** Early childhood education/special education major

**Description:** An overview of classroom organization and management, along with systematic behavior change techniques required for effective teaching and enhanced student learning for all children in preK through grade 4 and students identified with special needs or at-risk through grade 8. The research-based classroom management and behavioral techniques can be used to create a positive learning environment for all students in an inclusive setting.

## Education of Exceptional Persons

### EDEX 103 - Special Education Technology

**Class Hours:** 3  
**Lab/Discussion:** 0  
**Credits:** 3

**Description:** Addresses the use of assistive technology in the classroom in areas of communication, mobility, education, recreation, vocation, independence, and therapy/rehabilitation. Emphasizes developing awareness of the diversity of assistive technology currently available for individuals with disabilities. Presents specific applications of assistive technology devices, which improve and maintain the functioning capabilities of individuals with disabilities. Includes independent learning activities and information that enables the students to gather information about assistive technology devices, companies, and related services. (Also offered as DISB 103; may not be taken for duplicate credit.)

### EDEX 111 - Introduction to Exceptional Persons

**Class Hours:** 3  
**Lab/Discussion:** 0  
**Credits:** 3

**Description:** Surveys characteristics, needs, problems, and behavior patterns of individuals who have disabilities or who are gifted. Students develop an understanding and knowledge of individuals with sensory, behavioral, physical, cognitive, language, and learning disabilities. Acquaints students with history and legislative bases of special education. (Also offered as DISB 111; may not be taken for duplicate credit.)

### EDEX 114 - Atypical Development in Infants, Children, and Adolescents

**Class Hours:** 3  
**Lab/Discussion:** 0  
**Credits:** 3

**Description:** Emphasizes foundations of human growth from conception to age 21, plus atypical development related to special needs with regard to cognitive, physical, and socialemotional development. Provides a foundation for the understanding of the needs of students with developmental disabilities ranging from early intervention to the end of their high school years. (Also offered as DISB 114; may not be taken for duplicate credit.)

### EDEX 223 - Reading Methods and Strategies for Students with Disabilities

**Class Hours:** 3  
**Lab/Discussion:** 0  
**Credits:** 3

**Prerequisite:** EDEX 103, EDEX 111

**Description:** Focuses on basic concepts of developmental reading instruction and specially designed instruction for students with diverse needs. Reviews research in the field, examines necessary assessment tools, and surveys current issues, trends, practices, and services. Examines issues and practices related to students who are English language learners. Facilitates the acquisition of new skills through a variety of instructional approaches (e.g., cooperative learning, simulations, role-playing).

### EDEX 301 - Education of Students with Disabilities in Inclusive Secondary Settings

**Class Hours:** 2  
**Lab/Discussion:** 0  
**Credits:** 2

**Restriction:** Secondary education majors and others who will be certified to teach content from K-12

**Description:** Examines the issues associated with education of students with diverse learning needs, particularly those with disabilities or who are at risk for school failure. Emphasizes special education, particularly the legal rights of students with exceptionalities and their parents, and the responsibilities of educators in addressing those rights. Examines the differential impact of student characteristics on secondary-level school performance and

instructional methods proven to be effective in educating students with disabilities and learning style differences.

**Recommendation:** Recommendation: Strongly recommended that this course be taken in the same semester as the designated methods course.

### **EDEX 323 - Instruction of English Language Learners with Special Needs**

**Class Hours:** 2

**Lab/Discussion:** 0

**Credits:** 2

**Restriction:** Restriction- Teacher Education Candidacy - PA Step 1 is required.

**Description:** Provides future teachers with the necessary methods to meet the needs of English language learners with special needs in the classroom. Based on knowledge of the behaviors, beliefs, and attitudes of a multicultural approach to learning, instructional methods, appropriate assessment and language acquisition techniques, and use of varied resources are included. Restriction- Teacher Education Candidacy -PA Step 1 is required.

### **EDEX 340 - Introduction to Behavior Management in Special Education**

**Class Hours:** 3

**Lab/Discussion:** 0

**Credits:** 3

**Prerequisite:** EDEX 111/DISB 111, EDEX 114/DISB 114, or Speech-Language Pathology (SPLP) majors.

**Description:** An overview of systematic behavioral change techniques for use with students in a variety of special education settings, including integrated, resource, self-contained, special school, and residential. Emphasizes a case analysis approach to creating and evaluating behavioral changes for students with mild to severe disabilities. (Also offered as DISB 340; may not be taken for duplicate credit.)

### **EDEX 369 - Education of Persons with Emotional/Behavioral Disorders, Learning Disabilities or Brain Injury**

**Class Hours:** 3

**Lab/Discussion:** 0

**Credits:** 3

**Description:** Focuses on major theoretical positions

regarding etiology of emotional/behavioral disorders, learning disabilities and brain injury; definition and identification of the populations; and educational approaches. Reviews research in the field, including current issues, trends, educational practices, and services. Uses a variety of instructional approaches (e.g., cooperative learning, simulations, role-playing) to facilitate acquisition of new knowledge and skills. (Also offered as DISB 369; may not be taken for duplicate credit.)

### **EDEX 378 - Education of Persons with Intellectual/Developmental Disabilities and Physical/Multiple Disabilities**

**Class Hours:** 3

**Lab/Discussion:** 0

**Credits:** 3

**Description:** Focuses on major theoretical positions regarding etiology of intellectual disabilities, developmental disabilities, a wide and diverse range of physical/ multiple disabilities, and other health impairments. Discusses definitions, population characteristics, and educational approaches. Reviews research in the field, including current issues, trends, practices, and services. (Also offered as DISB 378; may not be taken for duplicate credit.)

### **EDEX 415 - Preschool Education for Children with Disabilities**

**Class Hours:** 3

**Lab/Discussion:** 0

**Credits:** 3

**Description:** Information on assessment, intervention strategies, curriculum, and prescriptive planning for preschool children with disabilities. For departmental majors who are specifically interested in early childhood special education, as an elective for other interested students in related fields, and as a required course for disability services majors.

### **EDEX 424 - Strategic Assessment and Instruction in Expository Texts**

**Class Hours:** 3

**Lab/Discussion:** 0

**Credits:** 3

**Prerequisite:** Special Education majors, Early childhood

education/special education majors, completion of Step 1 of the 3-Step Process

**Restriction:** Special Education majors, Early childhood education/special education majors, completion of Step 1 of the 3-Step Process

**Description:** Focuses on methodologies used for assessing, designing, and implementing instruction in expository texts for students with reading and learning disabilities.

Addresses the demands of educational environments in which teachers are expected to collaborate in providing direct services to students. Special consideration is given to the growth and development of collaborative practices. In addition, students are expected to collaborate with each other in planning, designing, adapting, and evaluating assessment and instructional activities for a range of content area expository texts.

### **EDEX 425 - Methods and Curriculum Mild-Moderate Disabilities**

**Class Hours:** 3

**Lab/Discussion:** 0

**Credits:** 3

**Prerequisite:** EDEX 111 , EDEX 369 , EDEX 378

**Restriction:** Special Education majors, Early Childhood Education/Special Education majors, Special Education minors.

**Description:** Identifies and applies assessment methods, strategies, and curricula. Emphasizes assessment methods and strategies used in a variety of service models that serve elementary- and secondary-level students with learning disabilities, behavioral disorders, mild intellectual disabilities, and high-functioning autism.

### **EDEX 435 - Methods and Curriculum— Severe Cognitive Disabilities**

**Class Hours:** 3

**Lab/Discussion:** 0

**Credits:** 3

**Prerequisite:** Completion of Step 1 of the 3-Step Process or permission

**Restriction:** Special Education majors, Early childhood education/special education majors.

**Description:** Emphasizes methods designed to facilitate the development of an integrated, functional, and community-based curriculum that prepares individuals for integration in a wide variety of postschool environments. Particular attention is given to methods and interventions based on the principles of applied behavior analysis.

### **EDEX 440 - Ethical and Professional Behavior**

**Class Hours:** 1

**Lab/Discussion:** 0

**Credits:** 1

**Description:** Emphasizes ethical and professional behavior for educational professionals working with individuals with special needs. Focuses on responsible and ethical conduct as it relates to interaction with students and other professionals in direct service, instructional, and/or supervisory roles. Also addresses legal implications related to these roles. (Also offered as DISB 440; may not be taken for duplicate credit.)

### **EDEX 458 - Transition Assessment and Planning for Youth with Disabilities**

**Class Hours:** 3

**Lab/Discussion:** 0

**Credits:** 3

**Description:** Reviews litigation and legislation leading to the legal requirement for the provision of Transition Planning for adolescents with disabilities to include post-secondary education and training, employment, and community living outcomes. Develops competencies in the skills necessary to help students with disabilities make a successful transition from school to adult life. Addresses the importance self-determination and other personal/social characteristics that must be identified and supported by the transition team throughout the transition planning/implementation process. (Also offered as DISB 458; may not be taken for duplicate credit.)

### **EDEX 460 - Family Perspectives on Disability**

**Class Hours:** 3

**Lab/Discussion:** 0

**Credits:** 3

**Prerequisite:** PSYC 101

**Description:** Critically examines families as competent and resourceful systems, students explore ways to collaborate effectively with family members. Focuses on legal and philosophical bases for supporting families in making important decisions affecting the education and care of their children. (Also offered as DISB 460; may not be taken for duplicate credit.)

## Education of Deaf and Hard-of-Hearing Persons

### EDHL 114 - Introduction to Deaf and Hard-of-Hearing Persons

**Class Hours:** 3  
**Lab/Discussion:** 0  
**Credits:** 3

**Description:** Deals with the different approaches used in teaching students who are deaf or hard of hearing—manual language, oral language, and total communication. The historical background of each approach is presented with its strengths and weaknesses. Criteria for the use of each approach are established in consideration of degree of loss exhibited by the pupil, the age of onset, and the social and psychological implications.

### EDHL 115 - Introduction to American Sign Language

**Class Hours:** 3  
**Lab/Discussion:** 0  
**Credits:** 3

**Restriction:** Deaf education or disability services major or Deaf studies minor or permission

**Description:** Development of manual dexterity and fluency using fingerspelling. Acquisition of basic American Sign Language syntax, semantics, vocabulary, and pragmatics. Practice in acquiring general information from a signed message and conversing informally on commonly used topics. Exploration of the history of ASL and cultural aspects within the deaf community.

### EDHL 215 - Intermediate American Sign Language

**Class Hours:** 3  
**Lab/Discussion:** 0  
**Credits:** 3

**Prerequisite:** EDHL 115, 3.0 GPA required for deaf education majors, 2.8 GPA for Deaf studies minors

**Description:** Emphasizes vocabulary expansion, comprehension of signed information, and development of fluency in conveying a message in American Sign Language. Focuses on idiom-like expressions, number systems, rules, grammar, and conversational language. Total immersion approach is used.

### EDHL 308 - Supporting Language and Communication for Deaf/Hard-of-Hearing, English Language Learners, and Individuals with Language Disorders

**Class Hours:** 3  
**Lab/Discussion:** 0  
**Credits:** 3

**Prerequisite:** Special Education (SPCE) majors and EDEX 111 ; or Deaf Studies minors and EDHL 114 ; or Speech-language Pathology majors.

**Description:** Reviews normal language development birth – 12 years and compares it to the language development of children with various types and degrees of hearing loss, English as a second language, and children with language disorders. Emphasizes specific strategies focused on the assessment and development of English language skills in English Language Learners, Deaf/Hard of Hearing children, and children with language disorders.

### EDHL 317 - Sign Language in a Variety of Settings

**Class Hours:** 3  
**Lab/Discussion:** 0  
**Credits:** 3

**Prerequisite:** EDHL 215, deaf studies minor or permission

**Description:** Focuses on the use of sign language in the schools, first responder situations, and community outreach events. Includes the adaptation of American Sign Language to Manually Coded English and Signed English, basic principles of interpreting in an educational setting for future teachers of deaf and hard-of-hearing students, and pedagogical methods of including American Sign Language as a language of instruction for deaf students.

### EDHL 417 - Advanced American Sign Language

**Class Hours:** 3  
**Lab/Discussion:** 0  
**Credits:** 3

**Prerequisite:** EDHL 215

**Description:** A continuation of Intermediate American Sign Language (ASL). Focuses on vocabulary expansion, comprehension of signed information, and development of fluency in conveying a message in ASL. Emphasizes receptive ability as well as overall quality of expression. Additional cultural aspects of ASL are discussed.

## Educational and School Psychology

### EDSP 102 - Educational Psychology

**Class Hours:** 3  
**Lab/Discussion:** 0  
**Credits:** 3

**Description:** Promotes an understanding of the principles of psychology governing human behavior, with particular emphasis on the relation to the learner, learning process, and learning situation in an educational environment.

### EDSP 257 - Understanding and Taking Standardized Tests

**Class Hours:** 1  
**Lab/Discussion:** 0  
**Credits:** 1

**Description:** For teacher education majors to promote their understanding of the principles of successfully mastering standardized tests such as the Praxis I exam. A particular emphasis on practicing the skills necessary for understanding the assessments. Highlights the application of skill-based decision making in preparing for test taking. Also discusses implications of individual differences and variables that affect performance on standardized tests.

### EDSP 373 - Psychology of Adolescent Education

**Class Hours:** 3  
**Lab/Discussion:** 0  
**Credits:** 3

**Prerequisite:** EDSP 102

**Description:** A study of significant characteristics,

behavior, and educational and social problems of adolescents.

### EDSP 378 - Learning

**Class Hours:** 3  
**Lab/Discussion:** 0  
**Credits:** 3

**Prerequisite:** EDSP 102

**Description:** Explores learning theories and educational application in the classroom.

### EDSP 468 - Current Topics in Educational Psychology

**Class Hours:** 3  
**Lab/Discussion:** 0  
**Credits:** 3

**Prerequisite:** EDSP 102

**Description:** Enables students to participate in advanced study of current topics at the interface between issues in education and the theories that drive the field. Investigates topics as they apply to specific aspects of teaching and learning. Investigates current academic considerations with a variety of perspectives being integrated to prepare students for addressing the needs of students.

### EDSP 476 - Foundations of Behavior Analysis

**Class Hours:** 3  
**Lab/Discussion:** 0  
**Credits:** 3

**Prerequisite:** EDSP 102 or PSYC 101 or instructor permission

**Description:** Introduces behavior analysis through discussion of its philosophical assumptions, theoretical underpinnings, and basic concepts.

**Previously Offered As:** (Offered as EDSP 376 before 2017-18.)

### EDSP 477 - Assessment of Student Learning: Design and Interpretation of Educational Measures

**Class Hours:** 3  
**Lab/Discussion:** 0  
**Credits:** 3

**Prerequisite:** PSYC 101 or EDSP 102 or permission; admission to teacher certification

**Description:** Describes major methods and techniques of evaluation used to assess and report the growth, development, and academic achievement of learners in preschool, elementary, and secondary schools, including interpretation of standardized test information.

### **EDSP 479 - Interpreting and Critiquing Educational Research**

**Class Hours:** 3

**Lab/Discussion:** 0

**Credits:** 3

**Prerequisite:** EDSP 477 or instructor permission

**Description:** Obtain knowledge and understanding of various designs, components, and principles used in educational research articles and develop application, analysis, synthesis, and evaluation skills which will allow the summarizing and critiquing of a variety of research articles.

## **Education**

### **EDUC 242 - Pre-student Teaching Clinical Experience I**

**Credits:** 1

**Restriction:** Admission to teacher certification

**Description:** Introduces specific competencies that relate to individual major fields of teaching and university-based instruction, as well as observation/participation in a preK-grade 12 field experience. These competencies incorporate strategies and techniques for addressing the needs of all students, including those with special and English language learning needs.

### **EDUC 250 - Labyrinth Seminar**

**Class Hours:** 1

**Lab/Discussion:** 0

**Credits:** 1

**Description:** Focuses on the communication, executive functioning, and inter/intrapersonal demands of college life. Designed to build the necessary skills to navigate the social and academic environment to succeed in the college experience. The seminar includes both teacher- and

student-directed topics.

**Repeated:** This course can be repeated every semester that the student elects to participate in the Labyrinth Center.

### **EDUC 281 - Special Topics**

**Class Hours:** var

**Credits:** 1-3

**Prerequisite:** As appropriate to course content

**Description:** Offered on an experimental or temporary basis to explore topics not included in the established curriculum. A given topic may be offered under any special topic identity no more than three times. Special topics numbered 281 are offered primarily for lower-level undergraduate students.

### **EDUC 342 - Pre-student Teaching Clinical Experience II**

**Credits:** 1

**Prerequisite:** EDUC 242, Junior Standing, and Teacher Education Candidacy-PA Step 1 is required.

**Description:** Continues to develop and refine competencies that relate to individual major fields of teaching through university-based instruction as well as participation and teaching in a preK-grade 12 school field experience. Also incorporates strategies and techniques for the delivery of instruction to all students, including those with special and English language learning needs. May be repeated for students seeking dual certification.

Restriction-Teacher Education Candidacy-PA Step 1 is required.

### **EDUC 421 - Student Teaching**

**Class Hours:** var

**Credits:** 5-6

**Restriction:** Admission to student teaching

**Description:** An experience in teaching at the elementary level; coordination and visitation by a university faculty member with daily supervision by a cooperating classroom teacher.

### **EDUC 441 - Student Teaching**

**Class Hours:** var

**Credits:** 5-12

**Restriction:** Admission to student teaching, successful

completion of Step 2 of Teacher Education 3-Step Process

**Description:** An experience in teaching at the elementary or secondary level; coordination and visitation by a university faculty member with daily supervision by a cooperating classroom teacher.

### **EDUC 442 - School Law**

**Class Hours:** 1

**Lab/Discussion:** 0

**Credits:** 1

**Restriction:** Teacher Education Candidacy -PA Step 1 is required.

**Description:** Required of all teacher certification students. Includes an overview of legal principles that apply to special areas of education. Must be taken before student teaching.

Teacher Education Candidacy -PA Step 1 is required.

### **EDUC 451 - Teaching Science in the Secondary School**

**Class Hours:** 2

**Lab/Discussion:** 2

**Credits:** 3

**Restriction:** Admission to student teaching

**Description:** Provides the background to help science majors meet the problems of teaching science. Various inquiry approaches useful in meeting the objectives of a contemporary science class, including special needs students and English-language learners, are taught and exemplified.

### **EDUC 452 - Teaching of English and Communication in the Secondary School**

**Class Hours:** 3

**Lab/Discussion:** 0

**Credits:** 3

**Prerequisite:** ENGL 314, ENGL 323, ENGL 324 (or approved equivalents) and admission to Step 1 of the 3-Step Process

**Description:** A Prerequisite to student teaching in English. Introduces current professional practices in the teaching of English and communications in secondary school.

### **EDUC 453 - Teaching of Foreign Languages in the Secondary School**

**Class Hours:** 3

**Lab/Discussion:** 0

**Credits:** 3

**Prerequisite:** Grade of "C" or better in SPAN 390 or FRNC 390/GRMN 390; instructor permission

**Description:** Helps students develop an understanding of current theories of foreign language learning through exploration of relevant research. Students read about and discuss the implications of key research for teaching in secondary school classrooms. Opportunities are provided to use the theoretical base to design and present classroom lessons and to reflect on the effectiveness of their teaching. Special attention is given to designing performance-based language assessments and to adapting instruction to address the special needs of learners. Taught fall semester only.

### **EDUC 455 - Teaching of Social Studies in Secondary Schools**

**Class Hours:** 3

**Lab/Discussion:** 0

**Credits:** 3

**Restriction:** Admission to Teacher Education Program

**Description:** A study of modern methods and techniques for teaching social studies and of current curricula in social studies.

### **EDUC 461 - Student Teaching**

**Class Hours:** 6

**Lab/Discussion:** 0

**Credits:** 6

**Restriction:** Admission to student teaching, successful completion of Teacher Education Step 2

**Description:** An experience in teaching students with special needs at the preK to grade 8 level; coordination and visitation by a university faculty member with daily supervision by a cooperating teacher.

### **EDUC 471 - Student Teaching**

**Class Hours:** 6

**Lab/Discussion:** 0

**Credits:** 6

**Restriction:** Admission to student teaching, successful

completion of Teacher Education Step 2

**Description:** An experience in teaching students with special needs at the preK to grade 8 level; coordination and visitation by a university faculty member with daily supervision by a cooperating teacher.

### **EDUC 481 - Special Topics**

**Class Hours:** 3

**Lab/Discussion:** 0

**Credits:** 3

**Restriction:** By permission only

**Description:** An opportunity to investigate in depth an area of education under professional supervision.

### **EDUC 493 - ESL Field Experience**

**Class Hours:** 0

**Lab/Discussion:** 3

**Credits:** 3

**Prerequisite:** Must have completed at least one other ESL Certificate course (ENGL 415 or ENGL 426 or ENGL 442 or ENGL 424).

**Corequisite:** Must either be co-enrolled in ENGL 426 or have taken ENGL 426.

**Description:** Field experience course for teacher candidates pursuing ESL Certification. Includes coordination and supervision by a university faculty member and school supervision by an ESL certified mentor teacher.

### **EDUC 499 - Multicultural/Multiethnic Education**

**Class Hours:** 2

**Lab/Discussion:** 0

**Credits:** 2

**Prerequisite:** One methods course must be taken before, or concurrently with, EDUC 499

**Description:** Provides an understanding and appreciation of cultural diversity in the United States. Students gain the ability to locate and develop curricular materials appropriate to this country's diversity.

## **Education, Training, and Instructional Technology**

### **ETIT 103 - Digital Instructional Technology**

**Class Hours:** 3

**Lab/Discussion:** 0

**Credits:** 3

**Description:**

Introduces the ever-changing world of instructional technology. Exposes learners to technologies used by educators in delivery, management, instruction, and assessment. Emphasizes the use of technology tools to engage and support learners. Introduces a cloud-based information repository, which is a subscription for purchase required by the College of Education and Communications of IUP education majors.

**Previously Offered As:** (Offered as COMM 103 before 2017-18.)

### **ETIT 330 - Technology in the Classroom**

**Class Hours:** 3

**Lab/Discussion:** 0

**Credits:** 3

**Description:** Examines approaches for the evaluation and use of various classroom technologies. Explores the development of technology design and how these developments influence the current status of student performance in education. Highlights research that allows them to systematically and creatively apply the concepts and rules learned in the research and practiced in classrooms.

## **Employment and Labor Relations**

### **ELR 314 - Health Policy and Law**

**Class Hours:** 3

**Lab/Discussion:** 0

**Credits:** 3

**Description:** Focuses on understanding the evolution of healthcare policy, health law, and federal and state regulation of healthcare financing programs. Introduces healthcare policy making; critical health policy issues; legislative, regulatory, and legal challenges; and legislative and political processes that impact the healthcare delivery



system in the United States.

**Cross-Listed:** (Cross-listed as NURS 314.)

## ELR 480 - Introduction to Negotiations and Conflict Resolution

**Class Hours:** 3

**Lab/Discussion:** 0

**Credits:** 3

**Description:** Deals with negotiations and conflict resolution techniques. An introduction to current concepts and theories of negotiations and resolving conflict and their application generally to everyday issues. Prepares students to engage in these techniques in workplace issues such as collective bargaining, negotiating contracts and agreements internally as well as externally.

## English

### ENGL 100 - Basic Writing

**Class Hours:** 3

**Lab/Discussion:** 0

**Credits:** 3

**Restriction:** Restricted to freshmen with appropriate English placement score (ENGL100).

**Description:** The student develops the basic English skills necessary for clear and effective communication. Restricted to freshmen with appropriate English placement score. Does not meet General Education English or Liberal Studies writing requirements.

### ENGL 101 - Composition I

**Class Hours:** 3

**Lab/Discussion:** 0

**Credits:** 3

**Prerequisite:** Appropriate English placement score. ENGL 100 where required by placement testing.

**Restriction:** Restriction: May not be taken after successfully completing ENGL 103.

**Description:** In this first-year writing course, students compose projects in multiple written genres that address specific rhetorical situations. Uses memory, observation, critical reading and viewing, analysis, and reflection to draft, peer review, revise, and edit projects. Note: May not be taken after successfully completing ENGL 103.

### ENGL 103 - Composition I Accelerated

**Class Hours:** 3

**Lab/Discussion:** 1

**Credits:** 4

**Prerequisite:** Restricted to students whose guided self-placement testing score is 3.

**Restriction:** May not be taken after successfully completing English 101.

**Description:** Compose projects in multiple written genres that address specific rhetorical situations. Uses memory, observation, critical reading and viewing, analysis, and reflection to draft, peer review, revise, and edit projects. Intensive one-on-one interactions with the professor are the hallmark of this accelerated learning course.

### ENGL 121 - Humanities Literature

**Class Hours:** 3

**Lab/Discussion:** 0

**Credits:** 3

**Prerequisite:** ENGL 101 or ENGL 103

**Description:** An exploration of literature and the methods of close reading. Through encounters with significant literary texts, students investigate and analyze how literary meaning is constructed; how literature shapes and is shaped by its various contexts; and how literature enables critical inquiry into values. Includes literary texts by women and people from underrepresented communities.

**Previously Offered As:** Also offered as FNLG 121. **May Be:** ENGL 121/FNLG 121 may be used interchangeably for D/F repeats; may not be counted for duplicate credit.

### ENGL 122 - Introduction to English Studies

**Class Hours:** 3

**Lab/Discussion:** 0

**Credits:** 3

**Prerequisite:** English major/minor; minimum grade of "C" in ENGL 101 or ENGL 103

**Description:** Introduces students to English studies by acquainting them with the critical approaches appropriate to the varied subject areas of the discipline. The assumptions and methods of these approaches are considered, especially in the interpretation of literature. At the conclusion, students are able to critically analyze texts

and demonstrate those skills in discussion and writing.  
Required of all English majors.

## ENGL 202 - Composition II

**Class Hours:** 3  
**Lab/Discussion:** 0  
**Credits:** 3

**Prerequisite:** ENGL 101 or ENGL 103, and sophomore standing

**Description:** Serves as a bridge between Composition I and students' professional writing. Develops rhetorical skills for informed inquiry. Also develops the following abilities: writing, critical reading, revising, citing and documenting, speaking and listening, and reflecting.

## ENGL 208 - Introduction to Film Studies

**Class Hours:** 3  
**Lab/Discussion:** 0  
**Credits:** 3

**Description:** Concentrates on the film as an artistic medium. Eight to 12 motion pictures are shown during semester and are analyzed in class discussions.

## ENGL 210 - British Literature to 1660

**Class Hours:** 3  
**Lab/Discussion:** 0  
**Credits:** 3

**Prerequisite:** ENGL 101 or ENGL 103; and ENGL 121 or ENGL 122

**Description:** Surveys British literature from its beginnings to about 1660, acquainting students with the experience of reading many of the primary materials (whole works whenever possible or full, free-standing parts) and provides background information concerning the development and flowering of the various genres, the dominant ideas of each period, and the social and cultural context of the separate works.

## ENGL 211 - British Literature to 1660-1900

**Class Hours:** 3  
**Lab/Discussion:** 0  
**Credits:** 3

**Prerequisite:** ENGL 101 or ENGL 103; and ENGL 121 or

ENGL 122

**Description:** Surveys British literature from about 1660 to the beginning of the 20th century, acquainting students with the experience of reading many of the primary materials (whole works whenever possible or full, freestanding parts) and providing them with background information concerning the development and flowering of the various genres, the dominant ideas of each period, and the social and cultural context of the separate works.

## ENGL 212 - American Literature: Beginnings to 1900

**Class Hours:** 3  
**Lab/Discussion:** 0  
**Credits:** 3

**Prerequisite:** ENGL 101 or ENGL 103; and ENGL 121 or ENGL 122

**Description:** Provides an understanding of American literature from its beginning to about 1900. Concentrates primarily on a relatively small number of major works, each of which helps to illustrate the "spirit of the age" it represents.

## ENGL 213 - British and American Literature Since 1900

**Class Hours:** 3  
**Lab/Discussion:** 0  
**Credits:** 3

**Prerequisite:** ENGL 101 or ENGL 103; and ENGL 121 or ENGL 122

**Description:** A survey of major authors and works in British and American literature since 1900. Begins with the shift from Victorianism and late 19th-century literature into modernism, as exemplified by writers such as Woolf, Hemingway, and O'Neill, and continues with postmodernism and contemporary literature.

## ENGL 220 - Advanced Composition

**Class Hours:** 3  
**Lab/Discussion:** 0  
**Credits:** 3

**Prerequisite:** ENGL 202

**Description:** Primarily seeks to improve writing style, particularly in the more utilitarian forms, such as magazine article and personal essay.

## ENGL 221 - Creative Writing

**Class Hours:** 3  
**Lab/Discussion:** 0  
**Credits:** 3

**Prerequisite:** ENGL 121 or ENGL 122 or FNLG 121  
**Description:** A seminar course in which students are expected to produce a substantial body of written work in one or more of the creative genres, the particular kind of writing chosen with regard to the special interests and abilities of each student.

## ENGL 222 - Technical Writing

**Class Hours:** 3  
**Lab/Discussion:** 0  
**Credits:** 3

**Prerequisite:** ENGL 101 or ENGL 103  
**Description:** Focuses on helping the student to acquire and to apply communication skills essential to the technical and professional writer.

## ENGL 225 - Introduction to Literature by Women

**Class Hours:** 3  
**Lab/Discussion:** 0  
**Credits:** 3

**Prerequisite:** ENGL 101 or ENGL 103  
**Description:** Major trends and motifs across genres (fiction, nonfiction, poetry, autobiography) that reflect themes and subjects of continuing interest to women writers. The intersection of genre with race, ethnicity, and social class is of particular significance.

## ENGL 226 - Survey of Global Literature Since 1900

**Class Hours:** 3  
**Lab/Discussion:** 0  
**Credits:** 3

**Prerequisite:** ENGL 101 or ENGL 103; and ENGL 121 or ENGL 122  
**Description:** Surveys 20th century and contemporary global literature in English and/or translation. Readings are organized around major contexts and themes of colonialism, revolution, decolonization, nationalism, and globalization.

## ENGL 227 - Introduction to Legal Writing

**Class Hours:** 3  
**Lab/Discussion:** 0  
**Credits:** 3

**Prerequisite:** ENGL 202  
**Description:** Introduces legal research and writing. Students learn to prepare research memos, memoranda of law, legal briefs, court observation essays, and other legal documents. Other topics include legal terminology, audience analysis, and case study analysis.

## ENGL 256 - Videogames and Digital Literature

**Class Hours:** 3  
**Lab/Discussion:** 0  
**Credits:** 3

**Description:** Surveys videogames as a storytelling medium, focusing on narrative structure, world-building, character development, theme, setting. Includes discussion of mainstream, indie, serious, education, and queer games. Explores the relationship of videogames to broader historical and sociopolitical factors such as national culture, the economics of the game industry, gender, race/ethnicity, and sexuality.

## ENGL 265 - Law and Literature

**Class Hours:** 3  
**Lab/Discussion:** 0  
**Credits:** 3

**Prerequisite:** Minimum grade of "C" in ENGL 101 or ENGL 103; and ENGL 202  
**Description:** Explores the historical and cultural connections between selected legal texts and themes as they relate to novels, poems, films, drama, essays, and other literary genres.

## ENGL 281 - Special Topics

**Class Hours:** var  
**Credits:** 1-3

**Prerequisite:** As appropriate to course content  
**Description:** Offered on an experimental or temporary basis to explore topics not included in the established curriculum. A given topic may be offered under any special topic identity no more than three times. Special topics

numbered 281 are offered primarily for lower-level undergraduate students.

### **ENGL 308 - Critical Theory**

**Class Hours:** 3  
**Lab/Discussion:** 0  
**Credits:** 3

**Prerequisite:** Minimum grade of "C" in ENGL 122  
**Description:** Explores the major writings, writers, issues, technical vocabulary, and critical methods in literary, textual, and cultural studies theory; acquaints students with how such theoretical methods affect the way literary and cultural texts are read, studied, and taught; and enables the students to recognize and engage in theoretical praxis of various kinds.

### **ENGL 310 - Public Speaking**

**Class Hours:** 3  
**Lab/Discussion:** 0  
**Credits:** 3

**Prerequisite:** ENGL 101 or ENGL 103  
**Description:** Fundamental principles of public speaking, audience analysis, interest, and attention and selection and organization of speech material.

### **ENGL 313 - Rhetorical Trends and Traditions**

**Class Hours:** 3  
**Lab/Discussion:** 0  
**Credits:** 3

**Prerequisite:** ENGL 101 or ENGL 103  
**Description:** A survey of the major issues in and uses of rhetorical theory and criticism in contemporary culture, using rhetorical concepts from ancient through contemporary times. Rhetoric is the humanistic study of the ways people manipulate language and try to persuade others in the social world.

### **ENGL 314 - Speech and Communication in the Secondary English Classroom**

**Class Hours:** 3  
**Lab/Discussion:** 0  
**Credits:** 3

**Prerequisite:** ENGL 122  
**Description:** Offers practical and theoretical approaches to relationships between oral and written communication. Performance based (involving a variety of communication activities) and knowledge based (involving study of research on language arts relationships). Emphasizes integration of the four language arts as well as technology for improving teachers' own communication skills as well as those of their students.

### **ENGL 321 - Persuasive Speech and Writing**

**Class Hours:** 3  
**Lab/Discussion:** 0  
**Credits:** 3

**Prerequisite:** ENGL 202  
**Description:** Focuses on the practice of persuasive discourse in speech, writing, and visual media. Includes projects and readings in debate, written argument, and rehearsed and extemporaneous speaking. Students investigate such subjects as rhetorical foundations and applications, language choice and stylistic variations, popular culture, literature, and communication dynamics.

### **ENGL 323 - Teaching Literature and Reading in the Secondary School**

**Class Hours:** 3  
**Lab/Discussion:** 0  
**Credits:** 3

**Prerequisite:** ENGL 121 or ENGL 122, ENGL 202  
**Description:** Introduces the theory and research on teaching literature and reading in the middle and secondary school. Explores a socio-psycholinguistic approach to reading, reader response theory, and classroom-based research on teaching literature. Engages students as both readers and teachers through practice-based experiences that emphasize genre awareness and visual literacy.

### **ENGL 324 - Teaching and Evaluating Writing**

**Class Hours:** 3  
**Lab/Discussion:** 0  
**Credits:** 3

**Prerequisite:** ENGL 122, ENGL 202, English education major or permission  
**Description:** A study of modern approaches to the teaching

of writing, including current theories on the composing process, as well as instruction in evaluating, including holistic scoring. Includes practice in writing.

### **ENGL 325 - Writing Poetry**

**Class Hours:** 3  
**Lab/Discussion:** 0  
**Credits:** 3

**Prerequisite:** ENGL 221 or instructor permission  
**Description:** A writing workshop for students who wish to focus intensively on the writing and revision of poetry and on developing an audience for one's creative work.

### **ENGL 326 - Writing Fiction**

**Class Hours:** 3  
**Lab/Discussion:** 0  
**Credits:** 3

**Prerequisite:** ENGL 221 or instructor permission  
**Description:** A writing workshop for students who wish to focus intensively on the writing and revision of fiction and on developing an audience for one's creative work.

### **ENGL 327 - Writing Creative Nonfiction**

**Class Hours:** 3  
**Lab/Discussion:** 0  
**Credits:** 3

**Prerequisite:** ENGL 221 or instructor permission  
**Description:** A writing workshop for students who wish to focus intensively on the writing and revision of literary nonfiction forms and on developing an audience for one's creative work.

### **ENGL 328 - Introduction to Linguistics**

**Class Hours:** 3  
**Lab/Discussion:** 0  
**Credits:** 3

**Description:** An introduction to the study of languages as complex sets of interacting systems needed for human communication in a variety of interpersonal, academic, and professional contexts. Focuses on the fundamentals of sound systems, word structures, sentence structures, text structures, meaning systems, and language-related power systems. Also considers questions of how language develops over time, how languages are made up of a

number of varieties, how languages are learned and used, how language use varies for different groups of users, and how these issues are related to cultural contexts including issues of power.

### **ENGL 335 - Literary Nonfiction**

**Class Hours:** 3  
**Lab/Discussion:** 0  
**Credits:** 3

**Prerequisite:** ENGL 202  
**Description:** Focuses on the study of forms of literary nonfiction, in English, which may include traditional essays, lyric essays, memoir, and/or creative nonfiction depending on the instructor's expertise.

### **ENGL 336 - Language, Gender, and Society**

**Class Hours:** 3  
**Lab/Discussion:** 0  
**Credits:** 3

**Prerequisite:** ENGL 202, junior standing  
**Description:** Investigates the various ways that language and gender interact and intersect in society. Examines such questions as: Does society use language to favor one sex over the other? Why is language a crucial component in formulating constructs of masculinity and femininity? What stereotypes of gender-based language are promoted in our society? How can we analyze language to reveal disparate views and treatment of the sexes?

### **ENGL 337 - Myth**

**Class Hours:** 3  
**Lab/Discussion:** 0  
**Credits:** 3

**Prerequisite:** ENGL 202, and ENGL 121 or ENGL 122  
**Description:** Examines the nature and function of the mythic experience and explores the archetypal patterns of myths from various cultures.

### **ENGL 341 - Poetry**

**Class Hours:** 3  
**Lab/Discussion:** 0  
**Credits:** 3

**Prerequisite:** ENGL 101 or ENGL 103; and ENGL 121 or

### ENGL 122

**Description:** Studies the forms and theories of poetry as a genre. Includes study of major writers, movements, and aesthetic developments.

### ENGL 342 - Short Fiction

**Class Hours:** 3  
**Lab/Discussion:** 0  
**Credits:** 3

**Prerequisite:** ENGL 101 or ENGL 103; and ENGL 121 or ENGL 122

**Description:** Studies the form and theory of short fiction as a genre. Emphasizes major writers and movements as well as significant historical developments.

### ENGL 344 - Ethnic American Literature

**Class Hours:** 3  
**Lab/Discussion:** 0  
**Credits:** 3

**Prerequisite:** ENGL 101 or ENGL 103; and ENGL 121 or ENGL 122

**Description:** Concerned with ethnic US experiences as expressed in poetry, fiction, drama, and autobiography. The topic will vary and be announced in advance. Examples include Asian American, Hispanic, Irish American, Jewish American, and Native American literatures.

### ENGL 347 - Playwriting

**Class Hours:** 3  
**Lab/Discussion:** 0  
**Credits:** 3

**Description:** A practical exploration of the craft and process of playwriting. Focuses primarily on the practical, "hands-on" experiences approximating the "developmental process" currently in use in the American theater. The student is guided from the initial concept through synopsis, outlines, working drafts, and completion of an original one-act play and a "staged reading" of this project.

**May Be:** Either of these courses may be substituted for each other and may be used interchangeably for D/F repeats but may not be counted for duplicate credit. **Note:** Cross-listed as THTR 347.

### ENGL 348 - African American Literature

**Class Hours:** 3  
**Lab/Discussion:** 0  
**Credits:** 3

**Prerequisite:** ENGL 121 or ENGL 122 and ENGL 202  
**Description:** Primarily 19th- and 20th-century African American literature (poetry, fiction, nonfiction), including works by Frederick Douglass, W. E. B. Du Bois, spirituals and folk poetry, Harriet B. Wilson, Jean Toomer, Richard Wright, Audrey Lorde, and Toni Morrison. Emphasizes historical context and an Afrocentric approach.

### ENGL 350 - LGBTQ Literature, Theory, and Film

**Class Hours:** 3  
**Lab/Discussion:** 01  
**Credits:** 3

**Prerequisite:** ENGL 202  
**Description:** Introduces literature, film, and theory that focus primarily on lesbian, gay, bisexual, and transgender perspectives. Inquires into the representation of gender and sexuality within historical and cultural contexts.

### ENGL 360 - Editing and Publishing

**Class Hours:** 3  
**Lab/Discussion:** 0  
**Credits:** 3

**Prerequisite:** ENGL 202 and ENGL 220 or ENGL 221  
**Description:** A project-based career preparation course focused on creating, editing, and publishing in print and/or electronic forms. Includes theory and practice of editing, practice with publication tools, and group collaboration.

### ENGL 361 - Environmental Literature

**Class Hours:** 3  
**Lab/Discussion:** 0  
**Credits:** 3

**Prerequisite:** ENGL 121 or ENGL 122, ENGL 202  
**Description:** Focuses on literature devoted to natural and constructed environments, exploring connections among such topics as nature writing, environmentalism, ecocriticism, place studies, bioregionalism, and environmental justice.

### ENGL 396 - Postcolonial Literature

**Class Hours:** 3

**Lab/Discussion:** 0

**Credits:** 3

**Prerequisite:** ENGL 121/FNLG 121 or ENGL 122, ENGL 202

**Description:** Surveys selected literature primarily written in major European languages from formerly colonized regions in Africa, Asia, the Middle East, and Latin America. Explores mainly prose fiction (although essay, theater, and poetry may be included) that reflects a diversity of geographical, cultural, and prior colonial circumstances.

**Cross-Listed:** Also listed as FNLG 396.

### **ENGL 398 - Global Genres**

**Class Hours:** 3

**Lab/Discussion:** 0

**Credits:** 3

**Prerequisite:** ENGL 202

**Description:** Focuses on a specific literary genre (including, but not limited to, poetry, drama, film, the short story, or the novel) as it has been developed and transformed in global contexts beyond the typical domains of the British or American literary traditions. Situates the use of a genre within transnational literary and historical developments. The global genre studied in a particular semester to be announced in advance.

### **ENGL 415 - English Language Study for Teachers**

**Class Hours:** 3

**Lab/Discussion:** 0

**Credits:** 3

**Description:** Focuses on the fundamentals of language study with equal emphasis on the sound, the word, the sentence, the meaning, and the discourse patterns of English as they manifest in daily lives. Covers relevant topics, such as applications of sociolinguistics to the teaching of English language and literature, varieties of grammar, the history of English, and linguistic descriptions of styles and registers.

### **ENGL 418 - Young Adult Literature**

**Class Hours:** 3

**Lab/Discussion:** 0

**Credits:** 3

**Prerequisite:** ENGL 101 or ENGL 103; and ENGL 122, and ENGL 323, or permission, English education major

**Description:** Introduces literature for and about young adults. Emphasizes critical study of the literature and its classification as well as resources and rationales for using young adult literature in the middle and secondary classroom. Explores selection of literature and various methods of literature instruction.

**Previously Offered As:** (Offered as ENGL 318 before 2014-15.)

### **ENGL 420 - Writers' Studio**

**Class Hours:** 3

**Lab/Discussion:** 0

**Credits:** 3

**Prerequisite:** ENGL 220 or ENGL 221

**Description:** An upper-division course emphasizing reading, discussion, and writing on specialized topics related to the study and performance of writing. The focus varies from semester to semester according to the expertise of the faculty member teaching the course.

### **ENGL 421 - Digital Writing**

**Class Hours:** 3

**Lab/Discussion:** 0

**Credits:** 3

**Prerequisite:** ENGL 202

**Description:** Introduces composition and presentation issues in writing for digital media. Focuses on the conventions of digital writing and provides practice in conceiving, composing, and producing networked texts and may include creative expression, persuasion, and collaboration. Extends traditional literacy skills into emergent, digital genres.

### **ENGL 424 - Second Language Acquisition**

**Class Hours:** 3

**Lab/Discussion:** 0

**Credits:** 3

**Description:** Focuses on how people learn and develop a second language. Explores research in second language acquisition (SLA) and focuses on the multi-disciplinary nature of second language learning and use. Concentrates

on the history of SLA and how understanding SLA can affect teaching and learning.

### **ENGL 426 - ESL Methods and Materials**

**Class Hours:** 3  
**Lab/Discussion:** 0  
**Credits:** 3

**Prerequisite:** Junior standing or instructor permission  
**Description:** Introduces English as a second language theory and pedagogical practice through emphasis on multilingual students' experiences in institutional contexts. Covers the (1) general understanding of current theory and methods of teaching ESL and the (2) ability to select, adapt, and design curricular materials for elementary and secondary ESL students.

### **ENGL 434 - Shakespeare**

**Class Hours:** 3  
**Lab/Discussion:** 0  
**Credits:** 3

**Prerequisite:** ENGL 122, ENGL 202, and one of ENGL 210-ENGL 213 or ENGL 226  
**Description:** Studies Shakespeare's development as a poetic dramatist against background of Elizabethan stage; examines audience, textual problems, language imagery, and philosophy.

### **ENGL 436 - Major American Authors**

**Class Hours:** 3  
**Lab/Discussion:** 0  
**Credits:** 3

**Prerequisite:** ENGL 122, ENGL 202; and one of ENGL 210-ENGL 213 or ENGL 226  
**Description:** Studies in the literary output of a major American author or authors against the background of the social and literary milieu in which the works were created. Specific subject or subjects to be announced by the instructor.

### **ENGL 442 - Cross Cultural Communication**

**Class Hours:** 3  
**Lab/Discussion:** 0  
**Credits:** 3

**Description:** Explores major trends, issues, research, and exploration in cross-cultural communication. Introduces conceptual frameworks for understanding cross-cultural communication in and out of the classroom.  
**Cross-Listed:** FNLG 442

### **ENGL 450 - Film Theory**

**Class Hours:** 3  
**Lab/Discussion:** 0  
**Credits:** 3

**Prerequisite:** ENGL 121 or ENGL 122; and ENGL 202, ENGL 208  
**Description:** An introduction to major film theories, studied in relation to representative films. Details the complex relationship between film production and film theory, i.e., how theorists have attempted to explain what appears on the screen, its impact, and its relation to "reality," and how filmmakers have responded to the works of theorists (with the two sometimes being the same). Goes far deeper into understanding film than ENGL 208, which focuses mainly on how film is constructed through aesthetic and institutional processes.

### **ENGL 460 - Topics in Film**

**Class Hours:** 3  
**Lab/Discussion:** 0  
**Credits:** 3

**Prerequisite:** ENGL 101 or ENGL 103; ENGL 208  
**Description:** Selected films dealing with a specific, advanced topic are viewed and assessed to explore the different roles that film plays. Topic to be announced in advance.

### **ENGL 466 - Topics in Theory**

**Class Hours:** 3  
**Lab/Discussion:** 0  
**Credits:** 3

**Prerequisite:** Minimum grade of C in both ENGL 122 and ENGL 308  
**Description:** Explores a specific issue, writer, or trend in English Studies theory. Topic to be announced in advance.

### **ENGL 481 - Special Topics**

**Class Hours:** var  
**Credits:** 1-3



**Prerequisite:** As appropriate to course content

**Description:** Topics vary from semester to semester covering such diverse topics as autobiography, science fiction, folklore, the political novel, black theater, etc.

### **ENGL 483 - Honors Thesis**

**Class Hours:** var

**Credits:** 1-6

**Restriction:** Admission to departmental honors program; prior approval through advisor, faculty member, department chairperson, dean, and Office of the Provost

**Description:** An intensive, focused study involving independent research culminating in a written thesis approved by a thesis director and two faculty readers/committee members. May be taken more than once to a maximum of 6cr.

**Repeated:** May be taken more than once to a maximum of 6cr.

### **ENGL 484 - Topics in English Studies**

**Class Hours:** 3

**Lab/Discussion:** 0

**Credits:** 3

**Prerequisite:** Declared English major; ENGL 122, ENGL 202; minimum 24cr in major

**Description:** Explores themes that may vary according to the faculty member teaching the course. Gives upper-level English majors an opportunity to share their expertise in their track: Literary/Textual/Cultural, Writing, Film, or Language Studies. Students are part of a community of learners and reflect on the ways disciplinary knowledge is constructed in English studies and will construct a portfolio of their work as an English major, both in and out of this class, to assess their growth and potential as readers, writers, and critical thinkers.

### **ENGL 493 - Internship**

**Class Hours:** var

**Credits:** 3-12

**Description:** On-the-job training opportunities in related areas. Application and acceptance to internship program required.

## **Environmental Engineering**

### **ENVE 101 - Introduction to Environmental Engineering**

**Class Hours:** 3

**Lab/Discussion:** 0

**Credits:** 3

**Description:** Introduces the principles of environmental engineering with specific focus on water pollution and control, hazardous substances and risk assessment, water and wastewater treatment systems, air-pollution and emission control, solid wastes, and global warming.

### **ENVE 200 - Foundations of Geology**

**Class Hours:** 3

**Lab/Discussion:** 3

**Credits:** 4

**Restriction:** Geoscience majors/minors, environmental engineering, energy management, anthropology, geography, and regional planning majors, biology majors (all tracks), or instructor permission

**Description:** Introduces the geological sciences, including the study of the Earth's interior; plate tectonics; minerals and crystallography; igneous, sedimentary, and metamorphic rocks and their cycling; geologic time; crustal deformation and. Laboratory exercises will emphasize hand-on learning of basic geology skills including mineral and rock identification, understanding the geometry of subsurface geologic structures, and topographic and geologic map reading. (Also offered as GEOS 200. These courses may be substituted for each other and be used interchangeably for D/F repeats but may not be counted for duplicate credit.)

### **ENVE 211 - Statics and Solid Mechanics**

**Class Hours:** 3

**Lab/Discussion:** 0

**Credits:** 3

**Prerequisite:** PHYS 131

**Description:** Examines principles of mechanics, force systems, equilibrium structures, distributed forces, centroids, stress and strain, torsion, bending of beams, shearing stress in beams, combined stresses, principal stresses, deflections of beams, and statically indeterminate members and columns.

### **ENVE 300 - Fluid Mechanics**

**Class Hours:** 3  
**Lab/Discussion:** 0  
**Credits:** 3

**Prerequisite:** PHYS 131

**Description:** Applies basic laws of fluid mechanics with applications to engineering problems, hydrostatic pressure, buoyancy, open systems and control volume analysis, mass conservation and momentum conservation for moving fluids, viscous fluid flows, flow through pipes, and dimensional analysis.

### **ENVE 301 - Environmental Aquatic Chemistry**

**Class Hours:** 3  
**Lab/Discussion:** 3  
**Credits:** 4

**Prerequisite:** ENVE 101, CHEM 112 or CHEM 114

**Description:** Examines fundamental principles of general, analytical, physical, and equilibrium chemistry applicable to water and wastewater treatment systems. Topics include thermodynamics and kinetics of acids and base reactions, carbonate chemistry (alkalinity), air-water exchange, precipitation and dissolution, oxidation-reduction, and chemical analysis of water and wastewater in a laboratory.

### **ENVE 312 - Hydrogeology**

**Class Hours:** 3  
**Lab/Discussion:** 3  
**Credits:** 4

**Prerequisite:** Grade of "C" or better in GEOS 200

**Description:** An overview of groundwater geology, including flow equations, aquifer flow equation, aquifer parameter testing, groundwater sampling techniques, and remediation of groundwater pollution. Labs emphasize graphical and analytical solutions as well as computer modeling of groundwater flow systems. (Also offered as GEOS 312. These courses may be substituted for each other and be used interchangeably for D/F repeats but may not be counted for duplicate credit.)

### **ENVE 460 - Water Resources Engineering**

**Class Hours:** 3  
**Lab/Discussion:** 3  
**Credits:** 4

**Prerequisite:** ENVE 300

**Description:** Explores hydrologic engineering, including fundamentals of hydrology, rainfall-runoff modeling, hydraulic processes (including both pressurized pipe flow and open channel flow), and hydrologic frequency analysis. These fundamentals are then applied in the computation of design flows and in the analysis and design of hydraulic systems such as pipe networks and storm water management systems.

### **ENVE 461 - Water and Wastewater Treatment**

**Class Hours:** 3  
**Lab/Discussion:** 0  
**Credits:** 3

**Prerequisite:** BIOL 202, ENVE 301

**Description:** An overview of engineering approaches to protecting water quality with an emphasis on fundamental principles. Explores design of systems for treating municipal wastewater and drinking water as well as physical, chemical, and biological processes, including sedimentation, filtration, biological treatment, disinfection, and sludge processing.

### **ENVE 471 - Solid and Hazardous Waste Management**

**Class Hours:** 3  
**Lab/Discussion:** 0  
**Credits:** 3

**Prerequisite:** BIOL 202

**Description:** Examines the principles of integrated solid waste management. An overview of municipal solid waste (MSW), industrial waste and hazardous waste management, including design and economic analysis. Explores the planning and engineering principles needed to address the growing and increasingly intricate problem of controlling and processing the refuse (solid waste) created by urban societies. Discusses options such as landfilling, composting and incineration from engineering, social, and regulatory perspectives. Reviews physical, chemical, and biological treatment of hazardous waste. Covers federal regulations, permitting and public participation processes and innovative management practices associated with solid and hazardous waste.

### **ENVE 498 - Environmental Engineering**

**Class Hours:** 3  
**Lab/Discussion:** 0  
**Credits:** 3

**Prerequisite:** Senior standing (90 or more credits) or instructor permission  
**Description:** Capstone design experience involving an interdisciplinary environmental engineering project incorporating real-world clients. Includes visits and tours of field sites as well as interaction with professional engineers. Focuses on water treatment alternatives, regulatory operational needs, sustainability; and implementation of a realistic schedule and project budget.

## Family and Consumer Sciences Education

### FCSE 101 - Personal and Family Management

**Class Hours:** 3  
**Lab/Discussion:** 0  
**Credits:** 3

**Description:** Personal and family management as a system and its relationship to the global environment, individuals, and families. Formulation of goals, values, and standards; use of decision-making process; sustainability and utilization of resources.

### FCSE 143 - Financial Wellness

**Class Hours:** 3  
**Lab/Discussion:** 0  
**Credits:** 3

**Description:** Theories and principles related to the physical, social, and emotional wellness aspects of individual money management. Information is focused on building a sound financial foundation as a college student and can be applied throughout the life span to ensure future financial well-being. Successful completion fulfills the Liberal Studies Dimensions of Wellness requirement. Other 143 courses will also fulfill this requirement, and any of these courses may be substituted for each other and may be used interchangeably for D/F repeats but may not be counted for duplicate credit.

**Cross-Listed:** This course is cross-listed with ECON 143/FIN 143.

### FCSE 450 - Teaching Vocational and Family Consumer Science Education

**Class Hours:** 3  
**Lab/Discussion:** 0  
**Credits:** 3

**Prerequisite:** HDFS 350  
**Description:** Emphasizes teaching vocational family and consumer sciences in consumer/ homemaking and occupational family and consumer sciences programs. Federal legislation affecting family and consumer sciences is analyzed for use in program decisions. Emphasizes program development using CBVE model, development of individual learning packets, vocational youth organizations, advisory committees, family and consumer sciences and vocational educational priorities, professional organizations, proposal development for funding, impact on public policy, marketing family and consumer sciences, and development of a personal philosophy of family and consumer sciences education.

### HDFS 330 - Consumer Economics and Family Finance

**Class Hours:** 3  
**Lab/Discussion:** 0  
**Credits:** 3

**Description:** Explores the decision-making process of families concerning the utilization of financial, personal, environmental, and social resources. Course content focuses on how families develop, exchange, and allocate resources throughout the lifespan. Discusses basic consumer education including an overview of financial products (e.g., insurance, credit cards), as well as laws and policies related to financial management discussed.  
**Note:** Was offered as FCSE 315 prior to 2022-23

### HDFS 350 - Teaching Family Life Education

**Class Hours:** 3  
**Lab/Discussion:** 0  
**Credits:** 3

**Restriction:** Family and consumer sciences education majors or minors, or human development and family science majors or minors, or disability services majors, or instructor permission.

**Description:** Focuses on the history, design, implementation and evaluation of family life education.

Explores techniques and technologies that support implementation, outcomes, and course/program promotion. Discusses professional associations, standards, and professional ethics for family life educators.

## Foundations of Education

### FDDED 440 - Orientation to Teaching in Urban Centers

**Class Hours:** 2  
**Lab/Discussion:** 0  
**Credits:** 2

**Description:** Provides an understanding of urban learners and their unique learning needs and conditions. Emphasizes understanding the origin of attitudes and values and how these affect the relationships that exist between students and teachers. Special attention given to practical application of theoretical information to problems of urban education.

### FDDED 441 - Field Experiences in Urban Education

**Class Hours:** 3  
**Lab/Discussion:** 0  
**Credits:** 3

**Description:** Provides students with a specialized experience teaching in an urban setting. Emphasizes physical characteristics of the community, background and aspirations of children and parents, specialized teacher competencies, classroom management, planning, instructional materials, teaching strategies, and evaluation. May be substituted for EDUC 242 with program approval and completion of Step 1 for teacher certification.

## Food and Nutrition

### FDNT 110 - Careers in Food and Nutrition

**Class Hours:** 1  
**Lab/Discussion:** 0  
**Credits:** 1

**Restriction:** Food and Nutrition major, University College students, or by permission

**Description:** Explores career possibilities in food and

nutrition. Clarifies professional goals and examines educational and experiential requirements necessary to attain goals.

### FDNT 143 - Current Issues in Nutrition and Wellness

**Class Hours:** 3  
**Lab/Discussion:** 0  
**Credits:** 3

**Description:** Introduces contemporary nutrition issues as they relate to personal food choices and overall health. Completion of FDNT 143 fulfills the Liberal Studies Dimensions of Wellness requirement. Other 143 courses will also fulfill this requirement, and any of these courses may be substituted for each other and may be used interchangeably for D/F repeats but may not be counted for duplicate credit.

### FDNT 145 - Personal Nutrition

**Class Hours:** 3  
**Lab/Discussion:** 0  
**Credits:** 3

**Description:** Evaluates food choices and behaviors that can be applied to everyday life. Presents evidence-based information about nutrients, weight control, diseases, and lifecycle nutrition. Includes emerging and alternative food and nutrition topics. Appropriate for students who are not nutrition majors or minors.

### FDNT 150 - Foods

**Class Hours:** 3  
**Lab/Discussion:** 0  
**Credits:** 3

**Prerequisite:** Grade of "C" or better in CHEM 101 or CHEM 103 or CHEM 111 or BIOL 104

**Corequisite:** FDNT 151

**Description:** Basic principles of food: composition, sanitation, preparation, and preservation.

### FDNT 151 - Foods Laboratory

**Class Hours:** 0  
**Lab/Discussion:** 3  
**Credits:** 1

**Prerequisite:** CHEM 101 or CHEM 103 or CHEM 111 or

BIOL 104

**Corequisite:** Must be taken with FDNT 150

**Description:** Applies basic principles of food preparation. Taken only by Food and Nutrition majors or Family and Consumer Science Education majors or by permission.

## FDNT 212 - Nutrition

**Class Hours:** 3

**Lab/Discussion:** 0

**Credits:** 3

**Prerequisite:** CHEM 102 or CHEM 103 or CHEM 112 or BIOL 104 and BIOL 106; sophomore standing

**Description:** Examines sources and functions of nutrients, the interdependence of dietary essentials, and nutritive value of an optimum diet are studied. Discusses dietary risk factors to chronic diseases and varied conditions in human life. Includes emerging and alternative food and nutrition topics.

## FDNT 213 - Life Cycle Nutrition

**Class Hours:** 3

**Lab/Discussion:** 0

**Credits:** 3

**Prerequisite:** FDNT 212 or FDNT 145 with a grade of "C" or better.

**Description:** A detailed study of nutrition during all stages of the human life cycle; current issues and research as they impact these developmental stages.

## FDNT 245 - Sports Nutrition

**Class Hours:** 3

**Lab/Discussion:** 0

**Credits:** 3

**Prerequisite:** FDNT 145 or FDNT 212

**Description:** Emphasizes knowledge and application of sports nutrition principles. The impact of the macro- and micro-nutrients on physical performance is discussed in light of current scientific research and applied to realistic dietary recommendation for all types and levels of athletes.

## FDNT 255 - Nutrition Assessment and Medical Terminology

**Class Hours:** 3

**Lab/Discussion:** 0

**Credits:** 3

**Prerequisite:** BIOL 150 with grade of "C" or better

**Repeated:** Selects and uses appropriate dietary, anthropometric, biochemical, clinical, functional, and socioeconomic assessment techniques to identify and prioritize nutritional needs of individuals. Applies critical thinking in determination of nutritional status.

Communicates using professional standardized language, documentation, and medical terminology.

## FDNT 335 - Nutrition, Lifestyle, and Health

**Class Hours:** 3

**Lab/Discussion:** 0

**Credits:** 3

**Prerequisite:** FDNT 145 or FDNT 212, and FDNT 255.

**Description:** Explores nutrition and health in the context of the pillars of lifestyle medicine. Application of nutrition science and assessment in lifestyle-related disease prevention and treatment will be examined. Evaluates whole food plant-based diets and other lifestyle recommendations.

## FDNT 355 - Medical Nutrition Therapy I

**Class Hours:** 3

**Lab/Discussion:** 0

**Credits:** 3

**Prerequisite:** FDNT 212 and FDNT 255 with grades of "C" or better and BIOL 150 and BIOL 240 with a grade of "C" or better

**Description:** Explores pathophysiology of and evidence-based medical nutrition therapy for caloric imbalance, diabetes, and cardiovascular diseases. Uses of food exchange systems in diet prescription and menu planning.

## FDNT 362 - Experimental Foods

**Class Hours:** 3

**Lab/Discussion:** 0

**Credits:** 3

**Prerequisite:** Grade of "C" or better in FDNT 150, FDNT 151, FDNT 355 or concurrently, and MATH 217

**Description:** In-depth study of foods, relating chemical and physical properties to reactions and processes. Focuses on the importance of research and evaluation techniques as they apply to product development and consumer

acceptability. Examines factors impacting the quality, safety, preservation, additives, and nutritional composition.

### **FDNT 363 - Experimental Foods Laboratory**

**Class Hours:** 0  
**Lab/Discussion:** 3  
**Credits:** 1

**Prerequisite:** FDNT 150, FDNT 151, FDNT 355 or concurrently, and MATH 217

**Description:** Examines the experimental study of foods, relating chemical and physical properties to reactions and processes occurring in food systems. Applies development, conversion, and manipulation of ingredients and recipes to meet dietary needs or preferences. Evaluation of foods using equipment and sensory methods.

### **FDNT 370 - Human Food Consumption Patterns**

**Class Hours:** 3  
**Lab/Discussion:** 0  
**Credits:** 3

**Description:** Explores human food consumption behaviors from food production to individual and societal consumption patterns. Discusses influencing factors including agronomic, economic, geographical, nutritional, political, sociological, and psychological factors. Covers also the ethics and morality of food distribution.

### **FDNT 402 - Community Nutrition**

**Class Hours:** 3  
**Lab/Discussion:** 0  
**Credits:** 3

**Prerequisite:** FDNT 212

**Description:** Nutritional implications of both good and poor nutrition for all age groups in home and community situations are studied. Corrective and preventive measures emphasized. Taught spring semester only.

### **FDNT 415 - Sustainable Nutrition**

**Class Hours:** 3  
**Lab/Discussion:** 0  
**Credits:** 3

**Description:** Explores food system sustainability issues from farm to fork, including food production, preparation, processing, packaging, and distribution. Assesses the sustainability of current dietary recommendations and the environmental impact of food choices. Evaluates food security from a national and global perspective.

### **FDNT 422 - Public Health Nutrition and Epidemiology**

**Class Hours:** 3  
**Lab/Discussion:** 0  
**Credits:** 3

**Prerequisite:** FDNT 145 or FDNT 212 and MATH 214 or MATH 216 or MATH 217, or department permission

**Description:** Identifies population-based needs and approaches for prevention and alleviation of diet-related conditions. Explores methodological issues involved in the design, conduct, analysis, and interpretation of studies investigating the relationship between nutritional status, diet, and disease. Examines the application of nutrition research related to nutrition assessment and program and policy design and evaluation to improve the nutritional status and health of diverse population groups.

### **FDNT 430 - Professional Topics in Food and Nutrition**

**Class Hours:** 3  
**Lab/Discussion:** 0  
**Credits:** 3

**Prerequisite:** FDNT 355 with a "C" or better, and senior status

**Description:** Focuses on professional roles, skills, responsibilities, and ethics in the dietetics profession. Explores emerging perspectives and practices in dietetics including informatics, teamwork and mentoring, application of leadership and management theories to personnel and projects, career development and marketing, quality assurance, healthcare systems and delivery.

### **FDNT 431 - Career Advancement in Dietetics**

**Class Hours:** 1  
**Lab/Discussion:** 0  
**Credits:** 1

**Prerequisite:** Senior status

**Restriction:** Nutrition-Dietetics Track majors only

**Description:** Preparation to become a credentialed dietetics professional. Includes pathways to become a registered dietitian, specialized credentials and certifications, and establishing a professional network. Navigates the complex application process to secure acceptance to a dietetic supervised practice program.

### **FDNT 445 - Advanced Sports Nutrition**

**Class Hours:** 3  
**Lab/Discussion:** 0  
**Credits:** 3

**Prerequisite:** FDNT 245

**Description:** Examines and evaluates evidence-based sports nutrition guidelines and current research related to nutrition and athletic performance. Explores special populations, environments and clinical conditions related to nutrition and athletic performance. Includes an emphasis on dietary supplements and ergogenic aids for sport.

### **FDNT 455 - Medical Nutrition Therapy II**

**Class Hours:** 3  
**Lab/Discussion:** 0  
**Credits:** 3

**Prerequisite:** FDNT 355 with a grade of "C" or better

**Description:** Pathophysiology of and evidence-based medical nutrition therapy for disorders of the gastrointestinal, renal, hepatic, and immune systems, inborn errors of metabolism, cancer. Nutrition support.

### **FDNT 458 - Advanced Human Nutrition**

**Class Hours:** 4  
**Lab/Discussion:** 0  
**Credits:** 4

**Prerequisite:** CHEM 255 or CHEM 351, FDNT 355, MATH 217

**Description:** An in-depth study of the nutrients and their function within the cell. Incorporation of the principles of physiology and biochemistry in the study of nutrition. Emphasizes applying current research and evaluation of research methodology. (Does not count toward MS degree in FDNT requirements.)

### **FDNT 459 - Advanced Human Metabolism: Macronutrients**

**Class Hours:** 3  
**Lab/Discussion:** 0  
**Credits:** 3

**Prerequisite:** BIOL 150, BIOL 240, CHEM 255, FDNT 355, and MATH 217 with grades of "C" or better

**Description:** Examines the macronutrients and their functions within the human body. Incorporates the principles of physiology and biochemistry in the study of nutrition. Emphasizes current research and evaluation of research methodology.

### **FDNT 460 - Advanced Human Metabolism: Micronutrients and Water**

**Class Hours:** 3  
**Lab/Discussion:** 0  
**Credits:** 3

**Prerequisite:** BIOL 150, BIOL 240, CHEM 255, FDNT 355, and MATH 217 with grades of "C" or better

**Description:** Examines the micronutrients and water, and their functions within the human body. Incorporates the principles of physiology and biochemistry in the study of nutrition. Emphasizes current research and evaluation of research methodology.

### **FDNT 463 - Nutrition Counseling**

**Class Hours:** 2  
**Lab/Discussion:** 3  
**Credits:** 3

**Prerequisite:** FDNT 355, PSYC 101, FDNT 455 or concurrently

**Description:** Use of intervention strategies in prevention and treatment of disease through diet. Supervised practicum (three hours per week) counseling clientele in normal and therapeutic nutrition.

### **FDNT 465 - Nutrition Counseling and Education**

**Class Hours:** 3  
**Lab/Discussion:** 0  
**Credits:** 3

**Prerequisite:** FDNT 213, FDNT 355, PSYC 101

**Corequisite:** FDNT 466

**Description:** Focuses on nutrition counseling and education methods to support health-promoting dietary

knowledge, attitudes, and behaviors for individuals and groups in community and clinical settings.

## **FDNT 466 - Nutrition Counseling and Education Lab**

**Class Hours:** 0

**Lab/Discussion:** 3

**Credits:** 1

**Prerequisite:** FDNT 213, FDNT 355, and PSYC 101

**Corequisite:** FDNT 465

**Description:** Development and experience applying nutrition counseling and nutrition education methods to support health-promoting dietary knowledge, attitudes, and behaviors for individuals and groups.

## **FDNT 471 - Integrative Nutrition in Complementary and Alternative Healthcare**

**Class Hours:** 3

**Lab/Discussion:** 0

**Credits:** 3

**Prerequisite:** FDNT 145 or FDNT 212 or departmental permission

**Description:** Explores the foundation of complementary, alternative, integrative, and functional nutrition theories and practices. Differentiates among traditional, complementary, alternative, integrative, and functional nutrition models as related to food, supplements, herbs, and disease. Evaluates current research related to complementary, alternative, integrative, and functional nutrition.

## **FDNT 484 - Senior Seminar**

**Class Hours:** 2

**Lab/Discussion:** 0

**Credits:** 2

**Prerequisite:** Senior status

**Description:** Emphasizes evidence-based analysis of food and nutrition research through discussion and presentation.

## **FDNT 493 - Internship**

**Class Hours:** var

**Lab/Discussion:** 0

**Credits:** 1-12

**Prerequisite:** Must have earned 60cr

**Description:** An opportunity to work away from the university in supervised situations at healthcare facilities, foodservice, community, or nonprofit organizations. Students receive career-related experiences. Must meet university internship requirements.

**Note:** White uniforms, including white shoes, are required for all lab courses in which food is prepared. Students must meet the professional dress requirements of the department.

## **Fine Arts**

### **FIAR 101 - Introduction to Fine Arts**

**Class Hours:** 3

**Lab/Discussion:** 0

**Credits:** 3

**Description:** An exploration of visual art, theater, and music, examining their conceptual and aesthetic underpinnings, selected works, and their primary and similar functions in the expression of cultural, political, and personal views of the world around us. Class experience includes the analysis of at least one major work of each form, attending at least two live performances, viewing of selected works, and creative activities. If it should be necessary for a student who fails this course to take a D/F repeat, any one of the following courses may be substituted: ARHI 101, MUHI 101, THTR 101, DANC 102.

## **Finance**

### **FIN 143 - Financial Wellness**

**Class Hours:** 3

**Lab/Discussion:** 0

**Credits:** 3

**Description:** Theories and principles related to the physical, mental, social and emotional wellness aspects of individual money management. Information is focused on building a sound financial foundation as a college student and can be applied throughout the life span to ensure future financial well-being. Successful completion fulfills the Liberal Studies Dimensions of Wellness requirement. Other 143 courses will also fulfill this requirement, and any of these courses may be substituted for each other and may be used interchangeably for D/F repeats but may not be



counted for duplicate credit.

**Cross-Listed:** Cross-listed with ECON 143/FIN 143.

### FIN 300 - Personal Finance

**Class Hours:** 3

**Lab/Discussion:** 01

**Credits:** 3

**Prerequisite:** MATH 107 / MATH 108 and ACCT 201

**Description:** Provides an opportunity for students to gain an in-depth understanding of the importance of personal finance. It is the first course as part of a track for those who are interested in becoming a Certified Financial Planner (CFP). This course does not fulfill the Dimensions of Wellness course requirement.

### FIN 310 - Fundamentals of Finance

**Class Hours:** 3

**Lab/Discussion:** 0

**Credits:** 3

**Prerequisite:** Prerequisites for **business majors:** ACCT 201 and MATH 214. Prerequisites for *nonbusiness majors:* ACCT 200 or ACCT 201 (*ACCT 201 recommended*), and MATH 214 or MATH 216 or MATH 217 (*MATH 214 recommended*).

**Description:** The study of valuation models, financial statement analysis and forecasting, capital budgeting methods, and working capital management. Also includes an introduction to risk and return, capital markets and institutions, and security valuation.

### FIN 315 - Financial Analysis Using Electronic Spreadsheets

**Class Hours:** 3

**Lab/Discussion:** 0

**Credits:** 3

**Prerequisite:** COSC 101 or IFMG 101 or IFMG 110 and FIN 310

**Corequisite:** FIN 310

**Dual Listed:** May be dual listed with FIN 515.

**Description:** Develops the financial students' computer modeling and analysis skills. Teaches how to utilize current computing resources, electronic spreadsheet, and other computing software to analyze, model, and solve a variety of financial problems.

### FIN 320 - Corporate Finance

**Class Hours:** 3

**Lab/Discussion:** 0

**Credits:** 3

**Prerequisite:** Grade of "C" or better in FIN 310

**Description:** The study of corporate financial management and decision making, its theory, and application. Provides a higher level of study and many of the same topics covered in FIN 310, particularly in the area of capital budgeting. Other topics include capital asset pricing models, costs of capital, capital structure, leasing bond refunding, and financial distress.

### FIN 323 - Retirement Planning

**Class Hours:** 3

**Lab/Discussion:** 0

**Credits:** 3

**Prerequisite:** FIN 300 and FIN 310

**Description:** Introduces retirement planning concepts from both the employer/employee and individual client perspectives, via theory based lectures and case studies. Examines the relationships between retirement plans and legal, tax, insurance, and other concepts as they relate to effective financial planning.

### FIN 324 - Principles of Investments

**Class Hours:** 3

**Lab/Discussion:** 0

**Credits:** 3

**Prerequisite:** FIN 310

**Description:** An introduction to securities markets, trading, and valuation. Topics include security types and characteristics, the mechanics of trading, valuation models for fixed-income securities and common stock, mutual fund evaluation, basics of options and futures, and tax-advantaged investments.

### FIN 360 - Insurance and Risk Management

**Class Hours:** 3

**Lab/Discussion:** 0

**Credits:** 3

**Prerequisite:** FIN 310

**Description:** Covers the nature of risk, the application of

the risk management process to business risk management problems, and the essentials of insurance contracts and insurance markets. Discusses appropriate methods of risk control and risk financing. The primary focus is on accidental losses resulting from situations involving pure risks, although financial risk management techniques for dealing with speculative risks are introduced.

### **FIN 365 - Student Managed Investment Portfolio I—Valuation**

**Class Hours:** 1.5  
**Lab/Discussion:** 0  
**Credits:** 1.5

**Prerequisite:** FIN 310

**Restriction:** Finance and accounting majors or instructor permission.

**Description:** Applies empirical and theoretical concepts to real-world portfolio management and investment decisions. Different investment strategies and valuation models are used to reinforce investment principles and practices learned in previous finance courses.

### **FIN 366 - Student Managed Investment Portfolio II—Performance**

**Class Hours:** 1.5  
**Lab/Discussion:** 0  
**Credits:** 1.5

**Prerequisite:** FIN 365

**Description:** Students assess the performance of a stock portfolio managed by their peers. Performance measures focus on risk and return and include financial ratio analysis and benchmark comparisons.

### **FIN 400 - Estate Planning**

**Class Hours:** 3  
**Lab/Discussion:** 0  
**Credits:** 3

**Prerequisite:** At least 90 earned credit hours

**Description:** Introduces legal, tax, insurance, financial, and other principles relating to estate planning via a combination of theory-based lectures, case studies, and simulations.

### **FIN 410 - Financial Institutions and Markets**

**Class Hours:** 3  
**Lab/Discussion:** 0  
**Credits:** 3

**Prerequisite:** FIN 324

**Dual Listed:** May be dual listed with FIN 510.

**Description:** A review of the structure of financial institutions and money and capital markets. Provides the knowledge of the theory and practices of managing financial institutions, with particular emphasis on the management of financial risks.

### **FIN 422 - Seminar in Finance**

**Class Hours:** 3  
**Lab/Discussion:** 0  
**Credits:** 3

**Prerequisite:** FIN 320, FIN 324, seniors only

**Description:** Primarily for the senior finance major, covers topics in all areas of finance by using recent articles, cases, discussions, speakers, and a financial simulation game.

### **FIN 424 - International Financial Management**

**Class Hours:** 3  
**Lab/Discussion:** 0  
**Credits:** 3

**Prerequisite:** FIN 310

**Dual Listed:** May be dual listed with ECON 524.

**Description:** The financial management concepts, useful in a single-country context, are adapted for the international variables and constraints caused by being international. Provides insight into unique issues and problems the manager of the multinational enterprise will face, such as working capital management, capital budgeting process, financing and investing abroad, capital and money markets, foreign exchange markets, and risk management.

### **FIN 425 - Financial Derivatives**

**Class Hours:** 3  
**Lab/Discussion:** 0  
**Credits:** 3

**Prerequisite:** FIN 320 and FIN 324 or equivalent/permission for FIN 425 and FIN 324 or equivalent/permission for FIN 525

**Dual Listed:** May be dual listed with ECON 525.

**Description:** Provides an understanding of how the derivatives markets work, how they are used, and how prices are determined. Includes the common types of derivatives, their characteristics and properties, and trading methods and strategies. Also, covers fundamental pricing models based on arbitrage pricing theory, binomial, and Black-Scholes models.

## FIN 426 - Seminar in Financial Planning

**Class Hours:** 3

**Lab/Discussion:** 0

**Credits:** 3

**Prerequisite:** FIN 300, FIN 324, FIN 400

**Description:** Integrates coursework in various personal finance areas with actual case applications.

## FIN 481 - Special Topics

**Class Hours:** var

**Credits:** 3

**Prerequisite:** As appropriate to course content

**Description:** Offered on an experimental or temporary basis to explore topics not included in the established curriculum. A given topic may be offered under any special topic identity no more than three times. Special topics numbered 481 are offered primarily for upper-level undergraduate students.

## FIN 482 - Independent Study

**Class Hours:** var

**Credits:** 3

**Restriction:** Prior approval through advisor, faculty member, department chairperson, dean, and Office of the Provost

**Description:** Students with interest in independent study of a topic not offered in the curriculum may propose a plan of study in conjunction with a faculty member.

**Approved:** Approval is based on academic appropriateness and availability of resources.

## FIN 493 - Finance Internship

**Class Hours:** var

**Credits:** 3-12

**Prerequisite:** FIN 310 and permission of the department chair and the dean, Eberly College of Business, and minimum cumulative 2.0 GPA and major 2.5 GPA.

**Description:** Provides practical experience in the finance field to develop knowledge and provide application of theory to actual problems in a nonclassroom situation.

Three credits are awarded for at least 120 hours of on-site work, up to 12cr for at least 480 work hours. A maximum of 3cr may be applied toward the finance major area elective requirements. Additional internship credits must be used as business electives only.

## Study Abroad and Comparative Literature

### FNLG 121 - Humanities Literature

**Class Hours:** 3

**Lab/Discussion:** 0

**Credits:** 3

**Prerequisite:** ENGL 101 or ENGL 103

**Description:** An exploration of literature and the methods of close reading. Through encounters with significant literary texts, students will investigate and analyze how literary meaning is constructed; how literature shapes and is shaped by its various contexts; and how literature enables critical inquiry into values. Includes literary texts by women and people from underrepresented communities.

**Previously Offered As:** Also offered as ENGL 121. **May Be:** ENGL 121/FNLG 121 may be used interchangeably for D/F repeats; may not be counted for duplicate credit.

### FNLG 442 - Cross Cultural Communication

**Class Hours:** 3

**Lab/Discussion:** 0

**Credits:** 3

**Description:** Explores major trends, issues, research, and exploration in cross-cultural communication. Introduces conceptual frameworks for understanding cross-cultural communication in and out of the classroom.

**Cross-Listed:** ENGL 442

## French

### FRNC 101 - Beginning French Language and Culture I

**Class Hours:** 3  
**Lab/Discussion:** 0  
**Credits:** 3

**Description:** For students with little or no background in the study of French. (Students who have studied the language or have a background in French should complete a placement test.) Develops basic ability to communicate effectively in French in everyday situations by asking questions and giving common information about oneself and others in the present time frame. Also develops ability to identify main ideas from written and spoken French, and to communicate in simple written forms. Explores cultural elements of the francophone world.

### **FRNC 102 - Basic French II**

**Class Hours:** 4  
**Lab/Discussion:** 0  
**Credits:** 4

**Prerequisite:** FRNC 101, or qualifying score on the WebCAPE placement test (286-362), or instructor permission

**Description:** For beginning students. Students must achieve an appropriate placement test score to enroll (score between 286 and 362). Special focus on aural/oral skills. Students learn in a multimedia environment. Students converse and ask questions in simple present tense. They can now express commands and directions and are introduced to the expression of punctual actions in the past. They further investigate the daily lives of native speakers of French around the world. Attendance is mandatory. May not register for, or take a D/F repeat in, FRNC 102 when credit has already been received for a higher-numbered French course.

### **FRNC 201 - Intermediate French**

**Class Hours:** 4  
**Lab/Discussion:** 0  
**Credits:** 4

**Prerequisite:** FRNC 102, or qualifying score on the WebCAPE placement test (score above 362), or instructor permission

**Description:** Continued study of French; development of listening, reading, speaking, and writing, but primary emphasis is on aural/oral skills. Students use a multimedia environment to learn to converse and ask questions in the past. Students learn the different way to express completed action that occurred at a specific time in the past vs. expressing an action that continued in the past over an

indefinite, undetermined period of time; students review how to narrate and describe in the past, ask and give directions, talk about the future, avoid repetitions, learn to combine simple sentences, express and understand conditional sentences, express and understand subjective statements, and understand indirect discourse. Through the use of multimedia, students continue their inquiries into the daily lives of native speakers of French around the world. Attendance is mandatory. May not register for, or take a D/F repeat in, FRNC 201 when credit has already been received for a higher-numbered French course. Liberal Studies Humanities credit is given for this course.

### **FRNC 220 - Intermediate French Conversation**

**Class Hours:** 3  
**Lab/Discussion:** 0  
**Credits:** 3

**Prerequisite:** FRNC 201, or qualifying score on the WebCAPE placement test (score above 402), or instructor permission

**Description:** Intensive work on oral communication skills with specific emphasis on spontaneous interpersonal speaking, discourse strategies, vocabulary building, and pronunciations. Required for all minors and for the French Certificate. Liberal Studies electives credit given for course. Taught in French. Students may not register for, or take a D/F repeat in, FRNC 220 when credit has already been received for a higher-numbered FRNC course.

### **FRNC 230 - Intermediate French Composition and Grammar**

**Class Hours:** 3  
**Lab/Discussion:** 0  
**Credits:** 3

**Prerequisite:** FRNC 220 or equivalent; may be taken concurrently

**Description:** Intensive practice in written expression and communication in French together with a grammar review. Intermediate-level language course with the goal of fostering writing in French for a variety of practical purposes. Review and expansion of specific grammar points are integrated into each unit. Taught in French.

### **FRNC 281 - Special Topics**

**Class Hours:** var  
**Lab/Discussion:** 1

**Credits:** 3

**Prerequisite:** As appropriate to course content

**Description:** Offered on an experimental or temporary basis to explore topics not included in the established curriculum. A given topic may be offered under any special topic identity no more than three times. Special topics numbered 281 are offered primarily for lower-level undergraduate students.

## FRNC 482 - Independent Study

**Class Hours:** var

**Credits:** 1-3

**Restriction:** Prior approval through advisor, faculty member, department chairperson, dean, and Office of the Provost

**Description:** Students with interest in independent study of a topic not offered in the curriculum may propose a plan of study in conjunction with a faculty member. An opportunity to engage in an in-depth analysis of some topic dealing with the French language and culture through consultation with a faculty member.

**Approved:** Approval is based on academic appropriateness and availability of resources.

## Fashion Studies

### FASH 112 - Fundamentals of Clothing Construction

**Class Hours:** 1

**Lab/Discussion:** 3

**Credits:** 3

**Description:** Principles and techniques involved in fundamental clothing construction and fitting are analyzed. Directed laboratory experiences provide an opportunity to solve individual problems in garment structure through the application of principles.

### FASH 125 - Cultural Studies of Dress and Appearance

**Class Hours:** 3

**Lab/Discussion:** 0

**Credits:** 3

**Description:** Examines contemporary, traditional, and ethnic dress and appearance practices. Incorporates the

application of cultural theory to appearance as well as how social and psychological forces shape conceptions of beauty and appropriateness in clothing, appearance, and fashion.

**Note:** Was previously FSMR 125

### FASH 158 - Fashion Show Production

**Class Hours:** 3

**Lab/Discussion:** 0

**Credits:** 3

**Description:** Focuses on developing a practical understanding of fashion through image, language, and events. All aspects of production and management of fashion shows are addressed, including the importance of teamwork.

**Previously Offered As:** as FSMR 358 before 2016-17.

### FASH 180 - Introduction to Fashion

**Class Hours:** 3

**Lab/Discussion:** 0

**Credits:** 3

**Description:** A survey of fashion careers and industry functions including design, production, retail channels, and current trends.

### FASH 195 - Computer Aided Design for Fashion Professionals

**Class Hours:** 3

**Lab/Discussion:** 0

**Credits:** 3

**Description:**

Explores the functions and tools of Adobe Illustrator and Photoshop in the creation of technical fashion drawings, manipulated photographs, trend boards, and textile patterns.

### FASH 212 - Advanced Clothing Construction

**Class Hours:** 1

**Lab/Discussion:** 3

**Credits:** 3

**Prerequisite:** FASH 112 or placement (by exam)

**Description:** Principles of advanced fitting and clothing

construction are applied and analyzed.

**Previously Offered As:** Offered even years, fall semester.

## FASH 215 - Textiles

**Class Hours:** 3

**Lab/Discussion:** 0

**Credits:** 3

**Description:** An interpretation of basic textile knowledge with emphasis on fiber, yarn, fabric structure, coloration, and fabric finishes. Discussions include importance of factors related to consumer information, protection, and satisfaction.

**Previously Offered As:** as FSMR 314 before 2016-17.

## FASH 252 - Fashion Design and Styling

**Class Hours:** 3

**Lab/Discussion:** 0

**Credits:** 3

**Description:** The study of contemporary apparel design and the relationship of design elements and principles to personal characteristics and social/professional orientation.

## FASH 258 - Fashion Brand Merchandising

**Class Hours:** 3

**Lab/Discussion:** 0

**Credits:** 3

**Description:** Focuses on contemporary concepts, phrases, branding terms, and theoretical frameworks for most fashion brand-relative activities. Applies concepts about the role of branding in fashion through projects, such as case studies, exercises, shadowing activities, and developing their own fashion brand.

## FASH 262 - Fashion Forecasting

**Class Hours:** 3

**Lab/Discussion:** 0

**Credits:** 3

**Prerequisite:** FASH 180

**Description:** A study and an analysis of the global fashion society and the trends that emerge. Evolving styles, changes in buying habits, and economic conditions are assessed to predict fashion consumer behavior. An emphasis on the interrelationships among apparel industry

segments and the application of fashion theories to the forecasting process.

## FASH 280 - Introduction to Apparel Buying

**Class Hours:** 3

**Lab/Discussion:** 0

**Credits:** 3

**Prerequisite:** FASH 180 with a grade of "C" or better and MATH 217

**Description:** Focuses on using basic mathematical concepts, principles, and terminology critical in understanding fundamental merchandising applications needed for profitable apparel buying.

## FASH 281 - Special Topics

**Class Hours:** var

**Credits:** 1-3

**Prerequisite:** As appropriate to course content

**Description:** Offered on an experimental or temporary basis to explore topics not included in the established curriculum. A given topic may be offered under any special topic identity no more than three times. Special topics numbered 281 are offered primarily for lower-level undergraduate students.

## FASH 290 - Advanced Principles in Apparel Buying

**Class Hours:** 3

**Lab/Discussion:** 0

**Credits:** 3

**Prerequisite:** FASH 280

**Description:** Focuses on advanced mathematical concepts in merchandising applications used for apparel buying. Addresses the developing and determining unit and dollar assortment plans, cost of merchandise, profitability, inventory control, and retail sale prices.

## FASH 303 - Visual Merchandising

**Class Hours:** 3

**Lab/Discussion:** 0

**Credits:** 3

**Prerequisite:** Junior standing

**Description:** Students design and arrange display and selling areas in relationship to merchandising trends and consumer demands. Emphasizes promotion techniques and merchandise sales through effective use of space, design, and color.

### **FASH 356 - Historic Textiles**

**Class Hours:** 3  
**Lab/Discussion:** 0  
**Credits:** 3

**Description:** A study of the development of textiles from ancient times to present day with special emphasis on techniques used in constructing historic textiles.

### **FASH 357 - Global Fashion Sourcing and Trade**

**Class Hours:** 3  
**Lab/Discussion:** 0  
**Credits:** 3

**Description:** Studies the global textiles and apparel industry with an emphasis on the U.S. textile complex and the U.S. market within an international context.

### **FASH 359 - E-Commerce for Fashion**

**Class Hours:** 3  
**Lab/Discussion:** 0  
**Credits:** 3

**Prerequisite:** FASH 258  
**Description:** Explores aspects of building an Internet business and learn a business process to start a new business that focuses specifically on the Internet shopping mall. Design an Internet marketing plan to create an Internet business in the Fashion Industry.

### **FASH 380 - Applications in Apparel Buying**

**Class Hours:** 3  
**Lab/Discussion:** 0  
**Credits:** 3

**Prerequisite:** FASH 280 (FASH 290 recommended)  
**Description:** Focuses on the development of a six-month stock and sales plan for a retail business using computer applications. Includes retail sales projections, controlling

inventory, calculating the amount of merchandise to purchase, determining markup percentages, and effectively using markdowns to manage inventory.

### **FASH 433 - Study Tour**

**Class Hours:** var  
**Lab/Discussion:** 1  
**Credits:** 6

**Prerequisite:** Junior Standing  
**Description:** Opportunity is provided to visit business establishments and cultural centers concerned with household equipment, furnishings, textiles, clothing, and housing in America as well as abroad. Museums, factories, designers' showrooms, distribution centers, stores, cultural events, and seminars are included. Course may be repeated for a total of 6cr.

### **FASH 434 - Quality Analysis**

**Class Hours:** 1  
**Lab/Discussion:** 3  
**Credits:** 3

**Prerequisite:** FASH 112 and FASH 215  
**Description:** Examines and evaluates the quality of sewn products through fabric, construction, and end-use. Industry specifications and textile testing will be emphasized.

### **FASH 453 - Flat Pattern Design**

**Class Hours:** 1  
**Lab/Discussion:** 3  
**Credits:** 3

**Prerequisite:** FASH 112 or FASH 212  
**Description:** Garment design achieved by use of flat pattern techniques. An understanding is developed of the interrelationship of garment design, figure analysis, fabric, fit, and construction processes. Offered even years, spring semester.

### **FASH 454 - Tailoring**

**Class Hours:** 0  
**Lab/Discussion:** 6  
**Credits:** 3

**Prerequisite:** FASH 112 or FASH 212  
**Description:** Explores traditional custom and industry fast methods of tailoring for apparel construction.

## FASH 455 - Draping

**Class Hours:** 1  
**Lab/Discussion:** 3  
**Credits:** 3

**Prerequisite:** FASH 112 or FASH 212

**Description:** Apparel design principles are applied by draping fabric to conform to the human figure. Students will pad a form to individual measurements and create garments that are both individual and original.

## FASH 456 - Historic Costume

**Class Hours:** 3  
**Lab/Discussion:** 0  
**Credits:** 3

**Prerequisite:** Junior standing

**Description:** A chronological study of historic costume from ancient times to the present day with emphasis on the effect of aesthetic, economic, geographic, political, religious, and social factors on the design of clothing worn.

## FASH 480 - Fashion Portfolio

**Class Hours:** 3  
**Lab/Discussion:** 0  
**Credits:** 3

**Prerequisite:** Senior standing

**Description:** Focuses on the ability to visually and professionally communicate and present student competencies in a variety of formats suitable for job-seeking purposes. Addresses both electronic and traditional format resume and portfolio presentations.

## FASH 481 - Special Topics

**Class Hours:** var  
**Credits:** 1-3

**Prerequisite:** As appropriate to course content

**Description:** Offered on an experimental or temporary basis to explore topics not included in the established curriculum. A given topic may be offered under any special topic identity no more than three times. Special topics numbered 481 are primarily for upper-level undergraduate students.

## FASH 482 - Independent Study

**Class Hours:** var  
**Credits:** 1-3

**Restriction:** Prior approval through advisor, faculty member, department chairperson, dean, and Office of the Provost

**Description:** Particular consumer considerations are independently investigated in the areas of housing, home equipment, interior design, clothing, and textiles, or in the management of resources. Students meet with a faculty member at least five hours per credit.

**Repeated:** May be repeated for a total of 3cr.

## FASH 493 - Internship

**Class Hours:** var  
**Credits:** 1-12

**Restriction:** Approval of instructor and department chairperson; upper-level standing

**Description:** A practical experience related to the student's major area of study with objectives, supervised experience, and evaluation.

**Repeated:** May be repeated for a total of 12cr. **Previously Offered As:** as CNSV 493 before 2016-17.

## Geography

### GEOG 101 - Environment and Society

**Class Hours:** 3  
**Lab/Discussion:** 0  
**Credits:** 3

**Description:** The physical environment is modified by human activities, largely as a consequence of the ways in which societies value and use earth's natural resources, but human activities and distributions are, in turn, influenced by earth's physical features and processes. These themes are addressed by examining the geography of environmental impacts such as tropical deforestation, global climate change, energy development, urban growth, and agricultural land use. Also considered are natural hazards such as hurricanes, earthquakes, volcanic eruptions, and flooding.

### GEOG 102 - Geography of the United States and Canada



**Class Hours:** 3  
**Lab/Discussion:** 0  
**Credits:** 3

**Description:** A conceptually based introductory-level geography course that focuses on the American landscape. Includes mapping culture regions; tracing settlement patterns; resource use; environmental perceptions; the interplay of urbanization, industrialization, postindustrialization, and spatial mobility; the occurrence of economically disadvantaged landscapes; and the role individuals and society have in the creation of the geographic landscape.

### **GEOG 104 - World Geography: Global Context**

**Class Hours:** 3  
**Lab/Discussion:** 0  
**Credits:** 3

**Description:** Relates theories of the discipline of geography to current world issues and global patterns. Emphasizes local versus global strategies of resource management, spatial legacies of colonialism, contemporary multiscale issues with workforce migration, urban structure, disease, and globalization. Focuses on global patterns of development through comparative approaches and understanding of human and physical geographic characteristics of world regions.

### **GEOG 213 - Cartography and Map Design**

**Class Hours:** 3  
**Lab/Discussion:** 0  
**Credits:** 3

**Description:** Introduces principles of thematic map construction. Emphasizes techniques of choropleth mapping and the production of scientific graphs and charts.  
**Previously Offered As:** (Also offered as RGPL 213; may not be taken for duplicate credit.)

### **GEOG 222 - Geography of National Parks**

**Class Hours:** 3  
**Lab/Discussion:** 0  
**Credits:** 3

**Description:** Analyzes the spatial characteristics of America's National Park System. Examines the national

idea with respect to wilderness conservation, preservation, and public presentation of natural and historic sites and landscapes; investigates the physical geography of national parks as defined by ecoregions (physiography, climate, natural vegetation); and evaluates landscape designs within the National Parks System relative to dominant planning techniques of the past and present.

### **GEOG 230 - Human Geography**

**Class Hours:** 3  
**Lab/Discussion:** 0  
**Credits:** 3

**Description:** Introduces human geography, including maps, population, ethnicity and race, agriculture, resources and the environment, economic organization of space, language, religion, political geography, and urban geography. Covers themes of human relationships with the natural environment, culture regions, spatial diffusion, globalization, and cultural landscapes.

### **GEOG 231 - Economic Geography**

**Class Hours:** 3  
**Lab/Discussion:** 0  
**Credits:** 3

**Description:** An introduction to geographic concepts, methods, and skills related to spatial patterns of production, consumption, and exchange over the earth's surface. Emphasizes a global perspective using a combination of theoretical and empirical concepts.

### **GEOG 232 - Urban Landscapes**

**Class Hours:** 3  
**Lab/Discussion:** 0  
**Credits:** 3

**Description:** Introduces basic concepts of urban morphology and landscapes including site, situation, function, urban land use, urban structure, and urban hierarchy. Explores relationships between urban structure and urban planning.  
**Previously Offered As:** (Also offered as RGPL 232; may not be taken for duplicate credit.)

### **GEOG 251 - Geography of Pennsylvania**

**Class Hours:** 3  
**Lab/Discussion:** 0

**Credits:** 3

**Description:** Regions of Pennsylvania are examined in detail to identify man-environment relationships. Soils, topography, climate, vegetation, population, and economic patterns are studied.

### **GEOG 254 - Geography of Russia, Central Eurasia, and Eastern Europe**

**Class Hours:** 3

**Lab/Discussion:** 01

**Credits:** 3

**Description:** Examines the Russian Federation, former Soviet satellites, and the European and Asiatic successor states. The region is the realm of Eurasian languages, historical schisms between eastern and western Europe, and the geographical legacies of the Tsarist and Soviet empires. Topics include terrain and environment, population, economic regions, resources, and geopolitics. These are studied in the context of environmental location and position between Eastern and Western power centers of the 21st century.

### **GEOG 255 - Geography of Africa**

**Class Hours:** 3

**Lab/Discussion:** 0

**Credits:** 3

**Description:** A critical geographic analysis and understanding of Africa, and the continent's level of development against the background of traditional misconceptions about the region. Offers a survey of the human geography and physical resources of contemporary Africa in a historical and global context. Covers a broad range of topics, including Africa, in historical perspective, physical geography, human-environment interactions, population dynamics, culture and change, economic and agricultural development, urbanization and migration, and political geography.

### **GEOG 256 - Geography of East and Southeast Asia**

**Class Hours:** 3

**Lab/Discussion:** 0

**Credits:** 3

**Description:** A critical geographic analysis and understanding of East and Southeast Asia including its

natural environment, human landscapes, and historical geography, and how these aspects of place interact with each other in space. Examines East and Southeast Asia at multiple scales by providing a comprehensive analysis of spatial patterns within the region, across the region as a whole, and by considering how East and Southeast Asia interface with a globalizing planet. Explains the political and economic evolution of this region from the period of global colonialism, through the rise and fall of Marxist ideology to its current position as the emergent Asian Pacific Rim. Covers a broad range of topics, including: historical geography; physical geography; human-environment interactions; population dynamics; cultural geography; economic and agricultural development; urbanization and migration; and political geography. (Titled Geography of East Asia before 2014-15.)

### **GEOG 257 - Geography of South and Southwest Asia**

**Class Hours:** 3

**Lab/Discussion:** 01

**Credits:** 3

**Description:** A geographical exploration and analysis of South and Southwest Asia. A survey overview of the complex physical and human geographies of the region, including demographic transition, gender inequalities, issues of development in the postcolonial global era, religious diversity, the Israeli-Palestinian conflict, US foreign policy toward the region, the exploitation of resources (particularly oil), terrorism, and the rise of radical Islamist movements. (Titled Geography of South and Southeast Asia before to 2014-15.)

### **GEOG 261 - Geography of Wine**

**Class Hours:** 3

**Lab/Discussion:** 0

**Credits:** 3

**Description:** The geography of the grape, its production, products, social significance, and consequences of the global wine trade are explored. Students develop an appreciation for the environmental constraints and characteristics of wines and wine regions. Field trips to visit wineries are an essential element. Verifiable proof of 21 years of age required for voluntary wine-tasting activities.

### **GEOG 316 - Introduction to Geographic Information Systems**

**Class Hours:** 3  
**Lab/Discussion:** 0  
**Credits:** 3

**Description:** Presents automated methods for creating, maintaining, and analyzing spatial data. Includes (1) specialized GIS hardware and software; (2) vector vs. raster vs. object-oriented spatial data structures; (3) creation and manipulation of geographic data files; (4) database design and management concepts; (5) spatial analysis; and (6) cartographic design.

**Previously Offered As:** (Also offered as RGPL 316; may not be taken for duplicate credit.)

### **GEOG 331 - Population Geography**

**Class Hours:** 3  
**Lab/Discussion:** 0  
**Credits:** 3

**Description:** Spatial variations in numbers, characteristics, and dynamics of human population, models, and theoretical constructs relevant to demographic structures and processes are studied, as well as major world and regional problems.

### **GEOG 333 - Trade and Transportation**

**Class Hours:** 3  
**Lab/Discussion:** 0  
**Credits:** 3

**Description:** Deals with the spatial aspects of transportation systems and their use. Discusses circulation, accessibility, time and distance concepts, and trade patterns.

**Previously Offered As:** (Also offered as RGPL 333; may not be taken for duplicate credit.)

### **GEOG 334 - Political Geography**

**Class Hours:** 3  
**Lab/Discussion:** 0  
**Credits:** 3

**Description:** Geographic factors and conditions are analyzed as they relate to the character and function of states. Political institutions are evaluated in light of geographic conditions.

### **GEOG 341 - Climatology**

**Class Hours:** 3  
**Lab/Discussion:** 0  
**Credits:** 3

**Description:** Examines the elements of weather and climate on earth. The location and causes of global climatic regions are examined in relation to moving pressure and wind systems. Also considers the climatic history of the planet and recent human modifications of the atmospheric environment.

**Previously Offered As:** (Also offered as RGPL 341; may not be taken for duplicate credit.)

### **GEOG 342 - Physiography**

**Class Hours:** 3  
**Lab/Discussion:** 0  
**Credits:** 3

**Description:** Focuses on landform types and their spatial distribution. Emphasizes the tectonic forces that build landforms and the weathering and erosional processes that erode and shape surface features. The relationship between human activities and landforms is also considered.

**Previously Offered As:** (Also offered as RGPL 342; may not be taken for duplicate credit.)

### **GEOG 343 - Fresh Water Resources**

**Class Hours:** 3  
**Lab/Discussion:** 0  
**Credits:** 3

**Description:** Focuses on surface and groundwater as a resource with unique properties. Fresh water is defined physically by storage in the hydrologic cycle and the values assigned by different cultures. Problems featured relate to consumptive and withdrawal water uses, the problems of water supply and scarcity, water law and its inconsistencies, flooding and floodplain management, sources of contamination and pollution, wetlands, and case studies of selected river basins.

**Previously Offered As:** (Also offered as RGPL 343; may not be taken for duplicate credit.)

### **GEOG 345 - Biogeography for Environmental Managers**

**Class Hours:** 3  
**Lab/Discussion:** 0  
**Credits:** 3

**Prerequisite:** One course from GEOG 341, GEOG 342, BIOL 103, BIOL 115

**Description:** Examines the distribution of plants and animals across the earth's surface, as influenced by natural and human processes. Emphasizes landscape and regional habitat dynamics as they relate to environmental planning and management. Field trips supplement lectures and readings.

**Previously Offered As:** (Also offered as RGPL 345; may not be taken for duplicate credit.)

## **GEOG 404 - Transportation Planning**

**Class Hours:** 3

**Lab/Discussion:** 0

**Credits:** 3

**Prerequisite:** GEOG 333/RGPL 333 or RGPL 350 or one course from the Economic Geographer Concentration

**Description:** Introduces the major themes and methods of transportation planning, particularly in an urban context. It is project oriented and supported by readings from the scholarly literature covering themes such as modes of transit, land use implications, and commercial development. Reading assignments are organized topically and coordinated with two workbook projects that develop applied skills. Topics include theory, empirical description, and methodological practice.

**Previously Offered As:** (Also offered as RGPL 404; may not be taken for duplicate credit.)

## **GEOG 411 - History of Geography**

**Class Hours:** 3

**Lab/Discussion:** 0

**Credits:** 3

**Prerequisite:** GEOG 230 and at least 9 other GEOG credits

**Description:** Deals with history of the discipline, great ideas, major scholars, leading problems, and unresolved issues.

## **GEOG 415 - Introduction to Remote Sensing**

**Class Hours:** 3

**Lab/Discussion:** 0

**Credits:** 3

**Description:** Introduces concepts, principles, methods, and theories applied in and through remote sensing of the

earth's physical and cultural features. Includes understanding the physical principles of the electromagnetic spectrum, the technological underpinnings of a variety of sensors, and applications of these technologies. Applies industry standard software packages in the geospatial sciences to illustrate course concepts and build software recognition and application skills.

**Previously Offered As:** (Also, offered as RGPL 415; may not be taken for duplicate credit.)

## **GEOG 424 - Technical Issues in Geographic Information Systems**

**Class Hours:** 3

**Lab/Discussion:** 0

**Credits:** 3

**Prerequisite:** GEOG 316 or GEOG 419

**Description:** Uses project-based approach to develop and maintain a geographic information system (GIS). Designs and implements functional systems through cooperative learning. Covers methods for designing GIS to user specification, data collection, data input, project management, and system documentation.

**Previously Offered As:** (Also offered as RGPL 424; may not be taken for duplicate credit.)

## **GEOG 425 - Global Positioning Systems (GPS) Concepts and Techniques**

**Class Hours:** 3

**Lab/Discussion:** 0

**Credits:** 3

**Prerequisite:** 60cr completed or instructor permission

**Description:** Provides knowledge of the theoretical basis and practical applications of global positioning systems (GPS). Students gain hands-on experience using GPS receivers and GPS observables, as well as the ability to determine point and relative position fixes from pseudorange and carrier phase measurements. Students are exposed to industry-standard GPS hardware and software, as well as appropriate techniques for processing GPS data to achieve necessary levels of horizontal and vertical positional accuracy. Integration of GPS and geographic information systems (GIS) will also be discussed.

## **GEOG 427 - GeoDesign**

**Class Hours:** 3

**Lab/Discussion:** 0

**Credits:** 3

**Prerequisite:** GEOG 424 or RGPL 424

**Description:** Provides an introduction and application of the theory and techniques of the GeoDesign framework. Involves data-driven decision making for collaborative community development and land-use planning and is an emerging conceptual framework for place-based decisions and designs. Integrates knowledge of community planning, decision making, landscape design, and Geospatial techniques to produce a professional quality project. (Also offered as RGPL 427; may not be taken for duplicate credit.)

### **GEOG 435 - Geography of Energy**

**Class Hours:** 3

**Lab/Discussion:** 0

**Credits:** 3

**Description:** Covers patterns and problems of energy production and consumption in human societies. Descriptions of what, where, and how much are combined with issues such as technological change, conservation, allocation, environmental impacts, and economic development. Specific topics include global history and trends of energy development, pricing systems, types of energy, locations of production areas, and the energy status of the United States.

### **GEOG 440 - Conservation: Environmental Analysis**

**Class Hours:** 3

**Lab/Discussion:** 0

**Credits:** 3

**Description:** Problems of exploitation and utilization of regional resources such as soils, minerals, forests, and wildlife are considered in relation to population growth and regional planning and development.

**Previously Offered As:** (Also offered as RGPL 440; may not be taken for duplicate credit.)

### **GEOG 454 - GIS Analysis of Public Health**

**Class Hours:** 3

**Lab/Discussion:** 0

**Credits:** 3

**Prerequisite:** GEOG 316/RGPL 316 or GEOG 417

**Description:** Employs GIS-based public health analysis

methods that are employed to understand the distribution and nature of public health problems, health disparities and access to health care services, and potential location-based strategies or interventions. Demonstrates knowledge of cartographic and spatial analyses and how they are used in the field of Public Health. Explores typical spatial public health analysis techniques, as well as demonstrates the ability to select appropriate data and analytical methods to implement GIS-based analyses.

### **GEOG 455 - Advanced Remote Sensing**

**Class Hours:** 3

**Lab/Discussion:** 0

**Credits:** 3

**Prerequisite:** GEOG 415/RGPL 415

**Description:** Expands beyond basic principles of remote sensing to understand and apply complex methods of data collection, normalization, and analysis. May cover radiometric normalization, spectral transformations, change detection, object oriented classification, spatial analysis and filtering, accuracy assessment, and application of learned techniques. A research intensive experience with a project and paper demonstrating acquired knowledge and application of techniques to a variety of physical and human processes.

**Previously Offered As:** (Also offered as RGPL 455; may not be taken for duplicate credit.)

### **GEOG 460 - Foundations of Unmanned Aerial Systems Science and Applications**

**Class Hours:** 3

**Lab/Discussion:** 0

**Credits:** 3

**Description:** Introduces fundamental aspects of unmanned aerial systems (UAS), including relevant federal, state and local regulations. Covers UAS functionality, including components, technology and operational issues. Examines scientific technological principles underlying UAS flight and data acquisition. Covers UAS component evaluation and assembly, pre-flight procedures, flight mission planning, and execution of basic flight skills.

### **GEOG 462 - Planning Policy, Implementation, and Administration**

**Class Hours:** 3

**Lab/Discussion:** 0

**Credits:** 3

**Prerequisite:** RGPL 352

**Description:** Focuses on the planning and implementation of policies to manage the location, timing, type, and intensity of land development. Explores the multi-step process from community plan to project completion. Exposes students to the public environment in which community plans are developed and implemented and walks them through the real-world problems of identifying projects, building agency and interagency consensus, finding funding, putting together a project plan, project management, personnel, and budget to project completion.  
**Previously Offered As:** (Also offered as RGPL 462; may not be taken for duplicate credit.)

### **GEOG 463 - Unmanned Aerial Systems for Remote Sensing and Spatial Data Acquisition**

**Class Hours:** 3  
**Lab/Discussion:** 0  
**Credits:** 3

**Prerequisite:** GEOG 460

**Description:** Examines concepts and techniques involved in the implementation of Unmanned Aerial Systems (UAS) for the collection of remote sensing and spatial data acquisition. Emphasizes acquisition of the knowledge and skills necessary to undertake manual and automated UAS flights for spatial data acquisition, such as: fundamental photogrammetry concepts, UAS mission planning, GPS/GNSS ground control, UAS airborne navigation, and processing of UAS-collected data into data deliverables.

### **GEOG 475 - Spatial Analysis Techniques**

**Class Hours:** 3  
**Lab/Discussion:** 01  
**Credits:** 3

**Prerequisite:** GEOG 316 or GEOG 419

**Description:** Presents concepts underlying spatial analysis techniques and provides hands-on experience operationalizing spatial analysis methods through use of Geographic Information Systems (GIS) hardware and software.

### **GEOG 481 - Special Topics**

**Class Hours:** 3  
**Lab/Discussion:** 0  
**Credits:** 3

**Prerequisite:** As appropriate to course content

**Description:** Offered on an experimental or temporary basis to explore topics not included in the established curriculum. A given topic may be offered under any special topic identity no more than three times. Special topics numbered 481 are primarily for upper-level undergraduate students.

**Previously Offered As:** (May also be offered as RGPL 481; may not be taken for duplicate credit under same title.)

### **GEOG 485 - GIS Application Development**

**Class Hours:** 3  
**Lab/Discussion:** 0  
**Credits:** 3

**Prerequisite:** GEOG 316/RGPL 316

**Description:** Designed to provide students with exposure to current industry-standard techniques for developing customized geographic information systems applications to accomplish mapping, analysis and geoprocessing functions. Covers GIS modeling, object-oriented programming, GIS software development, and customization of "out-of-the-box" GIS software to meet user functionality and interface specifications.

### **GEOG 488 - Geospatial Intelligence Capstone**

**Class Hours:** 3  
**Lab/Discussion:** 0  
**Credits:** 3

**Prerequisite:** GEOG 213 or RGPL 213, GEOG 316 or RGPL 316, GEOG 415 or RGPL 415, and MLSC 204 or PLSC 465

**Description:** Synthesizes concepts, skills, and techniques learned in prerequisite courses in the Geospatial Intelligence certificate curriculum to develop an applied geo intelligence project. Includes spatial data acquisition, processing, analysis and reporting to geospatial intelligence tradecraft standards, as well as a culminating presentation of the project.

### **GEOG 493 - Internship**

**Class Hours:** var  
**Credits:** 3-12

**Description:** Professional learning experience with

emphasis on application of academic background. Open to majors and minors in geography with a total of 60cr and 15cr in the major. See internship supervisor for additional information.

### **GEOG 498 - Research Seminar**

**Class Hours:** 3  
**Lab/Discussion:** 0  
**Credits:** 3

**Prerequisite:** GEOS 470

**Description:** Focuses on recent research in the major field in a senior seminar and workshop capstone. Develops a research project on a topic of local or regional importance. (Also offered as RGPL 498 ; may not be taken for duplicate credit.)

**Previously Offered As:** (Also offered as RGPL 498; may not be taken for duplicate credit.)

## **Geoscience**

### **GEOS 101 - The Dynamic Earth**

**Class Hours:** 3  
**Lab/Discussion:** 0  
**Credits:** 3

**Restriction:** No geoscience majors/minors

**Description:** Examines the constant changes that affect the rocky surface of our planet. From volcanic eruptions and catastrophic earthquakes to the slow drift of continents and passage of ice ages, earth processes have shaped the history of life and altered the development of human civilization.

### **GEOS 102 - The Dynamic Earth Lab**

**Class Hours:** 0  
**Lab/Discussion:** 2  
**Credits:** 1

**Corequisite:** Enrollment in GEOS 102 requires corequisite or previous enrollment in GEOS 101

**Restriction:** No geoscience majors/minors

**Description:** Introduces the techniques geologists use to study the earth and reconstruct its past. Labs cover minerals, rocks, map interpretation, and fossil identification and may include field trips during the scheduled lab period.

### **GEOS 103 - Oceans and Atmospheres**

**Class Hours:** 3  
**Lab/Discussion:** 0  
**Credits:** 3

**Restriction:** No geoscience majors/minors

**Description:** The earth's oceans and atmosphere play a crucial role in determining the pace and extent of changes occurring to our global environment. Examines the composition and character of these components and their interaction with other major components of the earth system.

### **GEOS 104 - Oceans and Atmospheres Lab**

**Class Hours:** 0  
**Lab/Discussion:** 2  
**Credits:** 1

**Corequisite:** Enrollment in GEOS 104 requires corequisite or previous enrollment in GEOS 103

**Restriction:** No geoscience majors/minors

**Description:** Introduces the techniques oceanographers and meteorologists use to study the earth's oceans and atmospheres and reconstruct their evolution. Labs cover seawater processes, oceanic circulation, marine life, atmospheric structure, and weather.

### **GEOS 105 - Exploring the Universe**

**Class Hours:** 3  
**Lab/Discussion:** 0  
**Credits:** 3

**Restriction:** No Geoscience majors/minors

**Description:** Examines the history of time; the reasons for the seasons; the characteristics of the planets, moons, stars, and galaxies; and the history and future of space exploration.

### **GEOS 106 - Exploring the Universe Lab**

**Class Hours:** 0  
**Lab/Discussion:** 2  
**Credits:** 1

**Corequisite:** Enrollment in GEOS 106 requires corequisite or previous enrollment in GEOS 105

**Restriction:** No geoscience majors/minors

**Description:** Introduces the techniques astronomers use to

study the nature and motions of objects in the sky, including the sun, moon, planets, and stars. Includes two observations held at night.

## **GEOS 111 - Earth and Environmental Systems**

**Class Hours:** 3  
**Lab/Discussion:** 0  
**Credits:** 3

**Description:** Examines environmental science from an Earth systems science perspective. Introduces the interactions between various systems that make up the Earth's critical zone (the near-surface interface between humans and our planet's atmosphere, biosphere, lithosphere and hydrosphere). Explores spatial and temporal variation of environmental processes through the use of hands-on data collection, manipulation and modeling.

## **GEOS 150 - Geology of National Parks**

**Class Hours:** 3  
**Lab/Discussion:** 0  
**Credits:** 3

**Restriction:** No Geoscience majors/minors  
**Description:** Explores geological processes and earth history using the classic rock formations of America's national parks. Includes national parks such as Arches, Bryce Canyon, Carlsbad Caverns, Grand Canyon, Great Smokies, Mammoth Cave, Shenandoah, Yellowstone, Yosemite, Zion, and others.

## **GEOS 151 - The Age of Dinosaurs**

**Class Hours:** 3  
**Lab/Discussion:** 0  
**Credits:** 3

**Restriction:** No Geoscience majors/minors  
**Description:** A thorough introduction to dinosaurs and the world they inhabited. Topics include the most current theories regarding dinosaur biology (behavior, metabolism, evolution), ecology (greenhouse climate, associated fauna and flora), and extinction (asteroid impact, volcanism, climate change).

## **GEOS 154 - Human Exploration of Space**

**Class Hours:** 3  
**Lab/Discussion:** 0

**Credits:** 3

**Restriction:** No Geoscience majors/minors  
**Description:** Covers the history, technical considerations, and scientific and social issues of the exploration of the planets and smaller objects of the solar system. Early rocketry, the race to the Moon, and past robotic missions provide a perspective to consider current and future science missions and human settlement beyond earth. Includes field observations and activities that may occur on evenings and weekends.

## **GEOS 155 - Geology of Climate Change**

**Class Hours:** 3  
**Lab/Discussion:** 0  
**Credits:** 3

**Description:** Examines the geologic factors which control Earth's climate; how that climate has varied through Earth's history; how anthropogenic climate change is different from changes previously experienced on Earth; and how anthropogenic climate change is affecting the planet.

## **GEOS 156 - Geology of Natural Disasters**

**Class Hours:** 3  
**Lab/Discussion:** 0  
**Credits:** 3

**Description:** Explores the science behind natural disasters, including earthquakes, landslides, floods and volcanic eruptions. Students will investigate the geologic processes that impact the surface of the Earth and endanger human lives. By understanding the science behind these processes, students will learn to recognize known risk factors, minimize their vulnerability to disaster, and weigh the consequences to society of living in disaster-prone regions.

## **GEOS 200 - Foundations of Geology**

**Class Hours:** 3  
**Lab/Discussion:** 3  
**Credits:** 4

**Restriction:** Geoscience majors/minors, environmental engineering, energy management, anthropology, geography, and regional planning majors, biology majors (all tracks), or instructor permission.  
**Description:** Introduces the geological sciences, including the study of the Earth's interior; plate tectonics; minerals and crystallography; igneous, sedimentary, and



metamorphic rocks and their cycling; geologic time; crustal deformation and. Laboratory exercises will emphasize hand-on learning of basic geology skills including mineral and rock identification, understanding the geometry of subsurface geologic structures, and topographic and geologic map reading. (Also offered as ENVE 200. These courses may be substituted for each other and be used interchangeably for D/F repeats but may not be counted for duplicate credit.)

### **GEOS 203 - Surficial Processes**

**Class Hours:** 3

**Lab/Discussion:** 3

**Credits:** 4

**Prerequisite:** Grade of "C" or better in GEOS 200

**Description:** Introduces students to the geological processes that shape the earth's surface, from uplift and erosion of mountains to the transport of sediment and subsequent formation of sedimentary rocks. Focuses on the interaction of underlying tectonic forces with the natural cycles of the earth's atmosphere and hydrosphere and the subsequent evolution of both landscape and surface deposits.

### **GEOS 204 - Historical Geology**

**Class Hours:** 3

**Lab/Discussion:** 3

**Credits:** 4

**Prerequisite:** Grade of "C" or better in GEOS 200

**Description:** An introduction to the historical development of geology as a scientific discipline and an overview of the methods used by geologists to reconstruct the Earth's past history. Studies the rock and fossil record in lecture, lab, and field outcrops to discover how our planet formed, how plate tectonic activity shaped ocean basins and continents, how geologic processes created economic resources, and how the history of life is recorded by ancient rock deposits. Includes required field trips on weekends.

**Previously Offered As:** (Offered as GEOS 351 before 2015-16.)

### **GEOS 301 - Mineralogy**

**Class Hours:** 3

**Lab/Discussion:** 3

**Credits:** 4

**Prerequisite:** Grade of "C" or better in GEOS 200

**Description:** An introduction to crystallography, crystal chemistry, physical properties, optical properties, and phase equilibria of minerals pertinent to geology and economic resources. Laboratory exercises focus on mineral identification and interpretation as well as analytical techniques such as x-ray diffractometry and optical microscopy

### **GEOS 302 - Structural Geology**

**Class Hours:** 3

**Lab/Discussion:** 3

**Credits:** 4

**Prerequisite:** Grades of "C" or better in GEOS 200

**Description:** A study of the geometry, kinematics, and dynamics of the primary structures of the earth's crust. Focuses on the geometric relations between geologic contacts and surface topography, the description of primary structures such as foliations, lineations, folds and fractures, the constraints on crustal motions, and the relation between stress and strain. Students are introduced to the tools of rock mechanics and spherical geometry. The laboratory includes extensive work with geologic maps and profiles, the Brunton compass, and orthographic and stereographic projections. Includes field trips that may occur on weekends.

### **GEOS 303 - Field Geology**

**Class Hours:** 3

**Lab/Discussion:** 3

**Credits:** 4

**Prerequisite:** Grade of "C" or better in GEOS 200

**Description:** Principles and techniques of field geology with an emphasis on developing field skills using a Brunton compass, topographic maps, Jacobs staff, stereographic projections, field computers, and the global positioning system. Field projects involve techniques of field note taking, measuring and describing stratigraphic sections, bedrock mapping and analysis, environmental assessment, and construction of geologic maps and structure sections. Includes field trips that may occur on weekends.

### **GEOS 310 - Environmental Geology**

**Class Hours:** 3

**Lab/Discussion:** 3

**Credits:** 4

**Prerequisite:** Grade of "C" or better in GEOS 203

**Description:** The study of human interactions with the earth from a geological perspective. An emphasis is placed on the scientific concepts necessary to understand these interactions, including groundwater flow, soil formation and destruction, waste disposal, geologic hazards, stream hydrology, climate change, and natural resources. Contemporary environmental issues are explored through primary scientific literature and news media. Includes field trips that may occur on weekends.

### **GEOS 311 - Geochemistry**

**Class Hours:** 3  
**Lab/Discussion:** 3  
**Credits:** 4

**Prerequisite:** CHEM 111, MATH 121, grade of "C" or better in GEOS 200

**Description:** An introduction to low-temperature chemistry of the earth's surface and near-surface; includes discussions of chemical activity, solution chemistry, organic geochemistry, trace elements, stable and radiogenic isotope geochemistry, and the chemistry of natural waters.

### **GEOS 312 - Hydrogeology**

**Class Hours:** 3  
**Lab/Discussion:** 3  
**Credits:** 4

**Prerequisite:** Grades of "C" or better in GEOS 200

**Description:** An overview of groundwater geology, including flow equations, aquifer flow equation, aquifer parameter testing, groundwater sampling techniques, and remediation of groundwater pollution. Labs emphasize graphical and analytical solutions as well as computer modeling of groundwater flow systems. (Also offered as ENVE 312. These courses may be substituted for each other and be used interchangeably for D/F repeats but may not be counted for duplicate credit.)

### **GEOS 323 - Geophysics**

**Class Hours:** 3  
**Lab/Discussion:** 3  
**Credits:** 4

**Prerequisite:** PHYS 111, MATH 121, grade of "C" or better in GEOS 200

**Description:** An introduction to physics of the surface and interior of the solid earth, including earthquakes, propagation of earthquake waves, gravity field and interior

structure, magnetic field and magnetic reversals, heat flow, geodesy, and tides. Techniques used for applied geophysical surveys are also examined.

### **GEOS 341 - Planetary Geology**

**Class Hours:** 3  
**Lab/Discussion:** 3  
**Credits:** 4

**Corequisite:** MATH 121, PHYS 111 or instructor permission

**Description:** Materials, motions, and evolution of the solar system, with an emphasis on observational methods, mechanics, spatial relationships, geology, and origin of the solar system.

### **GEOS 342 - Stellar Astronomy**

**Class Hours:** 3  
**Lab/Discussion:** 3  
**Credits:** 4

**Corequisite:** MATH 121, PHYS 111 or instructor permission

**Description:** Evolution and nature of objects in the universe, including the Sun, stars, and galaxies. A study of methods for gathering astronomical data on motion, distance, and composition.

### **GEOS 352 - Stratigraphy**

**Class Hours:** 3  
**Lab/Discussion:** 3  
**Credits:** 4

**Prerequisite:** Grade of "C" or better in GEOS 203

**Description:** An introduction to the concepts and methods applied in defining and establishing the spatial and temporal relationships of stratigraphic units—the material packages of sediment/rock and the intervals of time that are derived from them. Includes field trips that may occur on weekends.

### **GEOS 353 - Paleontology**

**Class Hours:** 3  
**Lab/Discussion:** 3  
**Credits:** 4

**Prerequisite:** Grade of "C" or better in GEOS 200

**Description:** An introduction to the study of prehistoric

life, the process and products of organic evolution, and the utility of fossils as tools for solving geological and paleobiological problems. Includes field trips that may occur on weekends.

### **GEOS 355 - Sedimentology**

**Class Hours:** 3  
**Lab/Discussion:** 3  
**Credits:** 4

**Prerequisite:** Grade of "C" or better in GEOS 301  
**Description:** A study of sediments and sedimentary rocks with emphasis on reconstruction of their origin, specifically depositional and post-burial history, from properties observed in outcrops, hand-specimens, and thin sections.

### **GEOS 356 - Coastal Processes and Geology**

**Class Hours:** 3  
**Lab/Discussion:** 3  
**Credits:** 4

**Prerequisite:** GEOS 203, geoscience majors/minors, and earth and space science education majors/minors, or instructor permission

**Description:** The study of the origin and evolution of coastal environments from a geological perspective. Emphasis is placed on the quantitative investigation of the dominant processes (waves, tides, and currents) that create and modify these environments, as well as the role of human-induced change. Contemporary issues in coastal geology are explored through primary scientific literature, news media, and laboratory exercises. Includes field trips that may occur on weekends.

### **GEOS 362 - Plate Tectonics**

**Class Hours:** 3  
**Lab/Discussion:** 3  
**Credits:** 4

**Prerequisite:** Grade of "C" or better in GEOS 200  
**Description:** Introduction to formal theory of plate tectonics. Topics include magnetic anomalies, first motion studies, thermal structures of the plates, kinematics, crustal generation, sea floor spreading, collision, and subduction deformation.

### **GEOS 370 - Oceanography**

**Class Hours:** 3  
**Lab/Discussion:** 3  
**Credits:** 4

**Prerequisite:** Grade of "C" or better in GEOS 200  
**Description:** An introduction to physical, chemical, geological, and biological nature of the ocean: bathymetry, submarine geology, and sedimentary deposits. Includes field trip(s) that may occur on weekend(s).

### **GEOS 371 - Meteorology**

**Class Hours:** 2  
**Lab/Discussion:** 3  
**Credits:** 3

**Prerequisite:** Grade of "C" or better in GEOS 200  
**Description:** An introduction to meteorological sciences; composition and structure of the atmosphere; radiation principles; elementary thermodynamics and heat balance.

### **GEOS 400 - PASSHE Geology Field Course**

**Class Hours:** var  
**Lab/Discussion:** 0  
**Credits:** 1-6

**Prerequisite:** GEOS 200  
**Description:** Presents students with opportunities to apply their knowledge and learn valuable geologic field skills through the investigation of Pennsylvania's unique and varied geology. Students will prepare surficial and bedrock geologic maps, construct stratigraphic columns and geologic cross sections, conduct stream monitoring and geochemical analyses. They will work independently and in groups to analyze field-collected data and develop scientific reports. The course is offered throughout Pennsylvania at select locations with field-based modules taught by experts from across the state system.  
**Repeated:** May be taken up to three times for a maximum of 6 credits.

### **GEOS 405 - American Southwest Seminar**

**Class Hours:** 1  
**Lab/Discussion:** 0  
**Credits:** 1

**Prerequisite:** Grades of "C" or better in GEOS 200; instructor permission required

**Description:** A seminar introduction to the geology of the American Southwest. Includes examination of Colorado Plateau stratigraphy, Basin and Range tectonism, and volcanic events in the eastern Sierra Nevada. Prepares students specifically for GEOS 406.

### **GEOS 406 - American Southwest Field Workshop**

**Class Hours:** var  
**Credits:** 3

**Prerequisite:** GEOS 405; instructor permission required  
**Description:** A field study of the major geologic features and relationships exposed in the American Southwest, including the Colorado Plateau, the Rio Grande Rift, Death Valley, and parts of the eastern Sierra Nevada in California. (Three weeks, taught in the summer only.)

### **GEOS 407 - Carbonate Geology Seminar**

**Class Hours:** 1  
**Lab/Discussion:** 0  
**Credits:** 1

**Prerequisite:** Grades of "C" or better in GEOS 200; instructor permission required  
**Description:** A seminar introduction to the geological environment and history of the carbonate rocks and sediments found in Florida. Includes instruction in the techniques of field analysis and geologic interpretation. Prepares students specifically for GEOS 408.

### **GEOS 470 - Research Planning**

**Class Hours:** 2  
**Lab/Discussion:** 0  
**Credits:** 2

**Prerequisite:** 75cr or instructor permission  
**Description:** Exposes students to the methods of research in the geosciences by working on a project of their choosing. Students begin their capstone research by planning and initiating a project of their choosing. Working with a faculty advisor, students define a problem, do the background research to discover what is already known about it, propose several working hypotheses to solve it, and then present their capstone research proposal along with a review of the relevant scientific literature.

### **GEOS 475 - Data Interpretation**

**Class Hours:** 2  
**Lab/Discussion:** 0  
**Credits:** 2

**Prerequisite:** GEOS 470, Senior standing

### **GEOS 480 - Senior Research**

**Class Hours:** 2  
**Lab/Discussion:** 0  
**Credits:** 2

**Prerequisite:** GEOS 475, senior standing  
**Description:** Working closely with a research advisor, seniors complete their capstone research project and prepare a professional poster and oral presentation to effectively communicate their findings to an audience of faculty, alumni, and peers. Designed for seniors enrolled in all majors within the Geoscience Department.

### **GEOS 481 - Special Topics**

**Class Hours:** var  
**Credits:** 1-3

**Prerequisite:** As appropriate to course content  
**Description:** The department's intention is to use this course to schedule extended field trips and for teaching special courses that utilize the specialties of the Geoscience faculty.

### **GEOS 482 - Independent Study**

**Class Hours:** var  
**Credits:** 1-3

**Restriction:** Prior approval through advisor, faculty member, department chairperson, dean, and Office of the Provost  
**Description:** Independent study provides an opportunity to use library, laboratory, or field research in an area that is of interest under the supervision of a designated faculty member. Approval is based on academic appropriateness and availability of resources.

### **GEOS 493 - Geoscience Internship**

**Class Hours:** var  
**Credits:** 1-12

**Description:** Summer or semester work experience with cooperating firms or agencies. May be scheduled only after

consultation with advisor and chairperson. Requirements include up to three on-site consultations, depending on credits and location's site; completion of up to three oral progress reports; and submission of a detailed work diary. Restricted to junior and senior department majors; only 3cr may be applied toward major.

## German

### GRMN 101 - Beginning German Language and Culture I

**Class Hours:** 3  
**Lab/Discussion:** 0  
**Credits:** 3

**Description:** For students with little or no background in the study of German. (Students who have studied the language or have a background in German should complete a placement test.) Develops basic ability to communicate effectively in German in everyday situations by asking questions and giving common information about oneself and others in the present time frame. Also develops ability to identify main ideas from written and spoken German, and to communicate in simple written forms. Explores cultural elements of German-speaking countries and communities.

### GRMN 102 - Elementary German II

**Class Hours:** 4  
**Lab/Discussion:** 0  
**Credits:** 4

**Prerequisite:** GRMN 101 or equivalent  
**Description:** A continuation of GRMN 101. Emphasizing communication through reading, writing, speaking, and listening. Focus on pronunciation and expansion of grammatical concepts to enable students to communicate in present, past, and future tenses in a variety of situations. Students will be able to negotiate a limited number of personal needs, handle a range of interactions related to their daily lives, and manage simple social transactions. They expand their cultural knowledge of German-speaking countries. Attendance is required. Liberal Studies credit is given. May not register for or take a D/F repeat in GRMN 102 when credit has already been received for a higher-numbered German course.

### GRMN 201 - Intermediate German

**Class Hours:** 4  
**Lab/Discussion:** 0  
**Credits:** 4

**Prerequisite:** GRMN 102 or equivalent  
**Description:** A continuation of GRMN 102. Emphasizing communication through reading, writing, speaking, and listening. Focus on pronunciation and expansion of grammatical concepts to enable students to communicate in present, past, and future tenses in a variety of situations. Students will be able to negotiate an increasing number of personal needs, handle a range of interactions related to their daily lives, and manage simple social situations and transactions. They expand their cultural knowledge of German-speaking countries. Attendance is required. Liberal Studies credit is given. May not register for or take a D/F repeat in GRMN 201 when credit has already been received for a higher-numbered German course.

### GRMN 220 - Intermediate German Conversation

**Class Hours:** 3  
**Lab/Discussion:** 0  
**Credits:** 3

**Prerequisite:** GRMN 201 or equivalent, or instructor permission  
**Description:** Intensive work on oral communication skills with specific emphasis on spontaneous interpersonal speaking, discourse strategies, vocabulary building, and pronunciation. Required for all minors.

### GRMN 230 - Intermediate German Composition and Grammar

**Class Hours:** 3  
**Lab/Discussion:** 0  
**Credits:** 3

**Prerequisite:** GRMN 201 or equivalent  
**Description:** Intensive practice in written expression and communication in German together with a grammar review. Intermediate-level course with the goal of fostering writing in German for a variety of practical purposes. Review and expansion of specific grammar points are integrated into each unit. Taught in German.

### GRMN 281 - Special Topics

**Class Hours:** var  
**Credits:** 1-3

**Prerequisite:** As appropriate to course content

**Description:** Offered on an experimental or temporary basis to explore topics not included in the established curriculum. A given topic may be offered under any special topic identity no more than three times. Special topics numbered 281 are offered primarily for lower-level undergraduate students.

### **GRMN 372 - Childhood Enchantment: The Fairy Tale in German Culture and Literature**

**Class Hours:** 3

**Lab/Discussion:** 0

**Credits:** 3

**Description:** Analyzes the role fairy tales have played in German culture and literature over time. Emphasizes the complex reflection of socio-political processes and realities in folk tales and literary fairy tales (*Kunstmärchen*), as well as the use of fairy tale motifs in other literary genres, film, the arts, and music, advertising, and everyday life. Topics to be discussed may include, but are not limited to, gender roles, family relationships, the motif of the quest, the depiction of heroes and heroines, the conflict between good and evil, crime and punishment, the idea of justice, altruism versus egotism, the fairy tale and politics, etc.

### **GRMN 482 - Independent Study**

**Class Hours:** var

**Credits:** 1-3

**Restriction:** Prior approval through advisor, faculty member, department chairperson, dean, and Office of the Provost

**Description:** Provides an opportunity to engage in an in-depth analysis of some topic dealing with the German language and culture through consultation with a faculty member.

## **Honors Business**

### **HBUS 101 - Contemporary Business Issues**

**Class Hours:** 3

**Lab/Discussion:** 0

**Credits:** 3

**Restriction:** Admission to College of Business Honors Program

**Description:** An honors-level course in the Eberly College of Business enables eligible students to participate in advanced study in the freshman year. Provides the foundation of the integrative nature of the college's majors by including seminar meetings discussing contemporary business issues with local, regional, and national alumni business leaders; research mentoring with college faculty and businesspeople; opportunities to provide service to the college, university, and the community; and the beginning of an electronic portfolio. Serves as the introduction to the college's honors program that also includes a sophomore cluster, an honors junior block, and an honors senior capstone course.

## **History**

### **HIST 196 - Explorations in US History**

**Class Hours:** 3

**Lab/Discussion:** 0

**Credits:** 3

**Description:** Interprets and analyzes the development of US history through a chronological survey of a historical era or a topical theme central to US history. Examines, where appropriate, the intersection of race and ethnicity, gender, and class. Emphasizes the recognition of historical patterns, the interconnectedness of historical events, and the incorporation of various subfields in the discipline of history. Successful completion of HIST 196 fulfills the Liberal Studies History requirement. HIST 197 and HIST 198 also fulfill this requirement, and any of these courses may be substituted for each other and may be used interchangeably for D/F repeats but may not be counted for duplicate credit.

### **HIST 197 - Explorations in European History**

**Class Hours:** 3

**Lab/Discussion:** 0

**Credits:** 3

**Description:** Interprets and analyzes the development of European history through a chronological survey of a historical era or a topical theme central to European history. Examines, where appropriate, the intersection of race and ethnicity, gender, and class. Emphasizes the recognition of historical patterns, the interconnectedness of historical events, and the incorporation of various subfields in the

discipline of history. Successful completion of HIST 197 fulfills the Liberal Studies History requirement. HIST 196 and HIST 198 also fulfill this requirement, and any of these courses may be substituted for each other and may be used interchangeably for D/F repeats but may not be counted for duplicate credit.

### **HIST 198 - Explorations in Global History**

**Class Hours:** 3

**Lab/Discussion:** 0

**Credits:** 3

**Description:** Interprets and analyzes the development of global history through a chronological survey of a historical era or a topical theme central to global history. Examines, where appropriate, the intersection of race and ethnicity, gender, and class. Emphasizes the recognition of historical patterns, the interconnectedness of historical events, and the incorporation of various subfields in the discipline of history. Successful completion of HIST 198 fulfills the Liberal Studies History requirement. HIST 196 and HIST 197 also fulfill this requirement, and any of these courses may be substituted for each other and may be used interchangeably for D/F repeats but may not be counted for duplicate credit.

### **HIST 201 - Western Civilization before 1600**

**Class Hours:** 3

**Lab/Discussion:** 0

**Credits:** 3

**Prerequisite:** 3cr of college history, or current major in any of the following: history, history/pre-law, middle-level education grades 4-8/social studies specialization, or secondary social studies

**Description:** Examines the history of Western Civilization from its beginnings in the Ancient Near East to the Age of Discovery. Focuses on the major political, social, religious, and intellectual institutions in Western civilization to approximately 1600.

### **HIST 202 - Western Civilization since 1600**

**Class Hours:** 3

**Lab/Discussion:** 0

**Credits:** 3

**Prerequisite:** 3cr of college history, or current major in

any of the following: history, history/pre-law, middle-level education grades 4-8/social studies specialization, or secondary social studies

**Description:** Development of Western civilization from the expansion of Europe to the present, including political, diplomatic, economic, social, and cultural areas. Introduces issues and interpretations encountered in upper-level courses. For history majors or by instructor's permission.

### **HIST 204 - United States History to 1877**

**Class Hours:** 3

**Lab/Discussion:** 0

**Credits:** 3

**Prerequisite:** 3cr of college history, or current major in any of the following: history, history/pre-law, middle-level education grades 4-8/social studies specialization, or secondary social studies

**Description:** An introduction to United States history from the Colonial period through Reconstruction, covering such main currents as the founding of American society, the American Revolution, the making of the Constitution, the market revolution, westward expansion, slavery, the Civil War, and Reconstruction.

### **HIST 205 - United States History since 1877**

**Class Hours:** 3

**Lab/Discussion:** 0

**Credits:** 3

**Prerequisite:** 3cr of college history or majors in history, mathematics education, or secondary social studies.

**Restriction:** Majors in history, mathematics education, or secondary social studies.

**Description:** An introduction to United States history, 1877 to the present, covering such main currents as industrialization, Progressivism, World War I, the Great Depression and New Deal, World War II and the Cold War, the 1960s, the Vietnam War, and post-Vietnam political, social, and economic developments.

### **HIST 206 - The History of East Asia**

**Class Hours:** 3

**Lab/Discussion:** 0

**Credits:** 3

**Description:** History of China and Japan from ancient times, Buddhism, medieval Japan, Chinese communism,

industrialization, and the modern Pacific Rim. Some consideration of peripheral Asia.

### **HIST 207 - The History of the Middle East**

**Class Hours:** 3  
**Lab/Discussion:** 0  
**Credits:** 3

**Description:** History of the Middle East from the late Byzantine and Sassanid period, Islam, medieval Islamic civilization and the rise of early modern dynasties, European imperialism, the origins of modern nation states, and the contemporary Middle East.

### **HIST 211 - World History to 1500**

**Class Hours:** 3  
**Lab/Discussion:** 0  
**Credits:** 3

**Prerequisite:** 3 credits of college history, or current major in history or secondary social studies

**Description:** Explores the history of world societies from the earliest historical cultures to approximately 1500. Examines the major political, social, religious, intellectual, and cultural transformations of the period.

### **HIST 212 - World History Since 1500**

**Class Hours:** 3  
**Lab/Discussion:** 0  
**Credits:** 3

**Prerequisite:** 3 credits of college history, or current major in history, mathematics education, or secondary social studies.

**Description:** Explores the history of world societies from 1500 to the present. Examines the major political, social, religious, intellectual, and cultural transformations of the period.

### **HIST 215 - The Researcher As Detective**

**Class Hours:** 1  
**Lab/Discussion:** 0  
**Credits:** 1

**Description:** Introduces students to the uses of evidence in the construction of historical narrative and to the standard practices of the historian.

### **HIST 217 - Different Ways of Looking at the Past**

**Class Hours:** 1  
**Lab/Discussion:** 0  
**Credits:** 1

**Description:** Introduces different theoretical lenses that historians have used for viewing the past. Provides an overview of the different ways that our view of the past has changed over the course of the twentieth century.

### **HIST 218 - Right In Your Own Backyard: How To Do Local History**

**Class Hours:** 1  
**Lab/Discussion:** 0  
**Credits:** 1

**Description:** Introduction to historical methods and best research practices for conducting local history projects.

### **HIST 219 - Historians and the Public: Preserving and Presenting the Past**

**Class Hours:** 1  
**Lab/Discussion:** 0  
**Credits:** 1

**Description:** Examines the way historians serve as the intermediary between the public and their understanding of the past in a public setting. Explores how history is preserved and presented by historians, from historic sites and museums to virtual exhibits and documentary film-making.

### **HIST 220 - Visual Sources in History**

**Class Hours:** 1  
**Lab/Discussion:** 0  
**Credits:** 1

**Description:** Examines cartoons, posters, comics and other visual media that have been used as forms of social criticism and propaganda throughout history and that are a valuable source of information for scholars and teachers. Locate and analyze these sources for use in research and teaching.

### **HIST 221 - The Historian's Craft**



**Class Hours:** 1  
**Lab/Discussion:** 0  
**Credits:** 1

**Restriction:** BA History majors  
**Description:** Explores the various careers of historians and history-related fields.

### **HIST 230 - Queer Global History**

**Class Hours:** 3  
**Lab/Discussion:** 0  
**Credits:** 3

**Description:** Analyzes the historical and global understanding of the concept of "queerness." Emphasizes the historical development of a queer identity and the modern creation of a queer community, focusing on comparing different modern notions of queerness and the LGBTQ+ struggle for equal rights.

### **HIST 231 - History of Jerusalem**

**Class Hours:** 3  
**Lab/Discussion:** 0  
**Credits:** 3

**Description:** Explores the history of the city of Jerusalem from the ancient world until the present, examining the significance of the city to contemporary conflicts in the Middle East.

### **HIST 239 - Witches and Witch Hunts 1400-1800**

**Class Hours:** 3  
**Lab/Discussion:** 0  
**Credits:** 3

**Description:** Examines witch trials and hunts in early modern Europe and Colonial America, from a wide range of perspectives including gender, religion, and economics, with emphasis on the marginalization of the accused.

### **HIST 240 - Zombies: A Cultural History of Death, Disease, and Technology**

**Class Hours:** 3  
**Lab/Discussion:** 0  
**Credits:** 3

**Description:** Explores the concept of the Zombie throughout history and across cultures, and the way the figure of the Zombie has served as a metaphor for deeper personal and communal fears, such as death, nuclear war, global pandemics, and out of control technology.

### **HIST 244 - Samurai and Gongfu Heroes: Masculinity in East Asia**

**Class Hours:** 3  
**Lab/Discussion:** 0  
**Credits:** 3

**Description:** Explores what it means to be a man, from the haohan of China to the Men of High Purpose of Japan and beyond. Analyzes stories, films, and official histories that have encouraged Chinese and Japanese people to emulate the great heroes of the past and how these people and their stories have been re-used in modern Asia.

**Cross-Listed:** ASIA 244 **Note:** May not be taken for duplicate credit.

### **HIST 245 - History and Climate Change**

**Class Hours:** 3  
**Lab/Discussion:** 0  
**Credits:** 3

**Description:** Explores the factors that have altered Earth's climate in ways that shaped human history. Examines climate phenomena such as the Little Ice Age and El Nino events, with primary focus on anthropogenic climate change. Compares science and history as complementary tools that allow an understanding of this complex issue.

### **HIST 250 - Introduction to Public History**

**Class Hours:** 3  
**Lab/Discussion:** 0  
**Credits:** 3

**Prerequisite:** Sophomore standing and 3 credits of history.  
**Description:** Introduces a wide range of activities in which public historians engage. Considers broader conceptual theoretical and practical issues associated with historic preservation, museum studies, oral history, the management of archival and manuscript collections, as well as a variety of other public history activities. Explores broader conceptual issues associated with the field of public history. None of the Public History courses (HIST 350, HIST 351, HIST 352, HIST 353, HIST 354, or HIST 355) may be counted towards the Social Studies

Education/History Track. Only one may be counted towards the History, BA.

### **HIST 251 - United States Military History**

**Class Hours:** 3  
**Lab/Discussion:** 0  
**Credits:** 3

**Restriction:** Not applicable toward the history major  
**Description:** A survey of the history and transformation of the American military from the Colonial period to the present time. American military history is analyzed within the context of the nation's political, social, economic, and cultural development. Central themes include war making, civil-military relations, and military professionalism.

### **HIST 265 - The History of Power: Its Uses and Abuses**

**Class Hours:** 3  
**Lab/Discussion:** 0  
**Credits:** 3

**Description:** Explores the many forms that power has taken in the past, from the soft power of persuasion to the hard power of law and government. Focuses on Western Europe and the United States, from the Renaissance to the mid-twentieth century, and on issues of political control, race, and gender.

### **HIST 295 - Introduction to Historical Studies**

**Class Hours:** 3  
**Lab/Discussion:** 0  
**Credits:** 3

**Restriction:** History, or Social Studies Education major  
**Description:** Introduces students to the study of history, as well as the reading, reading and analysis of primary and secondary sources, historical interpretation, and historical writing. Encourages to becoming a better critical thinker and historian.

### **HIST 302 - History of Ancient Rome**

**Class Hours:** 3  
**Lab/Discussion:** 0  
**Credits:** 3

**Prerequisite:** Sophomore standing, 3cr of college history  
**Description:** Traces Roman history from early Republic down to fall of Empire. Roman political theory is particularly emphasized.

### **HIST 303 - Medieval Europe I, 400-1000**

**Class Hours:** 3  
**Lab/Discussion:** 0  
**Credits:** 3

**Prerequisite:** Sophomore standing, 3cr of college history  
**Description:** History of early Medieval Europe, from decline of Rome to beginnings of High Middle Ages; emphasis on political, social, economic, religious, and intellectual developments.

### **HIST 307 - History of Europe: 1815-1914**

**Class Hours:** 3  
**Lab/Discussion:** 0  
**Credits:** 3

**Prerequisite:** Sophomore standing, 3cr of college history  
**Description:** The study of Europe in 19th century, with emphasis on the emergence of major thought patterns, Romanticism, Nationalism, Socialism, and Positivism.

### **HIST 313 - Europe Since 1945: Division, Revolution, and Unity**

**Class Hours:** 3  
**Lab/Discussion:** 0  
**Credits:** 3

**Prerequisite:** Sophomore standing, 3cr of college history  
**Description:** Surveys the principal themes in European history since 1945. Topics include postwar reconstruction, the origins of the Cold War in Europe, the long years of economic growth followed by stagnation, decolonization of the British and French empires, the events of 1968 and their consequences, the experience of communism in the East Bloc, the revolutions of 1989, and progress toward European integration.

### **HIST 320 - History of England to 1688**

**Class Hours:** 3  
**Lab/Discussion:** 0  
**Credits:** 3

**Prerequisite:** Sophomore standing, 3cr of college history

**Description:** A survey of the growth of the English nation, with emphasis on political, social, and economic developments leading to 17th-century conflict between Crown and Parliament.

### **HIST 322 - French Revolution and Napoleon**

**Class Hours:** 3  
**Lab/Discussion:** 0  
**Credits:** 3

**Prerequisite:** Sophomore standing, 3cr of college history  
**Description:** Brief sketch of Old Regime, concentration on Revolution and Empire, with emphasis on politics, social structure, diplomacy, and economics.

### **HIST 323 - Modern France: Renewing an Old Country**

**Class Hours:** 3  
**Lab/Discussion:** 0  
**Credits:** 3

**Prerequisite:** Sophomore standing, 3cr of college history  
**Description:** A survey of French history from the end of the Napoleonic era to the present. Pays special attention to the revolutionary tradition in politics, changes in the lives of workers and peasants, the French experience in the two world wars, and recent social and political trends.

### **HIST 331 - Modern Middle East**

**Class Hours:** 3  
**Lab/Discussion:** 0  
**Credits:** 3

**Prerequisite:** Sophomore standing and 3cr of college history  
**Description:** A survey of changes that have taken place in Middle East and in Islam since 18th century and of contemporary problems in that region.

### **HIST 332 - History of Early China**

**Class Hours:** 3  
**Lab/Discussion:** 0  
**Credits:** 3

**Prerequisite:** Sophomore standing and 3cr of college history

**Description:** China from the dawn of time to the Tang Dynasty. Focuses on the creation of the intellectual and political systems that have dominated China and East Asia down to the present. Looks in depth at the origins of Chinese philosophy and the imperial system.

### **HIST 333 - Vietnam in War and Revolution**

**Class Hours:** 3  
**Lab/Discussion:** 0  
**Credits:** 3

**Prerequisite:** Sophomore standing, 3cr of college history  
**Description:** Focuses on 20<sup>th</sup> C Vietnamese experiences with war and revolution and their impact on society. Examines indigenous forms of anti-colonial resistance, the rise of communism and nationalism, and Vietnamese experiences in the wars against France and the United States.

### **HIST 338 - The History of Iran**

**Class Hours:** 3  
**Lab/Discussion:** 0  
**Credits:** 3

**Prerequisite:** Sophomore standing, 3cr of college history  
**Description:** Focuses on aspects of Iranian history from the Achaemenid period until the present that are significant for the formation of modern Iranian identity. Uses primary sources, secondary readings, literature, and film to analyze the development of Iranian identity as well as modern perceptions of Iran. Emphasis on ancient Iranian culture and religion, the story of Iranian wars with the Greeks and Romans, how Iran became Muslim, and the development of contemporary Iranian religion and politics.

### **HIST 339 - Jihad and the Origins of Islamist Movements in the Middle East**

**Class Hours:** 3  
**Lab/Discussion:** 0  
**Credits:** 3

**Prerequisite:** Sophomore standing, 3cr of college history  
**Description:** Discusses the concept of "jihad" in Islamic history: its origins, development, and historical deployment by groups within the Muslim community. Analyzes the history and origins of groups such as al-Qaeda, the Taliban, and ISIS and considers whether these groups are "medieval" or actually modern products of globalization.

**Previously Offered As:** (Also offered as PLSC 339; may not be taken for duplicate credit.)

### **HIST 342 - The Early Republic**

**Class Hours:** 3  
**Lab/Discussion:** 0  
**Credits:** 3

**Prerequisite:** Sophomore standing, 3cr of college history  
**Description:** A survey of United States history from 1783 to 1850, with special attention on constitutional, political, economic, and social trends.

### **HIST 343 - Civil War and Reconstruction**

**Class Hours:** 3  
**Lab/Discussion:** 0  
**Credits:** 3

**Prerequisite:** Sophomore standing, 3cr of college history  
**Description:** The study of the failure of American democracy to cope with issues of mid- 19th century, followed by political, economic, military, and social developments during war and reconciliation of North and South.

### **HIST 346 - Recent United States History**

**Class Hours:** 3  
**Lab/Discussion:** 0  
**Credits:** 3

**Prerequisite:** Sophomore standing, 3cr of college history  
**Description:** Examines the major political, economic, social, and cultural changes in America since 1945, with a focus on their causes, character, and significance; also explores the role of the United States in global relations.

### **HIST 348 - Top Secret America: The Rise and Reach of the National Security State**

**Class Hours:** 3  
**Lab/Discussion:** 0  
**Credits:** 3

**Description:** Focuses on the historical development of the concept of national security in the US and on the intersection of national and broader international security concerns in the Cold War context. Identifies, for the Cold War era and beyond, diplomatic, military, and intelligence capabilities of governments and explores how individuals

and groups conceptualized themselves, and their security. Explores one powerful motivator: fear and how it translated into political actions and citizen involvement in Cold War concepts. HIST 348 and PLSC 348 may be substituted interchangeably for D/F repeats, but may not be used for duplicate credit.

### **HIST 352 - Local and Family History**

**Class Hours:** 3  
**Lab/Discussion:** 0  
**Credits:** 3

**Prerequisite:** Sophomore standing and 3cr of college history.

**Description:** Examines the purpose for conducting and various uses of local and family history. Introduces the practical skills necessary to conduct research into local and family history.

### **HIST 353 - History Museums and Historic Sites: Theory and Practice**

**Class Hours:** 3  
**Lab/Discussion:** 0  
**Credits:** 3

**Prerequisite:** Sophomore standing and 3cr of college history.

**Description:** Introduces the history of museums and historic sites, and the relationship between these institutions and public audiences. Explores the tools that public historians use to interpret and present the past in museum and historic site settings. None of the Public History courses (HIST 352, HIST 353, HIST 354, HIST 355, HIST 356, HIST 357) may be counted towards the Social Studies Education/History Track. Only one may be counted towards the History, BA.

### **HIST 354 - Oral History Practice**

**Class Hours:** 3  
**Lab/Discussion:** 0  
**Credits:** 3

**Prerequisite:** Sophomore standing and 3cr of college history.

**Description:** Introduces the practices of collecting and preserving oral histories, as well as the research and public use of oral histories. None of the Public History courses (HIST 352, HIST 353, HIST 354, HIST 355, HIST 356, HIST 357) may be counted towards the Social Studies

Education/History Track. Only one may be counted towards the History, BA.

### **HIST 355 - Topics in Public History**

**Class Hours:** 3  
**Lab/Discussion:** 0  
**Credits:** 3

**Prerequisite:** Sophomore standing and 3cr of college history.

**Description:** Offered periodically in interest areas that are not part of the regular program. Focuses on contemporary issues or specialized methods related to the field of public history.

**Repeated:** May be take twice for a total of 6 credits.

### **HIST 356 - Digital History**

**Class Hours:** 3  
**Lab/Discussion:** 0  
**Credits:** 3

**Prerequisite:** Sophomore standing and 3cr of college history.

**Restriction:** History and social studies education/history majors; not applicable toward Social Studies Education requirements

**Description:** Examines digital technologies as applied to the fields of academic and public history. Investigates digital media and study the state of digital historical work by scholars, teachers, public historians, and others. Introduces some of the programs used to create digital history. None of the Public History courses (HIST 352, HIST 353, HIST 354, HIST 355, HIST 356, HIST 357) may be counted towards the Social Studies Education/History Track.

### **HIST 357 - Archival Studies**

**Class Hours:** 3  
**Lab/Discussion:** 0  
**Credits:** 3

**Prerequisite:** Sophomore standing and 3cr of college history.

**Description:** Introduces the archival profession and its practices. None of the Public History courses (HIST 352, HIST 353, HIST 354, HIST 355, HIST 356, HIST 357) may be counted towards the Social Studies Education/History Track. Only one may be counted towards the History, BA.

### **HIST 360 - History of Pennsylvania**

**Class Hours:** 3  
**Lab/Discussion:** 0  
**Credits:** 3

**Description:** Emphasizes the cultural, economic, political, and social development of Pennsylvania in its various periods from Colonial time to today. Special attention is given to the diversity of Pennsylvania's people, their institutions, and their problems.

### **HIST 362 - History of American Diplomacy, 1900-present**

**Class Hours:** 3  
**Lab/Discussion:** 0  
**Credits:** 3

**Prerequisite:** Sophomore standing, 3cr of college history

**Description:** Treats primarily our 21st-century involvement in world affairs and domestic debate over that involvement. Special emphasis is on the role of interest groups and increasing power of Executive Department over foreign affairs.

### **HIST 363 - Thought and Culture in Early America**

**Class Hours:** 3  
**Lab/Discussion:** 0  
**Credits:** 3

**Prerequisite:** Sophomore standing, 3cr of college history

**Description:** Selected topics in early American intellectual and cultural growth, with emphasis on Puritanism, Enlightenment, cultural nationalism, and Romantic movement.

### **HIST 365 - History of Black America since Emancipation**

**Class Hours:** 3  
**Lab/Discussion:** 0  
**Credits:** 3

**Prerequisite:** Sophomore standing, 3cr of college history

**Description:** Description and analysis of the role of blacks in the history of the United States since the Civil War; emphasis on key leaders, major organizations, leading

movements, and crucial ideologies of blacks in modern America.

### **HIST 369 - Women in America**

**Class Hours:** 3  
**Lab/Discussion:** 0  
**Credits:** 3

**Prerequisite:** Sophomore standing, 3cr of college history  
**Description:** A study of the activities of women from the colonial era to the modern era—evaluating cultural, societal, religious, economic, and political frameworks. Reviews women's involvement in movements for feminism, social reform, unionism, and the abolition of slavery.

### **HIST 374 - Blind Pigs and Brothels: A History of Crime and Vice in America**

**Class Hours:** 3  
**Lab/Discussion:** 0  
**Credits:** 3

**Prerequisite:** Sophomore standing, 3cr of college history  
**Description:** Examines the origins, development and growth of the various types of crime and vice in America, from the colonial era to the recent past. Explores the relationships between individuals, cultures, communities, institutions, government and law enforcement.

### **HIST 391 - Film as History**

**Class Hours:** 3  
**Lab/Discussion:** 0  
**Credits:** 3

**Prerequisite:** Sophomore standing, 3cr of college history  
**Description:** Particularly concerned with probing the relationship between cinema and society. History of film is explored and student is given some background in film interpretation and cinematography, the western, science fiction, police films, and great foreign and American detective films.

### **HIST 395 - Introduction to Historical Methods**

**Class Hours:** 3  
**Lab/Discussion:** 0

**Credits:** 3

**Prerequisite:** HIST 295

**Description:** A colloquium focusing on historiography and historical methods in the context of a specific topic. Students are expected to improve their research and writing skills and their understanding of historiography and methods of historical research. (writing-intensive course)

### **HIST 433 - China 1300-1800: The Late Imperial Age**

**Class Hours:** 3  
**Lab/Discussion:** 0  
**Credits:** 3

**Prerequisite:** Sophomore standing, 3cr of college history  
**Description:** Examines the cultural and social history of Late Imperial China. Includes elite attempts at creating an orderly Confucian society and also how less powerful groups altered or challenged this vision. Discusses the role of commercialization and commercial culture and China as an Early Modern society. (Titled Bandits and Poets: The Cultural and Social History of Late Imperial China before 2016-17.)

### **HIST 434 - Modern China 1800-present**

**Class Hours:** 3  
**Lab/Discussion:** 0  
**Credits:** 3

**Prerequisite:** Sophomore standing, 3cr of college history  
**Description:** China's modern transformation from the crisis of the Late Qing through the various revolutionary governments of the 20th century to the rise of China as a world power. Looks at both Chinese elites' quest for wealth and power and the impact this quest has had on ordinary people. (Titled History of Modern China: From the Opium Wars to the Present before 2016-17.)

### **HIST 436 - Japan 1500-1850: Early Modern Japan**

**Class Hours:** 3  
**Lab/Discussion:** 0  
**Credits:** 3

**Prerequisite:** Sophomore standing, 3cr of college history  
**Description:** Examines the cultural and social history of Early Modern Japan, including both Sengoku and the Tokugawa. This includes elite attempts at creating a

stratified social order and also how less powerful groups altered or challenged this vision. Discusses the role of commercialization and commercial culture and Japan as an Early Modern society. (Titled Geisha and Samurai: The Cultural and Social History of Early Modern Japan before 2016-17.)

### **HIST 437 - Modern Japan 1850-Present**

**Class Hours:** 3  
**Lab/Discussion:** 0  
**Credits:** 3

**Prerequisite:** Sophomore standing, 3cr of college history  
**Description:** Japan's modern transformation from the age of the samurai to the present. Looks at both the Japanese elites' quest for wealth and power in the late 19th and the 20th centuries and the impact this quest has had on ordinary people. (Titled The History of Modern Japan: From the Floating World to the Present before 2016-17.)

### **HIST 475 - History of American Constitutionalism**

**Class Hours:** 3  
**Lab/Discussion:** 0  
**Credits:** 3

**Prerequisite:** Sophomore standing and 3cr college history  
**Description:** Examines the major themes and problems concerning the constitutional history of the United States from the American Revolution to the end of the Cold War. Among other subjects, explores why and how the United States Constitution was written; how the nature and scope of the powers of Congress, presidency, and judiciary were transformed; how the relationship between the federal government and the states evolved; and how such constitutional amendments as the first and 14th redefined the power of governments, as well as the rights of citizens.

### **HIST 481 - Special Studies in History**

**Class Hours:** var  
**Credits:** 1-3

**Prerequisite:** As appropriate to course content, sophomore standing, 3cr of college history  
**Description:** Offered each semester in interest areas that are not part of the regular program. Some examples of courses of this type are the Victorian Age, the History of Love, World War II, the Great Depression, the Adams Chronicles, and the History of New York City. May

schedule as many of these courses as desired, but two per semester is the usual limit.

### **HIST 482 - Independent Study**

**Class Hours:** var  
**Credits:** 3-6

**Prerequisite:** 12cr in history  
**Restriction:** Prior approval through advisor, faculty member, department chairperson, dean, and Office of the Provost with a 3.0 GPA in history classes; permission of a faculty member. Approval is based on academic appropriateness and availability of resources.  
**Description:** Involves directed reading or research for qualified students. Experimental projects and personalized learning are encouraged.

### **HIST 483 - Honors Thesis**

**Class Hours:** var  
**Credits:** 3-6

**Restriction:** History, history/pre-law, or social studies education/history major; 3.25 cumulative GPA; 3.5 GPA in history courses, departmental permission. Approval is based on academic appropriateness and availability of resources.  
**Description:** A two-semester sequence of research and writing, culminating in an honors thesis. Honors theses are completed individually under the direction of a department professor who specializes in the student's area of interest and are approved by a thesis committee comprising the director and two others, one of whom may come from outside the History Department.  
**Repeated:** May be taken twice for a total of 6cr.

### **HIST 493 - Internship**

**Class Hours:** var  
**Credits:** 3-12

**Description:** With departmental approval, students are attached to local or national government or private agencies doing directive, bibliographical, archival, or museum work. Advising professor meets with intern regularly and determines what papers or reports are required.

### **HIST 495 - History Capstone**

**Class Hours:** 3  
**Lab/Discussion:** 0

**Credits:** 3

**Prerequisite:** Junior or senior history or social studies education major or by instructor permission.

**Description:** Strengthens critical thinking skills such as the ability to synthesize, analyze, interpret, and apply historical knowledge. Develops and assesses ability to read, discuss, research, write, and present on specialized topics in history. Improves academic and professional skills for upper division students.

**Previously Offered As:** As HIST 495/496/497/498 before 2022-2023. As HIST 401 before 2014-2015.

## HIST 496 - Topics in European History

**Class Hours:** 3

**Lab/Discussion:** 0

**Credits:** 3

**Prerequisite:** HIST 395 and junior/senior history, history/pre-law, or social studies education majors or by instructor permission

**Description:** An upper-division course emphasizing lecture, reading, discussion, and writing on specialized topics relating to European historical issues. The theme varies from semester to semester according to the expertise of the faculty member teaching the course. May be repeated. (Offered as HIST 402 before 2014-15.)

## HIST 497 - Topics in Non-Western History

**Class Hours:** 3

**Lab/Discussion:** 0

**Credits:** 3

**Prerequisite:** HIST 395 and junior/senior history, history/pre-law, or social studies education majors or by instructor permission

**Description:** An upper-division course emphasizing lecture, reading, discussion, and writing on specialized topics relating to non-Western historical issues. The theme varies from semester to semester according to the expertise of the faculty member teaching the course.

**Repeated:** May be repeated **Previously Offered As:** (Offered as HIST 403 before 2014-15.)

## HIST 498 - Topics in Comparative History

**Class Hours:** 3

**Lab/Discussion:** 0

**Credits:** 3

**Prerequisite:** HIST 395 and junior/senior history, history/pre-law, or social studies education majors or by instructor permission

**Description:** An upper-division course emphasizing lecture, reading, discussion, and writing on specialized topics relating to comparative historical issues. The theme varies from semester to semester according to the expertise of the faculty member teaching the course.

**Repeated:** May be repeated. **Previously Offered As:** (Offered as HIST 404 before 2014-15.)

## HIST 499 - Topics in Public History

**Class Hours:** 3

**Lab/Discussion:** 0

**Credits:** 3

**Prerequisite:** HIST 250

**Description:** Capstone for students in the public history concentration. Draws on program experience to conduct a major public history project, short research paper, and professional portfolio.

## Honors College

### HNRC 101 - Honors Core I

**Class Hours:** 5

**Lab/Discussion:** 0

**Credits:** 5

**Restriction:** Freshman status, admission to the Honors College

**Description:** This first in a series of three required and interrelated courses introduces Honors College students to major works of literature and art; to major ideas in history, philosophy, religious studies, literature, and the fine arts; and to critical thinking skills used in reading, writing, and discussion in an integrated, synthetic, and interactive pedagogical environment. While materials from various periods and disciplines are part of HNRC 101, each instructor has attempted to incorporate some works from a



common century to provide students with a common ground for exploring the core questions.

## HNRC 102 - Honors Core II

**Class Hours:** 5  
**Lab/Discussion:** 0  
**Credits:** 5

**Prerequisite:** HNRC 101, freshman status, admission to the Honors College

**Description:** The second in a series of three required and interrelated courses. Continues the emphases of HNRC 101: (a) introduction to major works of literature and fine arts; (b) introduction to major ideas in history, philosophy, religious studies; and (c) focus on critical thinking skills used in reading, writing, and discussion in an interrelated, synthetic, and interactive pedagogical environment. Although materials come from various periods and disciplines, each instructor has incorporated works from a common century to provide a common ground for exploring core questions. Building on their experiences in HNRC 101, students become more critical and analytical in their reading and response. Further, the ability to synthesize is emphasized based on their previous readings and learning experiences.

## HNRC 201 - Honors Core III

**Class Hours:** 4  
**Lab/Discussion:** 0  
**Credits:** 4

**Prerequisite:** Sophomore status, admission to the Honors College, and successful completion of HNRC 101 and HNRC 102 if admitted to the Honors College as a first-year student. Prerequisites for students admitted to the Honors College as sophomores are ENGL 101 and at least one Liberal Studies course in the humanities or fine arts.

**Description:** Completes the introduction of Honors College students to major works of literature and art; major ideas in history, philosophy, religious studies, literature, and the fine arts; and critical thinking skills used in reading, writing, and discussion in an integrated and interactive pedagogical environment.

## HNRC 202 - Honors Core: Sciences

**Class Hours:** 4  
**Lab/Discussion:** 0  
**Credits:** 4

**Prerequisite:** HNRC 101, HNRC 102, sophomore status, admission to the Honors College

**Description:** Concerned with science as a way of knowing about the world. Focuses on what scientists have learned about what it means to be human, how humans have been shaped by and, in turn, have influenced their environment, and what use might be made of scientific knowledge. These themes are explored from disciplines in the natural and social sciences.

## HNRC 499 - Honors Senior Synthesis

**Class Hours:** var  
**Credits:** 3-6

**Prerequisite:** 3.25 GPA, Honors College good standing or instructor permission, 73 or more credits earned

**Description:** Concluding cross-disciplinary Honors College experience, focused on the question "what are the obligations of the educated citizen?" Helps students understand and handle complex intellectual issues from multiple perspectives. A selection of topics is announced and described in the undergraduate course schedule. Substitutes for LBST 499.

## Hospitality Management

### HOSP 101 - Introduction to the Hospitality Industry

**Class Hours:** 3  
**Lab/Discussion:** 0  
**Credits:** 3

**Description:** Chronicles the evolution and growth of the hospitality industry. Profiles club management, hotel and lodging, restaurant, culinary and food service, gaming operations, special event, recreation, and tourism segments. Explores professional career opportunities. Features alumni and guest speakers representing targeted segments of the hospitality industry.

### HOSP 130 - Food Service Sanitation

**Class Hours:** 1  
**Lab/Discussion:** 0  
**Credits:** 1

**Description:** Introduces concepts and issues pertaining to sanitation and security management in the food service segment of the hospitality industry. Examines causes and

prevention of food-borne illness, Hazard Analysis Critical Control Point (HACCP) food production methods, and current government regulations.

**Note:** Titled Hospitality Sanitation and Security before 2015-16

### **HOSP 150 - Principles of Hospitality Management**

**Class Hours:** 3

**Lab/Discussion:** 0

**Credits:** 3

**Description:** Introduces classic management theory and responsibilities, with an emphasis on hospitality industry applications.

### **HOSP 212 - Club Operations Management**

**Class Hours:** 3

**Lab/Discussion:** 0

**Credits:** 3

**Description:** Provides an in-depth understanding of the unique aspects of private club management. The differences as compared to public golf courses, public restaurants, hotel operations, equity (member-owned), and non-equity (corporate-owned) club settings are explored.

### **HOSP 220 - Food Service Operations**

**Class Hours:** 3

**Lab/Discussion:** 0

**Credits:** 3

**Description:** Introduces the operational concepts of food service operations in commercial kitchen facilities. Includes planning, preparation, and service of quantity food production. Emphasizes the integration of sanitation, menu planning, cost controls, and application of computer software.

### **HOSP 235 - Tourism Management**

**Class Hours:** 3

**Lab/Discussion:** 0

**Credits:** 3

**Description:** Introduces concepts pertaining to international and domestic tourism. Examines the

economic, social, and cultural aspects of tourism, as well as how destinations are marketed.

**Previously Offered As:** (Offered as HOSP 115 before 2017-18.)

### **HOSP 245 - Multicultural Management in Hospitality**

**Class Hours:** 3

**Lab/Discussion:** 0

**Credits:** 3

**Description:** Examines the effects of international migration and changing roles of minorities within the global and domestic hospitality industry. Addresses the cultural factors affecting workplace productivity and relationships.

### **HOSP 256 - Human Resources in the Hospitality Industry**

**Class Hours:** 3

**Lab/Discussion:** 0

**Credits:** 3

**Description:** Examines human resource management in the hospitality industry. Topics include cultural diversity, legal requirements, job analysis, recruitment and selection, training and development, performance appraisal, compensation, and benefits administration.

### **HOSP 259 - Hospitality Purchasing**

**Class Hours:** 3

**Lab/Discussion:** 0

**Credits:** 3

**Description:** Includes sources, standards, grades, methods of purchase, and storage of various foods, beverages, and fixtures. Emphasizes the development of purchasing policies and specifications.

### **HOSP 260 - Hotel Operations Management**

**Class Hours:** 3

**Lab/Discussion:** 0

**Credits:** 3

**Description:** Examines the development and classification of lodging operations. Hotel operating departments,

department personnel, operational procedures, and current lodging trends and companies are discussed.

### **HOSP 265 - Hospitality Cost Management**

**Class Hours:** 3  
**Lab/Discussion:** 0  
**Credits:** 3

**Description:** Identifies and analyzes the control of hospitality operation costs, including those in the areas of food, beverage, labor, and material, and compares those costs to industry norms. Students analyze income statements and balance sheets.

### **HOSP 280 - Special Event Management**

**Class Hours:** 3  
**Lab/Discussion:** 0  
**Credits:** 3

**Description:** Introduces the principles of special event management and current practices and developments within the event-management industry. Discusses event management responsibilities from the initial planning stages through delivery.

### **HOSP 281 - Special Topics**

**Class Hours:** var  
**Credits:** 1-3

**Prerequisite:** As appropriate to course content  
**Description:** Offered on an experimental or temporary basis to explore topics not included in the established curriculum. A given topic may be offered under any special topic identity no more than three times. Special topics numbered 281 are offered primarily for lower-level undergraduate students.

### **HOSP 299 - Cooperative Education (First Experience)**

**Credits:** 0

**Prerequisite:** Completion of 30cr, 2.0 GPA  
**Description:** A semester-long program that combines classroom theory with practical application through job-related experiences. Student required to complete two

alternating experiences; only one may be a summer experience.

### **HOSP 300 - Critiquing Commercial Restaurants**

**Class Hours:** 1  
**Lab/Discussion:** 0  
**Credits:** 1

**Description:** A opportunity for the student of hospitality management to evaluate operational characteristics of commercial restaurants from the perspective of a dining patron. Students, as members of dining teams, dine in a variety of restaurant concepts and evaluate the business operation on a battery of performance criteria, including site appearance, menu diversity, service competence, product quality, and sanitation. Students incur out-of-pocket dining expenses.

### **HOSP 310 - Professional Development in the Hospitality Industry**

**Class Hours:** 3  
**Lab/Discussion:** 0  
**Credits:** 3

**Description:** An opportunity to identify and design industry-specific job search strategies, techniques, and skills including résumé and cover letter writing, interviewing, portfolio development, and strategies to attain career success within the hospitality industry.

### **HOSP 317 - International Cuisine**

**Class Hours:** 3  
**Lab/Discussion:** 0  
**Credits:** 3

**Description:** Explores international cuisines and service styles from the world's most popular regions. Discusses indigenous ingredients which align with the nutritional values of that culture's overall diet. Examines culinary techniques specific to regional cuisines and the seasonality of food supplied by ranchers and farmers working within these popular U.S. regional and international cuisines.

### **HOSP 320 - Hospitality Marketing**

**Class Hours:** 3  
**Lab/Discussion:** 0  
**Credits:** 3

**Description:** Students gain an understanding of the principles and concepts of marketing as they apply to hospitality management. Analyzes consumer behavior related to the hospitality industry. Students learn to make effective marketing decisions as they apply to customer satisfaction.

### **HOSP 325 - Hotel Sales**

**Class Hours:** 3  
**Lab/Discussion:** 0  
**Credits:** 3

**Description:** Identifies the functions and activities of the sales department within a hotel property. Provides a thorough review of the organizational structure of a typical hotel sales department and the documentation used. Covers identification and approaches to securing typical hotel market segments.

### **HOSP 326 - Theme Park and Attraction Management**

**Class Hours:** 3  
**Lab/Discussion:** 0  
**Credits:** 3

**Description:** Provides a comprehensive view and an in-depth understanding about the various operational areas and managerial issues in theme parks and attractions.

### **HOSP 330 - Applications of Food Production and Service**

**Class Hours:** 0  
**Lab/Discussion:** 10  
**Credits:** 4

**Prerequisite:** HOSP 220, or FDNT 150/FDNT 151, and Proof of ServSafe

**Description:** Training for the hospitality management student in advanced fundamentals of technique, timing, and management skills through laboratory experiences, as well as the operation of the Allenwood Restaurant facility.

### **HOSP 335 - Legal Issues in Hospitality**

**Class Hours:** 3  
**Lab/Discussion:** 0  
**Credits:** 3

**Description:** Examines the concepts and issues pertaining to hotel and restaurant law, government regulations, and their impact on the hospitality industry. A special emphasis is on innkeeper-guest relationship, employee relations, food laws and liability, liquor law and liability, and guest rights.

### **HOSP 341 - Professional Wedding Planning and Consulting**

**Class Hours:** 3  
**Lab/Discussion:** 0  
**Credits:** 3

**Description:** Focuses on the application of hospitality management practices to the planning and implementation of successful wedding events. Emphasizes: an analysis of the factors involved in the social, political, economic, cultural, religious and historical influences on wedding planning decision-making and business strategies, negotiation of contracts, selection of vendors, and preparation of comprehensive wedding event proposals. The unique application to the wedding planning and consultation in the hospitality industry.

### **HOSP 343 - Fund-Raising for Special Events**

**Class Hours:** 3  
**Lab/Discussion:** 0  
**Credits:** 3

**Description:** Relevant management tools, techniques, and strategies used for acquiring event revenue through fundraising and special event management are explored. Evolving legislation affecting sponsor and donor relationships is examined. The contemporary concept of sponsorship is benchmarked against a historical review to frame an understanding of how sponsor and organizational needs change.

### **HOSP 346 - Catering for Special Events**

**Class Hours:** 3  
**Lab/Discussion:** 0  
**Credits:** 3

**Description:** A practical understanding of the management

tasks of a caterer and his/her relationship to the special events industry.

### **HOSP 347 - Meeting and Convention Management**

**Class Hours:** 3  
**Lab/Discussion:** 0  
**Credits:** 3

**Description:** Analyzes the management and economic impact of the convention, meeting, and exposition industry. Examines the development of strategies used to manage conferences, meetings and trade shows to include the methodologies unique to each property and group served.

### **HOSP 350 - Introduction to the Casino Industry**

**Class Hours:** 3  
**Lab/Discussion:** 0  
**Credits:** 3

**Description:** Examines the global casino industry from a historical perspective and includes legal, social, and economic issues. Also reviews the various games played in casinos, current trends, and popular global casino destinations.

### **HOSP 352 - Destination Management**

**Class Hours:** 3  
**Lab/Discussion:** 0  
**Credits:** 3

**Description:** Provides an overview of the key challenges and constraints facing convention and visitors bureaus and how destination management can be planned, implemented and evaluated to achieve successful destination competitiveness.

### **HOSP 358 - Restaurant Equipment and Design**

**Class Hours:** 3  
**Lab/Discussion:** 0  
**Credits:** 3

**Description:** Examines types and uses of food service production and service equipment with emphasis on

incorporation into an effective facilities design. Field trips permit investigation of a variety of unit designs.

### **HOSP 372 - Housekeeping and Facilities Management**

**Class Hours:** 3  
**Lab/Discussion:** 0  
**Credits:** 3

**Description:** Provides an overview of hotel housekeeping and facilities management. Special attention placed on proper staffing and scheduling techniques, housekeeping cost control, facilities management tools and techniques, sustainability management, and facility design.

### **HOSP 382 - International Tourism**

**Class Hours:** 3  
**Lab/Discussion:** 0  
**Credits:** 3

**Description:** Examines the current status of hospitality and tourism industries at the global level. Analyzes different cultures, geographical features, and social, economic, and environmental issues in different countries to develop a comprehensive travel plan that meets the needs of today's international tourist.

### **HOSP 393 - Exploratory Hospitality Field Experience**

**Class Hours:** var  
**Credits:** 3-12

**Prerequisite:** HOSP 310, 2.0 overall GPA, 45 earned credits in A.S. or 60 earned credits in B.S., and 12 earned HOSP credits

**Description:** Provides practical experience in the hospitality industry with approved internship sites. Students should select a segment of the hospitality industry relating to their interested concentration area to obtain experience.

### **HOSP 400 - Hotel Revenue Management**

**Class Hours:** 3  
**Lab/Discussion:** 0  
**Credits:** 3

**Description:** Provides an overview of organizational decision making in reference to hotel revenue management.

Examines evolving trends of revenue management, best approaches to building profitable pricing strategies, and data analytics.

## HOSP 402 - Beverage Management

**Class Hours:** 3  
**Lab/Discussion:** 0  
**Credits:** 3

**Description:** Examines the principles, processes, and theories of beverage service. Analysis of methods of alcoholic beverage production and examination of categories of spirits, malt beverages, and wine, as well as legal concerns of service. Development and marketing of beverage operations are discussed. Includes voluntary tasting and evaluation of alcoholic beverage products.

## HOSP 403 - Wine and Wine Service

**Class Hours:** 3  
**Lab/Discussion:** 0  
**Credits:** 3

**Prerequisite:** All students must be 21 years of age or older

**Description:** A study of the wine-growing regions, production, processing, and distribution of domestic and international wines. Topics include types of wine grapes, varieties of wine, proper storage procedures, the techniques of proper wine service, and responsible alcohol service.

## HOSP 404 - Brew Pub and Brewery Operations

**Class Hours:** 3  
**Lab/Discussion:** 0  
**Credits:** 3

**Prerequisite:** Verifiable proof of 21 years of age or older  
**Description:** Addresses the art of brewing beer, beer styles, brewing equipment requirements, responsible alcohol service, beer and food pairing, sales, and marketing. Students visit local breweries and brew pubs. Students are required to attend three daylong field trips.

## HOSP 409 - Viticulture and Enology

**Class Hours:** 3  
**Lab/Discussion:** 0  
**Credits:** 3

**Prerequisite:** HOSP 403

**Description:** Explores grape varieties and production procedures. Analyzes PH level of the soil, vineyard floor management (VFM), climate, water run-off, sun, vineyard design, safety, and security as well as maintenance of the expense associated with a vineyard. Exposes students to the difference between the terroir surrounding California's (Napa & Sonoma Valley's) Upstate New York's (Finger Lakes), France's (Bordeaux Region), Italy's (Tuscany Region) and Pennsylvania's (Lake Erie Region).

## HOSP 411 - Contemporary Issues in Hospitality

**Class Hours:** 3  
**Lab/Discussion:** 0  
**Credits:** 3

**Description:** Discussion of contemporary issues within the hospitality industry. Students write a series of opinion/reaction papers to presented discussion topics.

## HOSP 413 - Restaurant Food Production and Service

**Class Hours:** 0  
**Lab/Discussion:** 10  
**Credits:** 4

**Prerequisite:** HOSP 330

**Description:** Emphasizes restaurant front and back-of-the-house operations management. Examines researching, planning, preparing and present theme-oriented meal showcasing selected domestic and international cuisine in the Allenwood Restaurant. Focuses on operations of employees and managers within the department's food and beverage operation.

## HOSP 470 - Hospitality Business Model

**Class Hours:** 3  
**Lab/Discussion:** 0  
**Credits:** 3

**Prerequisite:** Senior status

**Restriction:** Instructor permission

**Description:** Provides the opportunity to integrate and apply hospitality operations management concepts into the development of a working hospitality business model.

## HOSP 481 - Special Topics

**Class Hours:** var  
**Credits:** 3

**Prerequisite:** As appropriate to course content  
**Description:** Offered on an experimental or temporary basis to explore topics not included in the established curriculum. A given topic may be offered under any special topic identity no more than three times. Special topics numbered 481 are primarily for upper-level undergraduate students.

## HOSP 494 - Internship

**Class Hours:** var  
**Credits:** 3-12

**Prerequisite:** HOSP 310, senior status, 2.0 overall GPA  
**Description:** Provides practical experience in the hospitality industry with approved internship sites. May be scheduled only after consultation with the department internship coordinator. Requirements include rotating through appropriate industry departments, specific to their career interests that give students a broad view of the various management systems in the organization and the completion of the final portfolio. See internship coordinator for more information.  
**Note:** Kitchen food production uniforms are required for all lab courses in which food is prepared. Students must meet the professional dress requirements of the department.

## Human Development and Family Science

### HDFS 218 - Child Development

**Class Hours:** 3  
**Lab/Discussion:** 0  
**Credits:** 3

**Prerequisite:** Grade of "C" or better in PSYC 101; or instructor permission  
**Corequisite:** SOC 151 /SOC 161  
**Description:** Reviews cultural practices within and across global communities, developmental theories, learning theories, as well as the interrelationships among culture, development, and learning. Focuses on physical, cognitive, and social-emotional development from conception to adolescence.

### HDFS 224 - Marriage and Family Relations

**Class Hours:** 3  
**Lab/Discussion:** 0  
**Credits:** 3

**Prerequisite:** Grade of "C" or better in PSYC 101; or instructor permission  
**Corequisite:** SOC 151/SOC 161  
**Description:** A developmental and interactional approach to understanding family studies and aids in understanding family life, with a primary emphasis on contemporary families. Relevant theoretical perspectives of how families operate are discussed. Areas covered include trends in family structures and functions globally, conducting research in family studies from a global perspective, diversity among families, gender roles in dating and marital relationships from a global perspective, communication and conflict resolution, human sexuality in contextual relationships, dating and singlehood, combining work and family roles, trends from a global perspective on parenting, effects of race and class on families, domestic violence, and divorce and remarriage.

### HDFS 310 - Child Observation and Assessment

**Class Hours:** 2  
**Lab/Discussion:** 2  
**Credits:** 3

**Prerequisite:** Grade of "C" or better in HDFS 218 or ECED 112 or ECSP 112 or instructor permission  
**Description:** Examines the appropriate use of assessment and observational strategies to document children's behavior, learning, and development. Discusses principles of assessment across contexts. Methods of analysis for observation data are also reviewed.

### HDFS 315 - Introduction to Early Intervention

**Class Hours:** 3  
**Lab/Discussion:** 0  
**Credits:** 3

**Prerequisite:** Grade of "C" or better in HDFS 218, HDFS 224, HDFS 310  
**Description:** Focuses on early intervention policies and laws that relate to services for children from birth to school age, including the Individualized Family Service Plan (IFSP) and the Individualized Education Plan (IEP) process. Special emphasis is placed on ways to assist families in their roles as team members in the early

intervention process, taking social, linguistic, economic, and cultural diversity into consideration. Provides practical information needed when working in early intervention settings.

### **HDFS 321 - Preschool Education: Play and Developmentally Appropriate Practices**

**Class Hours:** 3  
**Lab/Discussion:** 0  
**Credits:** 3

**Prerequisite:** Grade of "C" or better in HDFS 218  
**Description:** Emphasizes play as a developmental process, the primary vehicle for early learning and as the major aspect of the preschool curriculum. Utilizes development theories as the basis for early learning environments. Provides students with knowledge to implement developmentally appropriate curriculum and methods for preschool education programming in multiple settings (e.g., home, classroom, community).

### **HDFS 322 - Early Care and Education**

**Class Hours:** 3  
**Lab/Discussion:** 0  
**Credits:** 3

**Prerequisite:** Grade of "C" or better in HDFS 218 and previous 200- and 300-level child development and family relations courses  
**Description:** Introduces the historical background of the fields of childcare and early childhood education and current educational issues and theories affecting the field. Includes curricula models, frameworks for curricula, research on the impact of early childhood experience, and diversity and inclusion issues.

### **HDFS 323 - Family Issues**

**Class Hours:** 3  
**Lab/Discussion:** 0  
**Credits:** 3

**Prerequisite:** Grade of "C" or better in HDFS 224  
**Description:** Examines major social and family problems that families manage (e.g., marginalization, caring for elders) and the role of professionals in supporting families. Reviews strategies to promote family resilience, supportive programs, and family policies.

### **HDFS 410 - Infant and Toddler Development**

**Class Hours:** 3  
**Lab/Discussion:** 0  
**Credits:** 3

**Prerequisite:** Grade of "C" or better in HDFS 218 and HDFS 310; compliance with current agency regulations; or instructor permission  
**Description:** A study of characteristic developmental changes of human infants and toddlers from birth to approximately 36 months. Participation as teacher assistant in the infant/toddler childcare center provides experience in developmentally appropriate guidance and programming for very young children.

### **HDFS 411 - Family and Community**

**Class Hours:** 3  
**Lab/Discussion:** 0  
**Credits:** 3

**Prerequisite:** Grade of "C" or better in HDFS 218, HDFS 224, HDFS 310, HDFS 315, HDFS 323; compliance with current agency regulation and enrolled in major/minor or instructor permission  
**Description:** A study of community agencies and their service to families. Covers advocating for children and families, identifying community agencies that aid families in need, examining the professional code of ethics and ethical decision making, and recognizing signs of trouble within families and referring them appropriately. Community service and agency speakers are integrated into course work. Participation in a community service project is a mandatory part of the course. Completion of this course with a grade of "C" or better is required for graduation.

### **HDFS 420 - Infant Toddler Mental Health**

**Class Hours:** 3  
**Lab/Discussion:** 0  
**Credits:** 3

**Prerequisite:** HDFS 410  
**Description:** An introduction and overview of Infant Mental Health. Focuses on strengths in infants and families, a relational framework for assessment and intervention, and a prevention orientation. Emphasizes an understanding of how principles of infant mental health provide a foundation for working with children and families across settings and disciplines.



## **HDFS 425 - Adolescence: Risk and Resiliency**

**Class Hours:** 3  
**Lab/Discussion:** 0  
**Credits:** 3

**Prerequisite:** HDFS 323 and grade of "C" or better in HDFS 218 or instructor permission  
**Description:** Focuses on the development of preadolescents and adolescents as well as the challenges involved in parenting adolescents. Emphasizes identifying risk factors, protective factors, promotive factors, and resiliency when working with adolescents and their families in the field of human services.

## **HDFS 426 - Techniques of Parent Education**

**Class Hours:** 3  
**Lab/Discussion:** 0  
**Credits:** 3

**Prerequisite:** HDFS 323 or instructor permission  
**Description:** An examination of the nature, extent, and significance of parent education and parent involvement. Students become knowledgeable of the diverse and complex characteristics and needs of families. Enables students to identify the interrelationships of home, school, and community agencies to enhance collaboration and cooperation. Students identify methods, programs, and curricula to increase communication with parents and families.

## **HDFS 427 - Administration of Human Service Programs**

**Class Hours:** 3  
**Lab/Discussion:** 0  
**Credits:** 3

**Prerequisite:** HDFS 310 or instructor permission  
**Description:** Facilitates the acquisition of special knowledge and competencies needed by successful administrators of human service programs, including proposal writing, budgeting and management, staff selection and training, and program evaluation.

## **HDFS 428 - Family Dynamics**

**Class Hours:** 3  
**Lab/Discussion:** 0  
**Credits:** 3

**Prerequisite:** Grade of "C" or better in HDFS 224, HDFS 310, HDFS 323; and enrolled in major or instructor permission

**Description:** Emphasizes processes and models of family development topics, including an understanding of the development and maintenance of interpersonal relationships with an emphasis on how the theoretical frameworks of family studies can aid in this understanding. Focuses on approaches and dynamics of principles related to familial and marital adjustment and coping, with an emphasis on understanding the strengths and weaknesses of families and how family members relate to each other.

## **HDFS 429 - Teaching in Community Settings**

**Class Hours:** 3  
**Lab/Discussion:** 0  
**Credits:** 3

**Prerequisite:** HDFS 310, HDFS 321, compliance with current agency regulations and 90+ credits or instructor permission  
**Description:** Participation as a teacher assistant in an approved community early care or school age program provides experience in developmentally appropriate guidance and programming for children and youth. Applies principles and concepts from developmental science as the major focus. Emphasizes techniques of planning developmentally appropriate activities and utilizing positive guidance with groups of diverse children.

## **HDFS 430 - Poverty and Human Development**

**Class Hours:** 3  
**Lab/Discussion:** 0  
**Credits:** 3

**Prerequisite:** HDFS 425  
**Description:** Examines the measurement and perception of socioeconomic status in the United States with an emphasis on poverty. Facilitates the discussion of research, theory, and policy related to poverty and human development.

## **HDFS 481 - Special Topics**

**Class Hours:** var  
**Credits:** 1-3

**Prerequisite:** As appropriate to course content  
**Description:** Offered on an experimental or temporary basis to explore topics not included in the established curriculum. A given topic may be offered under any special topic identity no more than three times. Special topics numbered 481 are primarily for upper-level undergraduate students.

## HDFS 482 - Independent Study

**Class Hours:** var  
**Credits:** 1-3

**Restriction:** Prior approval through advisor, faculty member, department chairperson, dean, and Office of the Provost

**Description:** Upper-level students with high scholastic achievement pursue their particular interests outside the realm of the organized home economics education curriculum.

**Repeated:** May be taken more than once to a maximum of 3cr. **Approved:** Approval is based on academic appropriateness and availability of resources.

## HDFS 493 - Internship

**Class Hours:** 0  
**Lab/Discussion:** 6 to 12  
**Credits:** 6-12

**Prerequisite:** completion of at least 75cr; minimum GPA of 2.5 in major

**Restriction:** Permission of child development and family relations program, human development, fashion, and interior design department, and college dean; compliance with current agency regulations; and enrolled in major

**Description:** Practical field experience related to the student's major area of study. Specific objectives are developed individually in consultation with the internship coordinator and/or university faculty member who supervises the internship. Logs and major paper required.

**Repeated:** May be taken for 6 to 12 credits.

## Information Management

### IFMG 101 - Computer Literacy

**Class Hours:** 3  
**Lab/Discussion:** 0

**Credits:** 3

**Description:** An introductory course providing a fundamental understanding of computers. Familiarizes students with the interaction of computer hardware and software. Emphasizes the application of microcomputers, the use of productivity software (word processing, spreadsheet management, file and database management, presentation graphics, web browsers, search strategies, and e-mail), and the social and ethical aspects of the impact of computers on society. (Does not count toward computer science major.) Any of these courses may be substituted for each other and may be used interchangeably for D/F repeats but may not be counted for duplicate credit.  
**Note:** Note: cross-listed as BTED/COSC 101.

### IFMG 110 - Business Spreadsheet Computing

**Class Hours:** 3  
**Lab/Discussion:** 0  
**Credits:** 3

**Description:** Introduces the fundamentals of the use of spreadsheet technology in the business environment. Familiarizes the students to the different formats and setups for business data. Illustrates various uses of spreadsheet formulas and functions in the business environment. Explains the application of charts and graphs for data analysis and also for collecting and sharing data. Demonstrates the use of spreadsheet tools in the analysis of research data.

### IFMG 201 - Internet and Multimedia

**Class Hours:** 3  
**Lab/Discussion:** 0  
**Credits:** 3

**Prerequisite:** BTED 101/COSC 101/IFMG 101 or prior exposure to word processing and electronic mail

**Description:** The major focus will be on the evaluation of information and multimedia resources available on electronic networks when doing research in an area of one's choice. This information literacy course is designed for students to gain a more in-depth understanding of the information resources available electronically and of how to utilize them more effectively in communicating. Students will learn how to access and utilize these resources for two-way communications and support for decision making while incorporating selected elements in multimedia presentations of their own design. COMM 201/COSC 201/IFMG 201/LIBR 201 may be used

interchangeably for D/F repeats and may not be counted for duplicate credit.

### **IFMG 210 - Introduction to Front-End Business Applications**

**Class Hours:** 3  
**Lab/Discussion:** 0  
**Credits:** 3

**Prerequisite:** IFMG 101/COSC 101 or IFMG 110  
**Description:** An introduction to systems and development concepts, information technology, and front-end business application software. Explains how information is used in organizations and how MIS enables improvement in quality, timeliness, and competitive advantage. Students learn how to design and construct a front-end business application using a programming language.

### **IFMG 230 - Introduction to Back-End Business Applications**

**Class Hours:** 3  
**Lab/Discussion:** 0  
**Credits:** 3

**Prerequisite:** IFMG 101/COSC 101 or IFMG 110  
**Description:** Introduces the back-end business programming language as it applies to business organizations and their applications. Structured back-end business concepts and methods are taught as the student learns how to solve business problems using computers. Involves using files, reports, and tables to produce a variety of outputs utilized in operating and managing business activities.

### **IFMG 250 - Business Systems Technology**

**Class Hours:** 3  
**Lab/Discussion:** 0  
**Credits:** 3

**Prerequisite:** BTED 101/COSC 101/IFMG 101 or COSC 110  
**Description:** Presents a functional review of computing equipment and the organization of components and devices into architectural configurations. Also teaches the principles of system software and builds an understanding of combinations of hardware and software within architectural designs.

### **IFMG 254 - Computer Technology Virtualization**

**Class Hours:** 3  
**Lab/Discussion:** 0  
**Credits:** 3

**Prerequisite:** IFMG 250  
**Description:** Introduces virtualization technology in the computing environment through the study of various related tools. Highlights key issues related to creating and using the virtual environment infrastructure. Presents alternatives for incorporating virtualization solutions at organizations. Uses technological case studies and practical applications. Prepares students to propose virtualization solutions for enterprise computing environments.

### **IFMG 300 - Information Systems: Theory and Practice**

**Class Hours:** 3  
**Lab/Discussion:** 0  
**Credits:** 3

**Prerequisite:** IFMG 101/COSC 101, or IFMG 110  
**Description:** Includes basic MIS concepts, fundamentals, and practices. Broad areas of coverage are principles, the computer as a problem-solving tool, computer-based information systems (CBIS), organizational information systems, and information systems management.

### **IFMG 352 - LAN Design and Installation**

**Class Hours:** 3  
**Lab/Discussion:** 0  
**Credits:** 3

**Prerequisite:** BTST 273 or IFMG 250 or any computer science course numbered 300 or higher  
**Description:** A study of fundamental local area networking concepts. A detailed study of the basics of local area network (LAN) technology. A comparative study of commercially available LAN systems and products. Features a hands-on laboratory implementation of a LAN. Either course may be substituted for the other for D/F repeats but may not be taken for duplicate credit.  
**Cross-Listed:** Cross-listed as COSC 352.

### **IFMG 360 - Information Storage and Management**

**Class Hours:** 3  
**Lab/Discussion:** 0  
**Credits:** 3

**Prerequisite:** IFMG 352

**Description:** Provides the knowledge for understanding the storage infrastructure required to store this information in personal, enterprise, and cloud computing settings. Focuses on the different components of storage infrastructure and how to successfully manage it. Examines basic and advanced concepts of storage technology to enable evaluation and design of storage architectures with features to meet a variety of technical and business needs. Considers disaster recovery and business continuity solutions such as backups, replication, and archiving which is related to the broader field of information assurance.

### **IFMG 390 - Database Theory and Practice**

**Class Hours:** 3  
**Lab/Discussion:** 0  
**Credits:** 3

**Prerequisite:** IFMG 210 or IFMG 230 or COSC 220

**Description:** Reviews database design, data model methodologies, physical data structure, and database development and implementation. Introduces the remote data service, transaction server, and database administration. Emphasizes the practical approach in accessing the database using Internet technology.

### **IFMG 455 - Business Data Mining**

**Class Hours:** 3  
**Lab/Discussion:** 0  
**Credits:** 3

**Prerequisite:** IFMG 390

**Description:** Introduces the strategies, technologies, and techniques associated with this growing MIS specialty area. Consists of three main parts: (1) the basic methodology for designing, using, and managing a data warehouse, (2) integrating different sources of data using non-relational technologies, and (3) using different data mining techniques to derive information from data for strategic and long-term business decision-making. (Titled Data Warehousing and Mining before 2016-17.)

### **IFMG 460 - Analysis and Logical Design**

**Class Hours:** 3  
**Lab/Discussion:** 0

**Credits:** 3

**Prerequisite:** (IFMG 210 or IFMG 230) and IFMG 352, IFMG 390

**Description:** Involves teaching the tools and techniques required for the analysis and design of a business system. Along with in-class discussions of the principles and techniques for analyzing, designing, and constructing the system, the students also formulate system teams in order to analyze the problems of an existing business information system, to design an improved system, and to control the implementation of the new system.

### **IFMG 468 - Information Technology (IT) Security**

**Class Hours:** 3  
**Lab/Discussion:** 0  
**Credits:** 3

**Prerequisite:** IFMG 352

**Description:** Introduces the principles and practices of security in the information technology (IT) field of study. Covers topics widely discussed in the IT security field to include security governance, strategic planning, policies and procedures, infrastructure, security management models, contingency plans and other related topics. Elaborates on the legal and ethical issues facing IT security in practice.

### **IFMG 471 - Data Center and Cloud Computing**

**Class Hours:** 3  
**Lab/Discussion:** 0  
**Credits:** 3

**Prerequisite:** IFMG 254, IFMG 360

**Description:** Introduces the building and managing of data centers as a cloud on the network. Focuses on the fundamentals regarding data center system configuration, networking, storage, and application. Examines different kinds of cloud service and delivery models. Discusses the management of data center security.

### **IFMG 475 - Project Management and Implementation**

**Class Hours:** 3  
**Lab/Discussion:** 0  
**Credits:** 3

**Prerequisite:** IFMG 460

**Description:** Introduces the demands made on the project manager and the nature of the manager's interaction with the rest of the parent organization in development of a business information system. Studies the difficult problems associated with conducting a project using people and organizations that represent different cultures and politics and that may be separated by considerable distances. Also covers how to implement and carry out the development of the project using several information systems development methodologies.

### **IFMG 481 - Special Topics**

**Class Hours:** var

**Credits:** 1-3

**Prerequisite:** As appropriate to course content

**Description:** Offered on an experimental or temporary basis to explore topics not included in the established curriculum. A given topic may be offered under any special topic identity no more than three times. Special topics numbered 481 are primarily for upper-level undergraduate students.

### **IFMG 482 - Independent Study**

**Class Hours:** var

**Credits:** 1-3

**Restriction:** Prior approval through advisor, faculty member, department chairperson, dean, and Office of the Provost

**Description:** Individual research and analysis of contemporary problems and issues in a concentrated area of study under the guidance of a senior faculty member. Approval based on academic appropriateness and availability of resources.

### **IFMG 493 - Internship in MIS**

**Class Hours:** var

**Credits:** 3-12

**Prerequisite:** IFMG 352, IFMG 390, consent of department chairperson

**Description:** Positions with participating business, industry, or governmental organizations provide experience in systems analysis. Note: Can be taken as a 3cr major-area elective requirement.

## **Interior Design**

### **INDS 105 - Introduction to Interior Design**

**Class Hours:** 3

**Lab/Discussion:** 0

**Credits:** 3

**Description:** Presents an overview of the interior design profession. Emphasizes the responsibilities of the interior designer and the many career opportunities available.

### **INDS 110 - Color and Light**

**Class Hours:** 3

**Lab/Discussion:** 0

**Credits:** 3

**Description:** Focuses on color and lighting fundamentals applicable to the environmental design of commercial and residential spaces. Includes general color and lighting terminology, theory of color visibility and perception, and how color and light work together to create functional, aesthetic, and sustainable interior environments.

### **INDS 118 - Interior Design Graphics**

**Class Hours:** 1

**Lab/Discussion:** 3

**Credits:** 3

**Description:** Introduces two- and three-dimensional traditional graphic skills including basic sketching, drafting, and perspective drawing as applicable to the responsibilities of interior designers. Emphasizes acceptable drafting standards, graphic layout, and visual organization through projects.

### **INDS 210 - Human Factors in Interior Design**

**Class Hours:** 3

**Lab/Discussion:** 0

**Credits:** 3

**Description:** Examines the manner in which humans, including special populations, and the built environment interface within various cultural settings. Focuses on relevant building codes as they impact the health and safety of the individual. Emphasis placed on Universal Design concepts and accessible code compliance.

## **INDS 218 - Computer Technology for Interior Design**

**Class Hours:** 1  
**Lab/Discussion:** 3  
**Credits:** 3

**Description:** Introduces basic computer-aided drafting and design (CADD) for designers; emphasizes CADD theory and the value of the computer as a problem solving, design tool.

## **INDS 219 - Kitchen and Bath Design**

**Class Hours:** 1  
**Lab/Discussion:** 3  
**Credits:** 3

**Description:** Explores many facets of the kitchen- and bath-design industry. Analyzes kitchen and bathroom spaces according to the National Kitchen and Bath Association (NKBA) standards. Utilizes current design software.

**Previously Offered As:** (Offered as INDS 319 before 2017-18.)

## **INDS 230 - Presentation for Interior Design**

**Class Hours:** 1  
**Lab/Discussion:** 3  
**Credits:** 3

**Prerequisite:** INDS 118

**Description:** Introduces visualization approaches used for professional presentations of concepts. As a project-based course, the focus is on both two- and three-dimensional drawings and the use of color to create depth and enhance the quality of both traditional and digital drawings used to present interior design solutions.

## **INDS 240 - Three-Dimensional Design for Interior Design**

**Class Hours:** 1  
**Lab/Discussion:** 3  
**Credits:** 3

**Prerequisite:** INDS 118

**Description:** An introduction to three-dimensional design thinking and presentation. Exploratory exercises strengthen

three-dimensional conceptual skills of interior space. Technical studies investigate presentation techniques, model-making, spatial theory analysis, and vocabulary.

## **INDS 313 - Building Systems I: Materials and Finishes**

**Class Hours:** 3  
**Lab/Discussion:** 0  
**Credits:** 3

**Prerequisite:** Junior standing

**Description:** Introduces the basic methods of structural and non-structural construction including ceilings, floors, walls, doors, and windows relative to interior space planning. Focuses on the materials and finishes used to complete the interior space, as well as those used on furniture, fixtures, and equipment. Examines manufacturing techniques, application, specification guidelines, estimating, and installation methods. Considers relevant codes, environmental issues, and impact on the responsibilities and decision making of interior designers.

## **INDS 315 - Residential Design Studio**

**Class Hours:** 1  
**Lab/Discussion:** 3  
**Credits:** 3

**Prerequisite:** INDS 218

**Description:** Applies interior design space planning and design problem-solving processes to residential design and emphasizes digital and graphic communication and presentation of those solutions.

## **INDS 323 - Building Systems II: Mechanicals**

**Class Hours:** 3  
**Lab/Discussion:** 0  
**Credits:** 3

**Prerequisite:** INDS 313

**Description:** Provides a broad overview of the various architectural building systems (mechanical, lighting, electrical, plumbing, acoustic, thermal, communications, security, and conveyance) as they affect the responsibilities and decision making of interior designers. Addresses relevant building and fire codes, vocabulary, and environmental concerns.

## **INDS 370 - History of Interior Design and Architecture I**

**Class Hours:** 3  
**Lab/Discussion:** 0  
**Credits:** 3

**Description:** Chronological study from ancient times to the mid-19th century of the dominant influences and characteristics of historical interiors, furniture, and ornamental design. Emphasis placed on stylistic detail and its relationship to social, economic, political, religious, and aesthetic influences and to the contemporary scene.

## **INDS 380 - History of Interior Design and Architecture II**

**Class Hours:** 3  
**Lab/Discussion:** 0  
**Credits:** 3

**Prerequisite:** INDS 370

**Description:** Chronological study from mid-19th century to the present of the dominant influences and characteristics of interiors, furniture, and ornamental design. Emphasis placed on stylistic detail and its relationship to social, economic, political, religious, and aesthetic influences and to the contemporary usage.

## **INDS 405 - Interior Design Professional Practice**

**Class Hours:** 3  
**Lab/Discussion:** 0  
**Credits:** 3

**Prerequisite:** Junior standing

**Description:** Planning, business organization, management, contracts, procedures, and ethics for the professional interior designer.

## **INDS 460 - Portfolio**

**Class Hours:** 1  
**Lab/Discussion:** 2  
**Credits:** 3

**Prerequisite:** Senior standing

**Description:** Focuses on professionalism in the preparation of an interior design portfolio. Concentrates on traditional

portfolio composition with an emphasis on the ability to transition to digital portfolio as necessary.

## **INDS 464 - Commercial Design Studio I**

**Class Hours:** 1  
**Lab/Discussion:** 3  
**Credits:** 3

**Prerequisite:** INDS 219

**Description:** Applies interior design space planning and design problem-solving processes to nonresidential design and links goals in interior design and facility management.

## **INDS 465 - Commercial Design Studio II**

**Class Hours:** 1  
**Lab/Discussion:** 3  
**Credits:** 3

**Prerequisite:** INDS 464

**Description:** A studio, project-based course, ascertaining the process to be followed in developing large-scale nonresidential interior design schemes of more than 10,000 square feet.

## **INDS 470 - Interior Design Capstone**

**Class Hours:** 3  
**Lab/Discussion:** 0  
**Credits:** 3

**Prerequisite:** Senior Standing

**Description:** Examines design issues in interior design research with faculty approval. Research is used in the development of a design program which informs a solution that focuses on the adaptive reuse of an existing building. Incorporates experience and knowledge gained from courses throughout the interior design curriculum. Culminates in a presentation of research findings and design solution.

## **Japanese**

### **JAPN 101 - Elementary Japanese I**

**Class Hours:** 4  
**Lab/Discussion:** 0  
**Credits:** 4

**Description:** For beginning students. Introduces the

Japanese language, with attention focused on three modes of communication: interpretive listening and reading, interpersonal speaking and writing, and presentational speaking and writing. Students learn pronunciation, fundamental grammatical patterns, and how to write hiragana, katakana, and basic kanji. Students learn to converse and ask questions in simple present and past time and become acquainted with aspects of Japanese culture and society. May not register for or take a D/F repeat in JAPN 101 when credit has already been received for a higher-numbered Japanese course.

## JAPN 102 - Elementary Japanese II

**Class Hours:** 4

**Lab/Discussion:** 0

**Credits:** 4

**Prerequisite:** JAPN 101 or equivalent

**Description:** A continuation of JAPN 101. Focusing on communication through listening, speaking, reading, and writing. Students continue to learn to identify and write basic kanji characters. Builds on the three modes of communication—interpretive, interpersonal, and presentational—to build proficiency in using the Japanese language in real-life situations. Also imparts knowledge of Japanese culture and society. May not register for or take a D/F repeat in JAPN 102 when credit has already been received for a higher-numbered Japanese course.

## JAPN 201 - Intermediate Japanese

**Class Hours:** 4

**Lab/Discussion:** 0

**Credits:** 4

**Prerequisite:** JAPN 102 or equivalent

**Description:** A continuation of JAPN 102. Focusing on communication through listening, speaking, reading, and writing so that students can function in everyday situations. Students continue to learn to identify and write intermediate kanji characters. Also imparts knowledge of Japanese culture and society. Liberal Studies credit is given. May not register for or take a D/F repeat in JAPN 201 when credit has already been received for a higher-numbered Japanese course.

## Journalism and Public Relations

## JRNL 126 - Introduction to Public Relations

**Class Hours:** 3

**Lab/Discussion:** 0

**Credits:** 3

**Description:** Introduces students to the principles, practices, programs, and possibilities in the various areas of public relations.

## Kinesiology, Health, and Sport Science

### KHSS 135 - Careers in Kinesiology, Health, and Sport

**Class Hours:** 1

**Lab/Discussion:** 0

**Credits:** 1

**Restriction:** Health and physical education, physical education and sport, or athletic training majors

**Description:** Emphasizes development of attributes associated with professionalism and examines occupational opportunities that exist for students majoring in kinesiology, health, and sport.

### KHSS 143 - Wellness

**Class Hours:** 3

**Lab/Discussion:** 0

**Credits:** 3

**Description:** Choose one:

#### Contemporary Women's Wellness

Explores issues relating to the physical, emotional, and social aspects of special significance to women's health across the life span. Within the context of contemporary lifestyle and cultural influences, relevant health information affecting women of all ages, races, and ethnicities is presented. Current trends in the prevention and control of chronic diseases and health disorders as well as practical applications of information and resources to help each student develop a personal wellness plan and the knowledge to become a women's health advocate are emphasized. Successful completion fulfills the Liberal Studies Dimensions of Wellness requirements. Other 143 courses also fulfill this requirement, and any of these



courses may be substituted for each other and may be used interchangeably for D/F repeats but may not be counted for duplicated credit.

### **Physical Well-Being**

An overview of personal health and wellness. Emphasis is given to physical dimension in the attainment of well-being. Topical areas include, but are not limited to, exercise and fitness, healthy eating and weight management, substance use and abuse, disease prevention, and sexuality. Also covers stress management and emotional wellness. Guides in the development of an individualized wellness plan to improve overall physical well-being. Successful completion fulfills the Liberal Studies Dimensions of Wellness requirement. Other 143 courses also fulfill this requirement, and any of these courses may be substituted for each other and may be used interchangeably for D/F repeats but may not be counted for duplicate credit.

### **Wellness through Strength Training**

Promotes the attainment of personal well-being through the use of a comprehensive strength training program. Students will focus on the attainment of improved wellness by creating and participating in an exercise regime that focuses on muscular fitness, flexibility, and body composition. The exercise program will utilize a variety of resistive regimes including kettle bells, dumbbell circuits, and plyometrics. Students will evaluate their current level of fitness then participate in a physical activity self-improvement program. Meets Dimensions of Wellness for Liberal Studies requirement. Other 143 courses will also fulfill this requirement, and any of these courses may be substituted for each other and may be used interchangeably

## **KHSS 146 - Foundations of Exercise Science**

**Class Hours:** 1  
**Lab/Discussion:** 0  
**Credits:** 1

**Description:** Examines the historical development of the exercise science field. Focuses on the importance of professionalism, certifications, and credentialing to be successful in the field. Reviews a variety of sub-disciplines, research, and current career opportunities in the field.

## **KHSS 175 - Prevention and Care of Injuries to the Physically Active**

**Class Hours:** 2  
**Lab/Discussion:** 0  
**Credits:** 2

**Description:** Presents general information related to the prevention, recognition, and care of both acute and chronic injuries common to participants of physical activity/fitness and athletics. Includes prevention techniques, the classification and staging of injury conditions, and basic evaluation techniques, as well as emergency management and follow-up care procedures.

## **KHSS 209 - Motor Behavior**

**Class Hours:** 3  
**Lab/Discussion:** 0  
**Credits:** 3

**Restriction:** Must be a major enrolled in Kinesiology, Health, and Sport Science Department or instructor permission

**Description:** Studies the process of human motor behavior across the life span, specifically examining how development of mental and motor abilities affects human movement. Students are required to have appropriate child background clearances.

## **KHSS 213 - Recreational Sports and Lifetime Activities**

**Class Hours:** 3  
**Lab/Discussion:** 1  
**Credits:** 3

**Prerequisite:** EDSP 102, KHSS 135

**Description:** Provides exposure to contemporary recreational sports and lifetime physical activities. Includes an overview of all aspects for multiple physical activities, including the history, equipment, fundamental skills and assessment, rules, strategy, and etiquette.

## **KHSS 216 - Instruction of Fundamental Movement Skills**

**Class Hours:** 3  
**Lab/Discussion:** 1  
**Credits:** 3

**Prerequisite:** EDSP 102, KHSS 209

**Description:** An introduction to instructional methods of fundamental movement categories such as motor skills, manipulative, body management, rhythmic movement, and game skills. Emphasis is on program standards, objectives, and assessments for ages 6-12. An overview of characteristics of children and appropriate activities for this

age group. Includes opportunities to improve personal skills, develop units, and teach peers and school-age children. (Titled Teaching Elementary Physical Education before 2015-16.)

### **KHSS 218 - Instruction of Tactical Skills and Fitness Concepts**

**Class Hours:** 3  
**Lab/Discussion:** 1  
**Credits:** 3

**Prerequisite:** EDSP 102, KHSS 216

**Description:** An introduction to instructional methods in strategic game skills used in many sports and activities with an emphasis on program standards, objectives, and assessments for ages 12-18. Strategies and techniques of instructing personal fitness for adolescents is also covered. An overview of characteristics of adolescents and appropriate activities for this age group. Includes opportunities to improve personal skills, develop units, and teach adolescents ages 12-18. (Titled Teaching Secondary Physical Education before 2015-16.)

### **KHSS 221 - Human Structure and Function**

**Class Hours:** 3  
**Lab/Discussion:** 0  
**Credits:** 3

**Description:** Anatomical organization of the human body, surveyed in sufficient depth to prepare students for physiology, biomechanics, and adaptive physical education.

### **KHSS 225 - Social Issues in Sport**

**Class Hours:** 3  
**Lab/Discussion:** 0  
**Credits:** 3

**Description:** Sport is a topic that permeates virtually all aspects of society. Investigates sport from historical, philosophical, and social perspectives. Various social theories are used to examine the interaction of sport and society through exploration of issues related to business, deviance, disability, gender, media, social class, politics, and race as they pertain to sport.

### **KHSS 251 - Foundations of Safety and Emergency Health Care**

**Class Hours:** 3  
**Lab/Discussion:** 0  
**Credits:** 3

**Description:** Focuses on accident prevention, injury control, and first responder's skills. Emphasizes identification of causes of accidents, recommended countermeasures, and mitigation. American Red Cross certifications are issued in (1) standard first aid, (2) community CPR, (3) instructor of standard first aid, and (4) instructor of community CPR.

### **KHSS 252 - Introduction to the Driving Task**

**Class Hours:** 2  
**Lab/Discussion:** 2  
**Credits:** 3

**Description:** Provides an in-depth treatment of operating a motor vehicle competently in all major variations and under most conditions encountered in traffic. A competent operator is one who performs the total driving task knowledgeably and skillfully and demonstrates full understanding and application of identification, prediction, decision, and execution process.

### **KHSS 256 - Applied Human Structure and Conditioning**

**Class Hours:** 3  
**Lab/Discussion:** 0  
**Credits:** 3

**Restriction:** Physical education and sport/sport administration major

**Description:** The emphasis is on developing an anatomical and physiological knowledge base as it applies to exercise, conditioning, and training of the physically active. Specific body systems presented include skeletal, muscular, cardio-respiratory, and nervous. Components of each system are addressed as they pertain to exercise and training concepts, such as speed, strength, muscular and cardiovascular endurance, flexibility, aerobic capacity, power, and other physiological factors related to performance and physical activity.

### **KHSS 261 - Water Safety Instructor**

**Class Hours:** 1  
**Lab/Discussion:** 2  
**Credits:** 1

**Prerequisite:** Basic swimming skills

**Description:** Students learn to teach children and adults basic swimming and water safety skills. Emphasis placed on proper body mechanics and teaching progressions. Students have opportunity to earn American Red Cross Water Safety Instructor certification upon successful completion of requirements.

## **KHSS 263 - Aquatics**

**Class Hours:** 0

**Lab/Discussion:** 2

**Credits:** 1

**Description:** Basic performance techniques in swimming strokes presented with special emphasis on teaching methodology, aquatic sports and games, water safety, skin diving, springboard diving, and other aquatic activities.

## **KHSS 270 - Sport Communication**

**Class Hours:** 3

**Lab/Discussion:** 0

**Credits:** 3

**Prerequisite:** ENGL 101 or ENGL 103

**Description:**

Provides an overview of sport communication, focusing on different communicative contexts including interpersonal, organizational, and public communication.

Emphasizes media relations and skills essential for sport communication professionals, including handling media interactions, crises, and integration of positive public relation strategies. (Also offered as COMM 270; may not be taken for duplicate credit.)

## **KHSS 280 - Aquatic Management and Operation**

**Class Hours:** 3

**Lab/Discussion:** 0

**Credits:** 3

**Description:** Prepares the aquatic professional for management and operation of various aquatic facilities and venues. Includes topics on facility design and renovation, staff recruitment and management, risk management and facility safety concepts, legal aspects of aquatics, programming a profitable aquatic facility, and facility inspections. Offers nationally recognized certifications as part of the content delivery (Additional Fees May Apply).

## **KHSS 281 - Special Topics**

**Class Hours:** var

**Credits:** 1-3

**Prerequisite:** As appropriate to course content

**Description:** Offered on an experimental or temporary basis to explore topics not included in the established curriculum. A given topic may be offered under any special topic identity no more than three times. Special topics numbered 281 are offered primarily for lower-level undergraduate students.

## **KHSS 285 - Group/Individual Exercise Leadership**

**Class Hours:** 1

**Lab/Discussion:** 2

**Credits:** 3

**Prerequisite:** Physical education and sport/exercise science majors, KHSS 221 with a grade of "C" or better, or BIOL 150 with a grade C or better

**Description:** Provides theoretical knowledge of leadership skills necessary to design, implement, and evaluate safe and effective exercise programs in group and individual settings. An emphasis is placed on group exercise leadership and fitness instruction. Students are also introduced to the management and administration of such programs. Observations within the field are required, as well as opportunities to apply introductory concepts of exercise training through practical application.

## **KHSS 286 - Personal Training Practicum**

**Class Hours:** 2

**Lab/Discussion:** 1

**Credits:** 3

**Prerequisite:** KHSS 221 or BIOL 150

**Description:** Provides theoretical knowledge of leadership skills necessary to design, implement, and evaluate safe and effective personal training programs. Requires networking within the field as well as opportunities to apply introductory concepts of exercise training and business development through practical application.

## **KHSS 287 - Aquatic Fitness Instruction**

**Class Hours:** 1

**Lab/Discussion:** 0

**Credits:** 1

**Prerequisite:** KHSS 285

**Description:** Provides a basic introduction to methods and techniques for aquatic fitness instruction. Introduces several different approaches to aquatic exercise and fitness from the client and instructor perspectives. Prepares students to lead individual and group exercise instruction in water-based environments to a variety of different populations.

## **KHSS 292 - Introduction to Sport Management**

**Class Hours:** 3

**Lab/Discussion:** 0

**Credits:** 3

**Description:** Introduces theories and practices in the field of sport management. Emphasizes management principles, leadership competencies, ethical principles, and governance in the sport industry. An introduction to sport marketing, sport finance, and sport law is provided.

## **KHSS 315 - Biomechanics**

**Class Hours:** 3

**Lab/Discussion:** 0

**Credits:** 3

**Prerequisite:** A grade of "C" or better in KHSS 221 or a grade of "C" or better in BIOL 150

**Description:** A study of the relationship between mechanical and physical principles and human movement.

## **KHSS 316 - Instruction of Child Health Concepts**

**Class Hours:** 3

**Lab/Discussion:** 0

**Credits:** 3

**Prerequisite:** EDSP 102, KHSS 135

**Description:** Introduces the theories of instruction and methods for teaching health education to elementary school-aged children. Identifies developmentally appropriate teaching methods and activities, reviews and assesses current health curriculum, and demonstrates the use of technology in the instructional setting. Provides opportunities for observation, lesson planning, and teaching of health education to children. (Titled Teaching Elementary Health Education before 2015-16.)

## **KHSS 318 - Preprofessional Experience I**

**Class Hours:** 3

**Lab/Discussion:** 0

**Credits:** 3

**Prerequisite:** KHSS 209, KHSS 216, health and physical education majors only

**Description:** Students assist a university faculty member teach in several instructional settings, including elementary school physical education program or community-based wellness programs. Students have the opportunity to apply pedagogical theory and concepts related to various professional areas. Emphasis is on planning, developing, implementing, and assessing educational experiences.

## **KHSS 319 - Field Practicum I**

**Class Hours:** 3

**Lab/Discussion:** 0

**Credits:** 3

**Prerequisite:** Sophomore status

**Description:** An initial experience in the professional work setting. Combines classroom theory with practical application through job-related experience to build on professional knowledge and skills. (Titled Preprofessional Experience II before 2016-17.)

## **KHSS 320 - Managing Facilities and Events in Sport**

**Class Hours:** 3

**Lab/Discussion:** 0

**Credits:** 3

**Description:** Investigates the management functions necessary to operate a variety of sport facilities. Emphasizes liability risk reduction, staffing, design and renovation, maintenance, and amenities pertinent to sport facilities. Strategies for managing a sporting event are presented and practiced.

## **KHSS 325 - School and Community Health**

**Class Hours:** 3

**Lab/Discussion:** 0

**Credits:** 3

**Description:** Introduces the role of school and community in protecting and promoting the health of its members.

Topics include historical development of the concepts of health and health education, identification of national and community goals to reduce risk of disease and enhance health status, and the responsibilities of both school and community toward achieving these goals.

### **KHSS 333 - Psychology of Coaching**

**Class Hours:** 3  
**Lab/Discussion:** 0  
**Credits:** 3

**Description:** Emphasizes the interaction between sport psychology and coaching strategies. Includes history of sports psychology, motivating athletes, coaching various personality types, and controlling emotions and stress in athletes. Focuses on the impact of social influence, group dynamics, and character development on sport performance. Examines aggression in sport as well as gender differences and cultural diversity issues.

### **KHSS 335 - Athletic Coaching**

**Class Hours:** 3  
**Lab/Discussion:** 0  
**Credits:** 3

**Description:** Emphasizes coaching strategies and techniques for all sports. Includes coaching philosophy and style, motivating athletes and managing their behavior, teaching technical and tactical skills, and planning an approach to games and practices. Focuses on conditioning techniques, proper nutrition, and drug and alcohol prevention in athletes. The administration of the team, parents, referees, and liability risks is stressed. Examines aggression in sport, gender differences, cultural diversity issues, and the use of sport psychology strategies.

### **KHSS 341 - Evaluations and Analytics in Kinesiology**

**Class Hours:** 3  
**Lab/Discussion:** 0  
**Credits:** 3

**Prerequisite:** Junior standing  
**Description:** Evaluation theory, instructional objectives, and cognitive test construction; technical and practical considerations in testing and interpretation of test results in both health and physical education.

### **KHSS 343 - Physiology of Exercise**

**Class Hours:** 3  
**Lab/Discussion:** 0  
**Credits:** 3

**Prerequisite:** Health and physical education, physical education and sport/exercise science, athletic training majors and a grade of "C" or better in KHSS 221 or C or higher in BIOL 150  
**Description:** Physiological effects of exercise in humans. Major factors of diet, conditioning, physical fitness, maximum performance level, and fatigue.

### **KHSS 344 - Adapted Physical Activity and Sport**

**Class Hours:** 3  
**Lab/Discussion:** 0  
**Credits:** 3

**Prerequisite:** KHSS 209 and one of the following: KHSS 221, KHSS 256, or BIOL 150  
**Description:** Recognition of structural deviations, corrective exercises, physical activity, and sport for individuals with a wide range of disabilities

### **KHSS 347 - Physiology of Exercise Laboratory**

**Class Hours:** 0  
**Lab/Discussion:** 2  
**Credits:** 1

**Corequisite:** KHSS 343  
**Description:** Laboratory experiences to illustrate physiological responses to exercise. Skills associated with the use of current laboratory equipment and techniques are developed. Supplements lecture-based content from KHSS 343.

### **KHSS 351 - Sport Finance**

**Class Hours:** 3  
**Lab/Discussion:** 0  
**Credits:** 3

**Prerequisite:** ECON 121, ECON 122, and grade of "C" or better in KHSS 292  
**Description:** Provides information concerning the application of finance and accounting principles to managerial control of sport organizations. Examines current economic and financial issues that impact the sports industry. Topics include budget development, funding,

capital projects, financial analysis, licensing, and economic impact studies related specifically to managing sport. Emphasizes specific software packages currently being used to manage sport organizations.

### **KHSS 365 - Orthopedic Injury Assessment in Athletic Training**

**Class Hours:** 3  
**Lab/Discussion:** 2  
**Credits:** 4

**Prerequisite:** KHSS 345, KHSS 346  
**Description:** Teaches assessment procedures, evaluation methods, and proper athletic training protocol for neuromuscular and musculoskeletal injuries. In addition, administrative issues in athletic training are addressed emphasizing accurate medical documentation. Emphasizes subjective and objective assessment and documentation of findings.

### **KHSS 370 - Adapted Health and Physical Education**

**Class Hours:** 3  
**Lab/Discussion:** 0  
**Credits:** 3

**Prerequisite:** EDSP 102, KHSS 209; at least one of the following: KHSS 214, KHSS 215, KHSS 216, KHSS 217, KHSS 218, KHSS 316  
**Description:** Introduces the educational issues and methods used to effectively instruct students with disabilities and other issues that become barriers to learning. Includes a study of current laws and guidelines regarding the legal rights of students with disabilities and their parents. Identifies low and high incidence of disabilities, recognitions of structural deviation, and corrective exercises. Introduces instructional adaptations to facilitate learning in the health classroom and gymnasium.

### **KHSS 373 - Business Administration in the Fitness Industry**

**Class Hours:** 3  
**Lab/Discussion:** 0  
**Credits:** 3

**Description:** Provides practical tools regarding the feasibility of business planning, acquiring and managing a staff, operational concerns for each segment of the health and fitness industry (community, corporate, clinical,

community and performance settings) and program development. Addresses the recommended guidelines set forth by the professional associations within the industry.

### **KHSS 375 - Physiological Basis of Strength Training and Conditioning**

**Class Hours:** 3  
**Lab/Discussion:** 0  
**Credits:** 3

**Prerequisite:** Grade of "C" or higher in KHSS 221 or BIOL 150  
**Description:** Provides the anatomical and physiological basis of muscle function. Students also gain an understanding of changes that can be made through strength training and conditioning, along with knowledge of programs that will bring about these changes. Opportunities for working with various types of equipment are available.

### **KHSS 376 - Athletic Training Clinical Practicum I**

**Class Hours:** 0  
**Lab/Discussion:** 3  
**Credits:** 3

**Prerequisite:** KHSS 345, KHSS 346  
**Description:** Develops and demonstrates proficient psychomotor skills within the domains of athletic injury prevention and acute care, in coordination with a one-semester clinical field experience. Allows an opportunity to practice and apply skills taught under the direction of a preceptor within the IUP Athletic Department or an affiliated clinical site. Emphasizes specific skills such as those relating to safety/risk management, conditioning, equipment fitting, taping and wrapping, acute care, and transportation/transfer of the injured athlete. Restricted to students seeking eligibility to sit for the Board of Certification (BOC) for the Athletic Trainer examination.

### **KHSS 377 - Athletic Training Clinical Practicum II**

**Class Hours:** 0  
**Lab/Discussion:** 3  
**Credits:** 3

**Prerequisite:** KHSS 365  
**Description:** Develops and demonstrates proficient

psychomotor skills within the domain of athletic injury assessment, in coordination with a one-semester clinical field experience. Allows an opportunity to practice and apply skills taught under the direction of a preceptor within the IUP Athletic Department or an affiliated clinical site. Emphasizes specific skills such as those relating to anatomical landmarks' identification, orthopedic evaluations, and neurological evaluations. Restricted to students seeking eligibility to sit for the Board of Certification (BOC) for the Athletic Trainer examination.

### **KHSS 380 - Organization and Administration in Athletic Training**

**Class Hours:** 3  
**Lab/Discussion:** 0  
**Credits:** 3

**Prerequisite:** KHSS 345 or instructor permission  
**Description:** Presents comprehensive instruction in such areas as health care administration; program, human, information, and resource management; and ethics and legal considerations in athletic training.

### **KHSS 385 - General Medical Conditions in Athletic Training**

**Class Hours:** 2  
**Lab/Discussion:** 2  
**Credits:** 3

**Prerequisite:** KHSS 345 or instructor permission  
**Description:** An overview of general health assessment and physical examination techniques related to the athletic population. A systemic approach is used to address issues related to the anatomy, pathology, physiology, and diagnostic testing of both general conditions and diseases of the human body.

### **KHSS 410 - Exercise Prescription**

**Class Hours:** 3  
**Lab/Discussion:** 0  
**Credits:** 3

**Prerequisite:** Physical education and sport/exercise science majors and KHSS 343 with a grade of "C" or better  
**Description:** Teaches individuals to write exercise prescriptions based on a subject's tolerance for physical activity. Special emphasis is on risk factors, techniques of evaluation, drugs, injuries, environmental factors, and motivation and their role in physical activity assessment.

### **KHSS 411 - Physical Fitness Appraisal**

**Class Hours:** 3  
**Lab/Discussion:** 0  
**Credits:** 3

**Prerequisite:** KHSS 343 with a grade of "C" or better  
**Description:** Involves the selection, administration, and interpretation of various tests for appraising the physical fitness levels of individuals. Information given concerning the various fitness components and discussions held so that each student gains an understanding of the variables to be tested.

### **KHSS 413 - Physical Activity and Aging Across the Lifespan**

**Class Hours:** 3  
**Lab/Discussion:** 0  
**Credits:** 3

**Prerequisite:** KHSS 343 with a grade of "C" or better  
**Description:** Presents major aspects of physical activity, its importance to the older adult, and the organization of an activity program. Attention to physiology of physical activity, effects of activity on growth and aging, exercise prescription, flexibility, overweight and obesity, and motivational strategies.

### **KHSS 414 - Exercise Electrocardiography**

**Class Hours:** 1  
**Lab/Discussion:** 1  
**Credits:** 3

**Prerequisite:** Physical education and sport/exercise science majors and KHSS 343 with a grade of "C" or better  
**Description:** An introduction to the basic concepts of electrocardiography (ECG), including an understanding of electrophysiology, electrode lead placement, both rhythm strips and 12-lead interpretation. Utilizing electrocardiograms, students will also be able to recognize normal and abnormal rhythms, including those ECG abnormalities brought about by exercise. Normal and abnormal responses during Graded Exercise Testing are also interpreted.

### **KHSS 415 - Lifestyle Behavior Management for Physical Activity**

**Class Hours:** 3  
**Lab/Discussion:** 0  
**Credits:** 3

**Prerequisite:** KHSS 343 with a grade of "C" or better  
**Description:** Examines a variety of strategies necessary to modify health behavior with an emphasis on physical activity. Focus is placed on development of skills necessary to work with clients/patients in group leadership and group-process activities to assess and assist with behavior change for both the apparently healthy and those with multifaceted chronic disease as it relates to physical activity.

### **KHSS 416 - Functional Training for Strength and Conditioning**

**Class Hours:** 3  
**Lab/Discussion:** 0  
**Credits:** 3

**Prerequisite:** KHSS 343 and KHSS 375 with a grade of "C" or better  
**Description:** Focuses on comparing and contrasting the scientific principles associated with traditional strength training and functional strength training techniques. Examines a variety of new techniques found in the fitness and sport performance industry and provides practical experience in both traditional and functional strength training techniques.

### **KHSS 417 - Contemporary Issues in School and Community Health**

**Class Hours:** 3  
**Lab/Discussion:** 0  
**Credits:** 3

**Description:** Provides pedagogical strategies relevant to educators in school and community health education settings. Assist students in identifying, analyzing, promoting, and evaluating recent developments and issues in health.

### **KHSS 418 - Fitness Assessment and Exercise Prescription**

**Class Hours:** 3  
**Lab/Discussion:** 1  
**Credits:** 4

**Prerequisite:** Exercise Science Major or Exercise Science Minor or completion of KHSS 343 with a C or better

**Description:** Assesses health-related physical fitness using laboratory and field tests to measure the physical fitness levels of apparently healthy sedentary adults and physically active individuals. Develops skills and knowledge needed to prepare individualized exercise programs. Acquires the skills to complete health risk assessments and medical history acquisition. Applies fitness assessment skills, define fitness levels, body composition, flexibility, and strength. Provides knowledge to take the assessment data and write exercise prescriptions to improve the health of participants. Demonstrates information literacy and critical thinking skills.

### **KHSS 419 - Emergency Care and Water Safety**

**Class Hours:** 3  
**Lab/Discussion:** 0  
**Credits:** 3

**Description:** Examines necessary skills that an educator should use to mitigate safety risks and to respond to emergencies in multiple environments with an emphasis on the natatorium. Involves learning to teach children and adults basic swimming and water safety skills. Provides the opportunity to earn CPR/AED/First Aid and Water Safety Instruction certifications.

### **KHSS 420 - Health Education and Promotion at the Workplace**

**Class Hours:** 3  
**Lab/Discussion:** 0  
**Credits:** 3

**Prerequisite:** KHSS 325 or instructor permission  
**Description:** Addresses basic issues and problems in planning, implementing, and evaluating health education programming in a variety of school and worksite settings. Explores agencies and programs focused on advocacy of health education services. Emphasizes knowledge and practical skills required to become a certified health education specialist.

### **KHSS 426 - Health Science Instruction**

**Class Hours:** 3  
**Lab/Discussion:** 0  
**Credits:** 3

**Prerequisite:** KHSS 316, KHSS 318  
**Description:** An overview of health curriculum with a



focus on teaching methods and media of instruction. Includes unit development, opportunities for instruction, and guidelines for maintaining professional growth. Explores current research in teaching techniques, motivational strategies, and assessment of learning within a diverse population.

### **KHSS 436 - Corrective Exercise for the Health and Fitness Practitioner**

**Class Hours:** 3  
**Lab/Discussion:** 0  
**Credits:** 3

**Prerequisite:** KHSS 375 or instructor permission  
**Description:** Enhances understanding of the foundation of movement patterns as they apply to efficient human motion. Addresses the analysis of human motion in order to teach, modify, and enhance human motion in clinical and performance settings.

### **KHSS 437 - Coaching Disability Sport**

**Class Hours:** 3  
**Lab/Discussion:** 0  
**Credits:** 3

**Prerequisite:** KHSS 209 or instructor permission  
**Description:** Introduces developmentally appropriate practice when coaching individuals with disabilities. Emphasizes accessible and inclusive practices that promote full participation of individuals with various disabling conditions. Explores program planning and assessment in various disability sports and games.  
**Previously Offered As:** (Offered as KHSS 337 before 2016-17.)

### **KHSS 441 - Psychosocial Implications for Health and Physical Education**

**Class Hours:** 3  
**Lab/Discussion:** 0  
**Credits:** 3

**Prerequisite:** Senior standing  
**Description:** A study of psychological and sociological influences, both theoretical and empirical, and their effects on health and physical performance.

### **KHSS 442 - Senior Seminar: Professional Development in Health, Physical Education, and Sport**

**Class Hours:** 3  
**Lab/Discussion:** 0  
**Credits:** 3

**Prerequisite:** 90cr completed  
**Description:** For majors of health and physical education and physical education and sport. Related to professional development issues and transition from college graduate to entry-level professional. Includes development of an electronic portfolio, assessment of postgraduation educational opportunities, and exploration of information literacy.

### **KHSS 445 - Sport Marketing**

**Class Hours:** 3  
**Lab/Discussion:** 0  
**Credits:** 3

**Prerequisite:** Grade of C or better in KHSS 292 and KHSS 320  
**Description:** Focuses on the application of marketing practices to operate a successful sports organization. Emphasizes the topics of promotion in sport, sport marketing, sport sponsorships, and sport sales practices.

### **KHSS 446 - Therapeutic Modalities**

**Class Hours:** 3  
**Lab/Discussion:** 2  
**Credits:** 4

**Prerequisite:** KHSS 365  
**Description:** A basic introduction to the use of therapeutic modalities and the role they play in the rehabilitation of athletic injuries. Physical agents used in the care of athletic injuries are presented, highlighting the physiological effects of each modality, as well as indications and contraindications for their use.

### **KHSS 448 - Therapeutic Exercises for Athletic Injury Management**

**Class Hours:** 3  
**Lab/Discussion:** 2  
**Credits:** 4

**Prerequisite:** KHSS 365, KHSS 375

**Description:** The theoretical framework for athletic injury assessment and management of the injured athlete is discussed. A problem-solving approach to the selection and implementation of specific tests and development of skill in basic therapeutic exercise procedures for improving muscle performance, relaxation, and mobilization are included.

## **KHSS 460 - Law and Issues in Managing Sport**

**Class Hours:** 3

**Lab/Discussion:** 0

**Credits:** 3

**Prerequisite:** Grade of "C" or better in KHSS 292

**Description:** Emphasizes the interaction between the legal system and the sport industry. Topics include liability risk management, contracts, torts, sports agents, dispute resolution, and product liability. A focus on the influence of Title IX, antitrust exemption, religion, drug testing, and ergogenic aids on sport operations. The evolution of NCAA compliance and the issues that social media has on managing sport are included.

## **KHSS 465 - Sport Management Capstone**

**Class Hours:** 3

**Lab/Discussion:** 0

**Credits:** 3

**Prerequisite:** Grade of "C" or better in KHSS 292, KHSS 320; 90cr completed

**Description:** The emphasis is on improving personal effectiveness in the work environment for sport managers. Students develop observational skills and survey techniques needed for the sport industry. Thinking critically, problem solving, and applying transformative change models are emphasized. Discipline-specific research articles are examined and critiqued. Prepares students to market their skills to the sport industry.

## **KHSS 472 - Epidemiology of Physical Activity**

**Class Hours:** 3

**Lab/Discussion:** 0

**Credits:** 3

**Prerequisite:** BIOL 301

**Description:** Covers physical activity epidemiology from the evidence of the relationship between physical activity

and chronic disease and the assessment of physical activity and/or sedentary behavior. Explores individual and population-based lifestyle intervention efforts to enhance health behavior and promote disease prevention in diverse populations.

## **KHSS 476 - Athletic Training Clinical Practicum III**

**Class Hours:** 0

**Lab/Discussion:** 3

**Credits:** 3

**Prerequisite:** KHSS 365, KHSS 385, KHSS 446

**Description:** Develops and demonstrates proficient psychomotor skills within the domains of athletic training organization/administration and education/guidance, in coordination with a one-semester clinical field experience. Allows an opportunity to practice and apply skills under the direction of a preceptor within the IUP Athletic Department or an affiliated clinical site. Emphasizes specific skills such as those relating to communication, recordkeeping, planning, budgeting and purchasing, facility design, policies/procedures, and other athletic health care managerial/administrative duties. Athletic training instruction and guidance skills are also addressed. Restricted to students seeking eligibility to sit for the Board of Certification (BOC) for the Athletic Trainer examination.

## **KHSS 477 - Athletic Training Clinical Practicum IV**

**Class Hours:** 0

**Lab/Discussion:** 3

**Credits:** 3

**Prerequisite:** KHSS 446, KHSS 448

**Description:** Develops and demonstrates proficient psychomotor skills within the domain of athletic injury rehabilitation, in coordination with a one-semester clinical field experience. Allows an opportunity to practice and apply skills under the direction of a preceptor within the IUP Athletic Department or an affiliated clinical site. Emphasizes specific skills such as exercise, manual therapy, and other advanced musculoskeletal screening and therapeutic intervention techniques. Restricted to students seeking eligibility to sit for the Board of Certification (BOC) for the Athletic Trainer examination.

## **KHSS 480 - Professional Issues in Athletic Training**

**Class Hours:** 3  
**Lab/Discussion:** 0  
**Credits:** 3

**Prerequisite:** KHSS 380, KHSS 476

**Description:** Explores topics related to professional development and responsibility in athletic training. Examines current research findings in athletic training. Addresses preparation for the Board of Certification (BOC) examination.

### **KHSS 481 - Special Topics**

**Class Hours:** var  
**Credits:** 1-3

**Prerequisite:** As appropriate to course content

**Description:** Offered on an experimental or temporary basis to explore topics not included in the established curriculum. A given topic may be offered under any special topic identity no more than three times. Special topics numbered 481 are primarily for upper-level undergraduate students.

### **KHSS 492 - Senior Capstone in Exercise Science**

**Class Hours:** 3  
**Lab/Discussion:** 0  
**Credits:** 3

**Prerequisite:** Physical education and sport/exercise science majors only. Grade of "C" or better in all of the following: KHSS 285, KHSS 286, KHSS 315, KHSS 343, KHSS 375, and either KHSS 410 or KHSS 411. May only take KHSS 410 or KHSS 411 concurrently with 492.

**Description:** Students acquire the knowledge, skills, and abilities required to develop programs of physical activity and fitness for healthy adults and those with controlled disease. Experience in leading an exercise class and knowledge of functional anatomy and exercise physiology are also expected before participation in the class.

### **KHSS 493 - Internship**

**Class Hours:** var  
**Credits:** 1-12

**Prerequisite:** Senior standing required

**Restriction:** Physical education and sport/exercise science, physical education and sport/sport administration, and athletic training majors, senior status or permission

**Description:** Integrates classroom experience with practical experience in community service agencies or industrial, business, or governmental organizations.

## **Korean**

### **KORE 101 - Elementary Korean I**

**Class Hours:** 4  
**Lab/Discussion:** 0  
**Credits:** 4

**Description:** For beginning students. Introduces the Korean language, with attention focused on three modes of communication in present and past time frames: interpretive listening and reading, interpersonal speaking and writing, and presentational speaking and writing. Also imparts knowledge of Korean culture and society. Attendance is required. Students may not register for or take a D/F repeat in KORE 101 when credit has already been received for a higher numbered Korean course.

### **KORE 102 - Elementary Korean II**

**Class Hours:** 4  
**Lab/Discussion:** 0  
**Credits:** 4

**Prerequisite:** KORE 101

**Description:** A continuation of KORE 101. Focuses on communication through listening, speaking, reading, and writing. Students continue to learn to identify and write Korean characters. Builds on the three modes of communication—interpretive, interpersonal, and presentational—to build proficiency in using the Korean language in real-life situations. Also imparts knowledge of Korean culture and society. May not register for or take a D/F repeat in KORE 102 when credit has already been received for a higher-numbered KORE course.

### **KORE 201 - Intermediate Korean**

**Class Hours:** 4  
**Lab/Discussion:** 0  
**Credits:** 4

**Prerequisite:** KORE 102

**Description:** A continuation of KORE 102. Focuses on communication through listening, speaking, reading, and writing. Students continue to learn to identify and write complicated Korean vowels and consonants. Builds on the three modes of communication—interpretive, interpersonal,

and presentational—to build proficiency in using the Korean language in real-life situations. Also imparts knowledge of Korean culture and society. Attendance is required. Students may not register for or take a D/F repeat in KORE 201 when credit has already been received for a higher-numbered KORE course.

## Lesbian, Gay, Bisexual, Transgender, and Queer Studies

### LGBT 200 - Introduction to Lesbian, Gay, Bisexual, Transgender, and Queer Studies

**Class Hours:** 3  
**Lab/Discussion:** 0  
**Credits:** 3

**Description:** Introduces students to lesbian, gay, bisexual, transgender, and queer (LGBT&Q) studies as an interdisciplinary academic field; draws substantially on sociology, psychology, history, politics, religion; considers literary and media representations of the LGBT&Q populations and experiences. Focuses on the exploration of the cultural, social, historical, and political understandings of sexuality and gender marginality that have shaped identities in modern times. Addresses contemporary issues related to LGBT&Q individuals and communities and critically examines the meaning and representation of heterosexuality and gender normativity in relation to LGBT&Q experiences. Considers key intersections of sexual orientations, identities, and behaviors in relation to age, race, ethnicity, and social class.

## Library

### LIBR 151 - Introduction to Information Literacy

**Class Hours:** 1  
**Lab/Discussion:** 0  
**Credits:** 1

**Description:** Information literacy is the ability to locate, evaluate, and use information effectively. These skills are essential to students while in college but also for success in their personal and professional lives after they have graduated. Students explore online, print, and non-print information resources and hone their information-seeking

skills and knowledge as they relate to critical thinking, resource analysis, and the ethical and appropriate use of information and develop a base level of information literacy skills. (Titled Introduction to Library Resources before 2014-15.)

### LIBR 152 - Information Issues and Resources for the Health Sciences

**Class Hours:** 1  
**Lab/Discussion:** 0  
**Credits:** 1

**Restriction:** Enrollment in one of the following programs: nursing and allied health professions; food and nutrition; kinesiology, health, and sport science; or public health  
**Description:** An in-depth look at how information is located and used in the health sciences, including a variety of traditional and non-traditional resources, as well as the cost of that information, the availability of misinformation, evaluation techniques for evidence-based practice, and the role of the Institutional Review Board (IRB) in health sciences research.

## Mathematics

### MATH 083 - Introduction to College Mathematics

**Class Hours:** 1  
**Lab/Discussion:** 0  
**Credits:** 1

**Prerequisite:** May not be taken after successfully completing any course offered by the Department of Mathematical and Computer Sciences without written Mathematical and Computer Sciences Department chair approval.

**Corequisite:** UGSS 160

**Description:** Explores basic mathematical skills with an emphasis on conceptual understanding. Provides foundational knowledge needed for success in general education mathematics courses. Utilizes hands-on activities with mathematical manipulatives to develop computational fluency and procedural knowledge. Carries institutional, nondegree credit. May not be taken after successfully completing MATH 100 or higher-level mathematics course without written Mathematical and Computer Sciences Department chair approval.

**Previously Offered As:** (Offered as DVST 095 before 2015-16.)

## MATH 100 - Intermediate Algebra

**Class Hours:** 3

**Lab/Discussion:** 0

**Credits:** 3

**Description:** Basic course in algebra including factoring, exponents and radicals, systems of linear equations, complex fractions, and inequalities. For those students who lack the basic algebraic skills required in MATH 105 or MATH 110. Will not meet Liberal Studies math requirements.

**Note:** May not be taken after successfully completing MATH 105 or MATH 110 or a calculus course without written Mathematical and Computer Sciences Department chairperson approval.

## MATH 101 - Foundations of Mathematics

**Class Hours:** 3

**Lab/Discussion:** 0

**Credits:** 3

**Prerequisite:** MATH 083 or appropriate placement score or permission of the Mathematical and Computer Sciences Department chairperson.

**Description:** Introduces logic and a mathematical way of analyzing problems; develops an appreciation for the nature, breadth, and power of mathematics and its role in a technological society; introduces useful mathematics or mathematics related to student interests. Possible topics include logic, problem solving, number theory, graph theory, linear programming, probability, intuitive calculus, mathematics of finance, mathematics of voting, game theory.

**Note:** May not be taken after successfully completing a math course with a larger course number (other than MATH 103 or MATH 150 or MATH 217) without written Mathematical and Computer Sciences Department chairperson approval.

## MATH 103 - Principles of Intermediate Algebra

**Class Hours:** 1

**Lab/Discussion:** 0

**Credits:** 1

**Prerequisite:** Appropriate mathematics placement. May not be taken after successfully completing MATH 100 or higher-level course without written Mathematical and Computer Sciences Department chair approval.

**Corequisite:** MATH 100

**Description:** Enhances the basic algebra skills needed to succeed in MATH 100 by developing strategies for understanding and retaining algebraic concepts. Improves algebraic thinking and problem solving. May not be taken after successfully completing MATH 100 or higher-level course without written Mathematical and Computer Sciences Department chair approval. Does not meet Liberal Studies math requirements.

## MATH 105 - College Algebra

**Class Hours:** 3

**Lab/Discussion:** 0

**Credits:** 3

**Prerequisite:** MATH 100 or appropriate placement test score or permission of the Mathematical and Computer Sciences Department chairperson. **Note:** May not be taken after successfully completing either a calculus course or MATH 110 without written MACS Department chairperson approval.

**Description:** Analyzes and interprets numerical, graphical, and algebraic representations to model complex situations using mathematical structures and increase problem-solving skills. Focuses on polynomial, exponential, and logarithmic functions, and basic right triangle trigonometry.

## MATH 107 - Business Mathematics

**Class Hours:** 3

**Lab/Discussion:** 0

**Credits:** 3

**Prerequisite:** MATH 100 or appropriate placement test score, for majors in Eberly College of Business. This course may not be taken after successfully completing a calculus course without written approval from the Mathematical and Computer Sciences Department chair. **Corequisite:** MATH 108. A student who has already passed MATH 108 can take 107 alone.

**Description:** Focuses on polynomial, exponential, and logarithmic business models. Explores methods to appropriately analyze and interpret numerical, graphical, and algebraic data sets generated from business applications. Introduces the central ideas of calculus with particular emphasis to business applications of derivatives and integrals.

## MATH 108 - Applications of Business Mathematics

**Class Hours:** 1  
**Lab/Discussion:** 0  
**Credits:** 1

**Prerequisite:** MATH 100 or appropriate placement test score, for majors in Eberly College of Business.

**Corequisite:** MATH 107. A student who has already passed MATH 107 can take 108 alone.

**Description:** Focuses on business models and applications in a computer classroom setting where appropriate technology is used to apply concepts from MATH 107 to solve problems in business. Emphasis is given to the application of calculus through the use of mathematical software.

## MATH 110 - Elementary Functions

**Class Hours:** 3  
**Lab/Discussion:** 0  
**Credits:** 3

**Prerequisite:** MATH 100 or appropriate placement test score or permission of the Mathematical and Computer Sciences Department chairperson

**Description:** Prepares mathematics and science students for the study of calculus. Topics include detailed study of polynomial, exponential, logarithmic, and trigonometric functions.

**Note:** May not be taken after successfully completing a calculus course without written Mathematical and Computer Sciences Department chairperson approval.

## MATH 111 - First-year Seminar

**Class Hours:** 1  
**Lab/Discussion:** 0  
**Credits:** 1

**Prerequisite:** Mathematics, Applied Mathematics, Actuarial Mathematics, or Mathematics Education major, and less than 60 earned credits.

**Description:** A first-year seminar experience that acclimates students to mathematical culture, curricular, and co-curricular experiences associated with transitioning to college mathematics. Includes application of theories of change as related to transition to higher education, and provides a perspective of the diversity of mathematical areas for research and careers associated with a mathematics degree. Emphasis includes reading and writing about mathematics.

## MATH 115 - Applied Mathematics for Business

**Class Hours:** 3  
**Lab/Discussion:** 0  
**Credits:** 3

**Prerequisite:** MATH 105 or MATH 110 or appropriate placement test score or permission of the Mathematics Department chairperson

**Description:** A review of elementary functions, including logarithmic and exponential functions. Business majors are introduced to the central ideas of calculus (limit, derivative, and integral). Applications to business and economics are emphasized.

**Note:** May not be taken after successfully completing a calculus course without written Mathematics Department chairperson approval.

## MATH 121 - Calculus I for Natural and Social Sciences

**Class Hours:** 4  
**Lab/Discussion:** 0  
**Credits:** 4

**Prerequisite:** MATH 105 or MATH 110 or appropriate placement test score or permission of the Mathematical and Computer Sciences Department chairperson.

**Description:** A review of elementary functions, including logarithmic and exponential functions. Natural and social science majors are introduced to the central ideas of calculus, including limit, derivative, and integral.

Applications to natural and social sciences are emphasized.  
**Note:** May not be taken after successfully completing a calculus course without written Mathematical and Computer Sciences Department chairperson approval.

## MATH 122 - Calculus II for Natural and Social Sciences

**Class Hours:** 4  
**Lab/Discussion:** 0  
**Credits:** 4

**Prerequisite:** MATH 121

**Description:** Applications of integrals to natural and social sciences, functions of several variables, trigonometric functions, sequences and series, numerical methods, and differential equations.

### **MATH 125 - Calculus I/Physics, Chemistry, Mathematics**

**Class Hours:** 3  
**Lab/Discussion:** 0  
**Credits:** 3

**Prerequisite:** MATH 110 or equivalent placement (algebra, geometry, and trigonometry)  
**Description:** The first of a three-semester sequence for math and science majors covering the theory of calculus and its application in problem solving. Topics include functions, limits, continuity, derivatives, application of derivative, integrals, and applications of the integral. (Trigonometric, exponential, and logarithmic functions are included.)

### **MATH 126 - Calculus II/Physics, Chemistry, Mathematics**

**Class Hours:** 3  
**Lab/Discussion:** 0  
**Credits:** 3

**Prerequisite:** MATH 125 or the equivalent  
**Description:** The second of a three-semester sequence for math and science majors. Topics include techniques and applications of integration, sequences and series, convergence tests, Taylor polynomials, separable differential equations, vectors, and three-dimensional coordinates. (Trigonometric, exponential, and logarithmic functions are included.)

### **MATH 150 - Strategies for Success in Collegiate Mathematics**

**Class Hours:** 1  
**Lab/Discussion:** 0  
**Credits:** 1

**Description:**  
Facilitates a successful transition from high school mathematics to collegiate mathematics. Includes explicit and implicit strategies for success in mathematics courses. Does not meet Liberal Studies math requirements. Note: May not be taken after successfully completing MATH 105 or 110 or a calculus course without written Department of Mathematical and Computer Sciences chair approval.

### **MATH 151 - Elements of Mathematics I**

**Class Hours:** 3  
**Lab/Discussion:** 0  
**Credits:** 3

**Prerequisite:** MATH 083 or appropriate placement score or permission of the Mathematical and Computer Sciences Department chairperson.

**Restriction:** Appropriate major: special education, speech and language pathology, family and consumer sciences education, art education, human development and family science, early childhood education, early childhood/special education, or vocational technical education. Also students seeking a certificate in vocational technical education certificate or career and technical education, AAS.

**Description:** Explores mathematical systems, systems of numeration, developing the set of integers, rational numbers, real numbers, and the four function operation concepts.

### **MATH 152 - Elements of Mathematics II**

**Class Hours:** 3  
**Lab/Discussion:** 0  
**Credits:** 3

**Prerequisite:** MATH 151-Minimum Grade of C, human development and family science, speech and language pathology, early childhood ed/special ed, family and consumer science education, middle level education, art education, early childhood education, special education majors only

**Description:** Topics included are organizing and analyzing data, statistics, probability, geometric shapes measurement, congruence and similarity, coordinate geometry, and transformational geometry.

### **MATH 153 - Elements of Algebra**

**Class Hours:** 3  
**Lab/Discussion:** 0  
**Credits:** 3

**Prerequisite:** MATH 151  
**Description:** Explores some of the basic algebraic concepts including the real number system and solving linear equations and inequalities with one and two variables. An emphasis will also be placed on studying the coordinate plane, exploring the slope of a line, graphing lines, and writing equations of lines. Connections are made with the teaching and learning of algebraic concepts in the elementary and middle schools.

## **MATH 171 - Introduction to Linear Algebra**

**Class Hours:** 3  
**Lab/Discussion:** 0  
**Credits:** 3

**Prerequisite:** Appropriate placement score OR MATH 110 OR MATH 121 OR MATH 125

**Description:** An introduction to vector spaces, linear transformations, determinants, and matrix algebra. Topics are presented in a direct and intuitive approach.

## **MATH 214 - Probability and Statistics for Business Majors**

**Class Hours:** 3  
**Lab/Discussion:** 0  
**Credits:** 3

**Description:** Studies the methods of describing data, probability theory, discrete and continuous random variables, sampling distributions, estimation and tests of hypothesis for means, proportions, and variance, and simple linear regression and correlation.

## **MATH 216 - Probability and Statistics for Natural Sciences**

**Class Hours:** 3  
**Lab/Discussion:** 0  
**Credits:** 3

**Prerequisite:** MATH 121 or MATH 125

**Description:** Frequency distributions, graphical representations of data, measures of central tendency and variation, correlation and regression, probability, probability distributions, and sampling distributions. Inferential statistics including confidence intervals and parametric and nonparametric tests of hypotheses. Emphasis is on applications in the natural sciences using graphing calculators and statistical software.

## **MATH 217 - Probability and Statistics**

**Class Hours:** 3  
**Lab/Discussion:** 0  
**Credits:** 3

**Prerequisite:** MATH 083 or appropriate placement score or permission of the Mathematical and Computer Sciences

Department Chairperson.

**Description:** An applied statistics course that uses basic statistical methodologies to explore data and answer research questions. Summarization, analysis and interpretation of data from the social sciences and other related areas. Topics include frequency distributions, graphical summaries, elementary probability, estimation, testing hypotheses, and correlation and regression. Emphasis upon applications using appropriate technology, as opposed to theoretical development of topics.

## **MATH 225 - Calculus III/Physics, Chemistry, Mathematics**

**Class Hours:** 3  
**Lab/Discussion:** 0  
**Credits:** 3

**Prerequisite:** MATH 126 or the equivalent

**Description:** The third of a three-semester sequence for math and science majors. Topics covering the calculus of functions of several variables include vector functions and space curves, arc length, curvature, partial derivatives, gradients, areas and volumes in various coordinate systems, Lagrange multipliers, line integrals, Green's Theorem, and applications of multiple integrals. (Trigonometric, exponential, and logarithmic functions are included.)

## **MATH 271 - Introduction to Mathematical Proofs I**

**Class Hours:** 3  
**Lab/Discussion:** 0  
**Credits:** 3

**Prerequisite:** MATH 121 or MATH 125; MATH 171

**Description:** Gives basic ideas necessary to prove results in mathematics. Includes but is not limited to logic of mathematics, basic methods of proof, algebra of sets, equivalence relations and partitions of sets, functions, and mathematical induction.

## **MATH 272 - Introduction to Mathematical Proofs II**

**Class Hours:** 3  
**Lab/Discussion:** 0  
**Credits:** 3

**Prerequisite:** MATH 126 and MATH 271 with a grade of "C" or better

**Description:** A further study of the basic ideas of



contemporary mathematics. Topics include but are not limited to mathematical induction, cardinality of sets, relations, methods of proof in number theory, analysis, and algebra.

### **MATH 281 - Special Topics**

**Class Hours:** var

**Credits:** 1-3

**Prerequisite:** As appropriate to course content

**Description:** Offered on an experimental or temporary basis to explore topics not included in the established curriculum. A given topic may be offered under any special topic identity no more than three times. Special topics numbered 281 are offered primarily for lower-level undergraduate students.

### **MATH 309 - Discrete Mathematics**

**Class Hours:** 3

**Lab/Discussion:** 0

**Credits:** 3

**Prerequisite:** COSC 110 and MATH 121 or MATH 125

**Description:** Topics include set algebra, mappings, relations, semigroups, groups, directed and undirected graphs, Boolean algebra, and propositional logic, with examples and applications of these various areas of computer science. Emphasizes developing an intuitive understanding of basic structures rather than formal theories and influence of these topics on theory and practice of computing.

**Previously Offered As:** (Offered as MATH 219 before 2016-17.)

### **MATH 316 - Data Science Fundamentals**

**Class Hours:** 3

**Lab/Discussion:** 0

**Credits:** 3

**Prerequisite:** COSC 341 and one of MATH 214 or MATH 216 or MATH 217

**Description:** Introduces the field of data science by covering the methodology in which data-intensive problems are identified, defined, and solved. Investigates data analysis and data mining techniques for finding patterns in data that emphasize using data models, data gathering and storage, selection and preparing of data, model building and testing, and interpreting and validating results. Utilizes hands-on experiences with data science

tools and techniques, specific topics include map-reduce and mining data streams. Includes techniques for visualizing patterns in data, including interactive visualization.

### **MATH 317 - Probability and Statistics for Mathematics Instruction**

**Class Hours:** 3

**Lab/Discussion:** 0

**Credits:** 3

**Prerequisite:** Mathematics education major or MATH 152, sophomore standing

**Description:** Introduces concepts of probability and statistics by exploring and discovering key ideas related to data analysis and making predictions. Appropriate technology is incorporated. Explores curricular materials, resources, and activities relevant to teaching diverse groups at the middle and secondary levels.

### **MATH 320 - Mathematics for Early Childhood**

**Class Hours:** 3

**Lab/Discussion:** 0

**Credits:** 3

**Prerequisite:** grades of "C" or better in MATH 152 and ECED 200, may not be taken concurrently

**Description:** Studies child-centered, activity-oriented mathematics programs for early childhood education (preK-grade 1). Focuses on helping children develop understanding and insight into basic concepts of mathematics through the use of manipulative materials.

### **MATH 330 - Teaching Mathematics in the Elementary School**

**Class Hours:** 3

**Lab/Discussion:** 0

**Credits:** 3

**Prerequisite:** ECED 280 minimum grade of C and MATH 152 with a minimum grade of C. May not be taken concurrently.

**Description:** Explores materials and methods for teaching mathematics in the elementary grades with emphasis on creative utilization of manipulatives and techniques. Investigates ways of assessing student math knowledge and skills through a student-centered, inquiry approach.

## **MATH 335 - Teaching Mathematics in Special Education**

**Class Hours:** 3  
**Lab/Discussion:** 0  
**Credits:** 2

**Prerequisite:** EDEX 111 minimum grade of C and MATH 152 minimum grade of C. May not be taken concurrently.  
**Description:** Explores effective classroom methods and strategies for assessing, teaching, and monitoring the mathematical performance of students with learning difficulties. Emphasis on practical classroom techniques designed to facilitate skill acquisition, maintenance, retention, and generalization.

## **MATH 341 - Differential Equations**

**Class Hours:** 3  
**Lab/Discussion:** 0  
**Credits:** 3

**Prerequisite:** MATH 122 or MATH 126  
**Description:** Emphasizes techniques of solution and applications of differential equations. Topics include first order equations, second order linear equations, systems of linear equations, and series solutions of differential equations.  
**Previously Offered As:** (Offered as MATH 241 before 2016-17.)

## **MATH 342 - Advanced Mathematics for Applications**

**Class Hours:** 4  
**Lab/Discussion:** 0  
**Credits:** 4

**Prerequisite:** MATH 122 or MATH 225; MATH 341  
**Description:** Deals with the application of mathematics to problems of science. Emphasizes the three phases of such an application and the development of skills necessary to carry out each step: (1) translation of the given physical information to a mathematical model; (2) treatment of the model by mathematical methods; (3) interpretation of the mathematical result in physical terms. Topics include vector calculus, integral theorems, Fourier series, partial differential equations, and the Laplace transformation.

## **MATH 343 - Introduction to Numerical Methods**

**Class Hours:** 3  
**Lab/Discussion:** 0  
**Credits:** 3

**Prerequisite:** COSC 110, MATH 121 or MATH 125  
**Description:** Algorithmic methods for function evaluation, roots of equations, solutions to systems of linear equations, function interpolation, numerical differentiation, and integration and use of spline functions for curve fitting. The focus is on managing and measuring errors in computation. May also be offered as COSC 343; either MATH 343 or COSC 343 may be substituted for the other and may be used interchangeably for D/F repeats, but may not be counted for duplicate credit.  
**Cross-Listed:** May be cross-listed with COSC 343.

## **MATH 350 - History of Mathematics**

**Class Hours:** 3  
**Lab/Discussion:** 0  
**Credits:** 3

**Prerequisite:** MATH 122 or MATH 126 or instructor permission  
**Description:** Development of the central concepts of mathematics from ancient times up to the development of calculus in the 17th century. Mathematical concepts are placed in historical perspective. The use of the history of mathematics as a pedagogical tool and its relationship to other sciences is addressed.

## **MATH 353 - Theory of Numbers**

**Class Hours:** 3  
**Lab/Discussion:** 0  
**Credits:** 3

**Prerequisite:** MATH 271 with a grade of "C" or better  
**Description:** Divisibility, congruences, primitive roots, number theoretic functions, Diophantine equations, continued fractions, quadratic residues.

## **MATH 355 - Foundations of Geometry I**

**Class Hours:** 3  
**Lab/Discussion:** 0  
**Credits:** 3

**Prerequisite:** MATH 171, MATH 271 with grades of "C" or better  
**Description:** Studies various groups of transformations and geometries associated with these groups in the Euclidean

plane. The Euclidean Similarity and affine and projective groups of transformations are studied.

### **MATH 363 - Mathematical Statistics I**

**Class Hours:** 3  
**Lab/Discussion:** 0  
**Credits:** 3

**Prerequisite:** MATH 216; MATH 225

**Description:** Probability theory necessary for an understanding of mathematical statistics is developed. Applications of set theory to models, combinations and permutations, binomial, Poisson and normal distributions, expected values, and moment generating functions.  
**May Be:** (may be taken concurrently)

### **MATH 364 - Mathematical Statistics II**

**Class Hours:** 3  
**Lab/Discussion:** 0  
**Credits:** 3

**Prerequisite:** MATH 363

**Description:** Multivariate distributions, change of variable technique, chi-square distribution, estimation, confidence intervals, hypothesis testing, contingency tables, goodness of fit. Practical applications are used to aid in the development.

### **MATH 371 - Linear Algebra**

**Class Hours:** 3  
**Lab/Discussion:** 0  
**Credits:** 3

**Prerequisite:** MATH 171, MATH 271 with a grade of "C" or better

**Description:** Vector spaces and linear transformations are studied in a theoretical setting. Also, canonical forms and multilinear algebra are studied.

### **MATH 411 - Univariate Data Analysis**

**Class Hours:** 3  
**Lab/Discussion:** 0  
**Credits:** 3

**Prerequisite:** MATH 214 or MATH 216 or MATH 217 or instructor permission  
**Dual Listed:** MATH 511

**Description:** Focuses on descriptive statistics, statistical inference procedures, regression analysis, analysis of variance, and analysis of deviance. Develops inference procedures for population means and proportions. Uses simple linear regression, multiple linear regression, one-way ANOVA, two-way ANOVA, Poisson regression, and logistic regression models to analyze data. Emphasizes the applied aspects of these statistical models and uses computer software for data analysis.

### **MATH 412 - Multivariate Statistics**

**Class Hours:** 3  
**Lab/Discussion:** 0  
**Credits:** 3

**Prerequisite:** MATH 214 or MATH 216 or MATH 217 or instructor permission

**Dual Listed:** MATH 512

**Description:** An applied statistics course that focus on multivariate statistical methods. Research procedures on the relationship among variables, significance of group differences, prediction of group membership, and structure exploration are introduced. Factorial analysis of variance, analysis of covariances, multivariate analysis of variance and covariance, path analysis, factor analysis, and discriminate analysis are introduced and used to analyze data. Emphasizes the applied aspects of these statistical methods and uses computer software for data analysis.

### **MATH 413 - Methods for Teaching Mathematics**

**Class Hours:** 3  
**Lab/Discussion:** 0  
**Credits:** 3

**Prerequisite:** Mathematics education major or MATH 152, senior standing

**Dual Listed:** May be dual listed with MAED 513

**Description:** Examines the current curricula and methods of instruction used in middle and secondary level mathematics classrooms. Follows an investigative approach to middle-level and secondary mathematics instruction through hands-on activities that are standards based. Explores methods of teaching in diverse classrooms and teaching students with special needs.

### **MATH 416 - Time Series Analysis**

**Class Hours:** 3  
**Lab/Discussion:** 0  
**Credits:** 3

**Prerequisite:** MATH 363 or MATH 411 or ECON 356 or instructor permission

**Description:** Applied statistics course in the analysis and forecasting of time series data. Linear time series regression models, ARIMA models, SARIMA models, GARCH models, and spectral theory are used to examine time series data. Emphasizes the applied aspects of these models. Computer software is used for data analysis.

### **MATH 418 - Data Science Theory and Application**

**Class Hours:** 3  
**Lab/Discussion:** 0  
**Credits:** 3

**Prerequisite:** MATH 171 and MATH 316

**Description:** Covers acquiring, managing, and analyzing massive unstructured data through a project-driven approach. Includes theoretical analysis of clustering, visualization, link analysis, recommendation systems, mining social network graphs, dimensionality reduction with PCA and SVD, large-scale machine learning, neural nets and deep learning, distributed file systems, incremental data processing with Hadoop, NoSQL databases, cloud computing, and data security issues. Covers applications in web advertising, business, engineering, health care and social networks. Implements a computational project utilizing machine learning and artificial intelligence techniques.

### **MATH 420 - Patterns and Functions for Elementary/Middle-Level Teachers**

**Class Hours:** 3  
**Lab/Discussion:** 0  
**Credits:** 3

**Prerequisite:** MATH 152

**Description:** Examines and develops expertise with sequences, patterns, and functions, including linear, quadratic, logarithmic, exponential, and trigonometric functions. Appropriate technology is incorporated. Explores curricular materials, resources, and activities relevant to teaching diverse groups at the elementary/middle level.

### **MATH 421 - Advanced Calculus I**

**Class Hours:** 3  
**Lab/Discussion:** 0  
**Credits:** 3

**Prerequisite:** MATH 272 with a grade of "C" or better

**Description:** A study of set theory, real number system, functions, topology of Cartesian space, sequences, convergence and uniform convergence, continuity, and uniform continuity.

### **MATH 422 - Advanced Calculus II**

**Class Hours:** 3  
**Lab/Discussion:** 0  
**Credits:** 3

**Prerequisite:** MATH 421

**Description:** Includes the study of convergence sequences in  $\mathbb{R}^n$ , global properties of continuity, uniform continuity, differentiation of  $\mathbb{R}^n$ , Riemann integrals, and infinite series.

### **MATH 423 - Complex Variables**

**Class Hours:** 3  
**Lab/Discussion:** 0  
**Credits:** 3

**Prerequisite:** MATH 225

**Description:** An introduction to the theory of functions of a complex variable. Topics included are elementary functions, analytic functions, conformal mapping, integration, series, and application.

### **MATH 427 - Introduction to Topology**

**Class Hours:** 3  
**Lab/Discussion:** 0  
**Credits:** 3

**Prerequisite:** MATH 272 with a grade of "C" or better

**Description:** A study of sets, functions, continuity, compactness, the separation axioms, and metric spaces; application of topology to analysis is demonstrated.

### **MATH 430 - Seminar in Teaching Secondary School Mathematics**

**Class Hours:** 3  
**Lab/Discussion:** 0  
**Credits:** 3

**Prerequisite:** Junior status (60cr or more), a declared

major in mathematics education

**Prerequisite or Corequisite:** EDUC 242

**Description:** Provides insights into the teaching and learning of numbers and operations, algebra, geometry, measurement, probability, and statistics. Students become aware of and use the resources and methods of instruction for teaching mathematics at the secondary level. Must be taken within two semesters before student teaching.

### **MATH 445 - Deterministic Models in Operations Research**

**Class Hours:** 3

**Lab/Discussion:** 0

**Credits:** 3

**Prerequisite:** MATH 122 or MATH 225; MATH 171

**Description:** An introduction to using the basic tools of solving deterministic models in operations research. Includes optimization techniques and applications such as linear programming, nonlinear and dynamic programming, transportation models, and network models. In addition, sensitivity analysis, duality, simplex methods, and integer programming are discussed. Uses technology to solve problems and interpret the results.

### **MATH 446 - Probabilistic Models in Operations Research**

**Class Hours:** 3

**Lab/Discussion:** 0

**Credits:** 3

**Prerequisite:** MATH 122 or MATH 225; MATH 171; MATH 216

**Description:** A survey of probabilistic methods for solving decision problems under uncertainty. Probability review, decision theory, queuing theory, inventory models, and Markov chains are covered. Uses technology to solve problems and interpret the results.

### **MATH 447 - Modeling and Simulation**

**Class Hours:** 3

**Lab/Discussion:** 0

**Credits:** 3

**Prerequisite:** MATH 122 or MATH 126; MATH 171; MATH 216

**Description:** Construction and solution of mathematical models. Emphasizes applications in areas such as logistics,

natural and social sciences, and manufacturing. Discrete and continuous system models are analyzed using mathematical and computer-based methods. An introduction to computer simulation. An introductory course in differential equations is recommended but not required.

### **MATH 448 - Introduction to Financial Mathematics**

**Class Hours:** 3

**Lab/Discussion:** 0

**Credits:** 3

**Prerequisite:** MATH 115 or MATH 125 or MATH 121; and MATH 214 or MATH 216 or MATH 217

**Description:** A rigorous mathematical treatment of the theory associated with financial transactions is undertaken. Geometric series and other concepts are used to construct mathematical models for analytically pricing various financial securities based on the time value of money. Studies how to construct mathematical models for pricing cash flows and explores the equivalency of different cash flows. Includes a detailed study of interest theory and financial economics. Prepares students for the Society of Actuaries Financial Mathematics (FM) exam.

### **MATH 450 - Topics in Applied Computational Mathematics**

**Class Hours:** 3

**Lab/Discussion:** 0

**Credits:** 3

**Prerequisite:** MATH 171, MATH 225, and COSC 343/MATH 343 or instructor permission

**Description:** Focuses on using computational methods to solve applied mathematics problems. Content varies from year to year. Students gain experience in solving practical problems, using various mathematical software packages, giving oral presentations, preparing technical reports, reading field-related journals, and integrating scientific visualization.

### **MATH 456 - Geometry for Mathematics Instruction**

**Class Hours:** 3

**Lab/Discussion:** 0

**Credits:** 3

**Prerequisite:** Sophomore standing

**Restriction:** Enrolled in mathematics education

**Description:** Students become acquainted with an informal, intuitive approach to geometry. Activities and materials for teaching geometrical concepts to students are an integral part of the course.

### **MATH 457 - Number Theory for Mathematics Instruction**

**Class Hours:** 3

**Lab/Discussion:** 0

**Credits:** 3

**Prerequisite:** Sophomore standing

**Restriction:** Enrolled in mathematics education

**Description:** An introduction to topics of elementary number theory including divisibility, prime numbers, factorization, binary numbers, modular arithmetic, identification codes, cryptography, Diophantine equations, Euclidean algorithm, and alternative algorithms. Explores curricular materials, resources, and activities relevant to teaching number theory at the middle and secondary levels.

### **MATH 458 - Logic and Logical Games for Elementary/Middle-Level Teachers**

**Class Hours:** 3

**Lab/Discussion:** 0

**Credits:** 3

**Prerequisite:** MATH 152

**Description:** Basic ideas, terminology, and notation of mathematical logic as well as games of strategy that involve logic. Engages in methods of reasoning and proof in games and in mathematics content. Explores curricular materials, resources, and activities relevant to teaching logic and reasoning at the elementary/middle level.

### **MATH 459 - Technology in Elementary/Middle-Level Mathematics Instruction**

**Class Hours:** 3

**Lab/Discussion:** 0

**Credits:** 3

**Prerequisite:** MATH 152

**Description:** Develops the knowledge, skills, and perspectives required for using educational technology in teaching mathematics at the elementary/middle level.

Hands-on experiences with technology are an important focus.

### **MATH 460 - Technology in Mathematics Instruction**

**Class Hours:** 3

**Lab/Discussion:** 0

**Credits:** 3

**Prerequisite:** Sophomore standing

**Restriction:** Enrolled in mathematics education

**Description:** Provides preservice mathematics teachers with expertise in instructional technology for teaching mathematics. Emphasizes the integration of pedagogy and subject matter knowledge.

### **MATH 461 - Discrete Mathematics for Mathematics Instruction**

**Class Hours:** 3

**Lab/Discussion:** 0

**Credits:** 3

**Prerequisite:** Sophomore standing

**Restriction:** Enrolled in mathematics education

**Description:** Topics in discrete mathematics, including systematic counting, graph coloring, networks, and their applications, as well as the historical background and the role of discrete mathematics in today's world. Uses a problem-solving, hands-on approach to content. Explores curricular materials, resources, and activities relevant to teaching discrete mathematics at the middle and secondary levels.

### **MATH 471 - Algebra for Mathematics Instruction**

**Class Hours:** 3

**Lab/Discussion:** 0

**Credits:** 3

**Prerequisite:** Sophomore standing

**Restriction:** Enrolled in mathematics education

**Description:** Topics include multiple representations of sequences, integers, expressions, equations, systems of equations, inequalities, and matrices. Representations of expressions and equations are explored through the use of hands-on and visual aids and with appropriate technology. Connections are made with the teaching and learning of algebraic concepts.

## MATH 476 - Abstract Algebra I

**Class Hours:** 3  
**Lab/Discussion:** 0  
**Credits:** 3

**Prerequisite:** MATH 272 with a grade of "C" or better  
**Description:** Development of theory of integral domains, fields, rings, and groups; designed to develop student's power to think for himself or herself and to improve ability to construct formal proofs.

## MATH 477 - Abstract Algebra II

**Class Hours:** 3  
**Lab/Discussion:** 0  
**Credits:** 3

**Prerequisite:** MATH 476  
**Description:** Continues study of algebra by use of axiomatic method; Euclidean domains; polynomial domains and extension fields included; interrelationships between these structures and simpler structures, particularly groups and rings, are developed as in study of Galois group of a polynomial and in an introduction to Galois theory.

## MATH 480 - Seminar in Mathematics

**Class Hours:** 1-3  
**Lab/Discussion:** 0  
**Credits:** 1-3

**Prerequisite:** Junior standing (60 or more credits)  
**Description:** Assesses the effectiveness of the mathematics curriculum and provides mathematics majors with a culminating mathematical experience. Also focuses on synthesizing mathematics skills while researching, developing, and presenting a mathematical topic. Students solve practical problems, use various mathematical software packages, give oral presentations, and prepare technical reports.

## MATH 481 - Special Topics

**Class Hours:** var  
**Credits:** 1-3

**Prerequisite:** As appropriate to course content  
**Description:** Offered on an experimental or temporary basis to explore topics not included in the established curriculum. A given topic may be offered under any special topic identity no more than three times. Special topics

numbered 481 are primarily for upper-level undergraduate students.

## MATH 493 - Internship in Mathematics

**Class Hours:** var  
**Credits:** 3-12

**Prerequisite:** Completion of core curriculum, completion of application  
**Description:** Positions with participating companies or agencies provide students with experience in mathematics-related work under the supervision of the agencies and faculty. Requirements include one to three on-site consultations, two university consultations, completion of progress reports, and presentation of final cumulative paper. Internship credit may not be used in fulfilling mathematics major course requirements.

## Management

### BUSN 101 - Business Success Seminar

**Class Hours:** 3  
**Lab/Discussion:** 0  
**Credits:** 3

**Description:** Provides a seminar level introduction to the interdependent functional and support areas of business, such as accounting, finance, information systems, management, and marketing; which are critically important for building a solid foundation for academic and career success in business fields. Focuses on the development of decision-making, communication, and teamwork skills through experiential learning. Emphasizes strategies for academic success including time-management, utilization of university resources, and career and professional development opportunities in business.

### MGMT 275 - Introduction to Entrepreneurship

**Class Hours:** 3  
**Lab/Discussion:** 0  
**Credits:** 3

**Prerequisite:** Sophomore status  
**Description:** Entrepreneurship is defined, common myths discussed, and basic characteristics of entrepreneurs identified and reviewed. Includes topics such as psychology of entrepreneurship, economic and social aspects of

entrepreneurship, history, techniques of purchasing a company, new venture initiation, and risk taking.

### **MGMT 300 - Human Resource Management**

**Class Hours:** 3  
**Lab/Discussion:** 0  
**Credits:** 3

**Prerequisite:** PSYC 101

**Description:** Recognizes and evaluates the application of behavioral science approaches in the study of human resource management. Includes recruiting and selection, training, management development, performance evaluation, communications, wage and benefit programs, and management-labor relations.

### **MGMT 310 - Principles of Management**

**Class Hours:** 3  
**Lab/Discussion:** 0  
**Credits:** 3

**Description:** Provides an in-depth identification and understanding of the relevant theories, concepts, and principles underlying the management function.

### **MGMT 311 - Human Behavior in Organizations**

**Class Hours:** 3  
**Lab/Discussion:** 0  
**Credits:** 3

**Prerequisite:** PSYC 101

**Description:** Focuses on human problems of management. Presents basic ideas and theories from the behavioral sciences as they apply to human behavior in organizations. Emphasizes management solutions to problems resulting from individual-organization interaction.

### **MGMT 325 - Small Business Management**

**Class Hours:** 3  
**Lab/Discussion:** 0  
**Credits:** 3

**Prerequisite:** MGMT 275 or junior standing

**Description:** A survey course emphasizing aspects of small

business management not covered elsewhere in the student's program. Key topics include real estate, site selection, and facilities management; purchasing management, vendor relations, and inventory systems; plant security, loss control, risk and insurance management; human resources management, employee benefits, motivation, and leadership; small business market research, customer services management, and pricing. A review of other elements of the small firm's milieu is included as a necessary contextual element (e.g., planning, accounting, financing, law).

### **MGMT 330 - Operations Management**

**Class Hours:** 3  
**Lab/Discussion:** 0  
**Credits:** 3

**Prerequisite:** MATH 105 or MATH 107, and MATH 214 or MATH 216 or MATH 217, junior standing, Eberly College of Business or approved major

**Description:** A study of converting an organization's inputs into outputs whether in goods-producing or service industries. An overview of concepts, tools, and techniques used in management of the production and operations function in organizations.

### **MGMT 350 - International Business**

**Class Hours:** 3  
**Lab/Discussion:** 0  
**Credits:** 3

**Description:** Studies the international dimensions of business and the critical environmental and organizational factors that affect managerial approaches in the international arena. Focuses upon the impact of cultures, women, religions, ethnic minorities, racial minorities and country uniqueness upon international businesses. (Students cannot earn credit for both MGMT 350 and MKTG 350, unless the course is a D/F repeat, whereupon it will serve as a substitute for the original D/F course.)  
**Previously Offered As:** (Also offered as MKTG 350.)

### **MGMT 400 - Compensation Management**

**Class Hours:** 3  
**Lab/Discussion:** 0  
**Credits:** 3

**Prerequisite:** MGMT 300

**Description:** Studies the policies and programs that help



managers design and administer compensation systems for private and public sector enterprises. Includes motivation theories and practice designing of compensation systems.

## **MGMT 401 - Management Development and Training**

**Class Hours:** 3  
**Lab/Discussion:** 0  
**Credits:** 3

**Prerequisite:** MGMT 300, MGMT 310

**Description:** Principles, problems, and procedures in planning, organizing, directing, and controlling all aspects of training and development programs in a business enterprise. Methods of improving and development of managerial skills are emphasized.

## **MGMT 402 - Seminar in Human Resource Management**

**Class Hours:** 3  
**Lab/Discussion:** 0  
**Credits:** 3

**Prerequisite:** MGMT 300, graduating senior

**Description:** An integrative course in human resource management. Considers current issues in human resource management literature and contemporary topics in the human resource management field using case studies.

## **MGMT 403 - Small Business Planning**

**Class Hours:** 3  
**Lab/Discussion:** 0  
**Credits:** 3

**Prerequisite:** BTED/COSC 101/IFMG 101, MGMT 325

**Description:** Integrates the content of much of the business core and relates it to the business planning for small businesses and entrepreneurial efforts. Introduces the concepts that support the development of an effective business and marketing plan.

## **MGMT 405 - Organizational Staffing**

**Class Hours:** 3  
**Lab/Discussion:** 0  
**Credits:** 3

**Prerequisite:** MATH 214, MGMT 300

**Description:** Focuses on the "staffing" or "employment" subsystem of the human resource management function and deals with the theoretical, technical, administrative, and legal issues involved in the recruitment, selection, placement, transfer, and promotion of individuals by organizations. Includes human resource planning, job analysis, job descriptions and specifications, recruitment and selection process, equal employment opportunity and affirmative action, reliability and validity of selection instruments and techniques, and contemporary issues in selection.

## **MGMT 428 - Seminar in Management**

**Class Hours:** 3  
**Lab/Discussion:** 0  
**Credits:** 3

**Prerequisite:** MGMT 310

**Description:** An integrative course in management. Considers current literature in the field and contemporary issues in management using case studies.

## **MGMT 434 - Industrial Quality: Statistical Tools and Management**

**Class Hours:** 3  
**Lab/Discussion:** 0  
**Credits:** 3

**Prerequisite:** MATH 214 or MATH 216 or MATH 217

**Description:** Industrial Quality course emphasizes statistical, technological and managerial tools, techniques and concepts that pervade the entire supply chain in today's industrial environment as well as the factory of the future (FoF). FoF will be powered by "Industry 4.0," which will rely on Industrial Internet of Things (IIoT), smart sensors, robotics, and artificial intelligence among other advances.

## **MGMT 437 - Supply Chain Modeling and Analysis**

**Class Hours:** 3  
**Lab/Discussion:** 0  
**Credits:** 3

**Prerequisite:** MGMT 330 or equivalent

**Description:** Builds on the core concepts of operations management and industrial engineering to design, evaluate, and deploy supply chains with a focus on quantitative tools and technological issues. Deals with supply chain functioning based on deterministic and stochastic

modeling, mathematical optimization, computer simulation, and heuristics. Focuses on technological trends in optimizing supply chains. Introduces supply chain related computer applications such as ERP and CRM.

### **MGMT 440 - Introduction to Energy Management**

**Class Hours:** 3  
**Lab/Discussion:** 0  
**Credits:** 3

**Prerequisite:** Junior standing  
**Restriction:** Junior standing  
**Description:** Introduction to the global energy markets and business with a particular emphasis on hydrocarbon based resources including petroleum, natural gas, and coal resources. Also includes exposure to nuclear, hydroelectric, solar, wind, and other "alternative" energy technologies.

### **MGMT 451 - International Management**

**Class Hours:** 3  
**Lab/Discussion:** 0  
**Credits:** 3

**Prerequisite:** MGMT 310  
**Description:** Focuses on the complex role of multinational corporations (MNCs) in today's global economy. Offers an in depth perspective on planning, organization structure, managerial decision making, and human resource management in global structures and differences between MNCs and domestic organizations. Emphasizes the impact of cultures, women, religions, ethnic minorities, racial minorities and country uniqueness upon international management.

### **MGMT 459 - Seminar in International Management**

**Class Hours:** 3  
**Lab/Discussion:** 0  
**Credits:** 3

**Prerequisite:** MGMT 310, senior standing  
**Description:** An analysis of recent literature and developments related to global business issues such as strategic alliances, human resource management in global environments, global assignments, Japanese business system, and multinational corporations in the world economy.

### **MGMT 461 - Organizational Leadership Theory**

**Class Hours:** 3  
**Lab/Discussion:** 0  
**Credits:** 3

**Prerequisite:** Junior standing, Eberly Business Majors; Junior status for Non-Business majors or Instructor's permission  
**Description:** Introduces the various leadership styles such as autocratic, laissez-faire, transformational, transnational, visionary and others as they relate to today's global business/corporate environment. These styles and their effectiveness as well as examples of application are discussed.

### **MGMT 462 - Applied Business Leadership Skills**

**Class Hours:** 3  
**Lab/Discussion:** 0  
**Credits:** 3

**Prerequisite:** Junior standing, MGMT 461 or instructor permission  
**Description:** Focuses on current leadership styles and applications in business. The effectiveness of these styles is critically examined and evaluated with a cross-culture emphasis. Advanced, innovative, and exploratory business leadership topics and their effect on the behavior of employees, cooperation, and productivity are discussed.

### **MGMT 472 - Organizational Entrepreneurship**

**Class Hours:** 3  
**Lab/Discussion:** 0  
**Credits:** 3

**Prerequisite:** MGMT 275 or MGMT 310  
**Description:** Explores the theories related to intrapreneurship and managing innovation and technology. Theory based but practice oriented. Through case discussions, students learn how to apply the analytical tools of strategic management and organizational theory to address important challenges faced by today's managers.

### **MGMT 481 - Special Topics in Management**

**Class Hours:** var  
**Credits:** 1-3

**Description:** Covers advanced, innovative, or exploratory topics and disciplines within management. Specific content items developed by instructor. Credits may be applied to either required (by permission of department chairperson) or free electives in a student's program.

### **MGMT 482 - Independent Study**

**Credits:** 3

**Restriction:** Prior approval through advisor, faculty member, department chairperson, dean, and Office of the Provost

**Description:** Individual research and analysis of contemporary problems and issues in a concentrated area of study under the guidance of a senior faculty member. Approval based on academic appropriateness and availability of resources.

### **MGMT 492 - Small Business/Entrepreneurship Internship**

**Class Hours:** var  
**Credits:** 3-12

**Prerequisite:** MGMT 275 or permission of department chairperson, all other requirements of the Eberly College of Business

**Description:** Involves practical entrepreneurial experience of on-site consulting with small business firms. Students generally work for a semester on functionally related topics in accounting, finance, marketing, and MIS or on general topics such as business planning, forecasting, policy, and general management.

### **MGMT 493 - Management Internship**

**Class Hours:** var  
**Credits:** 3-12

**Description:** Practical experience to develop knowledge and skills in the application of theory to actual problems in a nonclassroom setting. A maximum of 3cr of internship in the student's major may be applied toward the management and human resource management major area elective requirements. Additional internship credit must be used as free electives only. Admission only by permission of the department chairperson and dean, Eberly College of Business.

### **MGMT 495 - Business Policy**

**Class Hours:** 3  
**Lab/Discussion:** 0  
**Credits:** 3

**Prerequisite:** Completion of all business core requirements; graduating seniors

**Description:** A capstone case analysis course that gives practice in applying business theories to the solution of management problems. An analysis of how top management determines strategy and policy and influences the philosophy and character of the company. Develops a general management viewpoint that integrates the various functions of the organization.

## **Middle-Level Education**

### **MIDL 221 - Literature for Middle Level**

**Class Hours:** 3  
**Lab/Discussion:** 0  
**Credits:** 3

**Restriction:** Admission into Teacher Education Step 1

**Description:** A survey of children's literature for middle-level students and examines the role of motivation in developing lifelong readers. Selection and evaluation criteria for each genre, including multicultural literature, are developed and applied. Classroom application and extensions of literature are explored, and current issues in the field of literature for middle-level learners are examined. Appropriate adaptations for resistant readers, students with exceptional needs, and students who are learning English are explored.

### **MIDL 222 - Reading Instruction and Assessment in Grades 4-8**

**Class Hours:** 3  
**Lab/Discussion:** 0  
**Credits:** 3

**Restriction:** Admission into Teacher Education Step 1; middle-level education 4-8 major

**Description:** Provides preservice teachers with various strategies, techniques, and materials related to teaching reading in grades 4 through 8. Current research and practical applications are interwoven to ensure a systematic coverage of the most recent methods and best practice for diverse students in grades 4 through 8.

## **MIDL 310 - Instructional Theory and Planning for the Middle Level**

**Class Hours:** 3  
**Lab/Discussion:** 0  
**Credits:** 3

**Restriction:** Admission into Teacher Education Step 1; middle-level education 4-8 major  
**Description:** Competencies specific to the art and science of teaching adolescents are introduced with a focus on academic, social, and emotional developmental characteristics of young adolescents as they transition to the middle school. Familiarizes students with the fundamentals of middle-level learning and teaching theory and correspondingly appropriate models of teaching. Planning for instruction is evidenced through the development of lesson and unit plans that reflect utility in inclusive and diverse settings.

## **MIDL 311 - Social Studies Instruction and Assessment in Grades 4-8**

**Class Hours:** 3  
**Lab/Discussion:** 0  
**Credits:** 3

**Prerequisite:** Junior status (60cr or more)  
**Description:** An overview of social studies methods instruction in the middle school classroom. Includes the study of objectives, trends, patterns and principles of organization, and techniques of instruction as it relates to social studies content areas: geography, Pennsylvania history, United States and world history, economics, and civics and government. Instruction includes assessment strategies for diverse middle school learners in inclusive classroom settings.

## **MIDL 312 - Science Instruction and Assessment in Grades 4-8**

**Class Hours:** 3  
**Lab/Discussion:** 0  
**Credits:** 3

**Prerequisite:** Admission into Teacher Education Step 1; BIOL 103, GEOS 101/GEOS 102, SCI 105 all strongly recommended  
**Description:** Emphasizes science as it relates to middle school students and curriculum, planning for teaching science, and recent innovations in science teaching.

## **MIDL 315 - Classroom Management and Adolescent Development**

**Class Hours:** 3  
**Lab/Discussion:** 0  
**Credits:** 3

**Prerequisite:** Junior status (60cr or more)  
**Description:** For middle-level education 4-8 majors to create a professional classroom management plan that supports the healthy development of all young adolescents in a diverse middle school environment. Students discuss, analyze, and apply major concepts, principles, theories, and research related to young adolescent development, including adolescents with special needs and English language learners.

## **MIDL 321 - 21st-Century Literacies for Diverse Learners**

**Class Hours:** 3  
**Lab/Discussion:** 0  
**Credits:** 3

**Description:** Teaches the impact of technology in the field of literacy of all subjects. Addresses issues and trends related to the use of technology. Includes technology integration in the curriculum and the incorporation of appropriate technologies to support diverse learners.

## **MIDL 408 - Literacy in the Content Areas**

**Class Hours:** 3  
**Lab/Discussion:** 0  
**Credits:** 3

**Prerequisite:** MIDL 222  
**Description:** Provides preservice teachers with various strategies, techniques, and materials related to teaching reading and writing in various content areas. Current research and practical applications are interwoven to assist teachers in the development of successful methods for comprehending text in science, social studies, health, English, and mathematics. For undergraduate students as a special elective or as a required course for majors in middle-level education with a specialization in English/language arts.

## **MIDL 422 - Diagnostic and Remedial Reading**

**Class Hours:** 3  
**Lab/Discussion:** 0  
**Credits:** 3

**Restriction:** Teacher Education Step I  
**Description:** Helps educators identify causes of reading disability in middle-level learners. Methods of diagnosis, procedures, and materials for remedial work are discussed. Strategies to improve students' content acquisition are included through both group and individual remediation. For undergraduate students seeking certification for middle-level education with a specialization in English/language Arts.

## **MIDL 425 - Methods of Teaching Language Arts in Grades 4-8**

**Class Hours:** 3  
**Lab/Discussion:** 0  
**Credits:** 3

**Prerequisite:** MIDL 222 with a grade of "C" or better  
**Description:** Emphasizes the view that the art of communication is an interrelated process, and the task of the middle grades teacher is to integrate the language arts throughout the entire curriculum. Techniques for teaching oral and written communication skills, listening, viewing, and visually representing are presented. Other integral components include spelling instruction to meet the developmental needs of middle-level learners and methods for increasing vocabulary growth. Special emphasis is given to recent trends and research in middle grades education.

## **Marketing**

### **MKTG 320 - Principles of Marketing**

**Class Hours:** 3  
**Lab/Discussion:** 0  
**Credits:** 3

**Description:** A study of those activities necessary to the design, pricing, promotion, and distribution of goods and services for use by organizations and ultimate consumers.

### **MKTG 321 - Consumer Behavior**

**Class Hours:** 3  
**Lab/Discussion:** 0  
**Credits:** 3

**Prerequisite:** MKTG 320, PSYC 101  
**Description:** A survey of noteworthy contributions of behavioral science and research on consumer purchasing and decision-making process, with particular attention to formal and informal influence patterns.

### **MKTG 350 - International Business**

**Class Hours:** 3  
**Lab/Discussion:** 0  
**Credits:** 3

**Description:** Studies the international dimensions of business and the critical environmental and organizational factors that affect managerial approaches in the international arena. Focuses upon the impact of cultures, women, religions, ethnic minorities, racial minorities and country uniqueness upon international businesses. (Students cannot earn credit for both MGMT 350 and MKTG 350, unless the course is a D/F repeat, whereupon it will serve as a substitute for the original D/F course.)

### **MKTG 420 - Marketing Management**

**Class Hours:** 3  
**Lab/Discussion:** 0  
**Credits:** 3

**Prerequisite:** MKTG 320, MKTG 321, junior standing  
**Description:** An analysis of marketing and operational problems and policies involved in planning, organizing, coordinating, and controlling a total marketing program.

### **MKTG 421 - Marketing Research and Analytics**

**Class Hours:** 3  
**Lab/Discussion:** 0  
**Credits:** 3

**Prerequisite:** MKTG 320 and MATH 214  
**Dual Listed:** May be dual-listed with MKTG 521.

**Description:** Introduces marketing research and data analytics in marketing decision-making applications. Implements research design and methodology components within the varied marketing domains. Utilizes statistical techniques for data analyses. Evaluates data visualization and marketing analytics functions.

### **MKTG 430 - International Marketing**

**Class Hours:** 3  
**Lab/Discussion:** 0  
**Credits:** 3

**Prerequisite:** MKTG 320

**Description:** International marketing and markets are analyzed. Special consideration is given to the significance of government regulations, organization structures of export and import enterprises, and credit policies.

### **MKTG 431 - Business-to-Business Marketing**

**Class Hours:** 3  
**Lab/Discussion:** 0  
**Credits:** 3

**Prerequisite:** MKTG 320

**Description:** Concerned with the major activities involved in the marketing of industrial goods and services, including the industrial marketing system, marketing information needs of the industrial firm, industrial marketing implementation and control, and channel, pricing, product, and promotional strategies for industrial goods.

### **MKTG 433 - Advertising**

**Class Hours:** 3  
**Lab/Discussion:** 0  
**Credits:** 3

**Prerequisite:** MKTG 320

**Description:** An introduction to the principles, practices, and creations of advertising. Use of various media and legal, economic, social, and ethical aspects of advertising are also considered.

### **MKTG 434 - Business Logistics: Technical Analysis and Applications**

**Class Hours:** 3  
**Lab/Discussion:** 0  
**Credits:** 3

**Prerequisite:** Senior standing, MKTG 320, MGMT 330

**Description:** Implements a technical and analytical approach for designing and executing the logistics functions within business supply chains. Analyzes and evaluates the key logistical domains of order processing, inventory functions, warehousing, transportation, distribution, and customer service elements using quantitative methods and management science techniques.

Applies a systems perspective for optimization of logistical parameters toward industrial marketing and operations efficiencies in the varied dynamics of transactional fulfillment.

### **MKTG 435 - Professional Selling and Sales Management**

**Class Hours:** 3  
**Lab/Discussion:** 0  
**Credits:** 3

**Prerequisite:** MKTG 320

**Description:** Introduces the role and nature of modern personal selling in marketing. Theory and practice of personal selling process, sales planning, delivering sales presentations, and relationship marketing are emphasized. Basics of managing sales force including territory management, recruiting, training, and compensating sales force are also covered.

### **MKTG 436 - Retail and Omnichannel Management**

**Class Hours:** 3  
**Lab/Discussion:** 0  
**Credits:** 3

**Prerequisite:** MKTG 320

**Description:** Introduces retailing and omnichannel management including the synergistic optimization of all retail channels and customer touchpoints for an integrated customer retail experience.

### **MKTG 437 - Services Marketing**

**Class Hours:** 3  
**Lab/Discussion:** 0  
**Credits:** 3

**Prerequisite:** MKTG 320

**Description:** Focuses on current theories and applications of marketing techniques in the fast-growing area of services in the business, government, and nonprofit sectors. Emphasizes characteristics of services and their marketing implications and formulation and implementation of marketing strategies for service firms.

### **MKTG 439 - Internet Marketing**

**Class Hours:** 3  
**Lab/Discussion:** 0  
**Credits:** 3

**Prerequisite:** MKTG 320

**Description:** Presents a strategic framework for developing marketing strategies on the Internet. Extends the marketing mix framework to e-commerce using current theories and applications in online product, online pricing, web-based marketing communication, and distribution strategies. Other topics include marketing research on the Internet, electronic retailing, Internet-based customer relationship management, and legal-ethical dimensions of e-marketing. Students use Internet-based, online marketing cases.

### **MKTG 440 - Direct Interactive Database Marketing**

**Class Hours:** 3  
**Lab/Discussion:** 0  
**Credits:** 3

**Prerequisite:** MKTG 320

**Dual Listed:** May be dual-listed with MKTG 540

**Description:** Introduces the role and nature of direct marketing including its current theory and practice. Includes designing and implementing direct mail marketing, telemarketing, database marketing, e-mail marketing, and Web/Internet based direct marketing for consumer and industrial markets. Utilizes case studies and applications. Explores social, public policy, and legal issues in direct marketing.

### **MKTG 442 - Social Cause Marketing for Nonprofit Organizations**

**Class Hours:** 3  
**Lab/Discussion:** 0  
**Credits:** 3

**Prerequisite:** MKTG 320 or instructor permission

**Description:** Prepares managers of nonprofit organizations and those whose mission is to plan and implement strategies for social change in society. Topics and activities will focus on strategic and tactical marketing approaches and planning and organizing for effective control of market performance of nonprofit organizations and programs.

### **MKTG 443 - New Product Design and Branding**

**Class Hours:** 3  
**Lab/Discussion:** 0  
**Credits:** 3

**Prerequisite:** MKTG 320

**Description:** Discusses the new product design, development, branding, and launch process companies use to bring a new concept to market by satisfying customers' unmet needs. Blends the perspectives of marketing and design and the process of product creation. A step-by-step process from product planning and concept generation to commercialization and product launch planning is covered.

### **MKTG 445 - Social Media Marketing**

**Class Hours:** 3  
**Lab/Discussion:** 0  
**Credits:** 3

**Prerequisite:** MKTG 320 or equivalent

**Description:** Explores the online marketing activities, practices, and interactions of individuals and organizations using conversational electronic media. Assorted social media interactive networking tools and applications are examined. Students study and develop social media marketing programs.

### **MKTG 448 - Brand Design**

**Class Hours:** 1.5  
**Lab/Discussion:** 2  
**Credits:** 3

**Prerequisite:** MKTG 320

**Description:** An integrated study of branding concepts in marketing and art, including aesthetics in commercial art, design of brand and corporate identity trademarks, theories of brand marketing and business strategy, customer touchpoints in brand communication and branding as a corporate strategy.

**Previously Offered As:** (Also offered as ART 448; may not be taken for duplicate credit.)

### **MKTG 450 - Marketing Strategy**

**Class Hours:** 3  
**Lab/Discussion:** 0  
**Credits:** 3

**Prerequisite:** MKTG 320; senior standing

**Description:** Develops marketing and business decision-making skills to evaluate real-world business situations,

analyzes marketing problems and scenarios, and produces solutions in the form of marketing and business strategies. Involves analyses based on quantification of marketing decisions and problem-solving scenarios using exercises and in-depth case studies that develop analytical reasoning. This senior-level course integrates knowledge of marketing and other business management functions into marketing strategy development, implementation, and control using either a marketing plan or marketing simulation exercises. Readings on classic and emerging issues provide applied perspectives of marketing in the business environment.

### **MKTG 493 - Marketing Internship**

**Class Hours:** var

**Credits:** 3-12

**Description:** Practical experience in the marketing field to develop knowledge and experience in the practical application of theory to actual problems in a nonclassroom situation. A maximum of 3cr of internship in the student's major may be applied toward the marketing major-area elective requirements. Additional internship credit must be used as free electives only. Admission only by permission of the department chairperson and the dean, Eberly College of Business.

## **Military Science**

### **MLSC 101 - Introduction to Military Science**

**Class Hours:** 2

**Lab/Discussion:** 1

**Credits:** 2

**Description:** A study of the organization of the United States Army and the role of the military in today's society. Emphasizes the customs and traditions of the service, the Total Army concept, and the fundamentals of leadership. Includes instruction in basic military skills, land navigation, and personal nutrition and fitness. Also, see Leadership Laboratory.

### **MLSC 102 - Fundamentals of Military Science**

**Class Hours:** 2

**Lab/Discussion:** 1

**Credits:** 2

**Description:** The study of the basic knowledge regarding military service and the profession of arms. Emphasizes basic military skill, first aid, and the development of leadership abilities through practical exercises. Includes instruction on offensive and defensive tactics, the Army writing style, and military briefings. Also, see Leadership Laboratory.

### **MLSC 191 - Army ROTC Physical Fitness Development I**

**Class Hours:** 0

**Lab/Discussion:** 3

**Credits:** 1

**Restriction:** MLSC students only

**Description:** Principles of individual and group physical fitness through the planning and execution of fitness training for all participating students. Primarily hands-on, performance-oriented training. Students are challenged with scheduling and executing PRT programs that ensure their future soldiers and units are prepared to successfully perform their wartime mission. This curriculum instills effective leadership that is essential to the success of future military leaders.

### **MLSC 192 - Army ROTC Physical Fitness Development II**

**Class Hours:** 0

**Lab/Discussion:** 3

**Credits:** 1

**Restriction:** MLSC students only

**Description:** Principles of individual and group physical fitness through the planning and execution of fitness training for all participating students. Primarily hands-on, performance-oriented training. Students are challenged with scheduling and executing PRT programs that ensure their future soldiers and units are prepared to successfully perform their wartime mission. This curriculum instills effective leadership that is essential to the success of future military leaders.

### **MLSC 203 - Fundamentals of Tactical Operations, Techniques of Leadership, and Weapons Characteristics**

**Class Hours:** 2

**Lab/Discussion:** 1

**Credits:** 2



**Description:** Organization, techniques, resources, and capabilities involved in conducting small-unit tactical operations. Emphasizes leadership, organization, and management techniques needed to cause a group of people to accomplish specific objectives. Characteristics of military weapons systems are taught. Students serve as leaders in Leadership Labs.

### **MLSC 204 - National Security and Fundamentals of Military Topography**

**Class Hours:** 2

**Lab/Discussion:** 1

**Credits:** 2

**Description:** The study of national security concepts, policies, and national decision-making process with emphasis on national resources, national will, and economic factors. Includes a study of nuclear and conventional response options. Fundamentals of military topography, including the use of military maps to determine topographic features, to conduct land navigation, and to perform terrain analysis, are covered. Also, see Leadership Laboratory.

### **MLSC 291 - Army ROTC Physical Fitness Development III**

**Class Hours:** 0

**Lab/Discussion:** 3

**Credits:** 1

**Restriction:** MLSC students only

**Description:** Principles of individual and group physical fitness through the planning and execution of fitness training for all participating students. Primarily hands-on, performance-oriented training. Students are challenged with scheduling and executing PRT programs that ensure their future soldiers and units are prepared to successfully perform their wartime mission. This curriculum instills effective leadership that is essential to the success of future military leaders.

### **MLSC 292 - Army ROTC Physical Fitness Development IV**

**Class Hours:** 0

**Lab/Discussion:** 3

**Credits:** 1

**Restriction:** MLSC students only

**Description:** Principles of individual and group physical fitness through the planning and execution of fitness training for all participating students. Primarily hands-on, performance-oriented training. Students are challenged with scheduling and executing PRT programs that ensure their future soldiers and units are prepared to successfully perform their wartime mission. This curriculum instills effective leadership that is essential to the success of future military leaders.

### **MLSC 305 - Fundamentals of Leadership and Modern Learning/Teaching Relationship**

**Class Hours:** 3

**Lab/Discussion:** 1

**Credits:** 3

**Description:** A study in practical application of principles of leadership/management as applied in classroom and field to include case studies in psychological, physiological, and sociological factors that affect human behavior; individual and group solution of leadership problems common to small units. Also, see Leadership Laboratory.

### **MLSC 306 - Study of Advance Leader Planning and Execution of Modern Combat Operations**

**Class Hours:** 3

**Lab/Discussion:** 1

**Credits:** 3

**Description:** An analysis of leader's role in directing and coordinating efforts of individuals and small units in execution of offensive and defensive tactical missions, to include command and control systems, the military team, and communications techniques. Also, see Leadership Laboratory.

### **MLSC 391 - Army ROTC Physical Fitness Development V**

**Class Hours:** 0

**Lab/Discussion:** 3

**Credits:** 1

**Restriction:** MLSC students only

**Description:** Principles of individual and group physical fitness through the planning and execution of fitness training for all participating students. Primarily hands-on,

performance-oriented training. Students are challenged with scheduling and executing PRT programs that ensure their future soldiers and units are prepared to successfully perform their wartime mission. This curriculum instills effective leadership that is essential to the success of future military leaders.

### **MLSC 392 - Army ROTC Physical Fitness Development VI**

**Class Hours:** 0

**Lab/Discussion:** 3

**Credits:** 1

**Restriction:** MLSC students only

**Description:** Principles of individual and group physical fitness through the planning and execution of fitness training for all participating students. Primarily hands-on, performance-oriented training. Students are challenged with scheduling and executing PRT programs that ensure their future soldiers and units are prepared to successfully perform their wartime mission. This curriculum instills effective leadership that is essential to the success of future military leaders.

### **MLSC 407 - Advanced Army Leadership Seminar**

**Class Hours:** 3

**Lab/Discussion:** 3

**Credits:** 2

**Prerequisite:** MLSC 305 and MLSC 306

**Restriction:** Instructor permission.

**Description:** Focuses on advanced leadership and the Principles of Mission Command. Develops knowledge, skills, and abilities to plan, resource, assess and lead training at the small unit level. Addresses Army programs that support counseling subordinates and evaluating performance, values and ethics, career planning, and legal responsibilities. Demonstrates ability to plan, prepare, execute, and continuously assess the conduct of training at the company or field grade officer level. Includes a weekly lab overseeing MS III lesson facilitation and supervised by ROTC Cadre.

### **MLSC 408 - Seminar in Military Analysis and Management**

**Class Hours:** 3

**Lab/Discussion:** 1

**Credits:** 3

**Description:** Contemporary analysis of use of military in world affairs to include importance of strategic mobility and neutralization of insurgent movements. Selected management problems and situations are presented as they relate to military justice, administration, and obligation and responsibilities of an officer. Also, see Leadership Laboratory.

### **MLSC 491 - Army ROTC Physical Fitness Development VII**

**Class Hours:** 0

**Lab/Discussion:** 3

**Credits:** 1

**Restriction:** MLSC students only

**Description:** Principles of individual and group physical fitness through the planning and execution of fitness training for all participating students. Primarily hands-on, performance-oriented training. Students are challenged with scheduling and executing PRT programs that ensure their future soldiers and units are prepared to successfully perform their wartime mission. This curriculum instills effective leadership that is essential to the success of future military leaders.

### **MLSC 492 - Army ROTC Physical Fitness Development VIII**

**Class Hours:** 0

**Lab/Discussion:** 3

**Credits:** 1

**Restriction:** MLSC students only

**Description:** Principles of individual and group physical fitness through the planning and execution of fitness training for all participating students. Primarily hands-on, performance-oriented training. Students are challenged with scheduling and executing PRT programs that ensure their future soldiers and units are prepared to successfully perform their wartime mission. This curriculum instills effective leadership that is essential to the success of future military leaders.

## **Music History**

### **MUHI 101 - Introduction to Music**

**Class Hours:** 3

**Lab/Discussion:** 0

**Credits:** 3

**Description:** A broad introduction to the technical, artistic, historical, social, and cultural dimensions of music, drawing on musical traditions from around the world. Students learn to recognize basic ways in which music is put together, communicates meaning to its listeners, and enriches many aspects of life. Through attendance at concerts, students gain familiarity with musical events in their community.

## MUHI 102 - Music and Literature Survey

**Class Hours:** 3

**Lab/Discussion:** 0

**Credits:** 3

**Description:** Introduces students to a broad spectrum of music and literature of various genres through a careful analysis of poetry, fiction, and drama, both in the original format and in a variety of musical settings. Includes music and literature of various time periods, nationalities, and minorities, including works by women and works from non-western musical and literary traditions. Designed for music majors and others who have a substantial knowledge of music, this course fulfills both the liberal studies fine arts and humanities literature requirements for music majors.

## MUHI 301 - Music History I

**Class Hours:** 3

**Lab/Discussion:** 0

**Credits:** 3

**Prerequisite:** MUHI 102, ENGL 202, and HIST 196 or HIST 197 or HIST 198

**Description:** Surveys the musicians, cultural settings, aesthetics, musical styles and repertoires of Western Europe from Antiquity to the late 18th century, as well as musical traditions from Asia, Africa, and South America with influence on Western music. Introduces research methods in music history.

## MUHI 302 - Music History II

**Class Hours:** 3

**Lab/Discussion:** 0

**Credits:** 3

**Prerequisite:** MUHI 102, ENGL 202, HIST 196 or HIST 197 or HIST 198

**Description:** Surveys the musicians, cultural settings, aesthetics, musical styles and repertoires of Europe and the United States from the late 18th century to the present, as well as influential musical traditions from Asia and Africa. Develops research writing skills in music history.

## MUHI 333 - History of Popular Music Since 1945

**Class Hours:** 3

**Lab/Discussion:** 0

**Credits:** 3

**Description:** Survey of the musical figures, styles, and cultures of popular music in the US and the UK since 1945.

## MUHI 421 - Topics in American Music

**Class Hours:** 3

**Lab/Discussion:** 0

**Credits:** 3

**Prerequisite:** MUHI 301, MUHI 302

**Description:** Emphasizes reading, discussion, and writing on specialized topics in the history of American music. The topic varies from semester to semester and are announced before registration. Addresses such topics as Art Music in American Culture, Music and the Moving Image, Popular Music, Music and Drama, or Virtuoso Performers in America.

## MUHI 425 - 19th-Century Music

**Class Hours:** 3

**Lab/Discussion:** 0

**Credits:** 3

**Prerequisite:** MUHI 301, MUHI 302

**Description:** Examines the musical and historical aspects of some representative works in four significant repertoires of 19th-century music: songs, characteristic works for piano, opera, and symphonies. Further examines how the works intersect with a number of social, cultural, aesthetic, political, and economic themes that pervade the century, such as the rise of the middle class, city cultures, the domestic music market, the invention of "the folk," nationalism and exoticism, social and political revolutions, idealism and its successors, and the virtuoso.

## Music

## MUSC 111 - Theory Skills I

**Class Hours:** 0  
**Lab/Discussion:** 3  
**Credits:** 2

**Restriction:** Music major or instructor permission  
**Description:** Develops aural skills through dictation and interpretation of written music by sight-singing. Taken in conjunction with Theory I.

## MUSC 112 - Theory Skills II

**Class Hours:** 0  
**Lab/Discussion:** 3  
**Credits:** 2

**Prerequisite:** MUSC 111 with a grade of "C" or better or Satisfactory  
**Description:** Continues development of aural skills through dictation, sight-singing, keyboard skills, and improvisation. Taken in conjunction with Theory II.

## MUSC 113 - Theory I Practicum

**Class Hours:** 1  
**Lab/Discussion:** 0  
**Credits:** 1

**Restriction:** Music major or instructor permission  
**Description:** Reinforces the core concepts of MUSC 115 via recitation, written coursework, guided listening, and musicianship drills. Students who fail the department's undergraduate diagnostic exam must complete MUSC 113 in conjunction with MUSC 115.

## MUSC 114 - Analysis of Popular Music

**Class Hours:** 3  
**Lab/Discussion:** 0  
**Credits:** 3

**Description:** Introduces active listening and the materials of Western music via contemporary popular repertoire. Covers notation, basic pitch, and rhythm constructs, and analysis with and without score, as well as aspects of songwriting, production, and recording.

## MUSC 115 - Theory I

**Class Hours:** 3  
**Lab/Discussion:** 0  
**Credits:** 3

**Prerequisite:** Music major or instructor permission; concurrent enrollment in MUSC 113 or score of at least 70 percent on the departmental theory placement exam  
**Description:** The study of the harmonic, melodic, and formal devices of the common practice period, from simple diatonic chords through seventh chords.

## MUSC 116 - Theory II

**Class Hours:** 3  
**Lab/Discussion:** 0  
**Credits:** 3

**Prerequisite:** MUSC 115, with a grade of "C" or better or Satisfactory  
**Description:** The study of the harmonic, melodic, and formal devices of the common practice period, from simple diatonic chords through secondary dominants. Introduces basic music forms.

## MUSC 120 - Brass Ensemble

**Class Hours:** 0  
**Lab/Discussion:** 2  
**Credits:** 0/1

**Restriction:** Music major or instructor permission  
**Description:** A chamber ensemble experience for brass performers.

## MUSC 121 - Chamber Singers

**Class Hours:** 0  
**Lab/Discussion:** 3  
**Credits:** 0/1

**Restriction:** Music major or instructor permission  
**Description:** Performs a broad spectrum from early Gregorian chant to contemporary rock cantatas.

## MUSC 122 - University Chorale

**Class Hours:** 0  
**Lab/Discussion:** 3  
**Credits:** 0/1

**Restriction:** Music major or instructor permission

**Description:** Studies and performs masterworks from the choral literature.

### **MUSC 123 - Symphony Band**

**Class Hours:** 0

**Lab/Discussion:** 3

**Credits:** 0/1

**Restriction:** Music major or instructor permission

**Description:** A large ensemble experience for woodwind, brass, and percussion performers.

### **MUSC 124 - University Band**

**Class Hours:** 0

**Lab/Discussion:** 2

**Credits:** 0/1

**Description:** Prepares students for large-ensemble wind-band performances. The band is open to all members of the university community, and no audition is required. Music majors are required to perform on a secondary instrument.

### **MUSC 125 - Marching Band**

**Class Hours:** 0

**Lab/Discussion:** 6

**Credits:** 0/1

**Description:** No Description

### **MUSC 126 - Music Theater**

**Class Hours:** 0

**Lab/Discussion:** 6

**Credits:** 0/1

**Restriction:** Music major or instructor permission

**Description:** The study and performance of a wide variety of musical theater venues from opera to Broadway.

### **MUSC 127 - Percussion Ensemble**

**Class Hours:** 0

**Lab/Discussion:** 4

**Credits:** 0/1

**Restriction:** Music major or instructor permission

**Description:** The student performs pieces ranging from

traditional to contemporary, novelty to transcriptions, and marimba ensembles to world music.

### **MUSC 128 - Opera/Musical in Production Ensemble**

**Class Hours:** 0

**Lab/Discussion:** 3

**Credits:** 0/1

**Restriction:** Successful audition and instructor permission

**Description:** An opportunity with academic credit to make significant contributions to campus opera and musical theater productions, augmenting music course work in the areas of musical training and performance experience for the singer-actor and the pit orchestra musician. Course work consists of rehearsal and performance of a full-length mainstage opera or musical, culminating in four to eight public performances. Singers in the production ensemble learn performance techniques, characterization skill, and physical coordination and freedom of movement on stage. Instrumentalists in the pit orchestra learn performance and ensemble techniques, including challenging reading skills and the ability to interpret a wide variety of musical styles. This is a repeatable course that meets Music Department ensemble requirements.

### **MUSC 129 - University Symphony Orchestra**

**Class Hours:** 0

**Lab/Discussion:** 5

**Credits:** 0/1

**Restriction:** Music major or instructor permission

**Description:** Provides experience performing standard orchestral repertoire as well as new and unusual works for orchestra.

### **MUSC 130 - String Ensemble**

**Class Hours:** 0

**Lab/Discussion:** 2

**Credits:** 0/1

**Restriction:** Music major or instructor permission

**Description:** Provides string players an experience with music from Baroque works of Vivaldi, Handel, and Bach to the new and experimental.

### **MUSC 131 - University Wind Ensemble**

**Class Hours:** 0

**Lab/Discussion:** 3

**Credits:** 0/1

**Restriction:** Music major or instructor permission

**Description:** A large ensemble experience for woodwind, brass, and percussion performers.

## MUSC 132 - Treble or Bass Chorus

**Class Hours:** var

**Credits:** 0-1

**Description:** Provides choral ensemble experience for vocalists with treble or bass voices, respectively.

## MUSC 133 - Woodwind Ensemble

**Class Hours:** 0

**Lab/Discussion:** 2

**Credits:** 0-1

**Restriction:** Music major or instructor permission

**Description:** A chamber ensemble experience for woodwind performers.

## MUSC 134 - University Chorus

**Class Hours:** 0

**Lab/Discussion:** 3

**Credits:** 0-1

**Description:** A large, mixed chorus that performs major works each semester.

## MUSC 135 - Jazz Ensemble

**Class Hours:** 0

**Lab/Discussion:** 3

**Credits:** 0-1

**Restriction:** Music major or instructor permission

**Description:** The study and performance of all styles of jazz, including swing, Latin, rock fusion, and other contemporary idioms.

## MUSC 136 - Advanced Jazz Ensemble

**Class Hours:** 0

**Lab/Discussion:** 3

**Credits:** 0-1

**Restriction:** Music major or instructor permission

**Description:** The student performs a mixture of jazz styles from Latin to swing, ballads to fusion.

## MUSC 137 - Piano Accompanying

**Class Hours:** 0

**Lab/Discussion:** 1

**Credits:** 0-1

**Description:** Piano accompanying may be scheduled by qualified (successful audition) pianists from the Music Department in partial fulfillment of ensemble requirements. Pianists registered for this course will provide accompaniments for Music Department students in solo vocal or instrumental performances in area and departmental recitals and/or in voice and instrumental lessons.

**Repeated:** May be repeated for credit. **Approved:** Registration must be approved by a designated Music Department faculty member from the piano area.

## MUSC 138 - Vocal Repertoire Ensemble

**Class Hours:** 0

**Lab/Discussion:** 2

**Credits:** 0-1

**Restriction:** Music major with a successful audition and instructor permission

**Description:** Explores the performance practices of various styles and genres of classical vocal music, augmenting course work in the areas of applied voice training and performance experience for vocal musicians in a master class format. Features a different vocal style/genre/theme each semester. Course work for the ensemble consists of performance and coaching of assigned music concentrating on historically informed performance practice, as well as composer study and style profiles. Possible topics include Sacred Vocal Music, English Renaissance and Baroque Vocal Music, Vocal Music of Franz Schubert, Vocal Music of the American 20th Century, Vocal Music for the High School Students, etc. This is a repeatable course that meets the Music Department's ensemble requirements.

## MUSC 139 - Piano Ensemble

**Class Hours:** 1

**Lab/Discussion:** 1

**Credits:** 1

**Restriction:** Music major, instructor permission

**Description:** The study and performance of repertoire for piano in ensemble with other pianists, vocalists, and instrumentalists. Special considerations for accompanying and collaborating in chamber music are discussed and practiced.

### **MUSC 140 - Popular Music Ensemble**

**Class Hours:** 0

**Lab/Discussion:** 3

**Credits:** 1

**Description:** Laboratory for performance and creative expression in all popular musical styles. Includes individual and group projects based their abilities, artistic interests, and the makeup of the ensemble. Some background with songwriting, voice, or a musical instrument is encouraged, but the course is open to any interested student.

**Repeated:** May be repeated for credit.

### **MUSC 151 - Class Voice I**

**Class Hours:** 1

**Lab/Discussion:** 1

**Credits:** 1

**Restriction:** Music major or instructor permission

**Description:** For non-voice and music education majors. Development of correct vocal production techniques through individual and group performance in class. Use of the voice as a tool for theory skills and for eventual use in the music classroom.

### **MUSC 153 - Class Piano I**

**Class Hours:** 1

**Lab/Discussion:** 1

**Credits:** 1

**Restriction:** Music major or instructor permission

**Description:** For music majors with no significant background in piano who need to develop functional keyboard skills. Emphasizes scales, chord progressions, and sight-reading. Harmonizing melodies and playing simple accompaniments are included in this skill-oriented course.

### **MUSC 154 - Class Piano II**

**Class Hours:** 1

**Lab/Discussion:** 1

**Credits:** 1

**Description:** A continuation of Class Piano I; for music majors.

### **MUSC 155 - Class Strings I**

**Class Hours:** 1

**Lab/Discussion:** 1

**Credits:** 1

**Restriction:** Music major or instructor permission

**Description:** For music education majors who will develop rudimentary playing techniques sufficient to initiate instruction for beginning students. Emphasizes correct playing positions and tone production for violin, viola, cello, and double bass.

### **MUSC 157 - Class Percussion I**

**Class Hours:** 1

**Lab/Discussion:** 1

**Credits:** 1

**Restriction:** Music major or instructor permission

**Description:** A practical introduction to the various instruments of the percussion family. Students demonstrate correct playing techniques and develop a resource file containing information on percussion instruments and instructional materials as needed by the school music teacher.

### **MUSC 159 - Class Brass I**

**Class Hours:** 1

**Lab/Discussion:** 1

**Credits:** 1

**Restriction:** Music major or instructor permission

**Description:** For music education majors who will demonstrate rudimentary playing techniques and tone production skills to initiate beginning instruction. Students develop playing on trumpet or French horn and trombone, euphonium or tuba.

### **MUSC 161 - Class Woodwinds I**

**Class Hours:** 1

**Lab/Discussion:** 1

**Credits:** 1

**Restriction:** Music major or instructor permission

**Description:** For music education majors who will acquire correct tone production and playing techniques sufficient to initiate beginning instruction. Students demonstrate skills with flute, clarinet, saxophone, and oboe or bassoon.

## MUSC 180 - Technology for General Musicianship

**Class Hours:** 2  
**Lab/Discussion:** 1  
**Credits:** 2

**Restriction:** Music major enrolled in BA or BFA program or instructor permission

**Description:** An introduction to the fundamental concepts of music technology, including the basics of digital audio sound recording, music notation, MIDI, mixing and sound synthesis, and the construction and use of web pages in a music career.

## MUSC 190 - Introduction to Music Education

**Class Hours:** 1  
**Lab/Discussion:** 1  
**Credits:** 1

**Description:** Introduces foundational concepts and practices in music education.

## MUSC 211 - Theory Skills III

**Class Hours:** 0  
**Lab/Discussion:** 3  
**Credits:** 2

**Prerequisite:** MUSC 112, with a grade of "C" or better or Satisfactory

**Description:** Further development of aural skills through dictation, sight singing, keyboard skills, and improvisation. Taken in conjunction with Theory III.

## MUSC 212 - Theory Skills IV

**Class Hours:** 0  
**Lab/Discussion:** 3  
**Credits:** 2

**Prerequisite:** MUSC 211 and MUSC 154 or APMU 151, with a grade of "C" or better or Satisfactory

**Description:** Culmination of the development of aural and

keyboard skills including sight-reading, performance, and improvisation. Taken in conjunction with Theory IV.

## MUSC 215 - Theory III

**Class Hours:** 3  
**Lab/Discussion:** 0  
**Credits:** 3

**Prerequisite:** MUSC 115, MUSC 116, with a grade of "C" or better or Satisfactory

**Description:** An extension of the techniques of the 18th and 19th centuries to include modulation, altered chords, more advanced musical forms, and contrapuntal procedures.

## MUSC 216 - Theory IV

**Class Hours:** 3  
**Lab/Discussion:** 0  
**Credits:** 3

**Prerequisite:** MUSC 115, MUSC 116, MUSC 215, with a grade of "C" or better or Satisfactory

**Description:** An extension of the techniques of the 18th and 19th centuries to include modulation, altered chords, more advanced musical forms, and contrapuntal procedures. Theory IV concentrates largely on music and materials of the present century.

## MUSC 217 - Keyboard Harmony

**Class Hours:** 3  
**Lab/Discussion:** 0  
**Credits:** 3

**Prerequisite:** MUSC 212, MUSC 216, and the equivalent of a B Jury, or instructor permission

**Description:** A keyboard approach to understanding harmony observed during the common practice period. Study through the weekly performance and realization of various exercises includes figured bass, score reading (works for small and large orchestra), playing by ear, and applied theoretical analysis. Projects include creating a reduced, four-part score from one movement of a large orchestral work and a transcription of one movement from a large orchestral work.

## MUSC 240 - Technology in the Music Classroom



**Class Hours:** 2  
**Lab/Discussion:** 1  
**Credits:** 2

**Description:** Introduces the technology resources available for use in the music classroom and the instructional technologies appropriate for application in K-12 settings including applications for students with disabilities. Students are exposed to a variety of media and have the opportunity to gain familiarity in their use. Emphasizes the use of the computer in the music classroom, web-based technologies, and music software.

### **MUSC 281 - Special Topics**

**Class Hours:** var  
**Credits:** 1-3

**Prerequisite:** As appropriate to course content  
**Description:** Offered on an experimental or temporary basis to explore topics not included in the established curriculum. A given topic may be offered under any special topic identity no more than three times. Special topics numbered 281 are offered primarily for lower-level undergraduate students.

### **MUSC 311 - Fundamentals of Conducting**

**Class Hours:** 3  
**Lab/Discussion:** 0  
**Credits:** 2

**Restriction:** Music major or instructor permission  
**Description:** Emphasizes fundamental physical skills of conducting process; various beat patterns are mastered and elementary score reading and interpretation are considered.

### **MUSC 312 - Choral Conducting**

**Class Hours:** 3  
**Lab/Discussion:** 0  
**Credits:** 2

**Prerequisite:** MUSC 311  
**Description:** An opportunity to apply basic conducting techniques to choral music. Each student conducts the class in standard choral works. Includes survey of suitable literature, organizational problems, voice testing, rehearsal techniques, program building, interpretation, and diction.

### **MUSC 313 - Instrumental Conducting**

**Class Hours:** 3  
**Lab/Discussion:** 0  
**Credits:** 2

**Prerequisite:** MUSC 311  
**Description:** An opportunity to apply basic conducting skills to various instrumental ensembles. Includes a survey of suitable literature, organizational problems, audition procedures, rehearsal techniques, program building, and interpretation.

### **MUSC 315 - Theory V**

**Class Hours:** 3  
**Lab/Discussion:** 0  
**Credits:** 3

**Prerequisite:** MUSC 216  
**Description:** Many harmonic idioms of past half-century are considered, such as comparative analysis of dissonance; polytonality, polyrhythms; atonalism and 12-tone system; and microtonalism. Original writing in these styles required.

### **MUSC 331 - Elementary Methods**

**Class Hours:** 2  
**Lab/Discussion:** 1  
**Credits:** 2

**Restriction:** Admission to Step 1 of the 3-Step Process  
**Description:** Familiarizes students with contemporary music education methods for the elementary general music classroom. Includes teaching and learning strategies for developing singing, moving, listening, creating, and playing classroom percussion, recorders, and guitar. Specific focus on child development, characteristics of special learners, curriculum planning, and diverse musical materials. Includes three classroom observations in the field.

### **MUSC 333 - Instrumental Methods**

**Class Hours:** 2  
**Lab/Discussion:** 1  
**Credits:** 2

**Restriction:** Admission to Step 1 of the 3-Step Process  
**Description:** Familiarizes students with the instrumental music teaching process including traditional and innovative methodology; development of beliefs and values; communication, motivation, and reinforcement; curriculum

development, planning, modeling, sequencing, and assessment; recruiting and retention; teaching techniques for rehearsals for the art of lesson giving and for confronting the main issues of rhythm and intonation; development of aural/visual discrimination skills; improvisation; aptitude tests and testing; classroom control; literature; and equipment.

### **MUSC 335 - Music for Students with Disabilities in Inclusive Settings**

**Class Hours:** 1  
**Lab/Discussion:** 1  
**Credits:** 1

**Corequisite:** EDUC 242

**Restriction:** Admission to Step 1 of the 3-Step Process  
**Description:** Develops music education skills, techniques, and materials for students with disabilities and special needs within the music classroom setting. Legal rights of students with special needs are stressed with regard to opportunities to participate in music activities and ensembles. Must be elected concurrently with EDUC 242. Includes field experiences in the music classroom during the EDUC 242 observation period.

### **MUSC 337 - General/Choral Methods**

**Class Hours:** 2  
**Lab/Discussion:** 1  
**Credits:** 2

**Prerequisite:** MUSC 212, admission to Step 1 of the 3-Step Process

**Description:** A pedagogical overview of music methods related to general and choral music curricula for the middle school, junior high school, and high school. Emphasizes the complex factors of adolescent behavior and physiology, administrative issues, performance expectations, and conceptually based learning that influence music teaching at this level.

### **MUSC 351 - Italian Diction and Literature**

**Class Hours:** 1  
**Lab/Discussion:** 1  
**Credits:** 1

**Description:** A laboratory course in Italian diction for first-semester voice majors. Meets for two hours per week. Emphasizes pronunciation for the stage and the International Phonetic Alphabet. Students demonstrate

skills by singing Italian solo song literature and operatic repertoire of the 17th and 18th centuries.

### **MUSC 353 - French Diction and Literature**

**Class Hours:** 1  
**Lab/Discussion:** 1  
**Credits:** 1

**Description:** A laboratory course in French diction for third- or fourth-semester voice majors. Meets for two hours per week. Emphasizes pronunciation for the stage and the International Phonetic Alphabet. Students demonstrate skills by singing French solo song literature and operatic repertoire.

### **MUSC 354 - German Diction and Literature**

**Class Hours:** 1  
**Lab/Discussion:** 1  
**Credits:** 1

**Description:** A laboratory course in German diction for second-semester voice majors. Meets for two hours per week. Emphasizes pronunciation for the stage and the International Phonetic Alphabet. Students demonstrate skills by singing German solo and song literature and operatic repertoire.

### **MUSC 360 - Introduction to the Music Industry**

**Class Hours:** 3  
**Lab/Discussion:** 0  
**Credits:** 3

**Restriction:** Music major or instructor permission.

**Description:** Explores the overall function and structure of the music industry. Surveys such topics as copyright law, publishing, contracts, licensing, artist management, concert promotion, production, and the administrative structures and practices associated with music organizations.

### **MUSC 403 - Practicum in String Pedagogy**

**Class Hours:** 1  
**Lab/Discussion:** 0  
**Credits:** 0/1

**Prerequisite:** FBI, Act 34, and Act 151 clearances, instructor permission

**Description:** Practical applications of string methods and string pedagogy techniques for instruction in hands-on teaching experiences in individual and ensemble settings. The emphasis is on sequential instruction and reflective assessment of teaching techniques and goals.

### **MUSC 405 - Piano Pedagogy**

**Class Hours:** 3

**Lab/Discussion:** 0

**Credits:** 3

**Prerequisite:** Junior standing in piano and a piano major or minor

**Description:** A survey of current and significant past developments in teaching of piano, both privately and in small and large classes. The various piano methods are analyzed, compared, criticized, and adapted to each individual's use.

### **MUSC 406 - Vocal Pedagogy**

**Class Hours:** 3

**Lab/Discussion:** 0

**Credits:** 3

**Prerequisite:** APMU 255 or instructor permission

**Description:** Introduces vocal anatomy, the acoustics of singing, and various methods of vocal instruction. Applies pedagogical principles through mock teaching and teaching observation, and students keep a teaching journal.

### **MUSC 408 - Marching Band Techniques**

**Class Hours:** 2

**Lab/Discussion:** 0

**Credits:** 2

**Prerequisite:** MUSC 116 Theory II and (MUSC 180 Technology for General Musicianship or MUSC 240 Technology in the Music Classroom)

**Restriction:** Music major or instructor permission.

**Description:** Develops the skills necessary to administer and direct contemporary marching bands at the post-secondary level, including such topics as drill conception and design, instruction methods, and ensemble organization.

### **MUSC 417 - Orchestration**

**Class Hours:** 3

**Lab/Discussion:** 0

**Credits:** 3

**Prerequisite:** MUSC 216

**Description:** All instruments of orchestra are studied from the viewpoint of their contribution to the total sound of ensemble. Ranges and timbres are considered, as well as actual arranging of selected music.

### **MUSC 420 - Professional Practices**

**Class Hours:** 2

**Lab/Discussion:** 0

**Credits:** 2

**Prerequisite:** Junior standing

**Description:** Explores skills needed to be successful, versatile, and employable in the 21st century. Includes curriculum vitae preparation, self-promotion and marketing, finding and creating opportunities, communication skills, grant-writing and resource acquisition, and developing a professional network. Taught in a seminar format with guest lectures.

### **MUSC 475 - Music Lab**

**Class Hours:** var

**Credits:** 0

**Description:** All music majors must attend eight on-campus (unless preapproved) recitals and meetings per semester and all departmental recitals, as well as all recitals for their respective performance areas.

### **MUSC 481 - Special Topics**

**Class Hours:** 3

**Lab/Discussion:** 0

**Credits:** 3

**Prerequisite:** As appropriate to course content

**Description:** May provide an in-depth study of a narrowly defined area of the discipline. Subject matter changes with repeated offering of the course.

**Repeated:** May be repeated for credit.

### **MUSC 493 - Internship in Music**

**Class Hours:** var  
**Credits:** 1-6

**Description:** For music majors who wish to receive practical experience working with people in music or in areas related to music.

## Nuclear Medicine Technology

### NMDT 427 - Nuclear Scintigraphy

**Class Hours:** 3  
**Lab/Discussion:** 0  
**Credits:** 3

**Description:** Theoretical aspects of nuclear medicine imaging procedures, including applicable pathophysiology, technical aspects for data acquisition, and computer analysis of data. Systemic radionuclide therapy procedures are also discussed.

### NMDT 428 - Radiation Physics

**Class Hours:** 3  
**Lab/Discussion:** 0  
**Credits:** 3

**Description:** Applicable aspects of nuclear and atomic physics are covered both in theory and mathematical formulae. Theoretical topics include atomic and nuclear structure, radioactive decay, interactions with matter, and radionuclide production methods. Mathematical concepts discussed are the decay equation, equilibrium, and radiation dosimetry.

### NMDT 429 - Nuclear Medicine Instrumentation

**Class Hours:** 2  
**Lab/Discussion:** 1  
**Credits:** 3

**Description:** Covers the basic principles of both in vitro and in vivo instrumentation. Also covers the design, operation, and quality control of gas detectors and scintillation detectors. Survey equipment, spectrometers, and stationary imaging devices are presented with their application to nuclear medicine. Includes hands-on laboratory experience with single channel analyzers and Anger cameras.

### NMDT 430 - Radiation Biology and Radiation Protection

**Class Hours:** 2  
**Lab/Discussion:** 0  
**Credits:** 2

**Description:** Topics include ionization and energy transfer; molecules, cellular, tissue, and organ response to radiation; acute and chronic effects of radiation; radiation protection; licensing requirements; recordkeeping; and management of clinical radiation spills.

### NMDT 431 - In Vivo/In Vitro Nonimaging

**Class Hours:** 1  
**Lab/Discussion:** 0  
**Credits:** 1

**Description:** In vivo clinical nuclear medicine procedures not resulting in images as well as principles of in vitro radioassay are presented. Included are venipuncture, blood volumes, red cell studies, Schillings test, principles of immunology, various types of radioassay, and sensitivity and specificity of procedure.

### NMDT 432 - Radiopharmaceuticals

**Class Hours:** 3  
**Lab/Discussion:** 0  
**Credits:** 3

**Description:** Topics include tracer theory, pharmacological actions, localization methods, radiopharmaceutical properties, radionuclide generators, radiopharmaceutical preparations and quality control, and transient vs. secular equilibrium. Routinely used radiopharmaceuticals are discussed.

### NMDT 433 - Introduction to Tomographic Imaging

**Class Hours:** 1  
**Lab/Discussion:** 0  
**Credits:** 1

**Description:** An introduction to the basic principles of cross-sectional anatomy and tomographic imaging is presented. Topics include body planes and cross-sectional anatomy of the heart, brain, liver, and lumbar spine, as applicable to nuclear medicine, and the theory and application of both SPECT and PET imaging systems.

## **NMDT 434 - Clinical Nuclear Medicine**

**Class Hours:** 0  
**Lab/Discussion:** 40  
**Credits:** 16

**Prerequisite:** Completion of 77cr at IUP and Phase I at NMI

**Description:** Student completes 1,320 hours of supervised clinical training at an affiliate hospital. Gives instruction and participates in the performance of various clinical nuclear medicine procedures, patient care, administrative duties, radiopharmaceutical preparation and quality control, equipment quality control, quality assurance, and radiation safety. Develops both technical skills and interpersonal communication skills for incorporation into the medical community and to provide high-quality patient care.

**Previously Offered As:** Offered on a pass/fail basis only.

## **Nanomanufacturing Technology**

### **NMTT 311 - Materials, Safety, and Equipment Overview for Nanofabrication**

**Class Hours:** 3  
**Lab/Discussion:** 2  
**Credits:** 3

**Corequisite:** NMTT 312

**Description:** Focuses on cleanroom protocol and provides an overview of the materials, safety, and equipment issues encountered in the practice of "top down" and "bottom up" nanofabrication.

### **NMTT 312 - Basic Nanofabrication Processes**

**Class Hours:** 3  
**Lab/Discussion:** 2  
**Credits:** 3

**Corequisite:** NMTT 311

**Description:** A hands-on introduction to the processing sequences involved in "top down," "bottom up," and hybrid nanofabrication. Focuses on a step-by-step description of the processes integration needed to fabricate devices and structures.

### **NMTT 313 - Thin Films in Nanofabrication**

**Class Hours:** 3  
**Lab/Discussion:** 2  
**Credits:** 3

**Corequisite:** NMTT 311 and NMTT 312

**Description:** Provides a detailed understanding of the use and processing of thin film materials in nanofabrication. Emphasizes the understanding and operation of the state-of-the-art deposition and etching processing equipment in the Penn State Nanofabrication Facility cleanrooms.

### **NMTT 314 - Lithography and Patterning Techniques**

**Class Hours:** 3  
**Lab/Discussion:** 2  
**Credits:** 3

**Corequisite:** NMTT 311

**Description:** Provides knowledge and hands-on treatment to all aspects of advanced lithography and pattern generation processes, covering topics from substrate preparation to exposure using pattern transfer equipment such as stamping and embossing, ion and e-beam, and optical contact and stepper.

### **NMTT 315 - Materials Modifications in Nanofabrication**

**Class Hours:** 3  
**Lab/Discussion:** 2  
**Credits:** 3

**Corequisite:** NMTT 311

**Description:** Provides detailed knowledge of the processing steps used in modifying material properties in nanofabrication, including molecular functionalization, cross-linking, metal silicidation, material oxidation, material nitridation, barrier materials, alloying, stress control, annealing, and doping.

### **NMTT 316 - Characterization, Packaging, and Testing of Nanofabrication Structures**

**Class Hours:** 3  
**Lab/Discussion:** 2  
**Credits:** 3

**Corequisite:** NMTT 311

**Description:** Addresses the issues and examines a variety

of techniques and measurements essential for testing and controlling the final device fabrication, performance, and packaging.

## Nursing

### IMAG 101 - Careers in Medical Imaging

**Class Hours:** 1  
**Lab/Discussion:** 0  
**Credits:** 1

**Description:** Explores various imaging tracts including Nuclear Medicine Technology, Echocardiography, and Diagnostic Medical Sonography (Ultrasound). Examines the current health care environment and discusses regulatory bodies required for professional credentials. Discusses aspects of culturally centric care. Provides opportunities for effective communication techniques to enhance student-patient interaction.

### IMAG 480 - Medical Imaging Seminar

**Class Hours:** 2  
**Lab/Discussion:** 0  
**Credits:** 2

**Prerequisite:** Junior standing  
**Restriction:** Medical Imaging major  
**Description:** Builds on the natural science and liberal studies curriculum. Focuses on fundamental concepts that apply to the practice of medical imaging. Addresses elements of quality and safety in the healthcare environment, interpersonal communication in the workplace, and code of ethics and legal frameworks that impact healthcare decisions.

### NURS 101 - Disaster Awareness

**Class Hours:** 1  
**Lab/Discussion:** 0  
**Credits:** 1

**Description:** A basic understanding of the essentials of disaster planning, responding to mass casualty incidents, and postdisaster restoration of basic public health. Introduces a basic overview of health issues caused by biological, chemical, explosive, and natural disasters.

### NURS 143 - Healthy People—Promoting Wellness

**Class Hours:** 3  
**Lab/Discussion:** 0  
**Credits:** 3

**Description:** An introduction to the pathway of health and wellness through contributions to one's environment and community. The interconnectedness of self, others, nature, and society on one's health and wellness is emphasized. Students are guided through decision-making processes regarding life choices to maximize personal well-being. A personal wellness plan that incorporates aspects of physical and social health is developed using the Healthy People framework. Completion of NURS 143 fulfills the Liberal Studies Dimensions of Wellness requirement. Other 143 courses will also fulfill this requirement, and any of these courses may be substituted for each other and may be used interchangeably for D/F repeats but may not be counted for duplicate credit.

### NURS 202 - Foundations of Child Health

**Class Hours:** 3  
**Lab/Discussion:** 0  
**Credits:** 3

**Description:** Focuses on conditions that affect the health of children. An overview of the structure and function of selected body systems. Emphasizes the development of each system during infancy and childhood. The impact of common acute and chronic diseases on children is incorporated. Health promotion concepts are addressed.

### NURS 211 - Fundamentals I Clinical

**Class Hours:** 0  
**Lab/Discussion:** 3  
**Credits:** 1

**Prerequisite:** Nursing majors only, BIOL 150 grade of "C" or better; (CHEM 103 and CHEM 255, or CHEM 101 and CHEM 102, or CHEM 111 and CHEM 112); sophomore standing; or permission

**Corequisite:** NURS 212 or permission

**Description:** Presents concepts and basic nursing skills fundamental to the safe practice of professional nursing. A foundation for students to build their professional knowledge base as well as develop interpersonal and psychomotor skills in a variety of settings with a focus on patient-centered care for adults and older adults.

### NURS 212 - Fundamentals I Theory

**Class Hours:** 3  
**Lab/Discussion:** 0  
**Credits:** 3

**Prerequisite:** Nursing majors only, BIOL 150 grade of "C" or better; (CHEM 103 and CHEM 255, or CHEM 101 and CHEM 102, or CHEM 111 and CHEM 112); sophomore standing; or permission

**Corequisite:** NURS 211 or permission

**Description:** Introduces students to the nursing discipline, nursing process, professional standards, and values that are foundational to practice. Provides an overview of the various levels of healthcare services and the professional nursing role. Concepts for effective nurse-client relationships are examined including therapeutic communication, evidence-based nursing interventions, quality patient-centered care, and safe nursing practice.

### **NURS 213 - Fundamentals II Clinical**

**Class Hours:** 0  
**Lab/Discussion:** 3  
**Credits:** 1

**Prerequisite:** NURS 211, NURS 212 with grades of "C" or better

**Corequisite:** NURS 214, NURS 236; or permission

**Prerequisite or Corequisite:** BIOL 240 with grade of "C" or better

**Description:** Builds on the Fundamentals I Clinical course. Opportunities for students to continue to develop professional knowledge and skills with diverse individuals and families in a variety of settings with a focus on adults and older adults. Emphasizes developing the ability to perform comprehensive health assessments, use therapeutic communication, and provide basic nursing skills while promoting safe and quality health care.

### **NURS 214 - Health Assessment**

**Class Hours:** 3  
**Lab/Discussion:** 0  
**Credits:** 3

**Prerequisite:** NURS 211, NURS 212 with grades of "C" or better

**Corequisite:** NURS 213, NURS 236; or permission

**Prerequisite or Corequisite:** BIOL 240 with a grade of "C" or better

**Description:** An introduction to basic health assessment for the purpose of determining a client's health status.

Students learn to conduct a comprehensive health history and physical assessment on adults and older adults. Incorporates concepts of human anatomy and physiology in the assessment of clients. Identifies appropriate nursing interventions to promote health.

### **NURS 236 - Fundamentals II Theory**

**Class Hours:** 3  
**Lab/Discussion:** 0  
**Credits:** 3

**Prerequisite:** NURS 211, NURS 212 with grades of "C" or better

**Corequisite:** NURS 213, NURS 214; or permission

**Prerequisite or Corequisite:** BIOL 240 with a grade of "C" or better

**Description:** Introduces students to fundamental nursing concepts that apply to the practice of professional nursing. Topics include elements of holistic care, promotion of psychosocial and physiologic health, and introduction to medication administration in nursing practice. Provides physiological rationale for nursing interventions with a focus on knowledge and skills to ensure safe delivery of nursing care.

### **NURS 306 - Problem Solving in Nursing**

**Class Hours:** 3  
**Lab/Discussion:** 0  
**Credits:** 3

**Prerequisite:** NURS 213, 214, and 236 or special permission

**Description:** Opportunities to recognize and develop intervention strategies for problem solving in clinical nursing situations. Emphasizes developing application and analysis skills required for success in the Nursing program.

### **NURS 312 - Professional Nursing**

**Class Hours:** 2  
**Lab/Discussion:** 0  
**Credits:** 2

**Prerequisite:** ENGL 202

**Corequisite:** NURS 330 and NURS 331; or NURS 332 and NURS 333; or NURS 336 and NURS 337; or permission

**Description:** Examines values, cultural issues, code of ethics, global and national health care policy, regulatory

environments, professional standards and legal frameworks that impact health care decisions, determine professional conduct, and guide interactions with clients, families, and health care team members. Utilizes ethical decision-making frameworks to guide professional nursing practice. Focuses on developing the necessary skills to engage in scholarly writings and presentation.

### **NURS 314 - Health Policy and Law**

**Class Hours:** 3

**Lab/Discussion:** 0

**Credits:** 3

**Description:** Focuses on understanding the evolution of healthcare policy, health law, and federal and state regulation of healthcare financing programs. Introduces healthcare policy making; critical health policy issues; legislative, regulatory, and legal challenges; and legislative and political processes that impact the healthcare delivery system in the United States.

**Cross-Listed:** (Cross-listed as ELR 314.)

### **NURS 316 - Evidence-Based Practice in Nursing**

**Class Hours:** 3

**Lab/Discussion:** 0

**Credits:** 3

**Prerequisite:** ENGL 202, MATH 217

**Corequisite:** NURS 330 and NURS 331; or NURS 332 and NURS 333; or NURS 336 and NURS 337; or permission

**Description:** Focuses on understanding and critiquing nursing research. Emphasizes understanding the research process and utilization of current evidence in nursing practice. Focuses on developing the necessary skills to engage in scholarly writing and presentation.

### **NURS 330 - Care of the Child and Family**

**Class Hours:** 2

**Lab/Discussion:** 0

**Credits:** 2

**Prerequisite:** FDNT 212, PSYC 215, grades of "C" or better in BIOL 240, BIOL 241, NURS 213, NURS 214, NURS 236; or permission

**Corequisite:** NURS 331, NURS 312 or NURS 316; or permission

**Description:** Focuses on knowledge essential to providing

nursing care to the child and family. Emphasizes prevention, recognition, implementation of the nursing process, and appropriate interventions for safe care of the child. Applies evidence-based practice for the care of children and families.

### **NURS 331 - Care of the Child and Family Clinical**

**Class Hours:** 0

**Lab/Discussion:** 6

**Credits:** 2

**Prerequisite:** FDNT 212, PSYC 215, grades of "C" or better in BIOL 240, BIOL 241, NURS 213, NURS 214, NURS 236; or permission

**Corequisite:** NURS 330, NURS 312 or NURS 316; or permission

**Description:** Provides students with opportunities to apply the nursing process with children and their families in a variety of settings and demonstrate nursing professionalism in their interactions with individuals, families, and community. Increases students' ability to perform comprehensive health assessments and collaborate with members of the health care team to identify problems, plan, intervene, and evaluate care for children and families. Emphasizes safe, comprehensive, evidence-based nursing care, and professional standards of practice.

### **NURS 332 - Maternal-Neonatal Health**

**Class Hours:** 2

**Lab/Discussion:** 0

**Credits:** 2

**Prerequisite:** FDNT 212, PSYC 215; grades of "C" or better in BIOL 240, BIOL 241, NURS 213, NURS 214, NURS 236; or permission

**Corequisite:** NURS 333, NURS 312 or NURS 316; or permission

**Description:** Focuses on knowledge essential to providing nursing care for pregnant women, neonates, and postpartum patients within a family context. Emphasizes implementation of the nursing process and appropriate interventions for safe care. Applies evidence-based practice for the care of pregnant women, neonates, and postpartum patients.

### **NURS 333 - Maternal-Neonatal Clinical**

**Class Hours:** 0

**Lab/Discussion:** 6



**Credits:** 2

**Prerequisite:** FDNT 212, PSYC 215; grades of "C" or better in BIOL 240, BIOL 241, NURS 213, NURS 214, NURS 236; or permission

**Corequisite:** NURS 332, NURS 312 or NURS 316; or permission

**Description:** Provides students opportunities to apply the nursing process with pregnant women, neonates, postpartum patients, and their families in a variety of settings and demonstrate nursing professionalism in their interactions with individuals, families, and community. Increases students' ability to perform comprehensive health assessments and collaborate with members of the health care team to identify problems, plan, intervene, and evaluate care for pregnant women, neonates, postpartum patients, and their families. Emphasizes safe, patient-centered comprehensive, evidence-based nursing care, and professional standards of practice.

### **NURS 334 - Transitions in Professional Nursing**

**Class Hours:** 3

**Lab/Discussion:** 0

**Credits:** 3

**Restriction:** Licensed Practical Nurse

**Description:** Explores the dynamic nature of health and its impact on the practice of nursing. Nursing theories, concepts, and issues related to nursing practice are analyzed. Linkages among theory, research, and practice are explored for relevance and utility.

### **NURS 336 - Adult Health I**

**Class Hours:** 4

**Lab/Discussion:** 0

**Credits:** 4

**Prerequisite:** FDNT 212, PSYC 215; grades of "C" or better in BIOL 240, BIOL 241, NURS 213, NURS 214, NURS 236; or permission

**Corequisite:** NURS 337, NURS 312 or NURS 316; or permission

**Description:** Introduces the student to disease processes and prevention, collaborative care, and implementation of the nursing process for adults and older adults. Enhances student knowledge regarding assessing human response to changing health and applying the appropriate nursing intervention for safe, patient-centered care. Applies evidence-based practice for the care of adults and older adults.

### **NURS 337 - Adult Health I Clinical**

**Class Hours:** 0

**Lab/Discussion:** 15

**Credits:** 5

**Prerequisite:** FDNT 212, PSYC 215; grades of "C" or better in BIOL 240, BIOL 241, NURS 213, NURS 214, NURS 236; or permission

**Corequisite:** NURS 336, NURS 312 or NURS 316; or permission

**Description:** Provides students with opportunities to apply the nursing process to adults and older adults in a variety of settings and demonstrate nursing professionalism in their interactions with individuals, families, and community. Increases students' ability to perform comprehensive health assessments and collaborate with members of the health care team to identify problems, plan, intervene, and evaluate care for adults and older adults. Emphasizes safe, patient-centered comprehensive, evidence-based nursing care, and professional standards of practice.

### **NURS 340 - Nursing Pharmacology**

**Class Hours:** 3

**Lab/Discussion:** 0

**Credits:** 3

**Prerequisite:** NURS 236 or permission

**Description:** Provides the nursing student with a pathophysiological approach to the therapeutic use of medications. Relationships between pharmacology and pathophysiology are explored. An emphasis will be placed on understanding prescribed pharmacotherapy, therapeutic goals, nursing assessment and interventions, and patient well-being related to the effects of specific diseases or conditions

### **NURS 410 - Health Promotion and Social Issues**

**Class Hours:** 3

**Lab/Discussion:** 0

**Credits:** 3

**Prerequisite:** ANTH 211, PHIL 122, SOC 151

**Description:** An introduction to current social issues, models, and evidence-based research in health promotion, disease prevention, and population health relevant to individuals and communities. Explores individual and population health promotion assessment, health behavior interventions, and disease prevention in diverse populations

to improve patient and population health outcomes. Develops and implements an intervention and prevention plan which addresses individual and population health problems. Critiques research and evidence-based practice relevant to population health.

## **NURS 412 - Nursing Management**

**Class Hours:** 3  
**Lab/Discussion:** 0  
**Credits:** 3

**Prerequisite:** NURS 312, NURS 316; grades of "C" or better in NURS 330, NURS 331, NURS 332, NURS 333, NURS 336, NURS 337; or permission

**Corequisite:** NURS 436, NURS 437, NURS 440

**Description:** Emphasizes leadership, communication and relationship building, knowledge of the health care environment, and resource management. Discusses leadership/management skills and processes. Examines the role of designer/ manager/coordinator of care in professional nursing in depth.

## **NURS 431 - Public/Community Nursing Clinical**

**Class Hours:** 0  
**Lab/Discussion:** 6  
**Credits:** 2

**Prerequisite:** NURS 312, NURS 316; grades of "C" or better in NURS 331, NURS 333, NURS 336, NURS 337; or permission

**Corequisite:** NURS 434

**Prerequisite or Corequisite:** NURS 330, NURS 332

**Description:** Opportunities for clinical practice as a provider of public/community health nursing care for the individual, family, population, and global community and to function as a member of the interprofessional team when working among diverse and/or vulnerable populations. Emphasis is placed on leadership, management, and providing safe, comprehensive, evidence-based nursing care. The effect of health policy on client care is an integral part of the course.

## **NURS 432 - Psychiatric/Mental Health**

**Class Hours:** 2  
**Lab/Discussion:** 0  
**Credits:** 2

**Prerequisite:** NURS 312, NURS 316; grades of "C" or better in NURS 331, NURS 333, NURS 336, NURS 337; or permission

**Corequisite:** NURS 433

**Prerequisite or Corequisite:** NURS 330, NURS 332

**Description:** Focuses on the principles, concepts, and best practices that guide nursing practice in a variety of psychiatric/mental health settings. Addresses the role of the nurse in primary, secondary, and tertiary prevention/intervention as it relates to individuals, families, and aggregates with mental health and psychiatric conditions.

## **NURS 433 - Psychiatric/Mental Health Clinical**

**Class Hours:** 0  
**Lab/Discussion:** 6  
**Credits:** 2

**Prerequisite:** NURS 312, NURS 316; grades of "C" or better in NURS 331, NURS 333, NURS 336, NURS 337; or permission

**Corequisite:** NURS 432

**Prerequisite or Corequisite:** NURS 330, NURS 332

**Description:** Focuses on opportunities to provide mental health promotion, risk reduction, and disease prevention in a variety of settings and diverse populations. Increases students' ability to perform as a member of inter-professional teams in acute and community-based psychiatric care facilities and to identify personal beliefs and how they impact the therapeutic relationship. Students assimilate evidence-based practice through critical reasoning to apply nursing strategies to assist individuals, families, and groups.

## **NURS 434 - Public/Community Nursing**

**Class Hours:** 2  
**Lab/Discussion:** 0  
**Credits:** 2

**Prerequisite:** NURS 312, NURS 316; grades of "C" or better in NURS 331, NURS 333, NURS 336, NURS 337; or permission

**Corequisite:** NURS 431

**Prerequisite or Corequisite:** NURS 330, NURS 332

**Description:** Focuses on public/community health nursing care for the individual, family, population, and global community. Examines the influences of the health care

delivery systems and theoretical frameworks applicable to public/community health. Considers the impact of technology, environment, society, and current issues in public/community health nursing.

### **NURS 436 - Adult Health II**

**Class Hours:** 4  
**Lab/Discussion:** 0  
**Credits:** 4

**Prerequisite:** NURS 312, NURS 316; grades of "C" or better in NURS 330, NURS 331, NURS 332, NURS 333, NURS 336, NURS 337; or permission

**Corequisite:** NURS 412, NURS 437, NURS 440; or permission

**Description:** Focuses on the adult and older adult, family, and community with critical and/or complex health problems and with a patient-centered approach to nursing care. Emphasizes the relationships among clinical manifestations of disease states, treatment, cultural influences, and associated nursing responsibilities. Focuses on utilizing students' knowledge base of diagnostics, pharmacology, interventions, and rehabilitation needs through critical reasoning to plan the care of patients with critical and/or complex health problems. Emphasizes the incorporation of evidence-based practice interventions into nursing practice.

### **NURS 437 - Adult Health II Clinical**

**Class Hours:** 0  
**Lab/Discussion:** 7.5  
**Credits:** 2.5

**Prerequisite:** NURS 312, NURS 316; grades of "C" or better in NURS 330, NURS 331, NURS 332, NURS 333, NURS 336, NURS 337; or permission

**Corequisite:** NURS 412, NURS 436, NURS 440; or permission

**Description:** Opportunities for clinical practice as a provider of care for critical and/or complex, acutely ill clients in a variety of settings. Places emphasis on leadership, management, and providing safe, comprehensive, evidence-based nursing care. Utilizes patient care technologies, information systems, and communication devices that support safe, patient-centered nursing care.

### **NURS 440 - Nursing Management Clinical**

**Class Hours:** 0  
**Lab/Discussion:** 7.5  
**Credits:** 2.5

**Prerequisite:** NURS 312, NURS 316; grades of "C" or better in NURS 330, NURS 331, NURS 332, NURS 333, NURS 336, NURS 337; or permission

**Corequisite:** NURS 412, NURS 436, NURS 437; or permission

**Description:** An opportunity for students to incorporate delegation and prioritization skills when caring for multiple patients in an adult health acute care setting. Emphasizes leadership skills and management principles to ensure delivery of high-quality, evidence-based, cost-effective care.

### **NURS 450 - A Cognitive Approach to Clinical Problem Solving**

**Class Hours:** 3  
**Lab/Discussion:** 0  
**Credits:** 3

**Prerequisite:** NURS 312, NURS 316; grades of "C" or better in NURS 330, NURS 331, NURS 332, NURS 333, NURS 336, NURS 337; or permission

**Corequisite:** NURS 431 or NURS 433 or NURS 440 or NURS 437; or permission

**Description:** Focuses on advanced clinical problem-solving and decision-making skills needed by professional nurses. Factors that influence clinical problem solving are examined to facilitate higher-level thinking in simulated clinical situations.

### **NURS 455 - Health Care Informatics**

**Class Hours:** 3  
**Lab/Discussion:** 0  
**Credits:** 3

**Description:** Focuses on aspects of acquiring, storing, retrieving, and effectively utilizing health information to support decision making, knowledge, and outcomes. Combines concepts, theory, and practice from the cognitive, computer, and information sciences.

### **NURS 493 - Internship**

**Class Hours:** var  
**Credits:** 1-12

**Prerequisite:** NURS 236 or licensed practical nurse or

registered nurse; 60cr completed; minimum 2.0 GPA

**Description:** A supervised experience in a practice setting that extends and complements course work in nursing. The types of practice settings may include acute care hospitals, outpatient health centers, and community agencies.

## Philosophy

### PHIL 100 - Introduction to Philosophy

**Class Hours:** 3

**Lab/Discussion:** 0

**Credits:** 3

**Description:** Acquaints the beginning student with philosophical problems and methods. Possible topics include the existence of God, human freedom, the scope and limits of human knowledge, the nature of mind, the nature of morality, and the relationship between the individual and the state.

### PHIL 101 - Critical Thinking

**Class Hours:** 3

**Lab/Discussion:** 0

**Credits:** 3

**Description:** An introduction to basic principles of informal logic and critical thinking. An emphasis is on different kinds of arguments, methods of argument evaluation, and the analysis of arguments as they arise in various contexts, such as political debate, advertising, science, law, and ethics.

### PHIL 122 - Contemporary Moral Issues

**Class Hours:** 3

**Lab/Discussion:** 0

**Credits:** 3

**Description:** Examines attempts to answer foundational questions of ethics, including the following: Why should we be moral? What do morally correct actions have in common? Are there objective moral standards, or are moral codes relative to individual societies? Does morality require religion? Diverse moral theories are applied to contemporary debates and controversies, such as environmental ethics, abortion, capital punishment, affirmative action, and animal rights. Readings will draw on historical and contemporary figures.

### PHIL 130 - Introduction to Biomedical Ethics

**Class Hours:** 3

**Lab/Discussion:** 0

**Credits:** 3

**Description:** Introduces ethical issues in medicine and health care, such as patient autonomy and surrogate decision making; death, dying, and end of life care; reproductive ethics; justice and allocation of health care resources; global health, poverty, and development; public health ethics; and ethics of emerging medical technologies.

### PHIL 221 - Symbolic Logic I

**Class Hours:** 3

**Lab/Discussion:** 0

**Credits:** 3

**Description:** Introduces students to the study of formal patterns of good reasoning. Topics include symbolizing English sentences in an artificial language, distinguishing between the semantics and syntax of that language, and learning to test for logical properties and relations using semantic methods (truth-tables, models) and syntactic methods (derivations). Students with an interest in computer science and mathematics will find the material of particular interest and use.

### PHIL 240 - Philosophy and the Good Life

**Class Hours:** 3

**Lab/Discussion:** 0

**Credits:** 3

**Description:** Examines philosophical attempts to say what it means to live a good life. Is living a good life simply about maximizing the pleasure one experiences? Does a good life require religious faith? Is being virtuous essential to living a good life? Historical thinkers considered may include Plato, Aristotle, Confucius, Laozi, Augustine, Aquinas, Rousseau, Nietzsche, and Russell. Contemporary philosophical work on happiness informed by empirical research may also be considered.

### PHIL 270 - Ethics and the Environment

**Class Hours:** 3

**Lab/Discussion:** 0

**Credits:** 3

**Description:** Applies ethical theory to environmental issues, including resource depletion, animal rights, biotic endangerment, environmental degradation, climate change, and environmental justice. Considers arguments by which human-caused environmental destruction is intrinsically wrong, wrong independently of human interests and purposes, and arguments for environmental policies by which the following are granted rights, interests, or inherent value: non-human animals, all living things, all natural things, biotic communities, and ecosystems. Also considers arguments that environmental policies cannot be applied globally without injustice to humans, including poor and indigenous peoples.

### PHIL 320 - Ethical Theory

**Class Hours:** 3

**Lab/Discussion:** 0

**Credits:** 3

**Description:** Examines historical and contemporary work on fundamental issues in ethical theory, with an emphasis on the three major approaches in normative ethics: consequentialism, deontology, and virtue ethics. Also explores select topics in contemporary metaethics, such as the meaning of moral discourse, the possibility of moral knowledge, and the nature of reasons and moral motivation.

### PHIL 323 - Political Philosophy

**Class Hours:** 3

**Lab/Discussion:** 0

**Credits:** 3

**Description:** Through an examination of Ancient, Modern, and contemporary political thought, introduces the key issues of political philosophy: the justification of government authority, the role of the government in the just distribution of wealth in society, the nature of equality, the nature and importance of individual liberty and rights, the connections between race, gender, and political power, and the question of the universal applicability of concepts fundamental to European and American political philosophy in light of increasing globalization.

### PHIL 324 - Ancient Greek Philosophy

**Class Hours:** 3

**Lab/Discussion:** 0

**Credits:** 3

**Description:** Explores the foundations of Western

philosophy through examination of important philosophers of the Ancient period, such as the Pre-Socratic philosophers, Socrates, Plato, and Aristotle. Topics may include the nature of the physical universe, Plato's theory of Forms, the nature of happiness, and the possibility of morality. (Titled Ancient Philosophy before 2014-15.)

### PHIL 325 - Early Modern European Philosophy

**Class Hours:** 3

**Lab/Discussion:** 0

**Credits:** 3

**Description:** A study of exemplary philosophical texts from the late 16th through the late 18th century. Figures may include Descartes, Hobbes, Locke, Spinoza, Berkeley, Leibniz, Hume, and Kant. Explores such topics as the nature of matter and mind, the possibility and limits of knowledge, and the emerging scientific challenge to church and ancient authority. (Titled Modern Philosophy before 2014-15.)

### PHIL 326 - Existentialism

**Class Hours:** 3

**Lab/Discussion:** 0

**Credits:** 3

**Description:** Examines existentialism as a philosophical movement, one that rejects both traditional religious and overly reductive, scientific conceptions of human existence. As an alternative, existentialist philosophers share the project of trying to articulate a conception of an authentic, meaningful life outside of the parameters of these approaches. Readings are drawn from major thinkers in this movement, including Søren Kierkegaard, Friedrich Nietzsche, Martin Heidegger, Jean-Paul Sartre, Simone de Beauvoir, and Albert Camus. (Titled Phenomenology and Existentialism before 2014-15.)

### PHIL 330 - Philosophy of Science

**Class Hours:** 3

**Lab/Discussion:** 0

**Credits:** 3

**Description:** Philosophical investigation into the character of empirical scientific thought and practices: measures of confirmation; empirical success; theory ladenness of observation; scientific rationality and the aims of science; the inference from empirical success to truth; the logic of

explanation; the character of natural laws; levels of theorizing and intertheoretic reduction; the ideal of objectivity and the place of extra-scientific values in theory appraisal. No special background required.

### **PHIL 350 - The Human Experience of Time**

**Class Hours:** 3  
**Lab/Discussion:** 0  
**Credits:** 3

**Description:** Examines philosophical questions about the nature and experience of time. Explores how philosophical views about time are informed by work in different fields, such as anthropology, religious studies, and physics. Questions include whether time is real or an illusion, whether it flows, whether the past, present, and future are equally real, whether time travel is possible, how different cultures think about time and what light that sheds on its true nature. Readings drawn from a wide range of historical and contemporary sources.

### **PHIL 360 - Philosophy of Mind**

**Class Hours:** 3  
**Lab/Discussion:** 0  
**Credits:** 3

**Description:** Focuses on the mind-body problem. Topics covered may include dualism, logical behaviorism, identity theories, functionalism, various forms of physicalism, mental causation, reductionism, and consciousness.

### **PHIL 390 - Philosophy of Human Nature**

**Class Hours:** 3  
**Lab/Discussion:** 0  
**Credits:** 3

**Description:** Examines philosophical theories of human nature, including how traditional philosophical debates about the mind, morality, persons, and freedom are informed by recent empirical work in the cognitive sciences. Topics covered may include philosophical and scientific debates about the innate content and structure of the human mind, moral judgment, the possibility of free will, the extent to which human beings are rational, and the nature of the self and self-knowledge. Connections between conceptions of human nature and political philosophy, as well as bioethical issues concerning enhancement and transhumanism, may also be discussed.

### **PHIL 420 - Knowledge and Reality**

**Class Hours:** 3  
**Lab/Discussion:** 0  
**Credits:** 3

**Description:** Investigates traditional, foundational questions on the nature of knowledge, truth, and reality. Examines topics such as skepticism, perception and illusion, the nature and existence of God, space and time, free will, and the nature of possibility and necessity. Draws on both historical and contemporary writings.

### **PHIL 450 - Philosophy of Law**

**Class Hours:** 3  
**Lab/Discussion:** 0  
**Credits:** 3

**Description:** An examination of central issues in the philosophy of law, including law and morality, the interpretation of law, and philosophical and legal issues concerning punishment, justice, rights, and liberty. Combines philosophical theory with consideration of selected court cases to develop an understanding of law and its place in society.

### **PHIL 460 - Philosophy of Language**

**Class Hours:** 3  
**Lab/Discussion:** 0  
**Credits:** 3

**Description:** An investigation of issues in the philosophy of language and related issues in linguistics (including anthropological linguistics, sociolinguistics, and psycholinguistics). Topics include, for example, the influence of language on perception, rationalist/empiricist perspectives on language acquisition, language and political control, reference, meaning, and truth.

### **PHIL 481 - Special Topics I**

**Class Hours:** var  
**Credits:** 1-3

**Prerequisite:** As appropriate to course content  
**Description:** Offered on an experimental or temporary basis to explore topics not included in the established curriculum. A given topic may be offered under any special topic identity no more than three times. Special topics

numbered 481 are primarily for upper-level undergraduate students.

## PHIL 483 - Honors Thesis

**Class Hours:** var

**Credits:** 1-6

**Restriction:** Admission to departmental honors program; prior approval through advisor, faculty member, department chairperson, dean, and Office of the Provost

**Description:** An intensive, focused study involving independent research culminating in a written thesis approved by a thesis director and two faculty readers/committee members.

**Repeated:** May be taken more than once to a maximum of 6cr.

## Physics

### PHYS 101 - Energy and Our Environment

**Class Hours:** 3

**Lab/Discussion:** 0

**Credits:** 3

**Description:** Examines the areas of energy, transportation, and pollution using the relevant concepts of physical science and physics. This is a non-laboratory course for Liberal Studies requirements.

### PHYS 105 - The Physics of Light and Sound

**Class Hours:** 3

**Lab/Discussion:** 0

**Credits:** 3

**Description:** The study of light and sound as applied in the production of objects of art and the production of music. Includes the study of vision, light in nature, photography, and artistic media and the study of hearing, musical sound, musical instruments, and room acoustics. A non-laboratory course for Liberal Studies requirements.

### PHYS 111 - Physics I Lecture

**Class Hours:** 3

**Lab/Discussion:** 0

**Credits:** 3

**Prerequisite:** MATH 105 or appropriate mathematics placement test score

**Description:** Explores matter and energy. Uses algebra and trigonometry to examine the foundational principles of physics. Examines linear and rotational motion, energy, work, and momentum. Application of Newton's laws of motion is a critical component of this course. Investigates oscillations, waves, fluids, and heat.

### PHYS 112 - Physics II Lecture

**Class Hours:** 3

**Lab/Discussion:** 0

**Credits:** 3

**Prerequisite:** PHYS 111

**Description:** Electricity and magnetism, heat, light, atomic and nuclear physics, and an elementary introduction to relativity and quantum theory.

### PHYS 121 - Physics I Lab

**Class Hours:** 0

**Lab/Discussion:** 2

**Credits:** 1

**Prerequisite or Corequisite:** PHYS 111 or PHYS 131

**Description:** Physics laboratory at level of Physics I; exercises in mechanics, wave motion, and sound.

### PHYS 122 - Physics II Lab

**Class Hours:** 0

**Lab/Discussion:** 2

**Credits:** 1

**Prerequisite or Corequisite:** PHYS 112 or PHYS 132

**Description:** Physics laboratory at level of Physics II; exercises in optics, electricity and magnetism, and radioactivity.

### PHYS 131 - Physics I-C Lecture

**Class Hours:** 3

**Lab/Discussion:** 0

**Credits:** 3

**Prerequisite:** MATH 121 or MATH 125, at least concurrently

**Description:** A calculus-based course in general college

physics; topics covered are similar to those covered in PHYS 111 but are treated in more depth through the use of calculus.

### **PHYS 132 - Physics II-C Lecture**

**Class Hours:** 3  
**Lab/Discussion:** 0  
**Credits:** 3

**Prerequisite:** MATH 122 or MATH 126, at least concurrently

**Description:** A calculus-based course in general college physics utilizing the techniques in problem solving learned in PHYS 131 applied to more advanced topics; topics covered are: electric fields, magnetic fields, Coulomb's Law, Gauss' Law, Ampere's Law, circuits, geometric optics, and physical optics.

### **PHYS 141 - Physics I-C Lab**

**Class Hours:** 0  
**Lab/Discussion:** 3  
**Credits:** 1

**Prerequisite or Corequisite:** PHYS 131

**Description:** Physics laboratory at same level as Physics I-C; exercises in mechanics, wave motion, and sound.

### **PHYS 142 - Physics II-C Lab**

**Class Hours:** 0  
**Lab/Discussion:** 3  
**Credits:** 1

**Prerequisite or Corequisite:** PHYS 132 at least concurrently

**Description:** Physics laboratory at same level as Physics II; exercises in optics, mechanics, wave motion, and sound.

### **PHYS 151 - Physics for Life Sciences**

**Class Hours:** 3  
**Lab/Discussion:** 0  
**Credits:** 3

**Description:** Development of concepts and principles of physics with a strong emphasis on their use and application in the life sciences and other biophysical areas.

### **PHYS 161 - Medical Physics Lab**

**Class Hours:** 0  
**Lab/Discussion:** 3  
**Credits:** 1

**Corequisite:** PHYS 151

**Description:** Experiments dealing with applications of physical principles to the field of medicine. Practical experience with use of electronic equipment, chart recorders, etc., of type found in modern-day medicine are introduced.

### **PHYS 231 - Electronics**

**Class Hours:** 3  
**Lab/Discussion:** 3  
**Credits:** 4

**Prerequisite:** MATH 122 or MATH 126; PHYS 112 or PHYS 132

**Description:** Circuit theory, transients, transistor circuits, frequency response, input and output impedance, feedback, and electronic noise. Operational amplifiers and digital electronics.

### **PHYS 281 - Special Topics**

**Class Hours:** var  
**Credits:** 1-3

**Prerequisite:** As appropriate to course content

**Description:** Offered on an experimental or temporary basis to explore topics not included in the established curriculum. A given topic may be offered under any special topic identity no more than three times. Special topics numbered 281 are offered primarily for lower-level undergraduate students.

### **PHYS 321 - Introduction to Computational Physics**

**Class Hours:** 3  
**Lab/Discussion:** 0  
**Credits:** 3

**Prerequisite:** PHYS 131 and PHYS 132

**Description:** Introduces a basic understanding of the methods and tools of computational physics, allowing their use in solving various physics, engineering, and science problems. Emphasizes mastery of software, using it to



solve physical problems, and hands-on learning through some trial and error.

### PHYS 331 - Modern Physics I

**Class Hours:** 3  
**Lab/Discussion:** 0  
**Credits:** 3

**Prerequisite:** PHYS 112 or PHYS 132; MATH 122 or MATH 126

**Description:** Covers the history of modern physics. Explores particle and wave properties of matter using the ideas of quantum mechanics. Examines systems using the ideas of quantum and classical mechanics. Covers the special theory of relativity. Solves some of the problems using computers. First part of a two-part series.

### PHYS 332 - Modern Physics II

**Class Hours:** 3  
**Lab/Discussion:** 0  
**Credits:** 3

**Prerequisite:** PHYS 331

**Description:** Continuation of PHYS 331. Discusses more topics such as quantum mechanics in three dimensions, the hydrogen atom, spin as it applies to quantum mechanics, statistical mechanics, nuclear physics, and fundamental particles. Solves some of the problems using computers.

### PHYS 342 - Thermal and Statistical Physics

**Class Hours:** 3  
**Lab/Discussion:** 0  
**Credits:** 3

**Prerequisite:** MATH 122 or MATH 126; PHYS 112 or PHYS 132

**Description:** Thermometry, laws of thermodynamics, low-temperature physics, entropy, properties of ideal gas, and an introduction to statistical mechanics.

### PHYS 345 - Optics

**Class Hours:** 3  
**Lab/Discussion:** 0  
**Credits:** 3

**Prerequisite:** MATH 122 or MATH 126; PHYS 112 or

PHYS 132

**Description:** Geometrical optics and physical optics, including interference, diffraction, and polarization. Quantum optics is introduced.

### PHYS 350 - Intermediate Experimental Physics I

**Class Hours:** 0  
**Lab/Discussion:** 6  
**Credits:** 3

**Prerequisite:** PHYS 331, PHYS 342

**Description:** Performs required fundamental experiments in areas of mechanics, optics, modern physics, and heat. Speaking before other classmates and faculty and competence in writing scientific papers and reports are emphasized. Effectiveness in the collection of data is important. Computers will often be utilized to perform data taking and analysis.

### PHYS 355 - Computer Interfacing

**Class Hours:** 2  
**Lab/Discussion:** 2  
**Credits:** 3

**Prerequisite:** COSC 110

**Description:** Teaches the fundamentals of interfacing the personal computer to its physical surroundings. Teaches how to collect data and to control experiments in real time. Shows how to use digital-to-analog conversion (DAC) techniques and analog-to-digital conversion (ADC) techniques. A graphical software package (such as LabVIEW) is also used to design icon-based interfacing tools, to learn how to use virtual instruments, and to analyze data.

### PHYS 401 - Theoretical Physics

**Class Hours:** 3  
**Lab/Discussion:** 0  
**Credits:** 3

**Prerequisite:** PHYS 131, PHYS 132; MATH 125, MATH 126

**Prerequisite or Corequisite:** MATH 341 or department permission

**Description:** Explores the applied mathematics necessary to solve ordinary and partial differential equations in closed and series forms for boundary value problems in

intermediate and advanced physics. Coordinate transformations, tensor analysis, special functions, and series involving complex variables and integral transforms are also considered.

### **PHYS 441 - Classical Mechanics**

**Class Hours:** 3  
**Lab/Discussion:** 0  
**Credits:** 3

**Prerequisite:** PHYS 131, PHYS 132; MATH 125, MATH 126

**Corequisite:** MATH 341 or Physics Department permission

**Description:** Covers vectors, generalized coordinates, and coordinate transformations to study the mechanics of a particle and a system of particles in one, two, and three dimensions. Central forces, planetary, and satellite motion and rotation, oscillations, and conservation laws in the Newtonian formulation of classical mechanics are included and used to solve dynamical problems for various mechanical systems.

### **PHYS 451 - Electricity and Magnetism**

**Class Hours:** 3  
**Lab/Discussion:** 0  
**Credits:** 3

**Prerequisite:** PHYS 131, PHYS 132; MATH 125, MATH 126

**Prerequisite or Corequisite:** PHYS 441 or department permission

**Description:** Treats elements of vector analysis, electrostatics, special techniques for finding electric potential, electric field in matter, magnetostatics, magnetic field in matter, electrodynamics, Maxwell's equations, and electromagnetic waves at the calculus level.

### **PHYS 461 - Quantum Mechanics I**

**Class Hours:** 3  
**Lab/Discussion:** 0  
**Credits:** 3

**Prerequisite:** PHYS 331, MATH 341

**Description:** Quantum mechanics following methods of Schrodinger and Heisenberg, application to harmonic oscillator, three-dimensional Schrodinger equation,

hydrogen atom, electron in a magnetic field—normal and anomalous Zeeman effect, spin.

### **PHYS 472 - Nuclear Physics**

**Class Hours:** 3  
**Lab/Discussion:** 0  
**Credits:** 3

**Prerequisite:** PHYS 331

**Description:** A survey of nuclear physics, nuclear size, nuclear mass, reaction theory, types of radioactive decay, nuclear models, nuclear forces, and elementary particles.

### **PHYS 482 - Independent Study in Physics**

**Class Hours:** var  
**Credits:** 1-6

**Restriction:** Prior approval through advisor, faculty member, department chairperson, dean, and Office of the Provost

**Description:** Students with interest in independent study of a topic not offered in the curriculum may propose a plan of study in conjunction with a faculty member.

**Approved:** Approval is based on academic appropriateness and availability of resources. Work is supervised by a Physics Department faculty member but does not necessarily involve regular lecture or laboratory hours.

### **PHYS 490 - Solid State Physics**

**Class Hours:** 3  
**Lab/Discussion:** 0  
**Credits:** 3

**Prerequisite:** PHYS 223 and PHYS 331

**Description:** Reciprocal lattice, crystal structure, the quantization of fields to produce quasi-particles such as phonons, magnons, excitons. Fermi gas of electrons, energy bands, semiconductor crystals, and photoconductivity.

### **PHYS 493 - Internship**

**Class Hours:** 1-3  
**Lab/Discussion:** 0  
**Credits:** 1-3

**Description:** Supervised professional work-experience in physics and applied physics. Location, duties, internship,

and hours are individually tailored to the student's career goals. A maximum of 3sh of internship in the student's major may be applied toward the physics major area elective requirements. Additional internship credit must be used as free electives. Evaluation requirements include on-site visitations by the faculty/coordinator, consultation with the on-site supervisor, and a major progress report by the student or the presentation of a detailed oral report before the departmental internship education committee.

## Political Science

### PLSC 101 - World Politics

**Class Hours:** 3  
**Lab/Discussion:** 0  
**Credits:** 3

**Description:** An analysis of contemporary (post-1945) state system and forces shaping the world in which we live. Student is given a framework within which to analyze contemporary international politics.

### PLSC 111 - American Government

**Class Hours:** 3  
**Lab/Discussion:** 0  
**Credits:** 3

**Description:** Investigates the way American government works (and why sometimes it doesn't). Examines who gets what, why, and how in America and who pays for it, with an emphasis on understanding the origin, structure, and functions of US government. Looks beyond the divisions between "liberals" and "conservatives" to understand and evaluate contemporary political events and practices. Founding principles and their modern application are a core focus.

### PLSC 250 - Public Policy

**Class Hours:** 3  
**Lab/Discussion:** 0  
**Credits:** 3

**Description:** Emphasizes dynamics of government as they are evidenced in public opinion, pressure groups, political parties, and our governmental institutions; attention also directed toward the political-economical nexus within American society.

### PLSC 251 - State and Local Political Systems

**Class Hours:** 3  
**Lab/Discussion:** 0  
**Credits:** 3

**Description:** Examines institutions and processes of state and local governments, with special attention to Pennsylvania; emphasis on the nature of federalism, state constitutions, and role of state and local government in an urban society.

### PLSC 260 - Contemporary Political Ideas

**Class Hours:** 3  
**Lab/Discussion:** 0  
**Credits:** 3

**Description:** A survey of political ideas influential in contemporary politics, knowledge of which is essential for various analyses in political science. Ideas discussed include conservatism, "liberalism" or social democracy, socialism, anarchism, fascism, political Islam, and feminist and environmentalist thought.

### PLSC 270 - Fundamentals of Homeland Security

**Class Hours:** 3  
**Lab/Discussion:** 0  
**Credits:** 3

**Description:** Presents fundamental concepts of homeland security and the complexity of this area of government activity and academic study. Explores emergency management and homeland defense, the two main fields of study and practice within homeland security, through a collaborative and integrated foundation involving multiple disciplines of the homeland security enterprise.

### PLSC 280 - Comparative Government I: Western Political Systems

**Class Hours:** 3  
**Lab/Discussion:** 0  
**Credits:** 3

**Description:** Analyzes Western political systems with emphasis on major contemporary democratic governments

of Europe. Analyzes and compares their political cultures, political institutions, and political processes.

### **PLSC 281 - Special Topics**

**Class Hours:** var

**Credits:** 1-3

**Prerequisite:** As appropriate to course content

**Description:** Offered on an experimental or temporary basis to explore topics not included in the established curriculum. A given topic may be offered under any special topic identity no more than three times. Special topics numbered 281 are offered primarily for lower-level undergraduate students.

### **PLSC 282 - International Relations**

**Class Hours:** 3

**Lab/Discussion:** 0

**Credits:** 3

**Description:** Provides a conceptual framework for understanding sovereignty, nationalism, power, security, dispute settlement, and diplomatic, legal, economic, and military relations of nation-states.

### **PLSC 283 - American Foreign Policy**

**Class Hours:** 3

**Lab/Discussion:** 0

**Credits:** 3

**Description:** Examines formulation and execution of American foreign policy, with attention to governmental institutions, mass media, interest groups, and public opinion; emphasizes contemporary problems.

### **PLSC 285 - Comparative Government II: Non-Western Political Systems**

**Class Hours:** 3

**Lab/Discussion:** 0

**Credits:** 3

**Description:** Analyzes major non-Western political systems with emphasis on authoritarian and totalitarian systems. Analyzes and compares in a systematic manner their political cultures, political institutions, and political processes.

### **PLSC 300 - Research Methods in Political Science**

**Class Hours:** 3

**Lab/Discussion:** 0

**Credits:** 3

**Prerequisite:** PLSC 101 or PLSC 111

**Description:** An examination of the application of the scientific approach to the investigation of social and political phenomena. Concentrates on approaches, methods, and computer tools. All political science majors and minors are strongly urged to enroll.

### **PLSC 344 - Terrorism**

**Class Hours:** 3

**Lab/Discussion:** 0

**Credits:** 3

**Prerequisite:** PLSC 101 or PLSC 111 or CRIM 101 or CRIM 102 or instructor permission

**Description:** An in-depth study of the legal and international issues that the United States faces in response to combating international terrorism. The emphasis is placed on identifying causes of terrorism and the most plausible threats; terrorist networks, their commonalities and differences, and the difficulty in countering; and determining appropriate responses, to include political and legal implications, threat analysis, physical security, and target hardening.

**Previously Offered As:** (Also offered as CRIM 344; may not be taken as duplicate credit.)

### **PLSC 348 - Top Secret America: The Rise and Reach of the National Security State**

**Class Hours:** 3

**Lab/Discussion:** 0

**Credits:** 3

**Description:** Focuses on the historical development of the concept of national security in the US and on the intersection of national and broader international security concerns in the Cold War context. Identifies, for the Cold War era and beyond, diplomatic, military, and intelligence capabilities of governments and explores how individuals and groups conceptualized themselves, and their security. Explores one powerful motivator: fear and how it translated into political actions and citizen involvement in Cold War concepts. HIST 348 and PLSC 348 may be substituted

interchangeably for D/F repeats, but may not be used for duplicate credit.

### **PLSC 350 - The Presidency**

**Class Hours:** 3  
**Lab/Discussion:** 0  
**Credits:** 3

**Description:** An examination of the office of president, with attention to constitutional foundations, evolution, structure, powers, and functions; some comparisons between presidential and parliamentary systems and between offices of president and governor.

### **PLSC 351 - Legislative Process**

**Class Hours:** 3  
**Lab/Discussion:** 0  
**Credits:** 3

**Description:** A functional study of legislative bodies and process of legislation, covering organization of legislative assemblies, operation of committee system, procedures, bill drafting, aides, and controls over legislation.

### **PLSC 354 - Urban Politics**

**Class Hours:** 3  
**Lab/Discussion:** 0  
**Credits:** 3

**Description:** Analyzes the particular political and public administration issues in metropolitan areas. Examines contemporary developments such as urban renewal, shrinking tax base, federal aid to cities, subsidized mass transit, municipal authorities, and political consolidation.

### **PLSC 355 - Intergovernmental Relations**

**Class Hours:** 3  
**Lab/Discussion:** 0  
**Credits:** 3

**Description:** Explores characteristics of federal systems of government, with emphasis on theories, origins, institutions, problems in intergovernmental relations in the United States, federal systems in other nations, and trends.

### **PLSC 356 - Mass Media in American Politics**

**Class Hours:** 3  
**Lab/Discussion:** 0  
**Credits:** 3

**Description:** Variant theories of the symbolic relationship between American politics and the press are examined in the light of the American colonial-national experience. The special Constitutional rights given to the media are explored, with particular attention to radio-TV.

### **PLSC 358 - Judicial Process**

**Class Hours:** 3  
**Lab/Discussion:** 0  
**Credits:** 3

**Prerequisite:** PLSC 111

**Description:** Explores nature and limits of judicial power, courts as policymaking bodies, selection of judges, decision process, external forces impinging on the courts, and role of Supreme Court in its relationship with Congress, the presidency, and federalism.

### **PLSC 359 - Constitutional Law and Civil Liberties**

**Class Hours:** 3  
**Lab/Discussion:** 0  
**Credits:** 3

**Prerequisite:** PLSC 111

**Description:** A study of civil liberties and civil rights issues through leading Supreme Court decisions; topics treated include First Amendment rights, procedural due process and the Bill of Rights, and Equal Protection problems in civil rights.

### **PLSC 360 - Classical Political Thought**

**Class Hours:** 3  
**Lab/Discussion:** 0  
**Credits:** 3

**Description:** The origins and development of Western thought from Plato and Aristotle through Cicero and Saint Thomas Aquinas. Focuses especially on political participation as a way of life, the unity of political and moral conceptions in premodern political thought, and the relationship between order and justice.

### **PLSC 361 - Modern Political Thought**

**Class Hours:** 3  
**Lab/Discussion:** 0  
**Credits:** 3

**Description:** Covers the major representatives of modern political thought since the Renaissance. Follows the development of the specifically modern notion of the state and political action through the works of Machiavelli, Hobbes, Locke, Rousseau, Marx, and Lenin. Emphasizes the "instrumentalist" state and the idea of a political science.

### **PLSC 370 - The Practice of Public Administration**

**Class Hours:** 3  
**Lab/Discussion:** 0  
**Credits:** 3

**Description:** Examines the environment and structure of public sector organizations; organizational theory and organizational culture; intergovernmental and intra-organizational relations; leadership and ethics; the planning, management, and evaluation of programs and services; the administration of human resources; budgeting and finance; and management information. Emphasizes the integration of theory and practice through case studies and projects.

### **PLSC 372 - Constitutional Issues in Homeland Security**

**Class Hours:** 3  
**Lab/Discussion:** 0  
**Credits:** 3

**Description:** Explores constitutional issues raised by the U.S. government's post-9/11 efforts to battle terrorism abroad and domestically. Analyzes the laws and practices used to protect national security in the context of constitutional principles as articulated in the opinions of the U.S. Supreme Court and other published case law.

### **PLSC 375 - Crisis Management and Decision Making**

**Class Hours:** 3  
**Lab/Discussion:** 0  
**Credits:** 3

**Description:** Offers a broader perspective on the nature of crises, particularly international and national security-

related crises from the perspective of policy makers and policy implementers. Examines the ways in which people behave and the decisions they make in crisis situations. Focuses on the ways policy and implementation practitioners can prepare and train for unanticipated events and their consequences. Included as a controlled elective in the Homeland Security major track.

### **PLSC 383 - Political Systems: Asia**

**Class Hours:** 3  
**Lab/Discussion:** 0  
**Credits:** 3

**Prerequisite:** Suggested PLSC 280 and/or PLSC 285  
**Description:** An intensive, comparative study of the government and politics of a selected region.

### **PLSC 384 - Political Systems: Middle East**

**Class Hours:** 3  
**Lab/Discussion:** 0  
**Credits:** 3

**Prerequisite:** Suggested PLSC 280 and/or PLSC 285  
**Description:** An intensive, comparative study of the government and politics of a selected region.

### **PLSC 388 - Dimensions of National Security**

**Class Hours:** 3  
**Lab/Discussion:** 0  
**Credits:** 3

**Description:** Deals with national security problems including decision making and budgeting, levels of strategy, the utility of force, and the impact of the military on American society.

### **PLSC 389 - International Development Strategies**

**Class Hours:** 3  
**Lab/Discussion:** 0  
**Credits:** 3

**Prerequisite:** Suggested PLSC 280 and/or PLSC 285  
**Description:** Political characteristics of emerging nations; impact of economic and social change on political

structure; evolving patterns of political development; and techniques of nation building.

### **PLSC 404 - Women and Politics**

**Class Hours:** 3  
**Lab/Discussion:** 0  
**Credits:** 3

**Description:** Focuses on the role of women in political life and policies that especially affect women in both developing and developed countries.

### **PLSC 405 - Sexuality and Law**

**Class Hours:** 3  
**Lab/Discussion:** 0  
**Credits:** 3

**Description:** Critically examines the role of law in regulating sexuality in the United States. Analyzes legal and constitutional questions regarding sex, sexual orientation, and identity. Using statutory law and written judicial opinions, the course explores the evolution of legal approaches to issues including regulation of married and non-married sexual activity, same-sex marriage and sexual orientation, and First Amendment protections of LGBT rights. Emphasizes the role of the Supreme Court's interpretation of the Constitution, especially of due process and equal protection.

### **PLSC 422 - International Law and Organizations**

**Class Hours:** 3  
**Lab/Discussion:** 0  
**Credits:** 3

**Description:** A survey of the main concepts and history of international law and an analysis of the major international organizations such as the United Nations, European Union, and Organization of American States. Knowledge of how such organizations operate is essential to understand international relations.

### **PLSC 457 - The Art of Grantwriting**

**Class Hours:** 3  
**Lab/Discussion:** 0  
**Credits:** 3

**Dual Listed:** May be dual listed with PLSC 657

**Description:** Introduces foundation and government grant sources and identifies grant(s) appropriate to agency or organization. Develops a grant proposal, including information on writing and administering grant(s) after receipt.

### **PLSC 465 - Intelligence Process and Policy**

**Class Hours:** 3  
**Lab/Discussion:** 0  
**Credits:** 3

**Description:** Demystifies intelligence and focuses on the critical thinking and intellectual skills the process of intelligence requires to provide government, private, and nonprofit decision makers with useful information on which to base sound decisions. The process involves collecting, analyzing, and providing data to those decision makers. Students also examine the impact of the structure and role of the intelligence community in formulating US national security policy.

### **PLSC 480 - Political Science Seminar**

**Class Hours:** 3  
**Lab/Discussion:** 0  
**Credits:** 3

**Description:** Readings and written assignments on a specific topic determined by the instructor in charge.

### **PLSC 481 - Special Topics**

**Class Hours:** var  
**Credits:** 1-3

**Prerequisite:** As appropriate to course content  
**Description:** Offered on an experimental or temporary basis to explore topics not included in the established curriculum. A given topic may be offered under any special topic identity no more than three times. Special topics numbered 481 are primarily for upper-level undergraduate students.

### **PLSC 482 - Independent Study**

**Class Hours:** var  
**Credits:** 3

**Restriction:** Prior approval through advisor, faculty

member, department chairperson, dean, and Office of the Provost

**Description:** Students with interest in independent study of a topic not offered in the curriculum may propose a plan of study in conjunction with a faculty member.

**Approved:** Approval is based on academic appropriateness and availability of resources.

### **PLSC 493 - Political Science Internship**

**Class Hours:** var

**Credits:** 2-12

**Prerequisite:** 9cr in political science with 2.0 GPA; PLSC 111; approval of internship director and chairperson

**Description:** Practical experience in government and politics. Log and research project required. Course grade determined by the instructor. Maximum of 6cr applied to minimum in major; maximum of 3cr applied in minor.

## **Pan-African Studies**

### **PNAF 131 - Introduction to Pan-African Studies**

**Class Hours:** 3

**Lab/Discussion:** 0

**Credits:** 3

**Description:** Introduces the interrelated historical experiences of peoples of African descent in Africa, the Americas, and other regions of the world. Explores precolonial African civilizations and present-day cultural expressions of the African diaspora. Examines slavery and colonialism in terms of their political, economic, social, and cultural impacts. Analyzes some of the ways that peoples of African descent have responded to Western imperialism, including through resistance, protest, and independence.

### **PNAF 482 - Independent Study**

**Class Hours:** var

**Credits:** 1-3

**Restriction:** Prior approval through advisor, faculty member, program coordinator, dean, and Office of the Provost

**Description:** Students with interest in an independent study of a Pan-African studies-related topic not offered in the curriculum may propose a plan of study in conjunction with

a faculty member.

**Approved:** Approval is based on academic appropriateness and availability of resources.

## **Psychology**

### **PSYC 100 - The Psychology Major: Curriculum and Careers**

**Class Hours:** 1

**Lab/Discussion:** 0

**Credits:** 1

**Corequisite:** PSYC 102

**Restriction:** PSYC majors

**Description:** Acclimates students to the culture and opportunities associated with the study of Psychology at IUP. Emphasizes career options and pathways to success in as a psychology major and the benefits of the discipline to individuals and society.

### **PSYC 101 - General Psychology**

**Class Hours:** 3

**Lab/Discussion:** 0

**Credits:** 3

**Description:** Introduces the scientific study of behavior and mental processes.

### **PSYC 102 - Identity and Interactions in a Diverse World**

**Class Hours:** 2

**Lab/Discussion:** 0

**Credits:** 2

**Corequisite:** PSYC 100

**Restriction:** PSYC majors

**Description:** Emphasizes reflection on one's own identity and cultural heritage, and respect for others' intersectional identities and heritage. Experiences and interactions of individuals with dominant and marginalized identities are examined from multiple frameworks.

### **PSYC 150 - Introduction to Applied Psychology**

**Class Hours:** 3

**Lab/Discussion:** 0



**Credits:** 3

**Prerequisite:** PSYC 101

**Description:** Surveys the various settings and professions that require the use and application of psychology and psychological principles to solve human problems. Explores the types of skills required in the applied professions and the clientele served, as well as the theoretical bases for applied work in different contexts.

## **PSYC 200 - Psychological Research I**

**Class Hours:** 3

**Lab/Discussion:** 0

**Credits:** 3

**Prerequisite:** PSYC 101, Grade of "C" or better in MATH 217

**Description:** Examines the design and analysis of basic experimental and non-experimental research. This course is eligible for course repeat of PSYC 290 (4 credits).

## **PSYC 215 - Developmental Psychology**

**Class Hours:** 3

**Lab/Discussion:** 0

**Credits:** 3

**Prerequisite:** PSYC 101

**Description:** Examines the physical, cognitive, emotional, and social factors that contribute to human development from conception through old age. Provides an overview of theory and research in Developmental Psychology. This course is eligible for course repeat of PSYC 310.

## **PSYC 225 - Abnormal Psychology**

**Class Hours:** 3

**Lab/Discussion:** 0

**Credits:** 3

**Prerequisite:** PSYC 101

**Description:** Examines the description, causes, and treatment of behaviors labeled abnormal in our society from experimental and clinical points of view.

## **PSYC 235 - Social Psychology**

**Class Hours:** 3

**Lab/Discussion:** 0

**Credits:** 3

**Prerequisite:** PSYC 101

**Description:** Examines the effects of the social environment on human behavior. Topics include perception of persons, attitude formation and change, and small-group interaction.

## **PSYC 245 - Learning and Cognition**

**Class Hours:** 3

**Lab/Discussion:** 0

**Credits:** 3

**Prerequisite:** PSYC 101

**Description:** Examines theories, research methods, and findings related to the study of learning and cognition. Includes conditioning, social learning, memory, perceptual processing, cognition, and language.

## **PSYC 255 - Biopsychology**

**Class Hours:** 3

**Lab/Discussion:** 0

**Credits:** 3

**Prerequisite:** PSYC 101

**Description:** Examines the relationship between behavior and the anatomy and physiology of the nervous system. Emphasizes typical neural function as well as neurological and psychological disorders.

## **PSYC 280 - Psychological Inquiry**

**Class Hours:** 3

**Lab/Discussion:** 0

**Credits:** 3

**Prerequisite:** PSYC 101, psychology minors

**Description:** Introduces students minoring in psychology to issues central to carrying out and interpreting empirical research in the field. Students become more sophisticated consumers of empirical research findings.

## **PSYC 300 - Psychological Research II: Quantitative Research Methods**

**Class Hours:** 3

**Lab/Discussion:** 0

**Credits:** 3

**Prerequisite:** PSYC 101, Grade of C or better in PSYC 200

**Description:** Examines advanced quantitative design and analysis in both experimental and nonexperimental contexts. This course is eligible for course repeat of PSYC 291 (4 credits).

### **PSYC 301 - Psychological Research II: Qualitative Research Methods**

**Class Hours:** 3  
**Lab/Discussion:** 0  
**Credits:** 3

**Prerequisite:** PSYC 101; Grade of "C" or better in PSYC 200

**Description:** Examines a variety of qualitative research approaches, taking into account issues of epistemology (ways of knowing), methodology (ways of examining), and representation (ways of writing and reporting).

### **PSYC 312 - Adult Development and Aging**

**Class Hours:** 3  
**Lab/Discussion:** 0  
**Credits:** 3

**Prerequisite:** PSYC 101

**Description:** A survey of physiological, cognitive, emotional, and social issues affecting the young adult, the middle-aged, and the elderly. Includes an examination of significant adult life crises.

### **PSYC 313 - Elder Abuse (CAAST)**

**Class Hours:** 3  
**Lab/Discussion:** 0  
**Credits:** 3

**Prerequisite:** PSYC 101

**Description:** Examines current research on risk/protective factors, outcomes/consequences, detection/reporting, and treatment/intervention of elder abuse and neglect using a developmental framework. A component of the interdisciplinary Child and Adult Advocacy Studies (CAAST) minor and certificate programs.

### **PSYC 314 - Child and Adolescent Psychopathology (CAAST)**

**Class Hours:** 3  
**Lab/Discussion:** 0

**Credits:** 3

**Prerequisite:** PSYC 101

**Description:** An in-depth examination of theories and research related to risk factors and protective factors in the development of children and adolescents. Highlights how physical, cognitive, and social development can be impacted by violence. A component of the interdisciplinary Child and Adult Advocacy Studies (CAAST) minor and certificate programs. May not get credit for both PSYC 311 and PSYC 314.

### **PSYC 320 - Personality**

**Class Hours:** 3  
**Lab/Discussion:** 0  
**Credits:** 3

**Prerequisite:** PSYC 101

**Description:** Provides comparative analysis of major representative traditional and contemporary theories of personality.

### **PSYC 322 - Violence Across the Life Span**

**Class Hours:** 3  
**Lab/Discussion:** 0  
**Credits:** 3

**Prerequisite:** PSYC 101, department permission

**Description:** A multidisciplinary and contextual approach to understanding interpersonal violence across the lifespan. Emphasizes skill building in mandated reporting, forensic interviewing, documentation of violent incidents, working as a member of a multidisciplinary team, and being an advocate for violence prevention. May be taken for major or minor credit. Includes simulations of forensic interviews that take place outside of class time and that are required aspects. Simulation experiences provide practice carrying out a multidisciplinary approach to forensic investigations.

### **PSYC 331 - Environmental Psychology**

**Class Hours:** 3  
**Lab/Discussion:** 0  
**Credits:** 3

**Prerequisite:** PSYC 101

**Description:** The study of the relationship between human behavior and its environmental context. Emphasizes the physical environment, both natural and built.

## **PSYC 332 - Community Psychology and Prevention Science (CAAST)**

**Class Hours:** 3  
**Lab/Discussion:** 0  
**Credits:** 3

**Prerequisite:** PSYC 101 or instructor permission  
**Description:** An introduction to the guiding principles of community psychology with an emphasis on prevention. Employs teamwork and service activities to apply students' new knowledge in addressing social and/or health issues impacting their communities. A component of the Child and Adult Advocacy Studies (CAAST) curriculum.

## **PSYC 372 - Drugs and Behavior**

**Class Hours:** 3  
**Lab/Discussion:** 0  
**Credits:** 3

**Prerequisite:** PSYC 101, junior standing or permission  
**Description:** A survey of the current knowledge concerning the actions of drugs. Includes legal and social issues surrounding drug use, hazard potential of commonly used drugs, review of current theories and issues regarding the use of drugs in psychotherapy, and consideration of treatment approaches for addiction.

## **PSYC 374 - Stress and Coping**

**Class Hours:** 3  
**Lab/Discussion:** 0  
**Credits:** 3

**Prerequisite:** PSYC 101  
**Description:** Fundamental concepts and findings in stress and stress-related disorders. Relationships of stress to disease and methods for coping with stress are presented.

## **PSYC 377 - Interpersonal Skills and Group Dynamics**

**Class Hours:** 3  
**Lab/Discussion:** 0  
**Credits:** 3

**Prerequisite:** PSYC 101  
**Description:** Focuses on social/communication skills and behaviors of individuals within groups/teams and across a variety of settings. Integrates psychological concepts and theories of self with the understanding and development of

communication skills. Discusses cultural and gender sensitivity, diversity, and ethical concerns in interpersonal interactions.

## **PSYC 378 - Psychology of Death and Dying**

**Class Hours:** 3  
**Lab/Discussion:** 0  
**Credits:** 3

**Prerequisite:** PSYC 101  
**Description:** Theories and research which delineate the psychological factors affecting the dying person as well as those persons close to the one who is dying are discussed.

## **PSYC 379 - Psychology of Human Sexuality**

**Class Hours:** 3  
**Lab/Discussion:** 0  
**Credits:** 3

**Prerequisite:** PSYC 101  
**Description:** An overview of the psychological issues and research relevant to sexuality with an emphasis on gender roles. Social, psychological, and gender perspectives are used to examine a number of topics, including contemporary sexual attitudes, sexual response, sexual relationships, sexual dysfunction, sexual variations, sexual preference, and sexual violence. Research pertaining to each topic is presented. Students are encouraged to critically evaluate research and theory and to make connections between the material and their personal experience.

## **PSYC 380 - Gender and Violence (CAAST)**

**Class Hours:** 3  
**Lab/Discussion:** 0  
**Credits:** 3

**Prerequisite:** PSYC 101  
**Description:** Provides a multidisciplinary approach to varied forms of interpersonal violence (across the lifespan) as impacted by gender. Examines experiences, consequences, and potential for reduction of interpersonal violence, including sexual harassment, sexual assault, bullying, intimate partner violence, and child sexual abuse. This course is a component of the Child and Adult Advocacy Studies (CAAST) curriculum..

## **PSYC 388 - Forensic Psychology**

**Class Hours:** 3  
**Lab/Discussion:** 0  
**Credits:** 3

**Prerequisite:** PSYC 101

**Description:** An examination of current topics at the interface between psychology and the legal system.

## **PSYC 390 - Industrial-Organizational Psychology**

**Class Hours:** 3  
**Lab/Discussion:** 0  
**Credits:** 3

**Prerequisite:** MATH 214 or MATH 217, PSYC 101

**Description:** The study of psychological principles in work organizations; application of psychological theory to the understanding and explanation of individual behavior and experience in work organizations. May not be taken for credit after successful completion of PSYC 425.

## **PSYC 410 - Historical Trends in Psychology**

**Class Hours:** 3  
**Lab/Discussion:** 0  
**Credits:** 3

**Prerequisite:** PSYC 101, junior or senior standing or permission

**Description:** A comprehensive overview of historical antecedents of contemporary psychology with an emphasis on their implications for future developments in the field.

## **PSYC 411 - Psychology of Women**

**Class Hours:** 3  
**Lab/Discussion:** 0  
**Credits:** 3

**Prerequisite:** PSYC 101, junior or senior standing or instructor permission

**Description:** A critical examination of the assumptions about women that are held by the discipline of psychology, considering both current research and individual experience. The psychological effects of socialization on sex role identity, achievement, interpersonal power, mental health, and critical incidents in female development are

discussed in the context of relevant concepts from developmental and social psychology.

## **PSYC 415 - Advanced Topics in Developmental Psychology**

**Class Hours:** 3  
**Lab/Discussion:** 0  
**Credits:** 3

**Prerequisite:** Grade of "C" or better in PSYC 215 and PSYC 200 or PSYC 280

**Description:** An advanced forum for a focused investigation of a core area in developmental psychology. As topics will vary, the course may be repeated.

## **PSYC 435 - Advanced Topics in Social Psychology**

**Class Hours:** 3  
**Lab/Discussion:** 0  
**Credits:** 3

**Prerequisite:** Grade of "C" or better in PSYC 235 and PSYC 200 or PSYC 280

**Description:** An advanced forum for a focused investigation of a core area in social psychology. As topics will vary, the course may be repeated.

## **PSYC 445 - Advanced Topics in Learning and Cognition**

**Class Hours:** 3  
**Lab/Discussion:** 0  
**Credits:** 3

**Prerequisite:** Grade of "C" or better in PSYC 245 and PSYC 200 or PSYC 280

**Description:** An advanced forum for a focused investigation of a core area in learning and cognition. As topics will vary, the course may be repeated.

## **PSYC 450 - Counseling Skills**

**Class Hours:** 3  
**Lab/Discussion:** 0  
**Credits:** 3

**Prerequisite:** C or better in PSYC 225 and PSYC 200 or PSYC 280

**Description:** Introduces students to the skills necessary to

be effective in a mental health service delivery field, as well as the foundational "helping skills" required to form a therapeutic alliance with a client and evidence-based methods of evaluation and treatment.

### **PSYC 455 - Advanced Topics in Biological Psychology**

**Class Hours:** 3  
**Lab/Discussion:** 0  
**Credits:** 3

**Prerequisite:** Grade of "C" or better in PSYC 255 and PSYC 200 or PSYC 280. An advanced forum for a focused investigation of a core area in biopsychology. As topics will vary, the course may be repeated.

**Description:** An advanced forum for a focused investigation of a core area in biopsychology. As topics will vary, the course may be repeated.

### **PSYC 460 - Senior Seminar in Psychology**

**Class Hours:** 3  
**Lab/Discussion:** 0  
**Credits:** 3

**Prerequisite:** Psychology Major; Senior level standing (90 or more credits); C or better in PSYC 200; or special permission

**Description:** Culminates students' Psychology major experience with the examination of a topic or problem through the synthesis of content from varied psychological perspectives. Critical thinking and application to big picture questions or real world issues will be emphasized, as will the development of professional skills including writing, discussion, and presentations.

### **PSYC 480 - Honors Seminar in Psychology**

**Class Hours:** 3  
**Lab/Discussion:** 0  
**Credits:** 3

**Description:** A seminar in the graduate tradition with a specialized topic.

**Repeated:** May be taken more than once to a maximum of 6cr.

### **PSYC 481 - Special Topics in Psychology**

**Class Hours:** var  
**Credits:** 1-3

**Prerequisite:** As appropriate to course content

**Description:** Offered on an experimental or temporary basis to explore topics not included in the established curriculum. A given topic may be offered under any special topic identity no more than three times. Special topics numbered 481 are offered primarily for upper-level undergraduate students.

**Repeated:** May be taken more than once to a maximum of 6cr.

### **PSYC 483 - Honors Thesis**

**Class Hours:** var  
**Credits:** 1-6

**Restriction:** Admission to departmental honors program; prior approval through advisor, faculty member, department chairperson, dean, and Office of the Provost

**Description:** An intensive, focused study involving independent research culminating in a written thesis approved by a thesis director and two faculty readers/committee members.

**Repeated:** May be taken more than once to a maximum of 6cr.

### **PSYC 493 - Psychological Practicum**

**Class Hours:** var  
**Credits:** 1-12

**Prerequisite:** PSYC 101, department permission

**Description:** Under supervision of Psychology Department, selected students receive experience in application of psychological techniques.

**Repeated:** May be taken more than once to a maximum of 12cr.

## **Public Health**

### **PUBH 122 - Foundations of Public Health**

**Class Hours:** 3  
**Lab/Discussion:** 0  
**Credits:** 3

**Description:** Defines public health and its origins and foundations as a field of inquiry. Explains the context of modern public health systems, major approaches to

analyzing and understanding human health patterns, and the structure of public health systems in the United States.

## **PUBH 306 - Research Design and Analysis in Public Health**

**Class Hours:** 3  
**Lab/Discussion:** 0  
**Credits:** 3

**Prerequisite:** BIOL 301; MATH 216 or MATH 217; PUBH 122

**Description:** Introduces methodological and ethical research principles in public health. Includes study designs, data collection, human subjects protection, quantitative and qualitative approaches, program evaluation, and community-based participatory research applications. Applies relevant case studies to emphasize research methods used, such as hypothesis generation and testing, study design, data collection and analysis, searching and critically evaluating research literature, identifying strengths and weaknesses of research studies, and drawing conclusions from research evidence.

## **PUBH 493 - Internship in Public Health**

**Class Hours:** var  
**Credits:** 3-6

**Prerequisite:** PUBH 122, PUBH 306; BIOL 301; SOC 442; ECON 360; GEOG 316/ RGPL 316; NURS 314/ELR 314; NURS 410, NURS 455; senior status

**Description:** A capstone opportunity for students to analyze and apply public health theories/models and research into their specific concentrations and experience the role of the public health professional. Consists of weekly one-hour seminar and weekly mentorship experience with public health professional 120-240 hours.

## **Quantitative/Business**

### **QBUS 215 - Business Statistics**

**Class Hours:** 3  
**Lab/Discussion:** 0  
**Credits:** 3

**Prerequisite:** MATH 214

**Description:** Expands on the probabilistic concepts developed in MATH 214 to orient the student toward managerial decision making using quantitative

methodologies. Topics include classical regression analysis, forecasting, Bayesian decision theory, linear programming, and simulation.

### **QBUS 450 - Data Science for Business**

**Class Hours:** 3  
**Lab/Discussion:** 0  
**Credits:** 3

**Prerequisite:** QBUS 215

**Description:** An introduction to the practice of data science with a broad set of data analytic skills based on building real analytic applications on a variety of real data, including big data, unstructured data, and textual data. Skills include accessing and transferring data, applying various analytical frameworks, applying methods from machine learning and data mining, conducting large-scale rigorous evaluations with business goals in mind, and visualizing data analytic results.

## **Respiratory Care**

### **RESP 101 - The Profession of Respiratory Care**

**Class Hours:** 1  
**Lab/Discussion:** 0  
**Credits:** 1

**Description:** Introduces the health care environment and specifically the respiratory care profession. Students visit a hospital respiratory care department and observe basic respiratory patient care procedures.

### **RESP 326 - Respiratory Care Clinical Practice I**

**Class Hours:** 0  
**Lab/Discussion:** 9  
**Credits:** 3

**Prerequisite:** Respiratory Care majors; Grades of "C" or better in BIOL 150 and BIOL 240

**Corequisite:** RESP 328 and RESP 329 and RESP 335

**Description:** Introduces patient care in the clinical setting on the general floors and in the intensive care unit. Emphasizes the practice of basic respiratory care treatment modalities. Performs patient assessments and evaluates therapy outcomes. Includes sessions of simulated patient

clinical training and evaluations as preparation for the hospital experience.

## RESP 327 - Pharmacology

**Class Hours:** 3

**Lab/Discussion:** 0

**Credits:** 3

**Prerequisite:** Respiratory Care majors; Grade of "C" or better in RESP 335, or by Program Director permission.

**Description:** Introduces pharmacology and therapeutics. Emphasizes the medications used in respiratory care. Discusses medication classification, action, usage, dosage, side effects and availability.

## RESP 328 - Applied Concepts in Respiratory Care

**Class Hours:** 3

**Lab/Discussion:** 0

**Credits:** 3

**Corequisite:** RESP 326 and RESP 329 and RESP 335 or by Program Director permission

**Restriction:** Respiratory Care majors

**Description:** Investigates in fine detail the cardiopulmonary anatomy, physiology, cellular structure and function, and neuro-physiology. Reviews medical terminology pertaining to respiratory care. Introduces the physiologic assessment of gas exchange via arterial blood gas.

## RESP 329 - Respiratory Care Equipment I

**Class Hours:** 3

**Lab/Discussion:** 0

**Credits:** 3

**Corequisite:** RESP 326, RESP 328, RESP 331, RESP 335

**Restriction:** Respiratory Care majors.

**Description:** Introduces respiratory therapy equipment and related procedures. Focuses on the study of medical gas properties, safety systems and pressure-flow relationships. Emphasizes oxygen delivery systems and the rationale for their use. Introduces the principles, techniques and theory of mechanical ventilation. Provides theory of hyperinflation therapies and medication delivery systems. Explores gas laws and mathematics for respiratory care related to the therapeutic delivery of various medical gases and oxygen.

Provides problem-solving for equipment difficulties through clinical scenarios.

## RESP 331 - Respiratory Care Equipment I Lab

**Class Hours:** 0

**Lab/Discussion:** 1

**Credits:** 1

**Corequisite:** RESP 326, 328, 329, 335.

**Restriction:** Respiratory care majors, or by Program Director permission.

**Description:** Provides laboratory experiences to assure competency in basic respiratory therapy modalities required of an entry-level respiratory therapist. Emphasizes students' ability to carry out commonly ordered respiratory therapy orders. Laboratory exercises provide students with an opportunity to develop skills in the application and troubleshooting of equipment modalities.

## RESP 332 - Respiratory Care Equipment II Lab

**Class Hours:** 0

**Lab/Discussion:** 1

**Credits:** 1

**Prerequisite:** RESP 326 and RESP 329 and RESP 331 with a C or better, or by Program Director permission.

**Corequisite:** RESP 326 and RESP 329 and RESP 331 with a C or better, or by Program Director permission.

**Restriction:** RESP Care major.

**Description:** Provides laboratory experiences to assure competency in mechanical ventilation of the adult patient. Simulates the initiation and weaning of patients from mechanical ventilation, adjusting ventilator parameters based on patient-ventilator interaction and pathophysiology,

Recognizes and corrects complications of mechanical ventilation through waveform analysis and patient assessment.

## RESP 333 - Respiratory Care Clinical Practice II

**Class Hours:** 0

**Lab/Discussion:** 9

**Credits:** 3

**Prerequisite:** RESP 326 and RESP 329; Respiratory Care

majors

**Corequisite:** RESP 327 and RESP 334 and RESP 336

**Description:** Continues application of treatment procedures introduced in Clinical I, providing greater independence and competence. Broadening the exposure to respiratory care and critical care procedures through specialty rotations. Focuses on mechanical ventilation, pathology, patient safety, and diagnostics.

## **RESP 334 - Respiratory Care Equipment II**

**Class Hours:** 3

**Lab/Discussion:** 0

**Credits:** 3

**Prerequisite:** RESP 326 and RESP 329, RESP 331 or by Program Director permission

**Corequisite:** RESP 332, RESP 333 and RESP 336

**Description:** Provides a comprehensive knowledge of mechanical ventilation. Discusses the care of critically ill and physiologic consequences of mechanical ventilation.

## **RESP 335 - Patient Care and Emergency Skills**

**Class Hours:** 4

**Lab/Discussion:** 0

**Credits:** 4

**Corequisite:** RESP 326 and RESP 328 and RESP 329

**Restriction:** Respiratory Care majors or by Program Director permission

**Description:** Introduces the history of respiratory care, the health care team and a variety of procedures. Explores the use of respiratory related medicines. Special emphasis is directed toward medical record extraction, documentation, interpretation and analysis. Techniques of equipment processing, infection prevention and control will be discussed. Analyzes patient vital signs, hemodynamic assessments, ventilator preparation, respiratory care emergency management, artificial airways and airway adjuncts. Examines ethical comportment, advanced directives, and organ recovery.

## **RESP 336 - Cardiopulmonary Evaluation and Clinical Correlation**

**Class Hours:** 4

**Lab/Discussion:** 0

**Credits:** 4

**Prerequisite:** Respiratory care majors, Grade of "C" or better in RESP 328 or by Program Director permission

**Corequisite:** RESP 333 and RESP 334

**Description:** Investigates disease states of the pulmonary and related systems in progression from etiology through treatment and prognosis. Explores bedside patient assessment, ABG diagnostics, and interventions.

## **RESP 425 - Clinical Case Studies**

**Class Hours:** 3

**Lab/Discussion:** 0

**Credits:** 3

**Prerequisite:** Respiratory Care majors; grade of "C" or better in RESP 333, RESP 336 or by Program Director permission

**Corequisite:** RESP 426

**Description:** Increases the working knowledge of disease states commonly experienced by patients in the critical care setting. Emphasizes recognition and treatment of various disease states. Explores methods for evaluation and treatment of clinical oxygenation disturbances and acid-base disorders. Clinical simulations, case studies, and patient management problems reviewed and discussed. Emphasizes appropriate information-gathering and decision-making techniques.

## **RESP 426 - Respiratory Care Clinical Practice III**

**Class Hours:** 0

**Lab/Discussion:** 12

**Credits:** 4

**Prerequisite:** Respiratory Care majors; RESP 327, and RESP 333 and RESP 334 and RESP 336 or by Program Director permission

**Corequisite:** RESP 425 and RESP 432

**Description:** Continues respiratory care procedures with an emphasis on improving proficiency and refining skills in adult general and critical care areas. Provides experience in neonatal, pediatrics and non-acute health care settings is included with specialty rotations. Focuses on advanced skills related to mechanical ventilation.

## **RESP 429 - Respiratory Care Leadership**

**Class Hours:** 3

**Lab/Discussion:** 0

**Credits:** 3



**Prerequisite:** Respiratory Care majors; grade of "C" or better in RESP 333, or by Program Director permission

**Description:** Explores basic leadership and management principles as they apply to the healthcare setting and respiratory care in particular. Emphasizes leadership, professional communications, interactions and resource management in respiratory care and the healthcare environment. Focuses on professional opportunities, professional standards and conduct, leadership opportunities, and the transition from student to practitioner/leader. Includes United States healthcare system construct, regulatory bodies, and regulations for respiratory care. Provides insight into issues impacting respiratory care such as safety, quality, patient satisfaction, human resources and financial management.

### **RESP 430 - Cardiopulmonary Diagnostics**

**Class Hours:** 3

**Lab/Discussion:** 0

**Credits:** 3

**Prerequisite:** Respiratory Care majors; Grade of C or better in RESP 329 and RESP 336

**Description:** Focuses on lung volumes, capacities and measurement. Discusses diagnostic studies, including electrocardiography, equipment and procedures necessary for determining the presence and extent of pulmonary diseases. Examines the causes, recognition and treatment of ECG arrhythmias with interventions and supportive devices. Addresses additional diagnostic methods such as polysomnography, imaging, bronchoscopy and rehabilitative evaluation methods.

### **RESP 432 - Neonatal and Pediatric Respiratory Care**

**Class Hours:** 3

**Lab/Discussion:** 0

**Credits:** 3

**Prerequisite:** Respiratory Care majors, a grade of "C" or better in RESP 334 and RESP 336, or by Program Director permission

**Corequisite:** RESP 426

**Description:** Discusses the normal anatomy and physiology, as well as the cardiopulmonary pathologies of neonatal and pediatric patients. Addresses unique differences between the respiratory care of infants and children versus the adult. Focuses on the application of

respiratory therapies to neonatal and pediatric populations in the acute care, intensive care and home care venues.

### **RESP 433 - Respiratory Care Clinical Practice IV**

**Class Hours:** 0

**Lab/Discussion:** 12

**Credits:** 4

**Prerequisite:** Respiratory Care majors; grade of "C" or better in RESP 426 and RESP 425 and RESP 432

**Corequisite:** RESP 435 or by Program Director permission

**Description:** Continues respiratory care procedures, with emphasis on greater independence, improving proficiency and refinement of skills in adult general and critical care areas. Includes continued clinical experiences in pediatric, neonatal care, and non-acute health care settings. Provides specialty clinical rotations and opportunities to develop leadership skills.

### **RESP 435 - Respiratory Care Across the Continuum**

**Class Hours:** 3

**Lab/Discussion:** 0

**Credits:** 3

**Prerequisite:** Respiratory Care majors; Grade of "C" or better in RESP 425 and RESP 426 or by Program Director permission

**Corequisite:** RESP 433

**Description:** Discusses critical care diagnostic and therapeutic modalities pertinent to respiratory care. Addresses techniques and principles associated with patients in each stage of the continuum of care. Includes management of special populations of patients in acute care, long term care and home care.

### **RESP 441 - Respiratory Care Professional I**

**Class Hours:** 2

**Lab/Discussion:** 0

**Credits:** 2

**Prerequisite:** Respiratory Care majors; Grade of "C" or better in RESP 333 and RESP 334, or by Program Director permission

**Description:** Introduces the role of the respiratory therapist as educator and researcher in healthcare and higher education. Focuses on the requirements, roles and

responsibilities of the respiratory care therapist. Presents a broad overview and immersion into the research process related to respiratory health.

## **RESP 451 - Respiratory Care Professional II**

**Class Hours:** 2

**Lab/Discussion:** 0

**Credits:** 2

**Prerequisite:** Respiratory Care majors; grade of "C" or better in RESP 441, or by Program Director permission

**Description:** Explores advanced aspects of respiratory care education, building on concepts discussed in RESP 441. Focuses on evaluation methods and refining individual professional presentation skills. Emphasizes conducting respiratory care based research focusing on data gathering and analysis, formulating results, discussion and summarizing a group research project. Culminating in a capstone research project.

## **RESP 493 - Respiratory Care Internship**

**Class Hours:** 1

**Lab/Discussion:** 0

**Credits:** 1

**Prerequisite:** RESP 326 and RESP 328, and RESP 329, and RESP 335, or by Program Director permission

**Description:** Provides an unpaid experience in a supervised practice setting that extends and complements course work in respiratory care. Participants must meet university and sponsoring site requirements. A minimum of 40 hours is required for each credit.

**Repeated:** May be repeated for a maximum of 5 credits.

## **Regional Planning**

### **RGPL 103 - Global Cities: Planning and Development**

**Class Hours:** 3

**Lab/Discussion:** 0

**Credits:** 3

**Description:** An introduction to the concepts of cities, world cities, mega-cities, and global cities, and how forces of globalization are shaping contemporary cities in the developed and developing world. Discusses various theories and case studies of global city formation, the

urbanization processes and patterns, the growth and development of mega and global cities, and their consequences on physical, economic, social, cultural, and environmental changes and sustainability. Examines critical challenges and issues, such as immigration, poverty, slums, mobility, infrastructure, and climate risks that are relevant for planning are analyzed, and emerging and innovative planning policies and solutions to address these challenges.

### **RGPL 213 - Cartography and Map Design**

**Class Hours:** 3

**Lab/Discussion:** 0

**Credits:** 3

**Description:** Introduces principles of thematic map construction. Emphasizes techniques of choropleth mapping and the production of scientific graphs and charts.

**Previously Offered As:** (Also offered as GEOG 213; may not be taken for duplicate credit.)

### **RGPL 232 - Urban Landscapes**

**Class Hours:** 3

**Lab/Discussion:** 0

**Credits:** 3

**Description:** Introduces basic concepts of urban morphology and landscapes including site, situation, function, urban land use, urban structure, and urban hierarchy. Explores relationships between urban structure and urban planning.

**Previously Offered As:** (Also offered as GEOG 232; may not be taken for duplicate credit.)

### **RGPL 316 - Introduction to Geographic Information Systems**

**Class Hours:** 3

**Lab/Discussion:** 0

**Credits:** 3

**Description:** Presents automated methods for creating, maintaining, and analyzing spatial data. Includes (1) specialized GIS hardware and software, (2) vector vs. raster vs. object-oriented spatial data structures, (3) creation and manipulation of geographic data files, (4) database design and management concepts, (5) spatial analysis, and (6) cartographic design.

**Previously Offered As:** (Also offered as GEOG 316; may not be taken for duplicate credit.)

## **RGPL 333 - Trade and Transportation**

**Class Hours:** 3  
**Lab/Discussion:** 0  
**Credits:** 3

**Description:** Deals with the spatial aspects of transportation systems and their use. Discusses circulation, accessibility, time and distance concepts, and trade patterns.

**Previously Offered As:** (Also offered as GEOG 333; may not be taken for duplicate credit.)

## **RGPL 341 - Climatology**

**Class Hours:** 3  
**Lab/Discussion:** 0  
**Credits:** 3

**Description:** Examines the elements of weather and climate on earth. The location and causes of global climatic regions are examined in relation to moving pressure and wind systems. Also considers the climatic history of the planet and recent human modifications of the atmospheric environment.

**Previously Offered As:** (Also offered as GEOG 341; may not be taken for duplicate credit.)

## **RGPL 342 - Physiography**

**Class Hours:** 3  
**Lab/Discussion:** 0  
**Credits:** 3

**Description:** Focuses on landform types and their spatial distribution. Emphasizes the tectonic forces that build landforms and the weathering and erosional processes that erode and shape surface features. The relationship between human activities and landforms is also considered.

**Previously Offered As:** (Also offered as GEOG 342; may not be taken for duplicate credit.)

## **RGPL 343 - Fresh Water Resources**

**Class Hours:** 3  
**Lab/Discussion:** 0  
**Credits:** 3

**Description:** Focuses on surface and groundwater as a resource with unique properties. Fresh water is defined physically by storage in the hydrologic cycle and the values assigned by different cultures. Problems featured relate to

consumptive and withdrawal water uses, the problems of water supply and scarcity, water law and its inconsistencies, flooding and floodplain management, sources of contamination and pollution, wetlands, and case studies of selected river basins.

**Previously Offered As:** (Also offered as GEOG 343; may not be taken for duplicate credit.)

## **RGPL 345 - Biogeography for Environmental Managers**

**Class Hours:** 3  
**Lab/Discussion:** 0  
**Credits:** 3

**Prerequisite:** One course from GEOG 341, GEOG 342, BIOL 103, BIOL 115

**Description:** Examines the distribution of plants and animals across the earth's surface, as influenced by natural and human processes. Emphasizes landscape and regional habitat dynamics as they relate to environmental planning and management. Field trips supplement lectures and readings.

**Previously Offered As:** (Also offered as GEOG 345; may not be taken for duplicate credit.)

## **RGPL 350 - Introduction to Community Planning**

**Class Hours:** 3  
**Lab/Discussion:** 0  
**Credits:** 3

**Description:** An introduction to the profession and activity of contemporary American urban and regional planning. Emphasizes land use control, design, growth management, and development regulation. The legal and institutional bases of planning practice are covered as well.

## **RGPL 352 - Planning Methods**

**Class Hours:** 3  
**Lab/Discussion:** 0  
**Credits:** 3

**Description:** Research, analytical design, and plan-making techniques in urban and regional planning. Examines basic items necessary to prepare urban and regional comprehensive plans.

## **RGPL 358 - Planning History and Theory**

**Class Hours:** 3  
**Lab/Discussion:** 0  
**Credits:** 3

**Prerequisite:** RGPL 350

**Description:** Provides an overview of the historical development of cities, explores the thinking about urban areas and their evolution over time, and reflects on how both continue to inform the profession of urban planning. Focuses on the social, economic, political, cultural, and technological forces that continually reshape urban form, urban life and urban planning. Examines the evolution of planning theory; major contributors who have influenced the field, current normative, conceptual, methodological issues, and the various roles planners play in practice, and the ethical dilemmas they face.

## **RGPL 404 - Transportation Planning**

**Class Hours:** 3  
**Lab/Discussion:** 0  
**Credits:** 3

**Prerequisite:** GEOG 333/RGPL 333 or RGPL 350, or one course from the economic geographer concentration

**Description:** Introduces the major themes and methods of transportation planning, particularly in an urban context. It is project oriented and supported by readings from the scholarly literature covering themes such as modes of transit, land use implications, and commercial development. Reading assignments are organized topically and coordinated with two workbook projects that develop applied skills. Topics include theory, empirical description, and methodological practice.

**Previously Offered As:** (Also offered as GEOG 404; may not be taken for duplicate credit.)

## **RGPL 415 - Introduction to Remote Sensing**

**Class Hours:** 3  
**Lab/Discussion:** 0  
**Credits:** 3

**Description:** Introduces concepts, principles, methods, and theories applied in and through remote sensing of the earth's physical and cultural features. Includes understanding the physical principles of the electromagnetic spectrum, the technological underpinnings of a variety of sensors, and applications of these technologies. Applies industry standard software packages in the geospatial sciences to illustrate course concepts and build software recognition and application skills.

**Previously Offered As:** (Also, offered as GEOG 415; may not be taken for duplicate credit.)

## **RGPL 424 - Technical Issues in Geographic Information Systems**

**Class Hours:** 3  
**Lab/Discussion:** 0  
**Credits:** 3

**Prerequisite:** RGPL 316

**Description:** Uses project-based approach to develop and maintain a geographic information system (GIS). Designs and implements functional systems through cooperative learning. Covers methods for designing GIS to user specification, data collection, data input, project management, and system documentation.

**Previously Offered As:** (Also offered as GEOG 424; may not be taken for duplicate credit.)

## **RGPL 426 - Environmental Land Use Planning**

**Class Hours:** 3  
**Lab/Discussion:** 0  
**Credits:** 3

**Prerequisite:** RGPL 350 recommended

**Description:** Reviews and instructs principles, techniques, and applications for the environmental land use planning process. Focuses on surface water and deals with topics such as land use, stream monitoring, stream conservation and restoration, and watershed management. Students who complete the course are exposed to environmental planning legislation and policy, best management practices, and applied techniques.

## **RGPL 427 - GeoDesign**

**Class Hours:** 3  
**Lab/Discussion:** 0  
**Credits:** 3

**Prerequisite:** GEOG 424 or RGPL 424

**Description:** Provides an introduction and application of the theory and techniques of the GeoDesign framework. Involves data-driven decision making for collaborative community development and land-use planning and is an emerging conceptual framework for place-based decisions and designs. Integrates knowledge of community planning, decision making, landscape design, and Geospatial techniques to produce a professional quality project. (Also

offered as GEOG 427; may not be taken for duplicate credit.)

### **RGPL 440 - Conservation: Environmental Analysis**

**Class Hours:** 3  
**Lab/Discussion:** 0  
**Credits:** 3

**Description:** Problems of exploitation and utilization of regional resources such as soils, minerals, forests, and wildlife are considered in relation to population growth and regional planning and development.

**Previously Offered As:** (Also offered as GEOG 440; may not be taken for duplicate credit.)

### **RGPL 453 - Planning Design Studio I**

**Class Hours:** 3  
**Lab/Discussion:** 0  
**Credits:** 3

**Description:** Introduces professional graphic communications. Emphasizes the use of 2-D computer-aided design (CAD) applications, plan graphics, and professional standards to represent and solve basic physical planning problems.

### **RGPL 454 - Planning Design Studio II**

**Class Hours:** 3  
**Lab/Discussion:** 0  
**Credits:** 3

**Prerequisite:** RGPL 350, 353 or instructor permission

**Description:** Introduces the activity of design, design programming, design decision making, and design communications. Focuses specifically on the development of site planning, site analysis, and site design skills as well as the translation of design program elements into physical form.

### **RGPL 455 - Advanced Remote Sensing**

**Class Hours:** 3  
**Lab/Discussion:** 0  
**Credits:** 3

**Prerequisite:** GEOG 415/RGPL 415

**Description:** Expands beyond basic principles of remote sensing to understand and apply complex methods of data

collection, normalization, and analysis. May cover radiometric normalization, spectral transformations, change detection, object oriented classification, spatial analysis and filtering, accuracy assessment, and application of learned techniques. A research intensive experience with a project and paper demonstrating acquired knowledge and application of techniques to a variety of physical and human processes.

**Previously Offered As:** (Also offered as GEOG 455; may not be taken for duplicate credit.)

### **RGPL 458 - Land Use Law**

**Class Hours:** 3  
**Lab/Discussion:** 0  
**Credits:** 3

**Prerequisite:** RGPL 350

**Description:** Introduces principles of land use law. Focus is on federal constitutional principles and key Supreme Court cases, especially as they relate to actions of local units of government and municipal planning practice. Deals with the present state of land use law and with current trends and issues.

### **RGPL 462 - Planning Policy, Implementation, and Administration**

**Class Hours:** 3  
**Lab/Discussion:** 0  
**Credits:** 3

**Prerequisite:** RGPL 352

**Description:** Focuses on the planning and implementation of policies to manage the location, timing, type, and intensity of land development. Explores the multi-step process from community plan to project completion. Exposes students to the public environment in which community plans are developed and implemented and walks them through the real-world problems of identifying projects, building agency and interagency consensus, finding funding, putting together a project plan, project management, personnel, and budget to project completion.

**Previously Offered As:** (Also offered as GEOG 462; may not be taken for duplicate credit.)

### **RGPL 468 - Planning Theory**

**Class Hours:** 3  
**Lab/Discussion:** 0  
**Credits:** 3

**Prerequisite:** RGPL 498

**Description:** A seminar on contemporary debates concerning planning traditions, principles, and practices. The activity of planning is investigated from several theoretical frames and analytic positions.

### **RGPL 470 - Housing and Community Development Policy**

**Class Hours:** 3

**Lab/Discussion:** 0

**Credits:** 3

**Description:** Explores a range of issues relating to U.S. housing and community development policy, including the role housing plays in building and strengthening neighborhoods and communities. Covers the structure of housing and related financial markets; the economic and social bases for government to intervene in these markets; and the relative merits and demerits of the different tools available to intervene in these markets including: subsidization, both directly and through the tax system; regulation of financial institutions, e.g. the Community Reinvestment Act; FHA and the government sponsored enterprises of Fannie Mae and Freddie Mac; zoning; and regulation of lands and rents

### **RGPL 493 - Internship**

**Class Hours:** var

**Credits:** 1-12

**Description:** A professional learning experience with emphasis on application of academic background. Open to majors and minors in regional planning with a total of 60cr and 15cr in the major. See internship supervisor for additional information.

### **RGPL 498 - Community Planning Practicum**

**Class Hours:** 3

**Lab/Discussion:** 0

**Credits:** 3

**Prerequisite:** RGPL 352

**Description:** Focuses on recent research in the major field in a senior seminar and workshop capstone. Develops a research project on a topic of local or regional importance. (Also offered as GEOG 498 ; may not be taken for duplicate credit.)

**Previously Offered As:** (Also offered as GEOG 498; may not be taken for duplicate credit.)

## **Religious Studies**

### **RLST 100 - Introduction to Religion**

**Class Hours:** 3

**Lab/Discussion:** 0

**Credits:** 3

**Description:** An introduction to the academic study of religion through an examination of various dimensions of religious expression and traditions. Covers such areas as problems about definition of religion; approaches to the study of religion; the goals, language, and rituals of religion; cases of religious experience; faith, disbelief, and alternatives to religion; religion and the sociocultural context.

### **RLST 110 - World Religions**

**Class Hours:** 3

**Lab/Discussion:** 0

**Credits:** 3

**Description:** A comparative study of the history, teaching, and rituals of the major religions of the world and their influence on contemporary society. This nonsectarian approach to religions emphasizes comparisons/contrasts between Western and non-Western religious traditions as well as the contemporary global nature of Western traditions.

### **RLST 120 - Comparative Religious Ethics**

**Class Hours:** 3

**Lab/Discussion:** 0

**Credits:** 3

**Description:** Examines diversity of thought and practice on selected ethical issues in several major religious traditions. Using a comparative approach, the course will critically analyze similarities and differences within and across religious traditions on particular ethical concerns, such as poverty, violence, and contemporary controversies regarding race, gender and sexuality.

### **RLST 245 - Women and Religion**

**Class Hours:** 3  
**Lab/Discussion:** 0  
**Credits:** 3

**Prerequisite:** RLST 110 or instructor permission  
**Description:** Examines women's roles and experiences within some of the world's major religious traditions, both past and present. In exploring patterns and instances of the empowerment and oppression of women, the course pays careful attention to feminist critiques.

### **RLST 300 - Methodologies of Religious Studies**

**Class Hours:** 3  
**Lab/Discussion:** 0  
**Credits:** 3

**Restriction:** Religious Studies major or minor  
**Description:** Introduces students to the theories and methods of the study of religion, including phenomenological, historical, sociological, anthropological, psychological, ecological, feminist, and postmodern approaches. Restricted to majors and minors in Religious Studies.

### **RLST 311 - Eastern Philosophy**

**Class Hours:** 3  
**Lab/Discussion:** 0  
**Credits:** 3

**Description:** An examination of texts from East Asia and South Asia that address such philosophical areas as the nature of human knowledge, the nature of reality, and ethics. May include readings from such traditions as Buddhism, Confucianism, Daoism, and/or Hinduism.

### **RLST 345 - Women in the Bible**

**Class Hours:** 3  
**Lab/Discussion:** 0  
**Credits:** 3

**Prerequisite:** One religious studies or womens and gender studies course or instructor permission  
**Description:** Surveys and examines the stories and issues concerning women in the Bible and introduces the questions and methods of research that the contemporary world and feminist biblical scholars bring to them.

### **RLST 360 - African Religions**

**Class Hours:** 3  
**Lab/Discussion:** 0  
**Credits:** 3

**Description:** An examination of the nature of African traditional religion and how traditional religion, Islam, and Christianity coexist and influence one another.

### **RLST 365 - Native North American Religions**

**Class Hours:** 3  
**Lab/Discussion:** 0  
**Credits:** 3

**Description:** An introduction to the indigenous religions of North America and to the peoples who practice these rich and varied approaches to the sacred. Not only examines major religious themes and dimensions (myth, ritual, ethics, etc.), but includes a historical perspective on Native North American lifeways. This perspective involves discussion of the clash with Euro-American values and contemporary Native religious responses to social crisis and change.  
**Previously Offered As:** (Also offered as ANTH 365; may not be taken for duplicate credit.)

### **RLST 374 - Buddhism**

**Class Hours:** 3  
**Lab/Discussion:** 0  
**Credits:** 3

**Description:** Explores the history, teachings, and practices of the main schools of Buddhism. Considers the tradition both as it has developed in Asia as well as its modifications as it has been introduced into Western societies. (Titled Buddhist Thought and Practices before 2013-2014).

### **RLST 380 - Islam**

**Class Hours:** 3  
**Lab/Discussion:** 0  
**Credits:** 3

**Description:** An introduction to and basic survey of the history, beliefs, traditions, institutions, and practices of Islam, with attention to its development and participation in contemporary societies globally.

### **RLST 385 - Christianity**

**Class Hours:** 3  
**Lab/Discussion:** 0  
**Credits:** 3

**Description:** A study of the beliefs, practices, significant people, history, and cultural impact of Christianity.

### **RLST 388 - Interpreting the Bible**

**Class Hours:** 3  
**Lab/Discussion:** 0  
**Credits:** 3

**Description:** Introduces the sacred writings known as the Bible. Examines the basic contents and major themes of the books of the Bible (Hebrew Bible/Old Testament and New Testament), as well as the goals and methods of the most recent scholarship in biblical studies.

### **RLST 401 - Topics in Abrahamic Traditions**

**Class Hours:** 3  
**Lab/Discussion:** 0  
**Credits:** 3

**Restriction:** Religious Studies major or minor, or permission of the instructor

**Description:** Examines variable topics within the study of Judaism, Christianity and Islam. Themes vary according to the expertise of the Religious Studies faculty member offering the course.

**Repeated:** May be repeated.

### **RLST 402 - Topics in Asian Religions**

**Class Hours:** 3  
**Lab/Discussion:** 0  
**Credits:** 3

**Restriction:** Religious Studies major or minor, or permission of the instructor

**Description:** Offers advanced study of rotating topics in Asian religions. The particular tradition or theme covered varies according to the expertise of the faculty member teaching the course.

### **RLST 403 - Topics in Indigenous Religions**

**Class Hours:** 3  
**Lab/Discussion:** 0  
**Credits:** 3

**Restriction:** RLST major or minor or permission of the instructor

**Description:** Offers rotating topics in prehistorical, historical and contemporary indigenous religions by alternating professors in the Department of Religious Studies. Topics may include "Anishnaabeg (Ojibwe) Religion," "Viking Myth and Religion," and "Haitian Vodou."

### **RLST 481 - Special Topics I**

**Class Hours:** var  
**Credits:** 3

**Prerequisite:** As appropriate to course content

**Description:** Offered on an experimental or temporary basis to explore topics not included in the established curriculum. A given topic may be offered under any special topic identity no more than three times. Special topics numbered 481 are offered primarily for upper-level undergraduate students.

### **RLST 483 - Honors Thesis**

**Class Hours:** var  
**Credits:** 1-6

**Restriction:** Admission to departmental honors program; prior approval through advisor, faculty member, department chairperson, dean, and Office of the Provost

**Description:** An intensive, focused study involving independent research culminating in a written thesis approved by a thesis director and two faculty readers/committee members.

**Repeated:** May be taken more than once to a maximum of 6cr.

## **Safety, Health, and Environmental Applied Sciences**

### **SAFE 100 - The Science of Living Safely**

**Class Hours:** 3  
**Lab/Discussion:** 0  
**Credits:** 3



**Restriction:** Non-Safety, Health, and Environmental Applied Sciences

**Description:** Examines the relevance, impact and role that safety plays in the world today, especially in the workplace. Includes the historical and scientific development of safety and health regulations, the impact of injury on society, identification of hazards and hazard controls in specific industrial processes, and the personal and ethical responsibilities that individuals have for the safety and health protection of themselves, others and their community.

## **SAFE 101 - Introduction to Occupational Safety and Health**

**Class Hours:** 3

**Lab/Discussion:** 0

**Credits:** 3

**Description:** Introduces the evolution of the safety profession through study of historical events and the changes that resulted. Students gain an understanding of the key components of the profession, such as OSHA and workers' compensation, accident investigation, occupational health hazards, emergency response, product liability, ergonomics, fleet safety, ethics, and measuring safety program success. Case studies and small group activities prepare students for further in-depth study of these topics and to fulfill their roles as professionals.

## **SAFE 111 - Principles of Safety I— General Industry**

**Class Hours:** 3

**Lab/Discussion:** 0

**Credits:** 3

**Description:** Stresses an understanding of the complexity of the industrial hazard control problem by thoroughly examining elements of safety and health enumerated in the OSHA-promulgated general industry standards and various consensus standards. Emphasis given to plant layout and design, powered industrial vehicles, boilers and unfired pressure vessels, working and walking surfaces, machine guarding, and an introduction to industrial processes.

## **SAFE 211 - Principles of Safety II— Construction Industry**

**Class Hours:** 2

**Lab/Discussion:** 3

**Credits:** 3

**Prerequisite:** SAFE 101; safety, health, and environmental applied sciences majors/minors only or instructor permission

**Description:** Develops an understanding of hazard recognition, evaluation, prioritization, and control of critical workplace hazards associated with construction. Students are exposed to the complexity of three-dimensional work that exists in the fast-paced construction industry by thoroughly examining elements of safety and health enumerated in the OSHA standards and in various consensus standards. An emphasis is placed on personal protective equipment, electrical safety, scaffolds, fall protection, trenches, and confined space entry including rescue. Practical application of associated hazards and their control strategies is accomplished in laboratory sessions.

## **SAFE 212 - Hazard Prevention Management I**

**Class Hours:** 3

**Lab/Discussion:** 0

**Credits:** 3

**Prerequisite:** SAFE 101; safety, health, and environmental applied sciences majors/minors only or instructor permission

**Description:** Teaches the fundamental concepts involved in the management of safety programs. Basic safety management terminology, safety professional code of ethics, fleet safety, and product safety are discussed. Also discusses risk management and workers' compensation, as well as workplace violence.

## **SAFE 215 - Safety, Health, and Environmental Communications**

**Class Hours:** 3

**Lab/Discussion:** 0

**Credits:** 3

**Prerequisite:** Sophomore standing; safety, health, and environmental applied sciences majors/minors only or instructor permission

**Description:** Provides the ability to apply the theories of learning and communication to aid in becoming effective oral and written safety, health, and environmental communicators and trainers. Designs and delivers training programs using modern technology and charismatic engagement tools. Develops communication skills to convince management and employees to embrace and implement safety initiatives and to communicate with

regulators and the public regarding safety, environmental, and health issues. Develops a range of written documents, such as safety, health, and environmental policies, procedures and/or programs, inspection and audit reports, and program and risk assessment and exposure reports and then communicates summaries of these documents orally.

## **SAFE 220 - Hazardous Materials and Emergency Management**

**Class Hours:** 3  
**Lab/Discussion:** 0  
**Credits:** 3

**Prerequisite:** CHEM 101, SAFE 101, safety, health, and environmental applied sciences majors/minors only or instructor permission

**Description:** Provides a basic understanding of the storage, transportation, and use of hazardous materials in business. Includes a discussion on hazardous materials, specifically their definitions, categories, properties, regulations, and evaluation. Critical principles of emergency management, including both private and public sector elements, are included.

## **SAFE 221 - Oral Communication in Spanish for Safety and Health**

**Class Hours:** 3  
**Lab/Discussion:** 0  
**Credits:** 3

**Prerequisite:** SPAN 201 or the equivalent as established by Foreign Languages departmental placement exam and SAFE 101 or SAFE 111 (may be taken concurrently).

**Description:** Focuses on the day-to-day, oral Spanish skills needed by safety professionals. Intensive work in Spanish on vocabulary and pronunciation, and on using discourse strategies in spontaneous interpersonal speaking to negotiate meaning and respond in Spanish to specific work-related health and safety situations. These situations may include supervisor-employee, worker-worker, and safety personnel-employee interactions. Required for the Certificate in Spanish for Safety Sciences. Interdisciplinary as it is co-taught by faculty in the Departments of Foreign Languages and Safety Sciences. The Safety Sciences content is delivered in English. (Also offered as SPAN 221; may not be taken for duplicate credit.)

**Cross-Listed:** May be cross-listed with SPAN 221

## **SAFE 231 - Safety and Health Technical Reading and Writing in Spanish**

**Class Hours:** 3  
**Lab/Discussion:** 0  
**Credits:** 3

**Prerequisite:** SPAN 201 or the equivalent as established by Foreign Languages departmental placement exam  
**Prerequisite or Corequisite:** SAFE 101 or SAFE 111

**Description:** Intensive practice in written expression and reading comprehension in Spanish to develop the communication skills needed by safety professionals. Focuses on comprehending and producing technical texts on safety practices, such as reports, summaries, and correspondence. Includes comprehension of non-technical texts on safety-related issues, such as newspaper and magazine articles. Required for the Certificate in Spanish for Safety Sciences. Interdisciplinary as it is co-taught by faculty in the Departments of Safety Sciences and Foreign Languages. The Safety Sciences content is delivered in English. (Also offered as SPAN 231; may not be taken for duplicate credit.)

## **SAFE 310 - Environmental Safety and Health Regulations and Sustainability**

**Class Hours:** 3  
**Lab/Discussion:** 0  
**Credits:** 3

**Prerequisite:** CHEM 101 or instructor permission

**Description:** Provides a working knowledge of federal environmental legislation and its practical application in the work environment. Environmental laws covered include the Clean Water Act; the Clean Air Act; the Resource Conservation and Recovery Act; the Comprehensive Environmental Response, Compensation, and Liability Act; and other related environmental laws. Provides an understanding of the application of sustainability concepts in the work environment.

## **SAFE 311 - Fire Protection**

**Class Hours:** 3  
**Lab/Discussion:** 0  
**Credits:** 3

**Prerequisite:** CHEM 101, MATH 105, or instructor permission

**Description:** Teaches the fundamental concepts involved in the protection of people and property from fire and explosion. Basic fire safety terminology, fire chemistry and extinguishment, fire safety references and standards, and fire program management are discussed. Also discusses

control measures for common fire and explosion hazards and the design of buildings in terms of life safety and fire suppression systems.

### **SAFE 330 - Recognition, Evaluation, and Control of Occupational Health Hazards I**

**Class Hours:** 3

**Lab/Discussion:** 3

**Credits:** 4

**Prerequisite:** CHEM 101; safety, health, and environmental applied sciences majors only or instructor permission

**Prerequisite or Corequisite:** BIOL 104 or BIOL 155

**Description:** Provides an understanding of selected chemical stressors in the workplace that may present occupational health hazards to workers. Students learn to anticipate, identify, evaluate, and control chemical stressors including dusts, mists, metal fumes, airborne fibers, inorganic and organic gases and vapors, and oxygen-deficient atmospheres. Hazard classification systems, adverse health effects from excessive exposures, workplace standards, sampling and analytical methods, and control options are emphasized.

### **SAFE 331 - Fundamentals of Industrial Hygiene**

**Class Hours:** 3

**Lab/Discussion:** 0

**Credits:** 3

**Restriction:** Restricted to MS Safety Sciences students only; or by instructor permission only

**Description:** Provides an understanding of selected chemical, physical, and biological stressors in the workplace that may present occupational health hazards for workers. Focuses on anticipating, identifying, evaluating, and controlling chemical, physical and biological stressors in the workplace. Emphasizes adverse health effects from excessive exposures, workplace standards, sampling and analytical methods, and control options.

### **SAFE 335 - Industrial and Environmental Stressors**

**Class Hours:** 2

**Lab/Discussion:** 0

**Credits:** 2

**Prerequisite:** BIOL 104 or BIOL 155, CHEM 101

**Description:** Focuses on understanding and applying safety, regulatory, toxicological, environmental, and epidemiological information, data, and models to determine occupational risk from exposure to common industrial and environmental stressors. Also covers product safety risk from consumer exposure to manufactured products. Case studies act as important means for presenting and discussing information.

### **SAFE 345 - Process and Systems Safety**

**Class Hours:** 3

**Lab/Discussion:** 0

**Credits:** 3

**Prerequisite:** MATH 105 and SAFE 111 or instructor permission

**Description:** Focuses on the evaluation of system designs using detailed system analysis techniques. Topics include system definition, economics of systems safety, quantitative and qualitative systems safety methodology, and systems safety/process safety program administration. Skills gained include the ability to perform hardware and human factors systems analysis. Techniques include failure mode and effect analysis, hazard and operability studies, what-if and scenario building, and operating and support hazard analysis. Practical analysis work is accomplished through in-class discussion, demonstration sessions, and homework assignments.

### **SAFE 347 - Ergonomics**

**Class Hours:** 2

**Lab/Discussion:** 3

**Credits:** 3

**Prerequisite or Corequisite:** BIOL 104 or BIOL 155

**Restriction:** Safety, health, and environmental applied sciences majors only or instructor permission

**Description:** Explores the principles that control human performance and its effect on the safety and reliability of systems. Engineering anthropometrics, human perception, biomechanics of motion and work posture, work physiology, and human performance measurement are taught in the context of their application in workplace design. Instructs in methodologies for analysis of tasks and human performance requirements. Important human limitations and ergonomic hazard evaluations, such as lifting and repetitive motion tasks, are studied in laboratory sessions.

## SAFE 361 - Air and Water Pollution

**Class Hours:** 2

**Lab/Discussion:** 0

**Credits:** 2

**Prerequisite:** SAFE 220, or PUBH-ENOC majors, or instructor permission

**Description:** Focuses on major aspects of industrial air and water pollution management. Includes sources and analysis of industrial air and water pollution, evaluation and control of air and water pollutants, and atmospheric and water chemistry. Particular emphasis is placed on information that is practical for the safety management, industrial health, or environmental health professional.

## SAFE 401 - Laboratory Biosafety and Biosecurity

**Class Hours:** 3

**Lab/Discussion:** 0

**Credits:** 3

**Restriction:** Enrolled in Biorisk Management Certificate Program or Instructor's Permission.

**Dual Listed:** SAFE 501

**Description:** Explores biological safety and biosecurity measures employed in the laboratory environment. Assesses the viability of modern biosafety measures used in production, research, and educational laboratory settings. Evaluates the biological impacts of security tactics deployed from the local, regional, national, and international perspective.

## SAFE 402 - Biological Risk assessment and Regulatory Compliance

**Class Hours:** 3

**Lab/Discussion:** 0

**Credits:** 3

**Restriction:** Enrolled in Biorisk Management Certificate Program or instructor permission.

**Dual Listed:** SAFE 502

**Description:** Explores the biological risk assessment process to minimize risk to the worker, the community, and the environment related to work with biological hazards. Reviews the major elements necessary for an effective biorisk management program. Familiarizes students with the regulations, standards, and guidance that impact life

science operations and introduces students to the Certified Biological Safety Professional (CBSP) exam domains.

## SAFE 412 - Hazard Prevention Management II

**Class Hours:** 2

**Lab/Discussion:** 3

**Credits:** 3

**Prerequisite:** SAFE 212

**Description:** Teaches a systems-based approach to managing safety programs, hazards, and risk. An emphasis is placed on understanding proactive approaches to conducting pre-hazard and life-cycle safety analyses of activities/operations and developing safety system documentation (e.g., policies, objectives, goals, performance measures, plans, committee charters, safety procedures, work procedures, audit plans, and accident investigation reports).

## SAFE 430 - Recognition, Evaluation, and Control of Occupational Health Hazards II

**Class Hours:** 3

**Lab/Discussion:** 3

**Credits:** 4

**Prerequisite:** BIOL 104 or BIOL 155, PHYS 111 or CHEM 101 (for PUBH-ENOC majors), safety, health, and environmental applied sciences majors only or instructor permission

**Description:** Provides an understanding of selected physical and biological stressors in the workplace that may present occupational health hazards to workers. Students learn to anticipate, identify, evaluate, and control physical and biological stressors in the workplace. Emphasizes adverse health effects from excessive exposures, workplace standards, sampling and analytical methods, and control options. Concludes with discussions that focus on the effective development and implementation of a comprehensive safety and health program.

## SAFE 435 - Ethics and Professionalism

**Class Hours:** 1

**Lab/Discussion:** 0

**Credits:** 1

**Prerequisite:** Senior standing

**Description:** Provides a basic understanding of ethics and

professionalism related to the occupational safety, health, and environmental profession. Specific topics include the ASSE Code of Ethics, ethical dilemmas that may be experienced in the workplace, expectations regarding professional behavior on internship, and professional growth. Students also learn about safety, health, and environmental professional organizations and certification bodies.

### **SAFE 441 - Accident Investigation**

**Class Hours:** 3

**Lab/Discussion:** 0

**Credits:** 3

**Restriction:** Permission of instructor.

**Dual Listed:** May be dual-listed with SAFE 541.

**Description:** Focuses on various aspects of accident investigation such as recent theories associated with accident causes, investigative techniques, data acquisition, structure of investigative reports, management responsibilities, and remedial actions. Particular emphasis on determining sequence of events to develop management actions which will prevent recurrence of accidents.

### **SAFE 480 - Senior Capstone Project**

**Class Hours:** 3

**Lab/Discussion:** 0

**Credits:** 3

**Prerequisite:** At least 90 credits and SAFE 310, SAFE 311, SAFE 330, SAFE 335, SAFE 345, SAFE 347, SAFE 361

**Description:** Applies hazard assessment and safety management practices as they relate to the recognition, evaluation and control of hazards. Involves faculty supervised activities that include case studies conducted on-site or at off-site workplace locations.

### **SAFE 488 - Internship**

**Class Hours:** var

**Credits:** 12

**Prerequisite:** Senior standing, all required SAFE courses completed.

**Description:** Student conducts a practicum at an approved occupational setting. Student is required to complete four major projects that will be developed in collaboration between the faculty supervisor and the internship

supervisor. Student is accountable to an on-site supervisor and required to remain in close contact with a Safety Sciences faculty coordinator.

### **SAFE 493 - Internship**

**Class Hours:** var

**Credits:** 6

**Prerequisite:** Senior standing, all SAFE courses completed.

**Description:** Student conducts a practicum at an approved occupational setting. Student is required to complete 2-4 major projects that will be developed in collaboration with the faculty supervisor and the internship supervisor. Student is accountable to an on-site supervisor and is required to remain in close contact with a Safety Sciences faculty coordinator.

## **Science**

### **SCI 101 - Fundamentals of Physics**

**Class Hours:** 2

**Lab/Discussion:** 2

**Credits:** 3

**Restriction:** Early Childhood Education or Special Education or Early Childhood Education/Special Education major or instructor permission

**Description:** A conceptual course in physics for the non-science major. High school physics is not a prerequisite. Class and lab presentations concentrate upon dispelling naive concepts and developing a better understanding and appreciation of the physical world. The topics of motion, heat, light, sound, electricity, magnetism, and the atom are presented in context with our everyday experiences. Does not fulfill the Liberal Studies requirement except for majors for majors in early childhood education or special education or early childhood education/special education major.

### **SCI 102 - Fundamentals of Chemistry**

**Class Hours:** 2

**Lab/Discussion:** 2

**Credits:** 3

**Restriction:** Early Childhood Education or Early Childhood Education/Special Education major or instructor permission

**Description:** Surveys chemical principles and concepts for

pre-service early childhood/ special education majors. A variety of chemical concepts is presented, as well as their applications to technology and society. A series of laboratory exercises and projects will allow student to develop inquiry-based activities for the communication of scientific and chemical concepts with the goal of developing scientific literacy.

### **SCI 103 - Fundamentals of Earth and Space Science**

**Class Hours:** 3  
**Lab/Discussion:** 0  
**Credits:** 3

**Restriction:** Early Childhood Education or Early Childhood Education/Special Education major  
**Description:** Introduces concepts and applications of astronomy, geology, oceanography, and meteorology. Emphasis on how the earth sciences impact the natural environment and humans. Does not fulfill the Liberal Studies requirement except for majors in early childhood education or early childhood education/special education major.

### **SCI 104 - Fundamentals of Environmental Biology**

**Class Hours:** 3  
**Lab/Discussion:** 2  
**Credits:** 4

**Restriction:** Must be enrolled in one of the following Majors: Early Childhood Education/Special Education major or Early Childhood Education major  
**Description:** Introduces the major concepts and principles of ecology and their application to modern living. Includes lecture and laboratory components with an emphasis on the content and processes of science. Laboratory exercises reinforce lecture topics as well as the use of laboratory equipment, measuring procedures, experimental design, and the organization, visual representation, and analysis of data.

### **SCI 105 - Physical Science**

**Class Hours:** 3  
**Lab/Discussion:** 0  
**Credits:** 3

**Description:** A descriptive and conceptual course in physics for the non-science major. High school physics is

not a Prerequisite. Content is designed to develop an understanding and appreciation of the physical world around us, to produce changes in attitude and background essential for our modern society, and to clarify the following topics: motion, heat, sound, light, electricity, magnetism, and the structure of matter.

### **SCI 107 - Chemistry for Everyone**

**Class Hours:** 3  
**Lab/Discussion:** 0  
**Credits:** 3

**Description:** A basic course in chemistry for the non-science major. High school chemistry is not a Prerequisite. The students develop an understanding and appreciation of the process of science and of the significance of chemistry in everyday life. In addition to basic chemical principles, consumer topics, such as batteries, nuclear chemistry, chemistry of living systems, air, water, energy, and food additives, are covered.

### **SCI 113 - Physics in Science Fiction**

**Class Hours:** 3  
**Lab/Discussion:** 0  
**Credits:** 3

**Description:** Explores the use and abuse of physics in science fiction. Discusses staples of science fiction including time travel, faster-than-light speed travel, quantum mechanics and artificial gravity. Examines the agreement between phenomena presented in fiction and our current model of the universe. Reviews popular, current science fiction franchises as well as classical science fiction.

### **SCI 115 - Physical Science Lab**

**Class Hours:** 0  
**Lab/Discussion:** 2  
**Credits:** 1

**Corequisite:** SCI 105

**Description:** Evaluates and analyze data collected from simple physical systems such as pullies, ramps, magnets, batteries and bulbs, and pendulum. Reinforces concepts illustrated in SCI 105 Physical Science.

### **SCI 117 - Chemistry for Everyone Laboratory**

**Class Hours:** 0  
**Lab/Discussion:** 2  
**Credits:** 1

**Prerequisite:** Must be taken after or concurrent with SCI 107

**Description:** A basic laboratory course in chemistry for the non-science major. Laboratory exercises are for the students to develop an understanding and appreciation of the process of science and of the significance of chemistry in everyday life. These laboratory exercises will demonstrate basic chemical principles and will include consumer topics, such as acids and bases, nuclear chemistry, water hardness, and food additives.

## Sociology

### SOC 151 - Principles of Sociology

**Class Hours:** 3  
**Lab/Discussion:** 0  
**Credits:** 3

**Description:** A scientific study of the structure of human societies and the behavior of individual people, groups, institutions, processes, and interactions. Examines the relationship between individuals and societal institutions, processes, and interactions. Provides an overview of the discipline including key concepts, main theoretical perspectives, the methods and research findings of sociologists, and social inequalities. Meets Social Science requirement for Liberal Studies. SOC 151 and SOC 161 cannot be substituted interchangeably for D/F repeats.

### SOC 161 - Foundations of Sociology: Social Relations in Groups and Organizations

**Class Hours:** 3  
**Lab/Discussion:** 0  
**Credits:** 3

**Description:** Studies the structure of human societies and the behavior of individual people, groups, and teams in society. Examines the relationship between individual and societal institutions, processes, and interactions with emphasis on the ways power/status are reflected. Explores the relationship between individual identity and team dynamics as it pertains to race, gender, class, sexuality, ability, and age while relating to the methods and research findings of sociologists. Applies decision making and

problem solving as members of small teams work to achieve a shared objective within a larger organizational context. For those seeking a minor in Professional Teamwork and Leadership. Meets Social Science and Global and Multicultural Awareness requirements for Liberal Studies. SOC 151 and 161 cannot be substituted interchangeably for D/F repeats.

### SOC 231 - Contemporary Social Problems

**Class Hours:** 3  
**Lab/Discussion:** 0  
**Credits:** 3

**Description:** Using a sociological perspective, this course will examine pressing social problems as they relate to race, class, and gender in contemporary American society. Such problems may include various issues such as poverty, delinquency, substance abuse, crime, divorce, and others. These issues are considered through multiple lenses, including historical, economic, and social, with connections to current social policy.

### SOC 251 - Sociology of Human Sexuality

**Class Hours:** 3  
**Lab/Discussion:** 0  
**Credits:** 3

**Description:** An in-depth analysis of a formerly taboo topic, human sexuality. Current information from biological, psychological, and sociological research on human relationships is presented to provide a foundation for self-understanding and societal values.

### SOC 269 - Sociology of Deviance

**Class Hours:** 3  
**Lab/Discussion:** 0  
**Credits:** 3

**Prerequisite:** SOC 151 or SOC 161 or instructor permission

**Description:** An overview of the sociological study of deviance. Begins with examining the nature and meaning of deviance or how society creates deviance as social and legal constructions and identifies specific human behaviors as types or forms of deviance. Also examines the major theories or multi-causal explanations of why such deviance occurs. Further describes how society, especially its social

institutions and agents, attempts to control or suppress such deviance. Social policy implications of such societal reactions are also considered.

### **SOC 314 - Sociology of Native Americans**

**Class Hours:** 3  
**Lab/Discussion:** 0  
**Credits:** 3

**Description:** An introduction to the history, "traditional" cultures, and changes brought by European settlement and American conquest and the range of social issues faced by contemporary Native Americans on and off reservations. A special emphasis is placed on the efforts of indigenous Indian societies to maintain and regain access to land and other resources. Activist responses are considered along with the social consequences of past and present initiatives and policies.

### **SOC 315 - Social Research Methods**

**Class Hours:** 3  
**Lab/Discussion:** 0  
**Credits:** 3

**Prerequisite:** SOC 151 or SOC 161

**Description:** Describes the logic and methods of social research, the role of theory in the practice of research, and the ways different research designs are applied to investigate different research questions. Examines the variety of methods, such as surveys, field research, types of interviews, and use of existing data such as documents and secondary data that constitute social research. Demonstrates research literacy and critical evaluation of research.

**Previously Offered As:** Prior to Fall 2022, offered as SOC 460.

### **SOC 320 - Sociological Theory**

**Class Hours:** 3  
**Lab/Discussion:** 0  
**Credits:** 3

**Prerequisite:** SOC 151 or SOC 161; at least 9 credits in SOC, or permission of the instructor

**Description:** A detailed survey of the historical development of sociological theory from the mid-19th century to the present. Treats the classical theorists Marx, Durkheim, and Weber and such contemporary theoretical

schools as functionalism, Marxian, and Weberian conflict theory, cultural materialism, social evolutionism, rational choice theory, symbolic interaction, ethnomethodology, sociobiology, structuralism, and postmodernism. Students are encouraged to take this course in the second semester of their sophomore year or during their junior year.

### **SOC 325 - Making Sense of Social Data**

**Class Hours:** 3  
**Lab/Discussion:** 0  
**Credits:** 3

**Prerequisite:** SOC 151 or SOC 161.

**Description:** Critically assesses empirical sociological research. Conduct research, evaluating the quality of research methods and data sources. Delineates the different goals, strengths and limitations of various modes of analysis. Evaluates representations of data in public discourse.

**Previously Offered As:** Prior to Fall 2022, offered as SOC 461.

### **SOC 333 - Delinquency and Youth**

**Class Hours:** 3  
**Lab/Discussion:** 0  
**Credits:** 3

**Prerequisite:** SOC 151 or SOC 161

**Description:** A study of social and cultural factors involved in various youth lifestyles, including delinquency. Cross-cultural and historical approach used in a review of social norms, social control, and socialization institutions and community-based programs for rehabilitation.

### **SOC 335 - Alcohol and Drug Abuse**

**Class Hours:** 3  
**Lab/Discussion:** 0  
**Credits:** 3

**Prerequisite:** SOC 151

**Description:** Examines the social issues and problems of alcohol and drug misuse in American society. Legal and illegal substances are considered, and the causes of substance abuse as well as alternatives are examined.

### **SOC 336 - Sociology of the Family**

**Class Hours:** 3  
**Lab/Discussion:** 0



**Credits:** 3

**Prerequisite:** SOC 151 or SOC 161

**Description:** A study of family dynamics and patterns using sociological research methods and theories. Examines social, cultural, and historical changes that have altered the nature of family life and created challenges for public policy. Addresses contemporary problems and issues encountered by families and approaches to dealing with these problems.

### **SOC 337 - Society, Globalization, and Risk**

**Class Hours:** 3

**Lab/Discussion:** 0

**Credits:** 3

**Prerequisite:** One of the following: ANTH 110, ECON 101, ECON 121, GEOG 230, HIST 202, PLSC 101, PLSC 282, SOC 151, SOC 161

**Description:** Examines the factors driving globalization, and the risks associated with globalization, on both a local and international level. Foundations for thinking in global terms are provided through an overview of historical developments and major international actors that have shaped current global society. Focuses on major challenges and risks facing global society. Throughout, students are encouraged to connect their own personal life experiences to the broader global context. (Titled World Societies and World Systems before 2014-15.)

### **SOC 345 - Sociological Social Psychology**

**Class Hours:** 3

**Lab/Discussion:** 0

**Credits:** 3

**Prerequisite:** SOC 151 or SOC 161

**Description:** A study of the interaction between and among individuals and groups in various social settings. Emphasizes self-understanding, small groups, socialization, social influence and compliance, person perception, collective behavior, and mass communication.

### **SOC 357 - Sociology of Aging and the Life-course**

**Class Hours:** 3

**Lab/Discussion:** 0

**Credits:** 3

**Prerequisite:** SOC 151 or SOC 161

**Description:** An introduction to the various problems faced in the process of growing older including ageism, social support, elder abuse, financial exploitation, etc. Attitudes of society toward the elderly and the social and cultural impact of an aging US population are examined

### **SOC 361 - Social Stratification**

**Class Hours:** 3

**Lab/Discussion:** 0

**Credits:** 3

**Prerequisite:** SOC 151 or SOC 161

**Description:** Examines leading perspectives in the major sociological subfield of social stratification. Attention drawn to different ways of ranking people in human societies, issues concerning the distribution of income and wealth, the role of political power in determining who gets what, and the causes and consequences of social inequality for specific groups.

### **SOC 362 - Racial and Ethnic Minorities**

**Class Hours:** 3

**Lab/Discussion:** 0

**Credits:** 3

**Prerequisite:** SOC 151 or SOC 161

**Description:** Examines from a historical and comparative perspective the experiences of minority groups, with special emphasis on economic and political domination, stereotyping, prejudice, and discrimination. Techniques of majority group domination and the responses of minority groups are discussed. Various reasons for the different rates and patterns of assimilation are explored.

### **SOC 363 - Sociology of Gender**

**Class Hours:** 3

**Lab/Discussion:** 0

**Credits:** 3

**Prerequisite:** SOC 151 or SOC 161

**Description:** Explores current perspectives on the situations faced by women and men primarily in the United States. Examines issues such as the impact of sex and gender on socialization, the construction of knowledge, intimate relationships, paid work, family relationships, health, and issues of change.

## **SOC 387 - Social and Cultural Change**

**Class Hours:** 3  
**Lab/Discussion:** 0  
**Credits:** 3

**Prerequisite:** SOC 151 or SOC 161

**Description:** An exploration of current theoretical perspectives on social and cultural change. Special attention given to planned change at the local or regional level.

## **SOC 391 - Foundations of Sociological Practice**

**Class Hours:** 3  
**Lab/Discussion:** 0  
**Credits:** 3

**Prerequisite:** SOC 151 or SOC 161

**Description:** Develops an understanding of how to use micro and macro sociological theory to analyze, assess, and diagnose human problems. Employing case studies, prepares students to do casework and to help solve interpersonal, group, and organizational problems. Also seeks to acquaint students with the broader professional activity of human services.

**Recommendation:** Recommended Prerequisite/corequisite SOC 320.

## **SOC 392 - Clinical Sociological Practice**

**Class Hours:** 3  
**Lab/Discussion:** 0  
**Credits:** 3

**Prerequisite:** SOC 391

**Description:** Prepares the student to effect constructive change within individuals, groups, families, and communities. Draws its analysis, diagnosis, and methods from the foundations of sociological theory at the level of intervention with clients. It is strongly recommended that students have at least 6 SOC credits in their specialized area before taking SOC 392 other than SOC 151, SOC 320, SOC 315, and SOC 325.

## **SOC 410 - Men and Masculinities**

**Class Hours:** 3  
**Lab/Discussion:** 01  
**Credits:** 3

**Prerequisite:** SOC 151 or SOC 161 or instructor permission

**Description:** Explores constructs of masculinity within the context of US culture using a sociological lens. Examines the notion that there are multiple masculinities that intersect with a range of areas including race, ethnicity, class, sexuality, and gender identity. Evaluates the influence of social contexts and roles on behavioral expectations for men and boys. Analyzes implications for society and individual men.

## **SOC 421 - Sociology of Mass Media**

**Class Hours:** 3  
**Lab/Discussion:** 0  
**Credits:** 3

**Prerequisite:** SOC 151 or SOC 161

**Description:** Examines the development of mass media as dominant cultural forms within advanced industrial societies in the 21st century. Emphasizes critical understanding of the sociohistorical development, the underlying assumptions, and the social implications of the advance of mass media.

## **SOC 427 - Social Perspectives on Intimate Partner Violence**

**Class Hours:** 3  
**Lab/Discussion:** 0  
**Credits:** 3

**Prerequisite:** SOC 151 or SOC 161 and Junior standing or permission of instructor.

**Description:** Considers the range of theoretical explanations from a social perspective for the pervasive violence between intimate partners. Particularly examines the research on intimate partner violence and the implications of this research for programs and policies assisting both the victim and the abuser.

## **SOC 428 - Child Abuse**

**Class Hours:** 3  
**Lab/Discussion:** 0  
**Credits:** 3

**Prerequisite:** SOC 151 or SOC 161 and Junior standing or permission of instructor

**Description:** Examines the prevalence, causes, and social implications of physical, sexual, emotional, and neglect forms of child abuse in society. Child abuse is studied from

the individual, family, and societal-level perspectives. Potential intervention strategies will also be considered.

## **SOC 442 - Medical Sociology**

**Class Hours:** 3  
**Lab/Discussion:** 0  
**Credits:** 3

**Prerequisite:** SOC 151 or SOC 161

**Description:** A review of medical sociology. Focuses on the sociological examination of health, illness, and healing; health inequalities; medicalization; medicine as a profession; healing occupations; interactions within medical settings; the social organization of health services; and bioethics. Examines current, major issues in public policy and healing.

**Previously Offered As:** (Offered as SOC 342 prior to 2015-16.)

## **SOC 448 - Social Welfare Policy**

**Class Hours:** 3  
**Lab/Discussion:** 0  
**Credits:** 3

**Prerequisite:** SOC 151 or SOC 161

**Description:** Focuses on the formation of social welfare programs in the United States, current social policy issues, and debates between conservative, liberal, and social democratic policy analysts. Special attention drawn to various social problems and a range of social policies designed to ameliorate the economic disadvantages of single individuals, single parents, and two-parent families. Also devoted to understanding the relationship between social policy, research, and implementation.

## **SOC 450 - Health Disparities**

**Class Hours:** 3  
**Lab/Discussion:** 0  
**Credits:** 3

**Prerequisite:** SOC 151 or ANTH 211 or instructor permission

**Description:** Explores health status and healthcare disparities across groups based on race/ethnicity, gender, socioeconomic status/social class, nativity, refugee and citizen status, and other cultural and demographic characteristics. Uses a social determinants of health perspective to consider how social, cultural, environmental, political, and economic conditions produce unequal and

inequitable health outcomes, with special focus on disadvantaged populations. Addresses agency and empowerment of populations seeking and accessing health and healthcare. Includes different levels of public health interventions that can improve health outcomes, better calibrate access to healthcare, and improve health equity within populations.

**Previously Offered As:** (Also offered as ANTH 450; may not be taken for duplicate credit.)

## **SOC 452 - Disability and Society**

**Class Hours:** 3  
**Lab/Discussion:** 0  
**Credits:** 3

**Prerequisite:** SOC 151 or SOC 161

**Description:** Analyzes disability from a sociological perspective. Includes consideration of historical and current views of disability and a review of related concepts from the fields of medical sociology and the sociology of deviance. Also includes an analysis of the effects of disabilities on individuals and families through the life course and a consideration of related ethical, economic, political, and social policy issues. Emphasizes disability as a social construction.

## **SOC 454 - Dimensions of Rural Public Health**

**Class Hours:** 3  
**Lab/Discussion:** 0  
**Credits:** 3

**Prerequisite:** SOC 151 or SOC 161

**Description:** Studies health disparities in rural areas and public health interventions to address those disparities. Includes social, economic, political, and cultural influences that impact the health of individuals and families in rural settings, as well as the strategies for improving health status through culturally appropriate and effective interventions and services. Considers the impact of race, gender, and sexual orientation on health status and access to services in rural regions.

## **SOC 465 - Launching Your Sociology Future**

**Class Hours:** 3  
**Lab/Discussion:** 0  
**Credits:** 3

**Prerequisite:** SOC 151 or SOC 231

**Description:** Engages in concrete activities that apply sociological knowledge and skills to make valuable contributions to organizations in the public, private, and non-profit sectors. Identifies the wide range of careers and other endeavors to which sociological skills may be applied. Creates future career and educational goals and develop a realistic strategy for achieving those goals. Builds a portfolio that frames the college experience in marketable ways.

**Previously Offered As:** Prior to Fall 2022, offered as SOC 300

## SOC 481 - Special Topics

**Class Hours:** var

**Credits:** 1-3

**Prerequisite:** As appropriate to course content

**Description:** Offered on an experimental or temporary basis to explore topics not included in the established curriculum. A given topic may be offered under any special topic identity no more than three times. Special topics numbered 481 are offered primarily for upper-level undergraduate students.

## SOC 482 - Independent Study

**Class Hours:** var

**Credits:** 1-3

**Restriction:** Prior approval through advisor, faculty member, department chairperson, dean, and Office of the Provost

**Description:** An opportunity to engage in an in-depth analysis of some topic through consultation with a faculty member. A semester project ordinarily expected.

**Approved:** Approval is based on academic appropriateness and availability of resources.

## SOC 483 - Honors Thesis

**Class Hours:** var

**Credits:** 1-6

**Restriction:** Admission to departmental honors program; prior approval through advisor, faculty member, department chairperson, dean, and Office of the Provost

**Description:** An intensive, focused study involving independent research culminating in a written thesis approved by a thesis director and two faculty readers/committee members.

**Repeated:** May be taken more than once to a maximum of 6cr.

## SOC 493 - Internship in Sociology

**Class Hours:** var

**Credits:** 3-12

**Prerequisite:** Prerequisites vary by track. Permission of internship coordinator required. GPA within SOC of 2.5 or better. Human Services Track Grade of "C" or better in SOC 151 or SOC 161, SOC 320, SOC 391, SOC 392, and 6cr within substantive area General Sociology Track Grade of "C" or better in SOC 151 or SOC 161, SOC 320, SOC 361 or SOC 362 or SOC 363, and 9cr (6cr within substantive area). Students who wish to intern in a human services agency must take SOC 391 and SOC 392. Applied Social Research Track Grade of "C" or better in SOC 151 or SOC 161, SOC 320, SOC 315, SOC 325, and 6cr within substantive area Sociology of Disability Services Track Grade of "C" or better in SOC 151 or SOC 161, SOC 320, SOC 391, SOC 392, SOC 452, EDEX 111

**Description:** A supervised experience in a public or private organization that extends and complements course work at the university.

## Spanish

### SPAN 101 - Beginning Spanish Language and Culture I

**Class Hours:** 3

**Lab/Discussion:** 0

**Credits:** 3

**Description:** For students with little or no background in the study of Spanish. (Students who have studied the language or have a background in Spanish should complete a placement test.) Develops basic ability to communicate effectively in Spanish in everyday situations by asking questions and giving common information about oneself and others in the present time frame. Also develops ability to identify main ideas from written and spoken Spanish, and to communicate in simple written forms. Explores cultural elements of Spanish-speaking countries and communities.

### SPAN 102 - Elementary Spanish II

**Class Hours:** 4

**Lab/Discussion:** 0

**Credits:** 4

**Prerequisite:** SPAN 101, or the equivalent as established by departmental placement examination

**Description:** A continuation of SPAN 101. Students learn to express past and future time and continue to learn about Hispanic countries and their cultures. Liberal Studies credit is given. Attendance is required. May not register for or take a D/F repeat in SPAN 102 when credit has already been received for a higher-numbered course.

## **SPAN 201 - Intermediate Spanish**

**Class Hours:** 4

**Lab/Discussion:** 0

**Credits:** 4

**Prerequisite:** SPAN 102, or the equivalent as established by departmental placement examination

**Description:** A continuation of previous work on listening, speaking, reading, and writing skills. Students learn to function in everyday situations, expressing opinions and doubts, and narrating and describing in present, past, and future time. Exposure to cultural concepts through literary readings. Liberal Studies credit is given. Attendance is required. No student is allowed to register for or take a D/F repeat in SPAN 201 when credit has already been received for a higher numbered Spanish course.

## **SPAN 220 - Intermediate Spanish Conversation**

**Class Hours:** 3

**Lab/Discussion:** 0

**Credits:** 3

**Prerequisite:** SPAN 201 or equivalent

**Description:** Intensive work or oral communication skills with emphasis on spontaneous interpersonal speaking, discourse strategies, vocabulary building, and pronunciation. Liberal Studies credit is given. Required for all majors and minors. No student is allowed to register for or take a D/F repeat in SPAN 220 when credit has already been received for a higher number Spanish course.

## **SPAN 221 - Oral Communication in Spanish for Safety and Health**

**Class Hours:** 3

**Lab/Discussion:** 0

**Credits:** 3

**Prerequisite:** SPAN 201 or the equivalent as established by Foreign Languages departmental placement exam and SAFE 101 or SAFE 111 (may be taken concurrently).

**Description:** Focuses on the day-to-day, oral Spanish skills needed by safety professionals. Intensive work in Spanish on vocabulary and pronunciation, and on using discourse strategies in spontaneous interpersonal speaking to negotiate meaning and respond in Spanish to specific work-related health and safety situations. These situations may include supervisor-employee, worker-worker, and safety personnel-employee interactions. Required for the Certificate in Spanish for Safety Sciences. Interdisciplinary as it is co-taught by faculty in the Departments of Foreign Languages and Safety Sciences. The Safety Sciences content is delivered in English. (Also offered as SAFE 221; may not be taken for duplicate credit.)

**Cross-Listed:** May be cross-listed with SAFE 221

## **SPAN 230 - Intermediate Spanish Composition and Grammar**

**Class Hours:** 3

**Lab/Discussion:** 0

**Credits:** 3

**Prerequisite:** SPAN 220 or equivalent;

**Description:** Intensive practice in written expression and communication in Spanish together with a grammar review. Taught in Spanish. Required for all majors and minors. Meets Liberal Studies requirement for a writing-intensive course for majors.

**Repeated:** may be taken concurrently

## **SPAN 231 - Safety and Health Technical Reading and Writing in Spanish**

**Class Hours:** 3

**Lab/Discussion:** 0

**Credits:** 3

**Prerequisite:** SPAN 201 or the equivalent as established by Foreign Languages departmental placement exam.

**Prerequisite or Corequisite:** SAFE 101 or SAFE 111

**Description:** Intensive practice in written expression and reading comprehension in Spanish to develop the communication skills needed by safety professionals. Focuses on comprehending and producing technical texts on safety practices, such as reports, summaries, and correspondence. Includes comprehension of non-technical texts on safety-related issues, such as newspaper and magazine articles. Required for the Certificate in Spanish

for Safety Sciences. Interdisciplinary as it is co-taught by faculty in the Departments of Safety Sciences and Foreign Languages. The Safety Sciences content is delivered in English. (Also offered as SAFE 231; may not be taken for duplicate credit.)

### **SPAN 244 - Modern Mexico**

**Class Hours:** 3  
**Lab/Discussion:** 0  
**Credits:** 3

**Prerequisite:** SPAN 201 or equivalent and participation in the Mexico Summer Study Abroad Program

**Description:** Taught in Mexico as part of the IUP Mexico study abroad program; introduces the contemporary culture of Mexico. Provides a cultural perspective within which to understand current phenomena. Exposes students to readings on cultural and historical topics, current events, and folkloric narratives. Complements firsthand experience gained through field trips and through living with a Mexican family. Course is taught in Spanish on-site in Mexico and online.

### **SPAN 260 - Introduction to Hispanic Literature**

**Class Hours:** 3  
**Lab/Discussion:** 0  
**Credits:** 3

**Prerequisite:** SPAN 230 or equivalent

**Description:** A Prerequisite for any 300- or 400-level course in Hispanic literatures. Provides the tools necessary for developing literary competence and combines a study of literary genres and analysis with an introduction to the literatures of Spain and Spanish America. Taught in Spanish.

### **SPAN 330 - Advanced Spanish Composition and Grammar**

**Class Hours:** 3  
**Lab/Discussion:** 0  
**Credits:** 3

**Prerequisite:** SPAN 230 or equivalent

**Description:** Extensive work on the development of written expression and communication at the "advanced level" of proficiency in Spanish, as defined by the American Council on the Teaching of Foreign Languages,

together with the study of advanced-level structures. Taught in Spanish.

### **SPAN 340 - Hispanic Cultures into the 19th Century**

**Class Hours:** 3  
**Lab/Discussion:** 0  
**Credits:** 3

**Prerequisite:** SPAN 230 or equivalent

**Description:** An introduction to the significant aspects of the cultures of both Spain and Spanish America. Elements for explanation and discussion are drawn from artistic, literary, religious, geographic, social, and political manifestations of Hispanic cultures as they have revealed themselves through the early 19th century. Taught in Spanish. (Titled Hispanic Civilization through the 19th Century before 2016-17.)

### **SPAN 342 - Spanish Cultures from the 19th Century to the Present**

**Class Hours:** 3  
**Lab/Discussion:** 0  
**Credits:** 3

**Prerequisite:** SPAN 230 or equivalent

**Description:** Analyzes the major cultural trends in 19th-, 20th-, and 21st-century Spain as they relate to its current problems, aspirations, and values. Draws elements for explanation and discussion from artistic, literary, religious, geographic, social, and political manifestations. Taught in Spanish; (May not duplicate credit for SPAN 382 taken in Valladolid.) (Titled 20th-Century Spanish Civilization and Culture before 2016-17.)

**Previously Offered As:** offered alternate years.

### **SPAN 344 - Spanish-American Cultures from the 19th Century to the Present**

**Class Hours:** 3  
**Lab/Discussion:** 0  
**Credits:** 3

**Prerequisite:** SPAN 230 or equivalent

**Description:** Analyzes the major cultural trends in Spanish America as they relate to its position in the world, starting with the independence movements of the early nineteenth century, through the 20th century to the present. Draws elements for explanation and discussion from social, political, artistic, literary, religious, and geographic

manifestations, including indigenous and African cultural influences. Taught in Spanish; (Titled 20th- Century Spanish-American Civilization and Culture before 2016-17.)

**Previously Offered As:** offered alternate years.

### **SPAN 350 - Advanced Spanish Conversation**

**Class Hours:** 3

**Lab/Discussion:** 0

**Credits:** 3

**Prerequisite:** SPAN 230 or equivalent. May earn credit for SPAN 350 before taking SPAN 230 only by completion of a minimum six-week study abroad program and successful prior completion of SPAN 220 (or the equivalent).

**Description:** Extensive practice in oral communication skills. Emphasizes development of fluency in speaking over a wide range of topic areas. Required for all majors and minors.

### **SPAN 362 - Survey of Peninsular Literature**

**Class Hours:** 3

**Lab/Discussion:** 0

**Credits:** 3

**Prerequisite:** SPAN 260 or permission

**Description:** Introduces a careful and critical reading of literary texts from Spain, read either in their entirety or in select passages. Taught in Spanish;

**Previously Offered As:** offered alternate years.

### **SPAN 364 - Survey of Spanish-American Literature**

**Class Hours:** 3

**Lab/Discussion:** 0

**Credits:** 3

**Prerequisite:** SPAN 260 or permission

**Description:** Introduces a careful and critical reading of Spanish-American literary texts, read either in their entirety or in select passages. Taught in Spanish;

**Previously Offered As:** offered alternate years.

### **SPAN 382 - Contemporary Spain**

**Class Hours:** 3

**Lab/Discussion:** 0

**Credits:** 3

**Prerequisite:** SPAN 230 and SPAN 260 or permission

**Description:** Gives a general view of Spain today in the areas of society, economy, and political institutions. (See SPAN 342)

### **SPAN 383 - Geography and History of Spain**

**Class Hours:** 3

**Lab/Discussion:** 0

**Credits:** 3

**Prerequisite:** SPAN 230 and SPAN 260 or permission

**Description:** Introduces a panorama of Spanish physical, social, and economic geography, including the recent autonomic division of the country and the communication among the autonomies. Also reviews the history of Spain from the 15th century to the present with special emphasis on today's Spanish institutions.

### **SPAN 384 - History of Spanish Art**

**Class Hours:** 3

**Lab/Discussion:** 0

**Credits:** 3

**Prerequisite:** SPAN 230 and SPAN 260 or permission

**Description:** Exposure to the richness of art in the Iberian Peninsula and in particular in the area of Madrid and Castilla-Leon. Studies the evolution of Spanish art in history, giving more emphasis to contemporary tendencies.

### **SPAN 385 - Survey of Spanish Literature**

**Class Hours:** 3

**Lab/Discussion:** 0

**Credits:** 3

**Prerequisite:** SPAN 230 and SPAN 260 or permission

**Description:** Introduces a general study of Spanish literature from its origin to the present time; students learn to appreciate and analyze the different literary genres. An emphasis on 20th-century literature.

### **SPAN 389 - Theory and Practice of Spanish Language**

**Class Hours:** 3  
**Lab/Discussion:** 0  
**Credits:** 3

**Prerequisite:** SPAN 230 and SPAN 260 or permission  
**Description:** Introduces Spanish syntax, morphology, and the Spanish language lexicon, as well as familiar and formal conversation and idiomatic expressions used in everyday situations.

### **SPAN 390 - Teaching of Elementary Content through the Spanish Language**

**Class Hours:** 3  
**Lab/Discussion:** 0  
**Credits:** 3

**Prerequisite:** Passage of a language proficiency examination and instructor permission  
**Description:** Studies current theories of language acquisition processes in children and develops foreign language instructional objectives and activities that integrate language and cultural learning with the content areas of the elementary school curriculum. Through hands-on practice, students develop techniques for teaching functional language, planning lessons, testing language skills, setting curricular objectives, and selecting/designing materials appropriate to the needs and interests of elementary school foreign language learners.

### **SPAN 402 - Translation and Interpretation**

**Class Hours:** 3  
**Lab/Discussion:** 0  
**Credits:** 3

**Prerequisite:** SPAN 230, SPAN 350  
**Description:** Fundamental translation skills for use in business and industry as well as in academic and popular fields.

### **SPAN 412 - The Spanish Novel of the 19th and 20th Centuries**

**Class Hours:** 3  
**Lab/Discussion:** 0  
**Credits:** 3

**Prerequisite:** SPAN 260 or permission  
**Description:** An analysis of selected novels from three

major periods: the 19th century, the Generation of 1898, and the post-Civil War. Taught in Spanish.

### **SPAN 413 - Spanish Poetry of the 19th and 20th Centuries**

**Class Hours:** 3  
**Lab/Discussion:** 0  
**Credits:** 3

**Prerequisite:** SPAN 260 or permission  
**Description:** The study and analysis of lyric poetry in Spain from 19th-century poetry through modernism and its evolution to the present. Taught in Spanish.

### **SPAN 450 - Conversation Forum**

**Class Hours:** 3  
**Lab/Discussion:** 0  
**Credits:** 3

**Prerequisite:** SPAN 350 or equivalent  
**Description:** Extensive work on the development of speaking skills at the "Advanced" level of oral proficiency, as defined in the Speaking Guidelines developed by the American Council on the Teaching of Foreign Languages. Focuses on paragraph-length discourse and narration and description in present, past, and future time frames within a variety of topics and contexts.

### **SPAN 453 - Spanish Phonetics and Phonemics**

**Class Hours:** 3  
**Lab/Discussion:** 0  
**Credits:** 3

**Prerequisite:** SPAN 230  
**Description:** An introduction to the study of the phonological system of Spanish and emphasis on improving pronunciation. Includes a theoretical basis for understanding the Spanish sound system, pronunciation practice and recordings, study of Spanish dialects, and linguistic analyses. Taught in Spanish. Required for Spanish education K-12 majors; highly suggested for Spanish majors.

### **SPAN 454 - Spanish in Four Dimensions**

**Class Hours:** 3  
**Lab/Discussion:** 0



**Credits:** 3

**Prerequisite:** SPAN 260 and SPAN 330

**Description:** Introduces the fundamentals of Spanish linguistics. Provides an overview of the study of the sound system (phonetics and phonology), word formation (morphology), sentence structure (syntax), and sociolinguistic aspects. Applies linguistic principles by practicing translation and interpretation of authentic texts. Explores other linguistic areas, such as semantics, sociolinguistics, and language variation through the study of Spanish across the Spanish-speaking world and the US. Taught in Spanish with English appropriate to course content.

### **SPAN 481 - Special Topics**

**Class Hours:** var

**Credits:** 1-3

**Prerequisite:** As appropriate to course content

**Description:** Offered on an experimental or temporary basis to explore topics not included in the established curriculum. A given topic may be offered under any special topic identity no more than three times. Special topics numbered 481 are primarily for upper-level undergraduate students.

### **SPAN 482 - Independent Study**

**Class Hours:** var

**Credits:** 1-6

**Restriction:** Prior approval through advisor, faculty member, department chairperson, dean, and Office of the Provost

**Description:** An opportunity to engage in an in-depth analysis of some topic dealing with the Spanish language and culture through consultation with a faculty member.

**Approved:** Approval is based on academic appropriateness and availability of resources.

## **Speech Pathology and Audiology**

### **SPLP 111 - Introduction to Communication Disorders**

**Class Hours:** 3

**Lab/Discussion:** 0

**Credits:** 3

**Restriction:** Major in speech-language pathology and audiology or minor in audiology

**Description:** An introduction to study of physiological, acoustical, and scientific processes involved in production and reception of speech. The genetic development of speech sounds and factors that hinder or facilitate speech and language acquisition.

### **SPLP 123 - Phonetics and Language**

**Class Hours:** 4

**Lab/Discussion:** 0

**Credits:** 4

**Restriction:** Speech-Language Pathology Major

**Description:** Provides an overview of the structure of language and the cognitive processing underlying normal language behavior with application for individuals with communication disorders. Includes a detailed study of classification of American English phonemes using physical and acoustical perspectives. Develops a proficiency in the use of the International Phonetic Alphabet for allophonic transcription of normal and disordered speech. Discusses dialectal variation throughout the course.

### **SPLP 242 - Speech and Hearing Science**

**Class Hours:** 3

**Lab/Discussion:** 0

**Credits:** 3

**Description:** Explores the theoretic properties, biological characteristics, and physical analysis of human speech production, speech perception, hearing and swallowing. Integrates applications of clinical instrumentation and measurement.

### **SPLP 251 - Anatomy and Physiology for Communication Disorders**

**Class Hours:** 4

**Lab/Discussion:** 0

**Credits:** 4

**Restriction:** Speech-Language Pathology Major

**Description:** Examines the structure and function of the body systems involved in speech production (i.e., respiration, phonation, articulation), hearing and swallowing and an introduction to the nervous system. Normal variances based on age, gender, and race are

included. Comparisons between normal and disordered clinical presentations are introduced.

### **SPLP 310 - Observation in Communication Disorders**

**Class Hours:** 2  
**Lab/Discussion:** 0  
**Credits:** 2

**Prerequisite:** Speech-language pathology and audiology majors with junior standing  
**Description:** Provides a context for observation of individuals of all ages receiving speech-language pathology or audiology services. Discusses principles of observation, as well as assessment, prevention, and intervention.

### **SPLP 311 - Audiology and Aural Rehabilitation**

**Class Hours:** 4  
**Lab/Discussion:** 0  
**Credits:** 4

**Restriction:** Speech-Language Pathology major  
**Description:** Examines the types and causes of hearing loss and the impact on communication across the lifespan. Addresses measurement of ear physiology and hearing. Includes types and functions of hearing assistive technology with trouble-shooting strategies.

### **SPLP 334 - Language Development**

**Class Hours:** 3  
**Lab/Discussion:** 0  
**Credits:** 3

**Restriction:** Speech-language pathology and audiology major  
**Description:** The study of development of an interpersonal communication system; language as a system of symbols for communication; the structure of the English language, including phonology, syntax, semantics. Highlighting of neurological, social, and psychological bases of language development.

### **SPLP 342 - Neuroscience for Communication Disorders**

**Class Hours:** 3  
**Lab/Discussion:** 0

**Credits:** 3

**Prerequisite:** Speech-language pathology and audiology major, junior standing  
**Description:** An overview of the basic anatomy of the central nervous system and its control of human swallowing and communication. Includes the biological science principles of speech and language processing and neurogenic communication and swallowing disorders in children and adults. (Titled Speech Science II Neuroscience before 2016-17.)

### **SPLP 345 - Articulation and Language Disorders**

**Class Hours:** 4  
**Lab/Discussion:** 0  
**Credits:** 4

**Restriction:** Speech-Language Pathology major  
**Description:** Explores principles and practices for articulation and language disorders as they apply across the lifespan and culturally diverse populations. Provides an overview of evidence-based assessment and intervention tools and practices used within the profession. Facilitates students' development of clinical writing skills to report the results of diagnostic and treatment sessions.

### **SPLP 401 - Autism for the SLP**

**Class Hours:** 2  
**Lab/Discussion:** 0  
**Credits:** 2

**Restriction:** Speech-Language Pathology major  
**Description:** Examines the interplay among cognition, language, and communication in children and adolescents with autism spectrum disorders (ASD). Focuses on the interdisciplinary team approach. Introduces methods for assessment and intervention for language and social communication skills. Emphasizes methods that can facilitate social skills, play and friendships.

### **SPLP 408 - Organic Disorders**

**Class Hours:** 3  
**Lab/Discussion:** 0  
**Credits:** 3

**Prerequisite:** Speech-language pathology and audiology major, junior standing  
**Description:** Introduces the theoretic foundations, clinical

characteristics, diagnostic procedures, and treatment options for three subspecialties in speech-language pathology: stuttering, voice disorders, and dysphagia.

### **SPLP 412 - Professional Practice**

**Class Hours:** 3  
**Lab/Discussion:** 0  
**Credits:** 3

**Restriction:** Speech-Language Pathology major  
**Description:** Explores the demands and experiences in a variety of clinical practice settings. Focuses on management techniques for client documentation, materials, referrals and interprofessional practice. Emphasizes issues of ethical practice and cultural diversity, equity, and inclusion.

### **SPLP 420 - Undergraduate Clinic**

**Class Hours:** var  
**Credits:** 1-3

**Prerequisite:** SPLP 310, SPLP 410, GPA of 3.0 or better, all major courses, program director's permission  
**Description:** An experience in working with individuals or groups of persons who exhibit speech, language, or hearing problems. Treatment planning, documentation, and service delivery.

### **SPLP 481 - Special Topics**

**Class Hours:** var  
**Credits:** 1-3

**Prerequisite:** As appropriate to course content  
**Description:** Offered on an experimental or temporary basis to explore topics not included in the established curriculum. A given topic may be offered under any special topic identity no more than three times. Special topics numbered 481 are primarily for upper-level undergraduate students.

### **SPLP 485 - Service Learning**

**Class Hours:** 3  
**Lab/Discussion:** 0  
**Credits:** 3

**Description:** Provides an organized experience with cooperative community or agency populations who need advocacy and volunteer support in related communication

or swallowing services. Evaluates the needs and limitations of volunteer support mechanisms for the target population.

**Repeated:** May be taken four times for a maximum of 12 credits.

### **SPLP 493 - Pediatric Internship**

**Class Hours:** 0  
**Lab/Discussion:** 3+  
**Credits:** 1-6

**Restriction:** Permission from SPLP Internship Coordinator.

**Description:** Provides experiential learning in human service with population demographics consistent with the pediatric scope of practice in speech-language pathology from infant to age 18 years. Includes coordinated university faculty and site supervision.

**Repeated:** May be taken up to six times for a maximum of 6 credits.

### **SPLP 494 - Adult Internship**

**Class Hours:** 0  
**Lab/Discussion:** 3+  
**Credits:** 1-6

**Restriction:** Permission from SPLP Internship Coordinator.

**Description:** Provides experiential learning in human service with population demographics consistent with the adult and geriatric scope of practice in speech-language pathology. Includes coordinated university faculty and site supervision.

**Repeated:** May be taken up to six times for a maximum of 6 credits.

## **Sustainability Studies**

### **SUST 201 - Introduction to Sustainability Studies**

**Class Hours:** 3  
**Lab/Discussion:** 01  
**Credits:** 3

**Description:** Keystone course for students pursuing a minor in Sustainability Studies. To live sustainably is to aspire for balance with the environment in a society that seeks equality, justice, and the well-being of all species.

Considers definitions of sustainability and introduces the principles, histories and practices of sustainability through a critical combination of interdisciplinary, global, and multicultural perspectives. Enables grappling with major, interdependent social, economic, cultural, and environmental contexts and issues related to sustainability. Engages in a praxis-based problem-solving research project, which addresses a core set of current sustainability issues emerging in local, regional, national, and global contexts.

## Theater

### THTR 101 - Introduction to Theatre

**Class Hours:** 3  
**Lab/Discussion:** 0  
**Credits:** 3

**Description:** Explores major conceptual, philosophical, and aesthetic underpinnings of theatre arts. Includes the analysis of major historical and contemporary works of drama through dramatic literature and live and mediated performance. Introduces key elements of theatre through examining the roles and functions of acting, playwriting, directing, and design. Meets Fine Arts requirement for Liberal Studies. THTR 101 and THTR 161 may be substituted interchangeably for D/F repeats. THTR 101 and THTR 161 may not be used for duplicate credit. THTR 161 is required for the Effective Teamwork and Communication minor.

### THTR 111 - Foundations of Theater

**Class Hours:** 3  
**Lab/Discussion:** 0  
**Credits:** 3

**Description:** A primary course for those engaged in theater and any other performance-related area so as to define the nature of theater art, develop one's own individual system of analysis, and finally acquire an understanding of process, dramatic structure, composition, genre, theatrical styles, and a theory of performance.

### THTR 120 - Stagecraft

**Class Hours:** 3  
**Lab/Discussion:** 0  
**Credits:** 3

**Corequisite:** THTR 486

**Description:** Explores the material, methods, and procedures utilized in creating scenery for live performance and sound stage production. Covers the basics of scenery construction through instruction and practical applications. Develops competencies with the basic materials, equipment and creative methods used in a scenery studio and as a stage hand, running performances. **Requires practice of competencies through co-requisite enrollment in THTR 486 Practicum (.5 cr).**

### THTR 122 - Costume Technology

**Class Hours:** 3  
**Lab/Discussion:** 0  
**Credits:** 3

**Corequisite:** THTR 486  
**Description:** Provides instruction and practical experience in the process of building costumes for live and recorded performance, and operating wardrobe support. Includes competencies of cutting, sewing, and fabric modification. Develops capability in wardrobe operation, costume stock, and material identification and selection. **Requires practice of competencies by co-requisite enrollment in THTR 486 Practicum (.5 cr).**

### THTR 130 - Stage Voice and Movement

**Class Hours:** 3  
**Lab/Discussion:** 0  
**Credits:** 3

**Description:** Generates healthy vocal production and expressive physicality for performance. Demonstrates beneficial adjustments of personal vocal and physical mannerisms. Performs resonant, articulate vocal projection and flexible, expressive movement in multiple stage configurations.

### THTR 132 - Introduction to Acting

**Class Hours:** 3  
**Lab/Discussion:** 0  
**Credits:** 3

**Description:** Introduces the art and craft of the theater from the actor's point of view. Through practical application, students develop personal and professional skills that enhance oral communication, self-presentation, and self-confidence. Students also develop the ability to respond knowledgeably to theatrical productions as an audience member.

## THTR 140 - Foundations of Ensemble

**Class Hours:** 3

**Lab/Discussion:** 0

**Credits:** 3

**Description:** An intensive, experiential workshop that introduces and explores fundamental components of theatrical performance (vocal, physical, ensemble, imaginative, analytic) in a holistic sequence of exercises and projects. Provides incoming theater majors with a common set of foundational theater skills and knowledge, a theatrical vocabulary, and collaborative ensemble interaction that enriches the freshman experience. As students progress, whether on a performance track or in other areas, this course gives them a shared context from which to grow as theater artists.

## THTR 161 - Introduction to Theatre: Teamwork

**Class Hours:** 3

**Lab/Discussion:** 0

**Credits:** 3

**Description:** Explores major conceptual, philosophical, and aesthetic underpinnings of theatre arts. Includes the analysis of major historical and contemporary works of drama through dramatic literature and live and mediated performance. Introduces key elements of theatre through examining the roles and functions of acting, playwriting, directing, and design. Builds skills in teamwork through implementation of theatrical practice, analysis of interpersonal communication, and development of collaboration within a team project. Designed for those seeking a minor in Effective Teamwork and Communication. Meets Fine Arts requirement for Liberal Studies. THTR 101 and THTR 161 may be substituted interchangeably for D/F repeats. THTR 101 and THTR 161 may not be used for duplicate credit. THTR 161 is required for the Effective Teamwork and Communication minor.

## THTR 212 - History and Literature: Renaissance

**Class Hours:** 3

**Lab/Discussion:** 0

**Credits:** 3

**Description:** Surveys Western theater from the Renaissance to the Industrial Revolution. Examines styles and genres of the period through the work of playwrights,

directors, actors, designers, and theorists. Includes the study of cultural, social, political, and economic contexts of Western theater in this period, as well as the changes in performance practice, the architecture of performance space, theater technology, and audience composition.

## THTR 213 - History and Literature: Modern and Contemporary

**Class Hours:** 3

**Lab/Discussion:** 0

**Credits:** 3

**Description:** Surveys Western theater from the late 19th century to the present. Examines styles and genres of the period through the work of playwrights, directors, actors, designers, and theorists. Includes the study of cultural, social, political, and economic contexts of Western theater in this period, as well as the changes in performance practice, the architecture of performance space, theater technology, and audience composition.

## THTR 214 - Theatre History and Literature: Tragedy

**Class Hours:** 3

**Lab/Discussion:** 0

**Credits:** 3

**Description:** Surveys various eras of theatre grouped into major topics including but not limited to: Tragedy and Women, Gender, and Identity. Examines and analyzes how the plays reflect the social and historical contexts of these topics, especially how perceptions of tragedy have changed, and how issues regarding women, gender, and identity have evolved throughout the centuries. Includes how playwrights, designers, directors, and other theatre-makers have presented and staged these issues, and how audiences have received them.

## THTR 215 - Theatre History and Literature: Comedy

**Class Hours:** 3

**Lab/Discussion:** 0

**Credits:** 3

**Description:** Surveys various eras of theatre grouped into major topics including but not limited to: Comedy and the Business of War and Peace. Examines and analyzes how perceptions and performances of comedy have changed, as well as which aspects have stayed largely the same.

Analyzes war as a historical reality and how playwrights, directors, designers, and other theatre-makers have found ways to stage war and its collateral damage.

### **THTR 216 - Fundamentals of Theatrical Design**

**Class Hours:** 3  
**Lab/Discussion:** 0  
**Credits:** 3

**Description:** Introduces the fundamentals of scenic, costume, lighting, and sound design for theater and dance. Focuses on creative processes used by designers to make choices. Analyses scripts, creates best practice in director and designer communication, applies visual storytelling and understands the integration of the design elements into a unified production.

### **THTR 221 - Performance Lighting**

**Class Hours:** 3  
**Lab/Discussion:** 0  
**Credits:** 3

**Corequisite:** THTR 486

**Description:** Introduces concepts and develops skills to apply lighting technology to various stage, video and photographed performances. Acquire skills in instrument selection, system set up, and console programming. Develop beginning level practices of lighting composition, lighting color theory, and cueing. Practice of competencies required by corequisite enrollment in THTR 486 for 0.5 credits.

### **THTR 223 - Makeup for the Stage**

**Class Hours:** 3  
**Lab/Discussion:** 0  
**Credits:** 3

**Description:** Deals with practical application of straight and character makeup and may include instruction in creating beards, wigs, prosthetics, and masks.

### **THTR 225 - Theater Graphics**

**Class Hours:** 1  
**Lab/Discussion:** 3  
**Credits:** 3

**Description:** A practical introduction to hand drawing,

drafting, and graphic technology applied to theater design, technology, and stage management.

### **THTR 226 - Stage Management**

**Class Hours:** 3  
**Lab/Discussion:** 0  
**Credits:** 3

**Prerequisite:** THTR 111 or instructor permission

**Description:** A practical survey of stage management as it pertains to theater, dance, and opera productions. Covers the role of the stage manager from pre-production to post-production as well as the techniques, communication methodology, practices, and standard theater terminology.

### **THTR 240 - Acting I**

**Class Hours:** 3  
**Lab/Discussion:** 0  
**Credits:** 3

**Prerequisite:** THTR 132 (B or better) or THTR 140

**Description:** Explores the primary elements of the Stanislavski system of character development. Examines text analysis and the development of physical action through a character's subtext, as well as motivational and improvisational techniques.

### **THTR 261 - Simulation Performance**

**Class Hours:** 3  
**Lab/Discussion:** 0  
**Credits:** 3

**Description:** Trains in Standardized Patient/Simulation Participants (SP) methodology using Applied Theatre techniques. Applies skills in character development, scenario creation, improvisation, and debriefing to interdisciplinary simulations ranging from healthcare to psychology to political science. Portrays complex characters within simulations to enhance communication skills, verbal and nonverbal. Investigates nuanced provider-patient or professional-client interactions within a team-created original scenario.

### **THTR 281 - Special Topics**

**Class Hours:** var  
**Credits:** 1-3

**Prerequisite:** As appropriate to course content

**Description:** Offered on an experimental or temporary basis to explore topics not included in the established curriculum. A given topic may be offered under any special topic identity no more than three times. Special topics numbered 281 are offered primarily for lower-level undergraduate students.

### THTR 310 - Theater Criticism

**Class Hours:** 3  
**Lab/Discussion:** 0  
**Credits:** 3

**Prerequisite:** Junior or senior theater major status or permission

**Description:** Gives students of theater an opportunity to use what they have learned in the areas of theater (acting, directing, design, and playwriting) toward the critical process of responding to theater productions. Examines differences between theater criticism and theater reviews while learning to write critical responses to live performances both on and off campus.

### THTR 311 - Dramaturgy

**Class Hours:** 3  
**Lab/Discussion:** 0  
**Credits:** 3

**Description:** An introduction to the study and profession of dramaturgy. A study of the historical significance of the dramaturg through the reading of early and modern practitioners. An examination of a number of critical theories that students will use to contextualize play scripts under study. Performance of such dramaturgical tasks as identifying script references, historicizing social conventions and customs, comparing translations of notable foreign plays, preparing information packets for actors, directors, and design teams, drafting program notes, and organizing talkbacks. An opportunity to provide services for a department production.

**Cross-Listed:** (Cross-listed as ENGL 309.)

### THTR 313 - American Theater Between the Wars

**Class Hours:** 3  
**Lab/Discussion:** 0  
**Credits:** 3

**Description:** Surveys popular and significant American plays written and produced in the 1920s and 1930s.

Examines theatrical styles, trends, and themes that reflect the era's values and the challenges and threats to those values. Analyzes and compares the work of playwrights, directors, performers, and designers within the historical and social contexts of the past Great War and the impending Second World War, as well as formulates comparisons to the world of the 21st century.

### THTR 320 - Scene Design

**Class Hours:** 3  
**Lab/Discussion:** 0  
**Credits:** 3

**Description:** Introduces scenic design by applying design principles. Demonstrates current scene design practice, creates design concepts, applies graphic communication methods, and develops a method to create scenic design projects.

### THTR 321 - Stage Lighting Design

**Class Hours:** 3  
**Lab/Discussion:** 0  
**Credits:** 3

**Description:** Introduces stage lighting design by applying the fundamental principles of design. Explores current lighting methods and equipment, evaluates the controllable properties and functions of stage lighting, analyzes how to see light and creates evocative storyboards and associate design graphics.

### THTR 322 - Costume Design

**Class Hours:** 3  
**Lab/Discussion:** 0  
**Credits:** 3

**Description:** Introduces the art and craft of costume design. Evaluates scripted and unscripted works, analyzes characters, develops research skills and applies to design ideas using figure drawing and mood boards as communication methods. Creates designs for characters in performance.

### THTR 323 - Sound Design

**Class Hours:** 3  
**Lab/Discussion:** 0  
**Credits:** 3

**Description:** Covers the basic principles and theories of designing sound for the theatre. Through demonstration and practical application, covers the following principal areas: basic electronics, recording techniques and equipment, musical and effects integration, theatre acoustics, designing sound, and sound reinforcement.

### THTR 331 - Improvisation and Creativity

**Class Hours:** 3

**Lab/Discussion:** 0

**Credits:** 3

**Description:** Synthesizes short- and long-form improvisation techniques and scene practice. Interprets an overview of improvisation styles and practitioners. Analyzes how social mores, world events, and prevailing attitudes shaped and continue to shape the world of improvisational theater throughout theater history. Culminates in final improvisation performance project.

### THTR 332 - Auditioning

**Class Hours:** 3

**Lab/Discussion:** 0

**Credits:** 3

**Prerequisite:** THTR 240

**Description:** Analyzes dramatic texts and performances conceptually and critically. Integrates textual analysis with performance skills to audition pieces of varied performance genres/styles. Creates dramatically effective audition performances.

### THTR 340 - Acting II

**Class Hours:** 3

**Lab/Discussion:** 0

**Credits:** 3

**Prerequisite:** THTR 240

**Description:** A continuation of the study of Stanislavski system, focusing on his primary texts, toward a development of individual student techniques. Emphasizes scene study through applying techniques to scene rehearsal and role problems and exploring the relationships between psychological states, physical action, and truth in acting.

### THTR 342 - Acting Shakespeare

**Class Hours:** 3

**Lab/Discussion:** 0

**Credits:** 3

**Prerequisite:** THTR 240

**Description:** Prepares students to perform in Shakespeare's play through an advanced acting studio. Explores a background overview of the Elizabethan period in addition to various methods toward approaching the movement, language, and verse forms from an actor's point of view.

### THTR 347 - Playwriting

**Class Hours:** 3

**Lab/Discussion:** 0

**Credits:** 3

**Description:** A practical exploration of the craft and process of playwriting. Focuses primarily on the practical, "hands-on" experiences approximating the "developmental process" currently in use in the American theater. The student is guided from the initial concept through synopsis, outlines, working drafts, and completion of an original one-act play and a "staged reading" of this project. Either of these courses may be substituted for each other and may be used interchangeably for D/F repeats but may not be counted for duplicate credit.

**Note:** Cross-listed as ENGL 347.

### THTR 350 - Directing

**Class Hours:** 3

**Lab/Discussion:** 0

**Credits:** 3

**Prerequisite:** THTR 240

**Description:** Analyzes diverse scripts from a director's perspective with attention to dramatic structure, character analysis and staging. Applies script analysis to casting, floor plans and rehearsal procedures. Directs short scenes for class presentation.

### THTR 361 - Performance of Caring

**Class Hours:** 3

**Lab/Discussion:** 0

**Credits:** 3

**Description:** Enhances interpersonal communication with patients, clients, and colleagues using an interactive and hands-on approach based on Performance Studies. Builds skills in empathetic response, verbal and nonverbal communication, and active listening applied directly to scenarios from a range of disciplines. Engages in



performative role-playing to explore collaborative problem-solving, practice de-escalation techniques, and navigate challenging situations in the workplace. Applies performance tools and Applied Theatre methods for enhanced interpersonal communication skills in simulations tailored to specific disciplines.

### **THTR 362 - Performance for Social Change**

**Class Hours:** 3  
**Lab/Discussion:** 0  
**Credits:** 3

**Description:** Explores how performance can be a tool for social transformation within a global context from social media campaigns to organized protests. Engages in deep inquiry on diverse cross-cultural performance and learn tools to create social change through interdisciplinary collaboration. Uses the performance methods of Augusto Boal's Theatre of the Oppressed, address issues of power, privilege, social identity, and systems of oppression. Covers the political, cultural, and historical contexts of contemporary global movements for social change and key theoretical frameworks with which to analyze and create performance. Applies performance tools for creative and non-violent action for social change through dialogue, interactive exercises, community-based performance, and identity awareness projects. Includes Equity/Diversity/Inclusion (EDI) pedagogy through the lens of multicultural performance awareness and facilitator training for engaging in community dialogue.

### **THTR 371 - Musical Theater History**

**Class Hours:** 3  
**Lab/Discussion:** 0  
**Credits:** 3

**Description:** Surveys the development of musical theater as a performing art form in America. Examines the ways musicals both reflect and embody values, tastes, and trends from their respective historical eras. Explores musical theater from historical, political, social, and aesthetic perspectives. Focuses on the beginnings of musical theater to the present with emphasis on the cultural development and impact of the art form.

### **THTR 372 - Musical Theater Auditioning**

**Class Hours:** 3  
**Lab/Discussion:** 0

**Credits:** 3

**Prerequisite:** THTR 240 or instructor permission  
**Description:** Introduces the study of audition techniques for musical theater, music, scene, and lyric analysis, and characterizations addressed. Enhances and improves audition and performance skills as well as the ability to find and choose appropriate audition material.

### **THTR 373 - Musical Theater Scene Study**

**Class Hours:** 3  
**Lab/Discussion:** 0  
**Credits:** 3

**Prerequisite:** THTR 240 or instructor permission  
**Description:** An intensive text and score analysis in relation to the process of characterization for the actor, singer, dancer in musical theater focused through musical scene work into song performance. In addition, basic insights and strategies for a professional career in theater are presented.

### **THTR 471 - Musical Theater Performance**

**Class Hours:** 3  
**Lab/Discussion:** 0  
**Credits:** 3

**Description:** Develops musical theatre skills at a more advanced level in a rehearsal and production format. Applies advanced performance techniques to bring characters to life on stage, while using a contemporary American musical. Culminates in a final performance focusing on ensemble building and the creation of fully developed characterizations. This is a repeatable course that meets the Theatre, Dance, and Performance degree requirements.

### **THTR 480 - Theatre Seminar**

**Class Hours:** 1  
**Lab/Discussion:** 0  
**Credits:** 1

**Prerequisite:** THTR 111; THTR 486  
**Description:** Capstone course for majors. Students complete work on their senior thesis project and examine career options. Students develop résumés, portfolios, and other materials particular to their education as a theatre or dance artist and their aspirations for a career or

postgraduate studies in a creative field.

**Previously Offered As:** Offered fall semester only.

### THTR 481 - Special Topics

**Class Hours:** var

**Credits:** 1-6

**Prerequisite:** As appropriate to course content

**Description:** Offered on an experimental or temporary basis to explore topics not included in the established curriculum. A given topic may be offered under any special topic identity no more than three times. Special topics numbered 481 are primarily for upper-level undergraduate students.

### THTR 482 - Independent Study

**Class Hours:** var

**Credits:** 1-6

**Restriction:** Prior approval through advisor, faculty member, department chairperson, dean, and Office of the Provost

**Description:** Independent study in theater may be either purely academic or may be a practical production project, supported by a written document giving evidence of significant scholarly investigation or original, creative effort.

**Repeated:** May be repeated to a maximum of 6cr.

**Approved:** Approval is based on academic appropriateness and availability of resources.

### THTR 484 - Directing Studio

**Class Hours:** 3

**Lab/Discussion:** 2

**Credits:** 3

**Prerequisite:** THTR 350 or instructor permission. Written application to the instructor is required.

**Description:** An opportunity for students to direct scene work, one-act plays, or larger projects, according to individual levels of experience, preparation, and readiness, as well as program resources. The focus is on practical application of directing principles to specific issues. Student projects are performed in public, open-class recitals.

**Repeated:** May be repeated.

### THTR 486 - Practicum: Performance, Production, Dramaturgy, or Applied Theatre

**Class Hours:** var

**Lab/Discussion:** 0

**Credits:** 0-3

**Description:** Develop skills through artistic practice of performance, production, dramaturgy and applied theatre. Engage with faculty led, professionally modeled productions of plays, musicals and dance. Increase competency in acting, directing, stage management, design/technology, dramaturgical research and applied theatre techniques including simulation practices.

**Repeated:** May be taken up to 20 times for a maximum of 16 credits.

### THTR 487 - Acting Studio

**Class Hours:** 3

**Lab/Discussion:** 0

**Credits:** 3

**Prerequisite:** Minimum of THTR 240 or instructor permission. Written application to the instructor may be required when necessary.

**Description:** An advanced studio course offering scene practice with faculty direction, coaching, and criticism. Specific focus of scene work varies from semester to semester, including improvisation techniques, stage dialects, audition techniques, stage combat, physical theater, and acting for the camera as alternating semester options.

**Repeated:** May be repeated with a different focus each time.

### THTR 489 - Design/Technology/Management Studio

**Class Hours:** 3

**Lab/Discussion:** 0

**Credits:** 3

**Description:** Open to all students desiring instruction in a variety of technical theater areas not presently covered in other courses. Topics to include stage management, set props, media makeup, technical drawing/mixed media, costume technology, and scene painting.

**Repeated:** May be repeated with each different topic area.

## THTR 493 - Internship

**Class Hours:** var

**Lab/Discussion:** 0

**Credits:** 1-12

**Restriction:** Instructor permission.

**Description:** Explores professional practice opportunities with organizations in areas related to theatre, dance, and performance. Sites reflect the academic goals of the department and are approved and administered by a department instructor. Location, duties, length of internship, and hours are individually tailored to student's career goals.

## THTR 495 - Senior Thesis

**Class Hours:** 1

**Lab/Discussion:** 0

**Credits:** 1

**Prerequisite:** THTR 480

**Description:** Develops and presents a culminating capstone experience through Individualized Instruction. Synthesizes prior learning and experiences into a project proposal that is uniquely suited to their post-graduation plan. Applies professional practices and methods to document research, preparation and production/performance. Project culminates in a form of public presentation.

## Undergraduate Studies and Student Success

### UGSS 110 - Introduction to Critical Reading and Thinking

**Class Hours:** 2

**Lab/Discussion:** 0

**Credits:** 2

**Description:** *Note:* Students enrolled in DVST 070 who score 250 and below on the ACCUPLACER post-test (administered at the end of DVST 070) are required to enroll in UGSS110 the following semester. Open for enrollment for any student.

Focuses on the development and mastery of skills related to the processes of understanding, analyzing, and assessing college-level texts and other academic readings.

Synthesizes written information from a variety of sources and content areas. *Note:* For sections paired with specific

content-area course sections, students are required to register for both courses.

### UGSS 150 - College Adjustment and Student Success

**Class Hours:** 1

**Lab/Discussion:** 0

**Credits:** 1

**Description:** Facilitates the acclimation to IUP through an exploration of college policies and expectations. Examines curricular requirements, troubleshoots college transition and acclimation issues, and introduces the best path of success as a member of the IUP community. Provides an overview of the undergraduate catalogue, resources, campus safety, financial and academic planning, time management and success strategies.

### UGSS 160 - Academic Development Workshop

**Class Hours:** 1

**Lab/Discussion:** 0

**Credits:** 1

**Description:** Utilizes a hands-on approach to solving specific problems encountered during the adjustment to college. Focuses on the development and implementation of academic success strategies to create a toolkit of resources and skills based on literature best practices. Applies learned practices to other course concepts to demonstrate mastery of skills.

### UGSS 170 - Academic and Career Planning

**Class Hours:** 1

**Lab/Discussion:** 0

**Credits:** 1

**Description:** Introduces the theoretical and practical framework with which to explore majors and careers compatible with academic skills, interests, values, and life goals. Develops the skills and habits for a successful college experience and beyond. Develops a strong foundation for academic and career decision making through inventories, research on majors and careers, and personal reflection.

**Cross-Listed:** (Cross-listed as ADVT 170. These courses may be substituted for each other and be used interchangeably for D/F repeats but may not be counted for

duplicate credit.) **Note:** Was previously coded as DVST 170

## UGSS 183 - Strategies for Learning Mathematics

**Class Hours:** 1  
**Lab/Discussion:** 0  
**Credits:** 1

**Prerequisite:** Appropriate placement score or permission of the Undergraduate Studies and Student Success chairperson.

**Corequisite:** MATH 083

**Description:** Encourages the development and application of effective and efficient strategies for learning mathematics. Introduces tools that support assessing mathematics knowledge and encourage practicing mathematics topics. Determines improved knowledge and placement in mathematics and the recommended mathematics course(s) needed for students' academic program. Examines topics such as goal setting and self-monitoring, learning styles, math anxiety, test preparation, problem-solving, note taking, time management, and general strategies for learning.

## UGSS 200 - Academic Transition Seminar

**Class Hours:** 1  
**Lab/Discussion:** 0  
**Credits:** 1

**Description:** Acclimates the student to the curricular and cocurricular experience of the main campus of IUP. Emphasizes campus systems and resources, the application of theories of change as related to transition, and major and career planning as lifelong learners. Recommended for transfer students, particularly targeting students moving from a satellite campus to the Indiana campus.

**Recommendation:** For students from regional campuses

## UGSS 250 - Role of the Peer Educator: Theory, Practice, and Assessment

**Class Hours:** 1  
**Lab/Discussion:** 0  
**Credits:** 1

**Restriction:** Instructor permission required

**Description:** Prepares selected students for the role of a peer educator within the higher education setting. Topics

include student learning and problem solving, facilitative helping and interpersonal communication, peer leadership, and assisting peers with how to effectively and efficiently succeed at the college level. (Roles include supplemental instruction leader, tutor, peer advisor, workshop leader.)

## UGSS 281 - Special Topic

**Class Hours:** var  
**Lab/Discussion:** 0  
**Credits:** 1-3

**Description:** Special Topic

## Vocational Education

### VOED 101 - Introduction to Career and Technical Education

**Class Hours:** 1  
**Lab/Discussion:** 0  
**Credits:** 1

**Prerequisite:** Recommendation by Western Region Career and Technical School director

**Description:** Emphasizes basic elements of teaching in the diverse secondary career and technical classroom. A field-based course focusing on skill areas defined by the Pennsylvania Department of Education—Bureau of Career and Technical Education, such as classroom safety, accommodations for students with special needs, and classroom management.

### VOED 102 - Instructional Planning in the Career and Technical Classroom

**Class Hours:** 2  
**Lab/Discussion:** 0  
**Credits:** 2

**Prerequisite:** VOED 101

**Description:** Instructional planning for the CTE classroom and laboratory delivered through field-based instruction. Major emphasis is on planning for instruction, safety procedures, and CTE performance objectives. Instructional plans will include consideration of individual learning styles and accommodations for students with special needs.

### VOED 103 - Strategies for Teaching Career and Technical Education

**Class Hours:** 3  
**Lab/Discussion:** 0  
**Credits:** 3

**Prerequisite:** VOED 101, VOED 102

**Description:** Introduces instructional strategies and evaluation methods appropriate in career and technical education. Emphasis is on the planning and delivery of lessons that apply these strategies in the secondary career and technical classroom. Special attention is given to adapting and individualizing instruction for the diverse student population enrolled in the career and technical class. A field-based course with classroom visitations by a university faculty member.

### **VOED 201 - Making Accommodations for Students with Special Needs in the Career and Technical Classroom**

**Class Hours:** 1  
**Lab/Discussion:** 0  
**Credits:** 1

**Prerequisite:** VOED 101, VOED 102, VOED 103  
**Description:** A companion course to EDEX 301. Students apply instructional methods effective for educating students with disabilities and learning style differences in their career and technical classroom. A field-based course with classroom visitations by a university faculty member.

### **VOED 202 - Industry Linkages for Career and Technical Programs**

**Class Hours:** 3  
**Lab/Discussion:** 0  
**Credits:** 3

**Prerequisite:** VOED 201

**Description:** Addresses the requirements for industry input and validation for all secondary career and technical programs and focuses on developing and maintaining an effective occupational advisory committee. Emphasis is on the teacher's responsibility for providing appropriate information to the committee and taking action to follow up on the committee's recommendations.

### **VOED 203 - Incorporating Reading and Communications Strategies in the Career and Technical Classroom**

**Class Hours:** 3  
**Lab/Discussion:** 0  
**Credits:** 3

**Prerequisite:** VOED 102, VOED 103

**Description:** Addresses methods and materials for assisting students as they read, study, and learn in the career and technical classroom. Emphasis is on approaches that facilitate learning of both content and process. Current research is explored, and classroom applications are emphasized for integrating academic standards. A field-based course with classroom visitations by a university faculty member.

### **VOED 301 - Integrating Math and Science in Career and Technical Education**

**Class Hours:** 3  
**Lab/Discussion:** 0  
**Credits:** 3

**Prerequisite:** Completion of course work for Vocational I certificate

**Description:** Focuses on the integration of math- and science-related content in the career and technical classroom. Current Pennsylvania Department of Education mandates and strategies for meaningful integration and assessment are addressed. Facilitating the academic skill development of secondary career and technical students is emphasized. A field-based course with classroom visitations by a university faculty member.

### **VOED 302 - Career Education in the Career and Technical Classroom**

**Class Hours:** 3  
**Lab/Discussion:** 0  
**Credits:** 3

**Prerequisite:** Completion of course work for Vocational I certificate

**Description:** Emphasizes current labor market statistics and resources for identifying labor market trends. The influence of interests, aptitudes, and work style preferences in making informed career decisions are explored. The role of career and technical student organizations, articulation agreements, and work-based learning to enhance career education in the career and technical classroom are discussed. The emphasis is on integrating career information relevant for the career and technical program in the classroom and a review of the mandates for this integration.

## **VOED 395 - Vocational Education Writing Experience**

**Class Hours:** 0  
**Lab/Discussion:** 0  
**Credits:** 0

**Description:** Writing assignments such as abstracts, logs of activities, philosophy papers, training plans, presentation plans, lesson plans, etc., are completed in conjunction with selected instructional modules from VOED 100 and VOED 400.

## **VOED 400 - Preparation of the Vocational Professional II**

**Class Hours:** var  
**Credits:** 1-15

**Prerequisite:** Successful completion of VOED 100  
**Description:** Personalized, self-paced vocational teacher preparation. Develops, demonstrates, and documents competence in selected teaching skills in the areas of program planning, program development, program evaluation, and managing and evaluating instruction in a vocational school setting. Self-evaluation is encouraged in the program, utilizing videotaping and the feedback from a team of professional teacher educators.

## **VOED 402 - Special Topics in Vocational Pedagogical Preparation**

**Class Hours:** var  
**Credits:** 1-15

**Prerequisite:** Center permission  
**Description:** Opportunities to develop additional teaching skills under professional supervision. Topics are determined through identification of priority areas in vocational education using national and state surveys and students' individual needs.

## **VOED 404 - Research in Career and Technical Education**

**Class Hours:** 3  
**Lab/Discussion:** 0  
**Credits:** 3

**Prerequisite:** Completion of course work for Vocational I certificate

**Description:** Introduces research in the career and technical classroom. An emphasis is placed on using a variety of research methods to solve problems in the educational environment. Research findings are implemented into the classroom environment and results are shared with peer career and technical teachers.

## **VOED 405 - Professional Seminar in Career and Technical Education**

**Class Hours:** 3  
**Lab/Discussion:** 0  
**Credits:** 3

**Prerequisite:** Completion of course work for Vocational I certificate

**Description:** A history of career and technical education; the impact of the educational reform on career and technical education and workforce development and career and technical education's importance within our society. Topics include leaders in vocational education; societal influences on vocational curriculum design; and professional responsibilities, legislative initiatives, social issues, and organizations involved in and affecting career and technical and workforce development education. A capstone course focusing on the professional growth of the career and technical teacher intern.

## **VOED 406 - Planning, Development, and Evaluation of a Cooperative Education Program Class**

**Class Hours:** 3  
**Lab/Discussion:** 0  
**Credits:** 3

**Description:** Explores the fundamental principles of establishing and operating a Cooperative Education program in secondary schools in accordance with the PDE Bureau of Career and Technical Education Approved Program Evaluation Checklist. Emphasizes criteria and guidelines required to establish program policies and coordinating activities between the school and workplace site.

## **VOED 407 - Legal Considerations for Cooperative Education Programs**

**Class Hours:** 2  
**Lab/Discussion:** 0  
**Credits:** 2

**Description:** Provides an immersive exploration of state and federal labor laws, administration, and program operations. Adheres to program regulatory compliance as the basis for research, reflection, and inquiry.

### **VOED 408 - Planning School-Based Instruction for Cooperative Education**

**Class Hours:** 2  
**Lab/Discussion:** 0  
**Credits:** 2

**Description:** Explores the role of the Cooperative Education Coordinator as teacher, career advisor, and education professional. Emphasizes classroom instruction that focuses on the development of 21st century skills including critical thinking, problem-solving, and communication. Explores the role of on-going professional development for both the student and teacher.

### **VOED 409 - Practicum/Field Experience**

**Class Hours:** 2  
**Lab/Discussion:** 0  
**Credits:** 2

**Prerequisite:** VOED 406, VOED 407, and VOED 408

**Description:** Provides opportunities to apply the fundamentals and concepts learned in the prerequisite courses. Requires 25 hours of practicum/field experience at a school, working closely with an approved, certified cooperative education coordinator and attend all scheduled seminar meetings.

### **VOED 410 - Foundations of Career and Technical Education**

**Class Hours:** 1  
**Lab/Discussion:** 0  
**Credits:** 1

**Description:** Emphasizes key historical background, current trends, and pathways to Career and Technical certification for the candidate with a non-Career and Technical Instructional certificate. Taken in the first semester of enrollment, required for Instructional I or II certificate holders only who are seeking to add the Cooperative Education certification to their current certificate.

## **Women's and Gender Studies**

### **WGS 200 - Introduction to Women's and Gender Studies**

**Class Hours:** 3  
**Lab/Discussion:** 0  
**Credits:** 3

**Description:** An interdisciplinary, cross-cultural survey of the ways in which gender interacts with race, age, class, ethnicity, nationality, and other dimensions of identities to shape human consciousness and determine the social, political, and cultural organizations of human institutions and societies.

### **WGS 400 - Feminist Theories**

**Class Hours:** 3  
**Lab/Discussion:** 0  
**Credits:** 3

**Description:** Introduces the vigorous, interdisciplinary, complex, and diverse intellectual history of feminist theories, methodologies, and politics. Includes classical feminist advocacy from early centuries to feminist theories in early 21st century, from Euro-American feminist philosophical traditions to the more global, multicultural, intersectional, and continuously multidisciplinary feminist criticisms, with rich dialogues crossing periods and borders. Intersects and is enriched by multiple critical categories of gender, sexuality, class, race, ethnicity, nation, culture, knowledge, and power. Stimulates, engages with, and empowers students. Encourages students to actively apply feminist knowledge to their own cross-disciplinary learning, personal growth, empowerment, and activist social transformation.