Undergraduate Catalog

2025–2027

SHIPPENSBURG UNIVERSITY

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Catalog Home

Introduction

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Mission of the University

Student learning and personal development through highly effective and innovative teaching, complemented by a wide variety of out-of-class experiences, continue to serve as the hallmarks of a Shippensburg University education.

About the University

Founded in 1871, Shippensburg University offers a unique and quality education for an exceptional value that prepares students for success. Learning by doing is what sets the Shippensburg University experience apart. From day one, students have access to hands-on opportunities through service learning, internships and job shadowing, faculty-guided research and study abroad programs.

Shippensburg University is accredited by the Middle States Commission on Higher Education (MSCHE) and offers 250 industry-aligned undergraduate, graduate, certificate, and doctoral programs, preparing the workforce of the future, today.

The landscaped, 210-acre campus is ideally located in south-central Pennsylvania, fully accessible to major cultural and recreational destinations throughout the Blue Ridge Mountains. An advanced, networked infrastructure supports technology-based teaching, learning, and research.

Ship is home to the College of Arts & Sciences, the College of Education and Human Services, the John L. Grove College of Business, and School of Graduate Studies. The School of Engineering, housed in a repurposed steam plant, opened in 2021 to serve the region as an economic driver in the areas of computer science, electrical and software engineering, and civil and mechanical Engineering.

Ship's role as a regional engine of economic and research development includes programs of study and real-world resources such as: The Grace B. Luhr's University Elementary School, the state's only on-campus laboratory school; the Institute for Social Inclusion; the Brad E. Hollinger Stock Trading Room; Center for Educational Leadership; Center for Land Use and Sustainability; the Luhr's Performing Arts Center, and the Fashion Archives and Museum.

Shippensburg University is a member of the Pennsylvania State System of Higher Education.

Accreditation

- Middle States Commission on Higher Education (MSCHE)
- Accreditation Board for Engineering and Technology (ABET)
    - The Morgan School of Engineering's Civil Engineering, Computer Engineering, Computer Science, Electrical Engineering, Mechanical Engineering, and Software Engineering Bachelor programs are fully accredited.
- Accrediting Council on Education in Journalism and Mass Communications (ACEJMC)

    - Ship's Communication, Journalism & Media Department offers **one of only three** Bachelor programs in Pennsylvania that is fully accredited.
- Association to Advance Collegiate Schools of Business International (AACSB)
    - In 1981, the John L. Grove College of Business became the **first school in Pennsylvania**'s State System of Higher Education to become internationally accredited by the most prestigious business accrediting agency in the world.
- Council on Social Work Education (CSWE)
    - The Bachelor of Social Work and Master of Social Work programs offered by the Ship's Social Work and Gerontology Department are fully accredited.
- Council for the Accreditation of Counseling and Related Educational Programs (CACREP)
    - Programs from the Counseling and College Student Personnel Department are nationally accredited.
- Council for the Accreditation of Educator Preparation (CAEP)

    - Ship offers several programs with accreditation from the Council for the Accreditation of Educator Preparation including Teacher Education (PreK-4 and Middle Level), Secondary Education, Educational Leadership, and Special Education.

- Commission on Accreditation of Allied Health Education Programs (CAAHEP)

    - CAAHEP awarded accreditation to the Exercise Science program, including the Strength and Conditioning add-on, from the Exercise Science Department.

Endorsements

- American Chemical Society (ACS)
    - Ship's Chemistry and Biochemistry Department's curriculum is approved by ACS.

The Campus

Shippensburg University is located in the Cumberland Valley of south-central Pennsylvania, overlooking the Blue Ridge Mountains. The campus itself is situated on 200 acres of rolling land and is surrounded by a vast array of cultural and recreational sites.

Travel Time

The interstate highway system puts Shippensburg within reasonable travel time of numerous East Coast cities:

Harrisburg	45 minutes
Gettysburg	30 minutes
Baltimore	2 hours
Washington D.C.	2 hours
Philadelphia	2.5 hours
Pittsburgh	2.5 hours

New York City 4 hours

Directions

If your point of departure is ...

East of Shippensburg: Use Pennsylvania Turnpike Exit 226 (Carlisle) to I-81 south. Take I-81 to Exit 29.

West of Shippensburg: Use Pennsylvania Turnpike Exit 201 (Blue Mountain) to Route 696 south.

North of Shippensburg: Take I-81 south to Exit 29.

South of Shippensburg: Take I-81 north to Exit 24.

Academic Programs

Shippensburg University offers a variety of undergraduate programs in three colleges: the College of Arts and Sciences, the John L. Grove College of Business, and the College of Education and Human Services.

The following table shows the number of students earning degrees and the average number of years taken to finish. These figures include students who entered as first-time freshmen from 2016 to 2018.

Program*	**No.**	**Avg. Years**
College of Arts and Sciences		
Art & Design	30	4.53
Biology	135	4.22
Chemistry & Biochemistry	24	4.19
Civil & Mechanical Engineering	19	4.89
Communication, Journalism & Media	103	4.23
Communication Studies	44	4.37
Computer, Electrical, & Software Engineering	27	4.50
Computer Science	50	4.28
Economics	11	4.02
English	34	4.46
Geography/Earth Science	61	4.35

Global Languages & Cultures	13	4.19
History	65	4.12
Interdisciplinary Arts	4	4.27
International Studies	25	4.47
Mathematics	33	4.24
Physics	7	4.45
Political Science	68	4.32
Psychology	178	4.24
Sociology	44	4.88
John L. Grove College of Business		
Accounting/Information Systems/Analytics	156	4.19
Finance & Supply Chain Management	184	4.19
Management/Marketing/Entrepreneurship	342	4.24
College of Education and Human Services		
Criminal Justice	148	4.26
Exercise Science	71	4.35
Social Work	67	4.25
Teacher Education	226	4.31
University Total	2170	4.28

Statements of Compliance

The Office of Human Resources, located in Old Main 109, works in concert with the university's Title IX Coordinator/Compliance Officer to ensure that the University is complying with all laws and regulations (including Title VII & Title IX) relating to equal opportunity, preventing discrimination and sexual harassment, and providing "reasonable" accommodations for persons with disabilities (physical or mental) covered by the ADA. Any inquires can be made by contacting the office at (717) 477-1124.

Equal Opportunity

Shippensburg University is committed to creating an environment free of discrimination for all its employees and students. The Office of Human Resources at Shippensburg University assists the University in ensuring equal opportunity and access to educational, employment and contract opportunities for all persons including students, and employees. The University will make every effort to provide these opportunities to all persons regardless of race, color, religion, sex, national origin, disability (physical or mental), age, and veteran status. This applies to all members of the University community, all applicants for admission or employment and all participants in university-sponsored activities. The University's nondiscrimination policy sets clear expectations for an environment free of discrimination, defines discrimination and provides procedures for handling complaints of discrimination.

Sexual Harassment

It is the policy of Shippensburg University to prohibit discrimination on the basis of sex in any of its educational programs or activities. This policy is in accordance with Title IX of the Education Amendments of 1972.

Prohibited sex discrimination covers sexual harassment including sexual violence. Sexual harassment is conduct that is sexual in nature and is sufficiently severe, persistent, or pervasive that it adversely affects a student's or an employee's ability to participate in or benefit from the university's activities or educational programs or creates a hostile or abusive educational or work environment. Sexual violence is a form of sexual harassment, prohibited by Title IX, which includes conduct that is criminal in nature. Acts may include rape, sexual assault, sexual battery, sexual coercion, sexual exploitation, unwanted touching, dating violence, domestic violence, and stalking.

Inquiries concerning the application of Title IX may be referred to:

Shippensburg University Title IX Coordinator

Dr. John Burnett

Office of Human Resources

Old Main 106A, (717) 477-1323, JABurnett@ship.edu

Further information:

https://www.ship.edu/about/offices/hr/title_ix_statement/title-ix-coordinators/

Office of Accessibility Resources

Shippensburg University is committed to serving all students, including those with documented disabilities. The Office of Accessibility Resources (OAR) determines, coordinates, and provides reasonable and appropriate accommodations for eligible students who present current and comprehensive documentation. In compliance with Section 504 of the *Rehabilitation Act of 1973, the Americans with Disabilities Act (ADA) of 1990*, and the ADA Amendments Act of 2008, OAR coordinates services as outlined by Pennsylvania's State System of Higher Education and by Shippensburg University's equity plans. Additionally, the office works with the Human Resource Office to coordinate accommodations for campus faculty and staff with diagnosed disabilities.

The Office of Accessibility Resources is located in Suite 252 Mowrey Hall. For further information, visit the website at www.ship.edu/oar, or contact the office at (717) 477-1364 or the Director at (717) 477-1326.

Policy for Religious Observances for Students

Shippensburg University respects the principle of the separation of church and state, while promoting and encouraging a climate of dignity where individuals are not discriminated against or treated differently because of their religion or national origin.

To foster and advance the precepts of an inclusive environment, students desiring to participate in the religious observances of their faiths, creeds, or beliefs will be granted an excused absence from scheduled classes. Faculty will make appropriate accommodations for the excused absence(s), and students will be accountable for the material covered in class. Each academic semester students will be required to provide their faculty with the dates (in writing) of scheduled religious observances.

Access to Educational Records

In accordance with the Family Educational Rights and Privacy Act of 1974 (commonly known as the Buckley Amendment), Shippensburg University provides its students with privacy safeguards of their educational records. The university issues reports of progress including grades, written evaluations, and letters of warning directly to the student. A student may have access to all information pertaining to his or her educational records and academic status.

Under the provisions of the Buckley Amendment, the university may release directory information about current students without violating privacy rights. Directory information includes name, address, telephone number, e-mail address, enrollment status, major, degree, and honors. Individual students may request this directory information not be released by notifying the Registrar's Office.

Drug-Free Campus

Shippensburg University complies with the Drug-Free Schools and Communities Act Amendment of 1989 and has adopted a program to prevent the unlawful possession, use, or distribution of illicit drugs and alcohol by both its students and employees.

Campus Safety

Shippensburg University has developed policies and implemented procedures to increase safety awareness and provide precautionary measures for all current students, prospective students and employees. Information on crime statistics is also provided to all campus members. This information is prepared in compliance with the Jeanne Clery Disclosure of Campus Security Policy and Crime Statistics Act, Title IX, and the Violence Against Women Act. The Pennsylvania College and University Security Requirements (Chapter 33), the Crime Awareness and Campus Security Act of 1990, and the Accuracy in Campus Crime Reporting Act of 1997 are also resourced. The Shippensburg University Campus Safety & Security/Fire Statistics Report may be accessed by visiting: http://www.ship.edu/globalassets/police/safety-and-security-report.pdf.

Right-To-Know

Shippensburg University will compile graduation and completion rates for all undergraduate students as well as for undergraduate students receiving athletically related student aid. These rates will be reported to the U.S. Secretary of Education and will be disclosed to prospective students as required by the Student Right-To-Know Act.

Individuals may request public records from Shippensburg University under the Right-to-Know Law, as amended, 65 P.S., sections 67.101 et seq, are subject to RTK guidelines that can be found here: http://www.ship.edu/right_to_know/.

All requests to Shippensburg University of Pennsylvania under the Right-to-Know Law must be submitted in writing using the Right-to-know form (that can be found using the guidelines link) to:

John Burnett, Ph.D.
Title IX Coordinator/Compliance Officer/Agency Open Records Officer
Shippensburg University of Pennsylvania
1871 Old Main Drive, Room 106A
Shippensburg, PA 17257-2299
Office: JABurnett@ship.edu
Fax: 717-477-4037 | Email: rtkoffice@ship.edu or JABurnett@ship.edu

Requests may be delivered in person or sent by regular mail to the address listed above. Requests also may be made by electronic mail, or by facsimile.

Consumerism

Shippensburg University complies with consumer information requirements set forth in Section 493A of Title IV of the Higher Education Act of 1965 and its amendments.

Veterans Benefits

Shippensburg University complies with the requirements of Title 38, U.S. Code, Veterans Benefits.

Shippensburg University of Pennsylvania will permit any covered individual to attend or participate in the course of education during the period beginning on the date on which the individual provides to the educational institution a certificate of eligibility for entitlement to educational assistance under chapter 31 or 33 (a "certificate of eligibility" can also include a "Statement of Benefits" obtained from the Department of Veterans Affairs' (VA) website e-Benefits, or a VAF 28-1905 form for chapter 31 authorization purposes) and ending on the earlier of the following dates:

1. The date on which payment from VA is made to the institution.

2. 90 days after the date the institution certified tuition and fees following the receipt of the certificate of eligibility.

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

Shippensburg University of Pennsylvania does require a covered individual complete, sign, and return the "Application for Veterans Enrollment Certification Form" to a School Certifying Official (SCO) each semester to authorize the SCO to submit the covered individual's certification.

NOTE: A Covered Individual is any individual who is entitled to educational assistance under chapter 31, Vocational Rehabilitation and Employment, or chapter 33, Post-9/11 GI Bill® benefits.

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

Nonimmigrant International Students

Shippensburg University is authorized under federal law to enroll nonimmigrant international students.

Educational Diversity

As part of a public system of higher education, Shippensburg University is responsible for educating students to face the challenges of our ever-changing global society. Shippensburg University aims to create a campus culture that offers opportunities for increasing knowledge, awareness, and understanding of diversity and inclusiveness and promotes a climate that builds upon values that welcome and nurture all members of the university community. Creating an inclusive campus environment helps to prepare students to be productive public citizens in a society comprised of people with differing national, racial, religious, and cultural backgrounds.

Shippensburg University seeks to attain these goals by offering academic and co-curricular activities that address the differences that have historically divided people and have led to unjust and discriminatory practices based on race, sex, religion, national origin, and sexual lifestyle. The university also remains committed to the recruitment and retention of a broad, inclusive student body, faculty, staff, and administration who represent a diverse range of interests, talent, and cultures. By working to accomplish these goals, Shippensburg University will ensure students receive an education that prepares them for the challenges of a global society with its diverse beliefs, attitudes, and ways of thinking.

Catalog Provisions

This catalog is intended to be a description of the policies, academic programs, degree requirements, and course offerings in effect for the 2025-2026 and 2026-2027 academic years. It should not be construed as an irrevocable contract between the student and the university. Shippensburg University reserves the right to change any of the policies, procedures, or fees described in this catalog and to apply these changes to any or all of its students as it sees fit. The university may also choose to add or delete course offerings or degree programs at any time.

Admission Policies and Procedures

Shippensburg University is a member of the National Association for College Admission Counseling and adheres to their Statement of Principles of Good Practice: NACAC's Code of Ethics and Professional Practices.

We strive to follow these principles set forth by NACAC:

- **Education** of students, families, and others about the transition to and within postsecondary education.
- **Professionalism**, including ethical behavior and integrity of actions.
- **Collaboration** by working together to advocate for students and their best interests.
- **Fairness and Equity** by striving to eliminate bias from the education system which is viewed as a fundamental responsibility of educators.
- **Civility** by conducting dialogue with respect and openness to differences.
- **Trust** with one another and students.
- **Social Responsibility** to serve students by safeguarding their rights and their access to and within post-secondary education.

All Applicants

The following general requirements apply to all applicants seeking admission to Shippensburg University.

General Requirements

Students must show evidence of academic experiences that indicate their capacity to accomplish satisfactory work at Shippensburg University in their selected area of study. Criteria include graduation from an approved secondary school or equivalent preparation (as determined by the Credentials Evaluation Division of the Pennsylvania Department of Education) or successful completion of significant college-level work at another institution. The grades earned and the relationship of the course work to college preparation is of particular importance.

Academic Potential

This is determined, in part, by scores from the SAT I: Reasoning Test of the College Entrance Examination Board or the entrance examination of the American College Testing Program (ACT). Placement tests may also be required.

Other Criteria

Letters of recommendation, interviews, and statements of personal experiences in some cases can represent an important part of the evaluation process, particularly in those cases where the decision may be in question. These items are optional.

New First Year Applicants

1. Applicants should visit our website at www.ship.edu/admissions for application requirements and to apply online. You may also request general information on-line, call (717) 477-1231, or e-mail the Office of Admissions at admissions@ship.edu.
2. First year candidates are urged to initiate the application process (which includes a $45 application fee) as soon as possible for the fall semester. Candidates for spring semester are encouraged to submit applications by December 1. Final dates for receiving applications in the Office of Admissions for any entry period are subject to change without notice.

** Shippensburg University subscribes to the CEEB fee waiver program. This program provides waivers for those students for whom the fee is judged a hardship. Students should request submission of the fee waiver form through the high school counselor.*

1. The secondary school transcript must be requested from and sent by the counselor directly to the Office of Admissions for the paper and online applications. GED results must be sent directly from the Department of Education.
2. Applicants chosing to submit standardized test scores need only to submit at least one set of scores on the SAT I: Reasoning Test of the College Entrance Examination Board or American College Test (ACT). The writing portion of the SAT will be used for placement purposes only. Those students taking the ACT are encouraged to complete the optional writing test. Arrangements should be made with the guidance counselor to take the SAT I during the junior and senior year. Applicants who graduated from high school more than two years ago are exempt from this admission requirement.
3. Shippensburg University grants advanced placement (AP) and college level examination program (CLEP) credit for general and subject area examinations based on the guidelines established by the College Board. The College Board administers examinations for these courses nationally each year. See

http://www.ship.edu/admissions/clep_credit_ap_credit/ for more information on credits you can earn and how to register for the tests.

4. SAT II: Subject Tests are not used for the admission process. However, if submitted, these scores may be used to assist in course placement.
5. Although the university does not require specific numbers and types of high school courses, students are strongly urged to pursue a typical college preparatory program in senior high school which should include: four years of English, three years of social sciences, three years of sequential mathematics, three years of laboratory science, and three years of one foreign language.
6. Applications will be considered by the Office of Admissions on a rolling basis. The applicant will be notified after the application is complete.
7. When approved for admission to the university, each student will be required to make a NON-REFUNDABLE confirmation deposit. Those students admitted to the residence halls will make an additional non-refundable room deposit. The deposits are payable to Shippensburg University and will confirm the intention of the student to become a matriculated student. The priority deadline for submitting the confirmation deposit is May 1.
8. A personal interview is not required for admission but in some situations is advisable. Please call in advance to arrange an appointment.
9. A medical form will be forwarded to all successful applicants following receipt of the confirmation deposit. Completion of the medical form is required for enrollment.
10. A favorable admission decision is based upon the student's qualifications at the time of the offer and is contingent upon their maintaining those standards through graduation from the secondary school. The student must request the final transcript (including date of graduation) be sent to the Office of Admissions. Failure to submit a final transcript will result in a hold on the applicant's file.
11. Placement testing may be required in English, reading, mathematics, and foreign language. Notification of test dates and which exams must be completed, will be provided after admission is granted.
12. Mandatory New Student Orientation programs are held in the summer and prior to the beginning of the fall semester. An orientation program is also held at the beginning of the spring semester.

General Transfer Applicants

Admission Procedures and Requirements

1. Applicants may apply online at www.ship.edu/admissions. Recommended time for submission of all application materials is December 1 for the Spring semester and early summer for the Fall semester.
2. Submit official transcripts of ALL college-level course work attempted. Official transcripts must be mailed directly from the issuing institution to the Office of Admissions. If a student is currently enrolled at an institution, please be sure the transcript lists in-progress courses and course number. Shippensburg University's Office of Admissions MAY waive the submission of high school records and SAT I scores prior to the admissions decision for students who have successfully completed 12 or more credit hours of college-level work. In addition, applicants who graduated from high school more than two years ago are exempt from submitting SAT I scores but may be required to complete placement testing (English (Writing), Math, Reading) in order to determine eligibility for admission into the University.
3. An offer of admission is based upon the student's qualifications to date and is contingent upon continuing to meet those standards for enrollment. For a transfer student, it is also required that the final transcript indicate a cumulative quality point average comparable to that which the student possessed when originally offered admission. Transfer students presently enrolled at another institution are responsible for ensuring the Office of Admissions receives a final transcript upon completion of their programs. Failure to submit a final transcript will result in a hold being placed on the applicant's file.
4. If admitted, the Office of Admissions will evaluate the student's transcript to determine the amount of transferable credits. Upon completion, the student will be notified by the email address they provided on their application with instructions on how to access their official evaluation.

5. When admitted to the university, each student will be required to make a NON-REFUNDABLE confirmation deposit. Those students admitted to the residence halls will make an additional non-refundable room deposit. The deposits are payable to Shippensburg University and will confirm the intention of the student to become a matriculated student.
6. The priority deadline for submitting the confirmation deposit is May 1.
7. A personal interview is not required for admission but in some situations is advisable. Please write or call in advance to arrange an appointment.
8. A medical form will be forwarded to all successful applicants following receipt of the confirmation deposit. Completion of the medical form is required for enrollment.
9. All transfer students seeking a degree must plan on:
    - A minimum program of 30 semester hours to include half the credits of their major at Shippensburg. (See Graduation Requirements and Majors)
    - All course selections subject to prior approval by the appropriate academic dean.
9. Admitted transfer students who have not completed the appropriate courses in English, mathematics, or foreign language will be required to take placement tests prior to enrollment. Notification of test dates will be provided subsequent to transcript evaluation.
10. Mandatory New Orientation programs are held in the summer, prior to the beginning of the fall semester, and at the beginning of the spring semester.

If you are attending a Pennsylvania State System of Higher Education university, a Pennsylvania community college, Lackawanna College, Hagerstown Community College, Carroll Community College, Howard Community College, Frederick Community College, Raritan Valley Community College, Middlesex Community College, or Allegany College of Maryland please refer to the Pennsylvania State System Student Transfer Policy section for* **important *additional information.*

Transfer from Accredited Colleges

A minimum program of at least 30 semester hours must be taken at Shippensburg University. A transfer student who has completed an associate's degree in an academic program parallel to one at Shippensburg University will normally complete a baccalaureate program in two additional years; however, more than two additional years may be necessary to complete degree requirements in certain programs. The official transcript evaluation will be provided following the offer of admission to the university.

Transfer from Non-Accredited Institutions

Transfer applicants from non-accredited institutions are normally evaluated on the same basis as a first-year applicant. Work from non-accredited institutions may be considered as a part of the evaluation to determine the ability of a student to perform successfully at Shippensburg University. Official transcripts of all post-secondary work must be submitted as a part of the application process. The transcript of an applicant from a non-accredited institution, however, will not be evaluated officially until the student has completed one semester successfully (12 college level credits) at Shippensburg and has attained a cumulative quality point average of at least 2.0. Possible transfer of credits from the non-accredited institution will be considered only at that time. Once admitted, all transfer students from non-accredited institutions are expected to maintain the same academic standards required of those students already enrolled in the university.

Academic Requirements for Consideration as Transfer Students

Admission to Shippensburg University may be granted to transfer students whose records indicate reasonable probability of success. Certain programs, such as business, elementary education, biology, criminal justice, etc., require a higher quality point average for consideration. Please consult with the Office of Admissions for details. Non-transferable courses are not used in calculating cumulative quality point averages including developmental or remedial courses and vocational/occupational/technical courses. In evaluating a transfer student's application for admission, the

university may take into account the total record in high school and college, quality of courses, test scores, and interviews. The major criterion used by the university in evaluating an applicant for admission is the overall quality of previous achievement.

Once admitted, all transfer students are expected to maintain the same academic standards required of those students already enrolled in the university.

Pennsylvania State System Student Transfer Policy

The Student Transfer Policy is designed to promote the transfer of students from Pennsylvania community colleges to Shippensburg University and to support the transfer of undergraduate courses earned by students at other PA State System of Higher Education institutions. This encourages a seamless transfer for students into the University without unnecessary repetition of learning that has already been completed at another institution. Coursework is applicable to the policy if the student earned an Associate of Arts or an Associate of Science degree at one of the following community colleges or are an incumbent student of a State System institution with a 2.0 GPA or above.

At Shippensburg University, policy privileges apply only to students seeking transfer from a Pennsylvania community college, a Pennsylvania State System of Higher Education university, Lackawanna College, Raritan Valley Community College, Middlesex Community College, and the following community colleges in Maryland: Carroll, Frederick, Hagerstown, and Allegany College of Maryland.

Provisions provided under the Pennsylvania State System of Higher Education Student Transfer Policy

All college-level credits from regionally accredited institutions will be accepted in transfer, regardless of how the prior learning was acquired. The intent of this policy is to maximize the application of college-level credits awarded by regionally accredited institutions.

Shippensburg University will first apply as many college-level credits as possible toward the satisfaction of general education requirements, then to requirements in the major and finally to elective credits. A course by course match will not be required for general education courses. Vocational, technical and career courses may fulfill major curricular requirements or credits required for graduation in specific programs. Developmental and remedial coursework will not transfer.

1. Students transferring with an Associate Degree:

Admission to a State System university is guaranteed within the established university time frame for undergraduate students transferring from a Pennsylvania Community College with an Associate degree in an identified or a parallel P2P agreement, but not to specific major or degree programs. The requirements for admission to an academic program will be the same for native and transfer students. Students will receive junior standing. Exceptions such as a Criminal Conviction of a Felony Offense or Dismissal from a Previous Institution for Disciplinary Reasons, will be handled on a case-by-case basis.

2. Students transferring from a State System University

a) Admission to a State System university within the established university time frame is guaranteed for undergraduate students transferring from one State System University to another State System University with at least 12 credits and a 2.0 GPA or above, but not to specific major or degree programs. The requirements for admission to an academic program will be the same for native and transfer students. Exceptions such as a Criminal Conviction of a Felony Offense or Dismissal from a Previous Institution for Disciplinary Reasons, will be handled on a case-by-case basis.

b) Students transferring to Shippensburg University from another State System Institution who have completed the their general education program will have their general education requirements met at Shippensburg University unless their program has unique, specific general education requirements.

3. Students Transferring without an Associate Degree

a) Pennsylvania community college students who seek to transfer WITHOUT a degree may apply to and be accepted by Shippensburg University.

b) Students seeking to transfer course credits without the completed A.S. or A.A. degree must have a minimum cumulative GPA of 2.0 in all coursework presented for transfer for each institution attended. Capacity limits and/or higher admissions standards may apply to certain high demand.

c) Students that have transferred from a PA community college without having earned their associate degree may be eligible to earn an A.A. or A.S. from their sending institution through Reverse Transfer. Credits earned while working toward their bachelor degree will be sent to the PA Community College for evaluation for possible credit towards the completion of the associate degree requirements.

4. All transfer students may transfer credits in courses where the grade of "D" is earned only if the student has an overall GPA of 2.0 or higher from each institution attended. Some academic programs at Shippensburg University may require the student to repeat certain courses in which a "D" grade was earned.

Dual Admission Programs

Shippensburg University maintains Dual Admission programs with the following community colleges: Community College of Allegheny County, Community College of Philadelphia, Harrisburg Area Community College, Montgomery County Community College, Reading Area Community College and Allegany College of Maryland, Carroll Community College, Fredrick Community College and Hagerstown Community College. This program provides academic advisement while the student is attending the community college to ensure the optimal transferability of credits. For more information, contact the Office of Admissions at Shippensburg University or one of the above named community colleges. Additional agreements are currently in process.

Acceptance and Application of Credits

All college-level credits from regionally accredited institutions will be accepted in transfer, regardless of how the prior learning was acquired. The intent of this policy is to maximize the application of college-level credits awarded by regionally accredited institutions.

Shippensburg University will first apply as many college-level credits as possible toward the satisfaction of general education requirements, then to requirements in the major and finally to elective credits. A course-by-course match will not be required for general education courses. Developmental and remedial coursework will not transfer.

Transcript Evaluation and Credit

Transcripts submitted to meet entrance requirements by transfer students are evaluated by the Office of Admissions. The transcript will be evaluated officially when the applicant has been formally admitted to the university.

Transfer credit will be awarded for equivalent Shippensburg University courses whenever appropriate. If there is not an equivalent course, credit will be awarded based on the academic discipline and type of course. Developmental and vocational courses will not be accepted as transfer credit.

Students who believe the original evaluation of their transfer credit is not correct may request another review by Office of Admissions. Shippensburg University will work with transfer students to ensure credit is awarded in the most appropriate way possible.

Reverse Transfer

Reverse transfer is the transfer of credits from a four-year institution to a two-year institution from which a student transferred from. It provides an opportunity for these students to receive an associate's degree once they have earned a combined total of at least 60 credits from both institutions. Eligible students can receive a first associate's degree that accurately reflects their educational attainment and allows them to compete more successfully in higher education and the workforce, even as they continue working toward a bachelor's degree or other certification or credential.

Eligibility

Students who have transferred to Shippensburg University (SU) benefit from Reverse Transfer agreements that have been established between all Pennsylvania Community Colleges and Pennsylvania's State System of Higher Education, as well as an agreement that has been established between SU and Hagerstown Community College.

For students who began their post-secondary education at a **community college in Pennsylvania**, they must have earned at least 45 credits, including those earned through Prior Learning Assessment (PLA), Advanced Placement (AP), College Level Examination Program (CLEP), Credit by Exam and the military, before transferring to a SU, from which they have earned at least 15 additional credits, excluding remedial and developmental credits.

For those students who began their post-secondary education at **Hagerstown Community College**, they must have earned at least 15 credits before transferring to SU. They must have earned at least 60 or more credits in total (including transfer and SU credits), excluding remedial and developmental credits.

How will the degree be awarded?

Qualified students will fill out a Reverse Transfer Agreement Release form, which will allow transcripts and contact information to be sent to the community college for review. The community college will review the eligible student's transcripts and make that determination. It will use upper-level courses to fulfill the community college's degree requirements when applicable. It also may determine if a student is eligible for an associate's degree in a program other than the intended program of study, based on courses completed at SU. Once the review is complete, the community college will submit a new student transcript to SU that denotes the conferment of the associate's degree.

Degree Completion Program

Shippensburg University offers degree completion options for transfer students. For our current offerings, go to http://www.ship.edu/programs. For questions, please contact the Office of Admissions at 717-477-1231.

Homeschooled Applicants

Shippensburg University welcomes applications from students who have been homeschooled. Please review the guidelines under the freshman/transfer sections as well as the following information:

1. Homeschooled applicants are required to submit grade transcripts if available and also the official evaluation for each grade 9-11 (should be an estimated two pages in length and are an analysis of the student's annual portfolio). A final grade transcript (if applicable) and evaluation must be submitted when the final year of homeschooling is complete.
2. All homeschooled applicants are also required to submit at least one set of scores on the SAT I: Reasoning Test of the College Entrance Examination Board or American College Test (ACT).

3. If an official high school diploma is NOT being awarded by an agency, homeschooled applicants must submit a copy of the General Education Development Exam (GED) diploma and also the GED scores from the five sections of the test. This information must be mailed directly from the Department of Education of the state issuing the diploma.
4. Interviews for homeschooled applicants are not required, but are strongly encouraged for those students who will be graduating when they are less than 17 years old.

For additional information regarding a special situation, please contact the Office of Admissions for more information.

Options for Admissions

Wood Honors College

The Wood Honors College welcomes applications from high school seniors, current Shippensburg students, and transfer students. For high school seniors, the Wood Honors College considers high school GPA, the academic rigor of high school coursework, application essays, and evidence of leadership and service in its admissions decisions. Current Shippensburg students and transfer students must have a minimum 3.25 GPA to be eligible to apply to the Wood Honors College.

Application forms for high school seniors, current Shippensburg students, and transfer students are available on the Wood Honors College website at https://www.ship.edu/academics/colleges/honors/ or by contacting the Wood Honors College at 717-477-1604 or honors@ship.edu.

Early Admission

The university offers an early admission plan as a desirable option for those mature and academically talented students who are fully ready for college before completion of the 12th year of high school.

The early admission of full-time students should be reserved for those high school students who, in the judgment of both the secondary school and the university, are clearly outstanding academically and who demonstrate the personal maturity necessary for successful adjustment to the university. Normally such students will have exceeded the academic limits of their secondary schools and will have attained a level of maturity greater than that of their chronological peers. They should be able to logically justify reasons for early entrance. Since an assessment of social maturity is a consideration, the university requires a personal interview of all early admission candidates. With the needs of the student in mind, the institution is obligated to consider whether the first year of the university or the last year of the secondary school will be more beneficial for the student, given the student's academic ability and maturity.

The usual academic guidelines for the selection of students through Early Admission are:

1. Rank in the upper ten percent of the high school class.
2. College Board SAT I scores totaling at least 1100 with a verbal score of at least 500.
3. Must have followed a college preparatory or academic high school program to the end of the eleventh year with at least three years of English, three years of college preparatory mathematics, at least two laboratory sciences, including biology, two social sciences, and two years of the same foreign language.
4. A letter of recommendation from the high school counselor or principal.
5. A letter from the candidate's parents supporting the application for early admission.
6. A personal interview with a member of the admissions staff.

The Executive Director of Admissions may use early admission for academically talented students who are fully ready for the university. However, it is not in the best interest of those not fully qualified either academically or personally to apply for early admission. Please email or call the Office of Admissions for information pertaining to application procedures.

Ship Start (Concurrent High School Enrollment)

Ship Start is an early to college program for high school students. These students can be enrolled part-time or full-time in university-level courses while concurrently completing secondary school requirements. Ship Start offers opportunities for those students to enrich their high school program while at the same time functioning within their traditional peer groups. The student might also wish to engage in university-level courses during the summer sessions. This program may be desirable to individuals as long as the student is capable of handling the academic demands involved. Students should first exhaust all required course options in high school before considering becoming a Ship Start student. The following guidelines apply for Ship Start students:

1. Must have completed at least the tenth grade year of high school.
2. Must submit official high school transcript and SAT or ACT scores. College Board SAT scores should total at least an 1100 or an ACT score equivalent to a 22 composite score.
3. Must submit the Ship Start - Early to College Application.
4. Must submit the Consent & Registration Form signed by school counselor as well as parent or guardian demonstrating approval of participation

For more information visit http://www.ship.edu/shipstart/ or call the Office of Admissions for information pertaining to application materials and procedures.

Academic Success/Summer Bridge Program

Students who do not meet regular admission criteria but who have demonstrated the potential, desire, and motivation to succeed in college may be able to gain admission to Shippensburg by successfully completing the Academic Success/Summer Bridge Program. Students who are offered this option enroll in two courses during the summer and are required to participate in Summer Bridge programming as assigned. Students must pay for summer tuition and housing and food for the five week summer term, unless they meet the ACT 101 (Pennsylvania's Higher Education Equal Opportunity Program) income guidelines. Students are also required to pay for their textbooks.

Details are located in the at www.ship.edu/asp.

Non-Degree Status

Shippensburg University provides educational learning experiences for interested adults on a part-time basis. Undergraduate courses for college credit are available for high school graduates or those who have achieved equivalency status as well as for students who have received a bachelor's degree but are not interested in pursuing a master's degree or certificate.

This non-degree status is for those who wish to add to their specific subject area knowledge, to review or improve certain skills, or to broaden their interests. Non-degree students will be scheduled after degree-seeking students to ensure space exists for regularly admitted students. Contact the Admissions Office for more information.

Non-degree students who wish to matriculate must apply through the regular admission process. All prerequisite course work requirements of degree-seeking students apply to non-degree students. A maximum of 30 credit hours earned in non-degree status may be credited toward an undergraduate degree. Non-degree students are required to meet the minimum academic standards outlined under Academic Policies and Procedures.

Individuals who apply for regular admission and are denied may not attend the university as a non-degree student.

Visiting Students

Visiting students are those who wish to enter the institution for the purpose of earning credit to be used for graduation at another institution. Please refer to Visiting Student Program under Academic Policies and Procedures for State System participants. These students should contact the Registrar's Office at Shippensburg University concerning application procedures.

International Students

Applicants from outside the United States who do not hold nonimmigrant visas or a permanent resident/resident alien status must complete a Shippensburg University Undergraduate international application for admission. Useful information can be obtained at www.ship.edu/admissions/international. Check the web site for application deadlines.

1. International students encouraged to submit the application online at www.ship.edu/admissions/apply or request a paper application from the Office of Admissions by emailing admissions@ship.edu. A $45 application fee is required. Payment can be made online with the application or submit a check that includes a banking bar code or a money order. Paper currency is not accepted.
2. For evaluation purposes, an official copy of the complete academic record/transcripts including courses and grades from the secondary school (and, if appropriate, post-secondary school) must be sent from those institutions directly to one of the following professional credential evaluation services. A Course-by-Course (CxC) report IS REQUIRED of those applying to or who wish to transfer credit into any of our degree programs.

   Educational Credential Evaluators, Inc. (ECE)
   P.O. Box 514070
   Milwaukee, WI 53203-3470, USA
   ECE Phone number: 414-289-3400
   ECE Fax number: 414-289-3411
   ECE E-mail: eval@ece.org
   ECE Website: www.ece.org

   or

   World Education Services (WES)
   P.O. Box 745, Old Chelsea Station
   New York, NY 10011-0745, USA
   WES Phone number: 212-966-6311 or 800-937-3895
   WES Fax number: 212-966-6395
   WES E-mail: info@wes.org
   WES Website: www.wes.org

ECE or WES will then forward their official evaluation of the student's credentials to the Office of Admissions. Students do not need to supply a copy of official high school or post-secondary record/transcripts.

1. International Applicants who speak English as a second language must present an official TOEFL scores report (sent directly from Educational Testing Services, ETS). Students may choose to take the IELTS; an official score report must be sent directly from British Counsel et al. Shippensburg University will accept scores from the paper-based, computer-based, or internet-based TOEFL. Test scores from Duolingo are also accepted. Students whose native language is English must take and submit SAT Test scores and may not take the TOEFL or IELTS.
2. Immigration regulations require the student's sponsor to complete the Statement of Financial Support for International Students and supply documentation to demonstrate the capacity to meet educational and related expenses. A student's sponsor may include parent(s), guardian(s), a government or international agency. Once these documents have been processed and approved, the Office of Admissions will notify the student of their status. In order to receive the I-20 document (required to apply for F-1 student visa), you must be admitted to the degree program AND have your financial information (statement of financial support, current bank

statement, and income verification) approved by our Director of International Programs. An I-20 will not be issued prior to receiving and reviewing all required documents.

International students are required to pay out-of-state tuition and are not permitted to work off campus without proper authorization. Limited on-campus employment is sometimes available for qualified students after their first semester. All international students are required to carry adequate health and accident insurance.

Immediately upon arrival on campus, holders of F-1 visas are required to report to the Director of International Programs, Mowery Hall, bringing with them their passport, I-94, I-20, and visa.

Further questions regarding international students at Shippensburg University should be addressed to the Office of International Programs, Mowery Hall room 247, Shippensburg University, 1871 Old Main Drive, Shippensburg, PA 17257-2299 USA, 717-477-1279 or email internationalprograms@ship.edu. Online at www.ship.edu/international.

Commonwealth Tuition Waiver (John F. Kennedy) Award

The Commonwealth of Pennsylvania grants a limited number of tuition waiver awards at each of the ten state universities. The award is a remission of out-of-state tuition costs, but does not cover housing and food, insurance, activities fee, or residence hall room deposits.

Any non-U.S. citizen eligible for an F-1 undergraduate student visa may apply for this award *making formal application to the university*. However, only a limited number of awards are available in any given year. Once an international student has been granted a tuition waiver, the award is renewable on a semester-by-semester basis for as long as the review committee considers reasonable for the completion of the student's academic program. This renewal is contingent upon full-time student status, an acceptable grade point average, and participation in the International Student Organization. If a student is seeking fall admission, application for the waiver should be made by May 1 of the same year. If a student is seeking spring admission, application for the waiver should be made by December 1 of the previous year. Interested applicants must gain admission and acceptance into the university before consideration for the scholarship can be granted. Recipients of the JFK tuition reduction must live on campus and have a meal plan for the duration of their first academic year. Applications for the JFK Tuition Waiver can be submitted along with application for admission. The forms can be obtained at www.ship.edu/International/International_Students/JFK_Process.

Post-Baccalaureate Graduates Seeking Certification

Students who have a four-year degree and are interested in earning teacher certification must have achieved a 3.0 grade point average in their baccalaureate degree program. Those interested in teacher certification should contact the Dean of the College of Education and Human Services at 717-477-1141 for an application. Those seeking a master's degree along with certification courses should enroll through the Office of Admissions at 717-477-1231. The certification portion of the master's program will be developed by the Dean of the College of Education and Human Services.

Readmission of Former Students

Students who previously attended Shippensburg University and wish to resume their studies must apply through the Admissions Office for readmission.

For more information on applying, see Readmission of Students in the Academic Policies and Procedures chapter or contact the Office of Admissions at 717-477-1231.

Choice of Major

Enrollment is limited in certain majors and programs offered by the university. Applicants who meet criteria for admission to the university, but who cannot be accommodated in the major or program of their first choice may be offered admission into another major. Those choosing to enter the university as an exploratory student must meet all departmental requirements and prerequisites for the major they eventually select. Students transferring to Shippensburg University with more than 30 college-level credits must declare a major.

Exploratory students should be aware there is no assurance they will be able to declare any major they choose. Programs with limited capacity may be restricted or closed.

Falsification of Records

Students furnishing the university with false, misleading, or incomplete information relating to their application for admission or academic record will be subject to denial or dismissal.

Transcript Validation Policy

While the university is fully aware that a traditional high school degree may not be obtainable for all, it is strongly suggested completing a state issued GED as an alternative if the traditional high school completion option is not realistic. Shippensburg University does not accept GEDs or equivalency diplomas from private vendors/companies.

Below are some key items that must be listed on the high school transcript for SU to certify it as valid:

1. Name, address and phone number of the high school from which student graduated
2. Four (4) years of high school credits
3. Graduation date
4. School seal and/or signature of school official

There are also some key items that SU will look for in determining the validity of an online diploma:

- Was the diploma obtained from an online high school that does not operate in the state of the applicant's primary residence?
- Did the student pay a sum of money (other than standard transcript request fee) in order to obtain the diploma?
- Was any work required in obtaining the diploma and can the student show proof of the work that was completed?
- Is the high school accredited by the Middle States Association of Schools or another equivalent accrediting body?
- Is the diploma recognized or approved in the state from which it was granted?

For any applicant that has completed the GED, please note that Shippensburg University will only review and honor state-issued GEDs. The university does not accept any equivalency work or certificates that were completed online.

Shippensburg University does reserve the right to be cautious in accepting high school transcripts that may not meet the requirements as put forth by the federal government in helping to determine eligibility for Title IV funding.

High school diplomas may only be used for verification of high school completion if special circumstances prevent the submission of the official high school transcript

Please contact the Shippensburg University Admissions Office for a complete analysis of any high school transcripts/diplomas or with any questions you may have regarding your diploma.

Policy on Prior Disciplinary Suspension/Dismissal in Admissions

As required by PASSHE, Shippensburg University of Pennsylvania requests that all applicants for admission or individuals intending to take classes must disclose information regarding any disciplinary suspension or dismissal imposed by other higher education institutions. Shippensburg University is committed to promoting a safe and secure work and learning environment for all members of the University community.

If an applicant has met all admission criteria for general university admission and for the specific program to which they applied or non-degree admission, and they have answered in the affirmative that they have been the subject of a disciplinary suspension/dismissal, the applicant will receive a document that details the policy and the procedures of the University. The applicant will also be provided with a copy of a Dean of Students Certification Form in order to access additional information that the applicant must complete and send to their previous institution(s) in which they have received an outcome of disciplinary suspension or dismissal.

For the purposes of this policy, a disciplinary suspension/dismissal has the following meaning: "Any instance of judicial or administrative action taken by a previous institution for behavior on University property or off University property that is not consistent with that institution's Student Code of Conduct that has resulted in a suspension or dismissal."

The university will not necessarily deny admission to the university in general or a particular academic program or to housing because of a disciplinary issue. This information will only be considered after it has been determined that the student has met all admission criteria for the university and the specific program to which they applied. Each case will be separately evaluated based upon the rational relationship of interests and needs of the university to the nature, severity, recency of the disciplinary issue; circumstances surrounding the issues; records of other issues; the responsibility and repentance of the applicant; and any other relevant factors. These factors will be carefully considered and weighed. The disclosure of information and access to related additional information will be made to the Special Admissions Review Committee and Division of Enrollment Management, Student Success, and Student Affairs as appropriate.

Policy on Criminal Convictions in Admissions Degree Seeking and Non-Degree

As required by PASSHE, Shippensburg University of Pennsylvania requests all applicants for admission or individuals intending to take classes must disclose information regarding criminal convictions. Shippensburg University is committed to promoting a safe and secure work and learning environment for all members of the University community.

If an applicant has met all criteria for general university admission and for the specific program to which they applied or non-degree admission, and s/he answered in the affirmative that s/he has a criminal conviction, the applicant will receive this document that details the policy and the procedures of the University. The applicant will also be provided with a copy of a Consent and Authorization to Access Additional Information form that the applicant must complete and return. The members of the Special Admissions Review Committee will review all documents and recommend an admissions decision to the Office of Admissions as they deem appropriate.

For the purposes of this policy, a "criminal conviction" has the following meaning:

"Any instance in any state or national jurisdiction where you have plead guilty or been found guilty by a judge or jury to charges that you committed a felony offense. This includes any plea of 'no contest' or 'nolo contendere', and any conviction that may be under current appeal." It does not include an arrest that does not result in a charge, or charges

being dropped, or being found not guilty, or a conviction overturned on appeal, or convictions that have been expunged, or convictions that have been executively pardoned.

The university will not necessarily deny admission to the university in general or a particular academic program or to housing because of the presence of a conviction. This information will only be considered after it has been determined that the student has met all admission criteria for the university and the specific program to which they applied. Each case will be separately evaluated based upon the rational relationship of interests and needs of the university to the nature, severity, recency of the crime; circumstances surrounding the crime; records of other convictions; the responsibility and repentance of the applicant; and any other relevant factors. Generally, the university does not accept anyone who has not completed their criminal sentence, absent any extraordinary circumstances. All of these factors will be carefully considered and weighed. The disclosure of information and access to related additional information will be made to the Special Admissions Review Committee and Division of Enrollment Management, Student Success, and Student Affairs as appropriate.

Academic Policies and Procedures

Once you are admitted to Shippensburg University, you will need to understand and follow all academic policies and procedures in order to successfully complete your course of study. University officials such as your faculty advisor, department chair, and academic dean can provide assistance, but it is ultimately your responsibility to be aware of policies relating to grading, academic progress, withdrawal from courses, declaring or changing majors, and requirements for graduation. This chapter explains the general academic policies. The chapter, University Curricula, discusses the particular degree programs, majors, and the general education requirements.

Applicable Policies

In general, you will be subject to the academic policies and degree requirements that are in effect during the semester you matriculate at Shippensburg University. You matriculate by registering for and starting an academic semester as a degree-seeking student. You do not need to declare a major in order to matriculate. If you begin taking classes in the summer, you will be considered as matriculating in the fall semester.

This catalog is intended to be a description of the policies, academic programs, degree requirements, and course offerings in effect for the 2025-2026 and 2026-2027 academic years. It should not be construed as a contract between the student and the university. Shippensburg University reserves the right to change any of the policies and procedures contained in this catalog and to apply these changes to any or all of its students as it sees fit. The university may also choose to add or delete course offerings or degree programs at any time.

Time Definition

Many of the policies in this catalog refer to time periods such as the first week of the semester. A week of the semester (or week of classes) is defined as seven calendar days beginning with and including the first day of daytime classes. For example, if daytime classes begin on a Thursday, the first week of the semester ends the following Wednesday at the official closing time of university offices (usually 4:30 p.m.).

Student Outcome Assessment

An essential aspect of the mission of Shippensburg University is the evaluation of educational input and student learning. You will be expected to participate in some phase of program evaluation activities such as standardized tests, questionnaires, and personal interviews. Students will be randomly selected beginning with freshman orientation and continuing through graduation. Participation in this program of evaluation will assist in providing sound academic learning experiences for you as well as future students at Shippensburg University.

Grading and Point System

To understand many of the university's academic policies and procedures, you first need to understand the grading system. The following system of grades is used to indicate the quality of academic work:

Regular Letter Grades

A	Excellent
A-	
B+	
B	Good
B-	
C+	
C	Satisfactory
D	Unsatisfactory, but passing
F	Failure

Special Grades

I	Incomplete
Q	Deferred grade
S	Satisfactory
U	Unsatisfactory
P	Passed
T	Credit By Exam
TR	Transfer Credit
N	Audit (no credit)
NC	No Credit (when the semester has been disrupted)
PASS	Credit (when the semester has been disrupted)
PASS*	Credit (when the semester had been disrupted)

The plus/minus system of letter grades took effect with the 1992 fall semester. Before then, the only regular letter grades were A, B, C, D, and F. Individual faculty members may choose to continue using single letter grades and not award plus/minus grades.

In certain cases, a grade of D may not be considered passing; and you may be required to repeat the course by your major department.

Quality Point Average (QPA)

Your quality point average or QPA is determined by assigning numerical values to the letter marks and weighing them according to the number of class hours. The values assigned to the letters are:

A 4.0 quality points

A- 3.7 quality points

B+ 3.3 quality points

B 3.0 quality points

B- 2.7 quality points

C+ 2.3 quality points

C 2.0 quality points

D 1.0 quality points

F 0.0 quality points

To calculate your QPA, follow these steps:

1. Compute the number of quality points earned for each course by multiplying the value of your letter grade by the number of credits earned. For example, your grade of B+ (3.3 points) in a 3-credit course earns you 9.9 quality points.
2. Add up the quality points earned in all your classes.
3. Add up the number of credits attempted in all your classes. This total should include all classes in which you received a regular letter grade (A through F).
4. Divide the total number of quality points earned by the total number of credits attempted. This is your QPA.

Only courses in which you received a regular letter grade (A through F) are used in calculating your QPA. Courses you have repeated will have an impact on the way your QPA is calculated. See the section on Repeated Courses for details.

The following example illustrates how to calculate your QPA for one semester:

Course	**Credits**	**Grade**	**Qty. Pts. Earned**	
1st subject	3	B-	3 x 2.7 =	8.1
2nd subject	3	A	3 x 4.0 =	12.0
3rd subject	3	F	3 x 0.0 =	0.0
4th subject	4	B	4 x 3.0 =	12.0
5th subject	3	B	3 x 3.0 =	9.0

Total	16	41.1

Quality Point Average = 41.1/16 = 2.56

Your *semester QPA* is the average for one semester or summer term, while your *cumulative QPA* refers to the average for all courses completed at Shippensburg.

Temporary Grades ('Q' and 'I')

The grades 'Q' and 'I' are temporary grades, which mean you have not completed all the requirements for a particular course.

With prior approval of the appropriate dean, the grade of Q (deferred grade) may be awarded for courses such as research, thesis, and internship, which are designed to extend over more than one grade period. If you receive a Q grade in a course, you should work closely with the instructor to plan a schedule in order to complete the work within a specified time period (maximum of three years) or the grade will convert to an F.

The grade of I (incomplete) should only be requested if you have successfully completed a majority of the work for the course and due to overwhelming and unavoidable circumstances that are beyond your control (e.g., serious illness, death in the family), you are unable to complete all the requirements of the course. Being awarded an I is a privilege not a right of the student and the decision to grant an incomplete grade rests solely with the course instructor. When permission is granted by a faculty member, the approval signature affirms that the remaining assignments/requirements will be communicated to the student.

Stipulations regarding incomplete grades:

- Students should rarely request an incomplete grade.
- You must be passing the course and be able to complete the remaining course assignments without attending additional classes or needing additional instruction from the faculty member. Incomplete grades are typically awarded near the end of the semester when only a small amount of graded materials is required of the student.
- If you do not complete the work for a course in which you received a grade of I by the last day of classes (before final exam week) of the next full semester, you will receive a grade of F for that course.
- If the student is failing a course, an I cannot be awarded in place of the failing grade.
- If you repeat a course in which you have been awarded an I grade, the I grade will convert to a grade of F.

Incompletes can be extremely problematic:

- You cannot graduate from the university with a temporary grade on your record.
- An incomplete grade does not prevent academic action for dismissal.
- Incomplete grades affect the number of credits earned in the short term and may have an impact on financial aid eligibility, athletic eligibility, or visa status for international students.

Satisfactory-Unsatisfactory Option

The grades S and U are used for courses that are taken under the satisfactory-unsatisfactory option. If you have completed at least one academic year (30 semester hours) at Shippensburg University and are maintaining a cumulative QPA of 2.5 or better, you may schedule up to a maximum of three credits (or one four credit course) per semester under the satisfactory-unsatisfactory option. Transfer students with more than 30 semester hours accepted in transfer may adopt the satisfactory-unsatisfactory option for their first semester at Shippensburg.

Certain policies and procedures pertain to this option:

- You may adopt or rescind the satisfactory-unsatisfactory option during the first two weeks of the regular fall or spring semester. No changes may be made after the deadline. Only full-time students are eligible. You must visit http://www.ship.edu/Registrar/Registrar_Office_Forms/ to submit the online web form to request this option.
- The maximum number of credits you may schedule under the satisfactory-unsatisfactory option while attending Shippensburg University will not exceed ten.
- Only courses taken outside your major and/or minor field may be scheduled on the satisfactory-unsatisfactory basis. Courses in the professional education sequence are considered a part of major requirements and therefore may not be taken satisfactory-unsatisfactory. Independent study may not be taken satisfactory-unsatisfactory.
- Under this option, you will not be identified to the instructor of the course and all students will continue to be graded on a letter basis. Grades will be submitted to the registrar's office, which will convert grades to satisfactory-unsatisfactory when applicable. Satisfactory shall be defined as A, B, or C on the conventional grading system and shall be recorded on the transcript as S (satisfactory). If you receive a D or F grade you will have this grade recorded on the transcript as U (unsatisfactory). The transcript will include a legend explaining the satisfactory-unsatisfactory grading system.
- Grades received from courses taken on the satisfactory-unsatisfactory basis will not be used in determining the cumulative quality point average. If you receive a grade of S, the credits earned will be recorded toward graduation requirements; however, no credit will be earned if a grade of U is assigned.
- You may not schedule more than one course on a satisfactory-unsatisfactory basis in a given department or in a required sequence of course offerings within a major. The five foundation courses in general education may not be taken on a satisfactory-unsatisfactory basis.
- You may select the satisfactory-unsatisfactory option during the summer or winter terms if you are a full-time student during the regular semester. No changes to the satisfactory-unsatisfactory option may be made after the drop period for any summer or winter term.

Other Types of Grades

A grade of P is given for courses where you successfully complete the requirements of the course and a letter grade is not appropriate. Examples of such courses include internships and other field experiences. If you register for such a course and do not complete the requirements, a grade of F will be given.

T grades are used to indicate credits earned through examination rather than by attending classes. See the section Credit by Examination for details.

Credits you earn at another institution that are accepted towards your degree at Shippensburg are indicated with a grade of TR. See the Transfer Credits section for further details.

Credits earned with grades of P, T, or TR will be counted towards the total number of credits required for your degree, but they are not used in calculating your QPA.

A grade of N indicates you have audited a class. When you audit, you can attend class and participate in class activities, but you do not receive academic credit. You may audit a course by receiving the written permission of the instructor and approval of your dean on an audit form. This form must be returned to the registrar's office during the first week of the semester. You must schedule and pay the regular fee for any courses you audit, and you may not receive credit or a grade for these courses at a later date.

W grades indicate courses from which you withdrew. Further information may be found in the Withdrawal from a Class section.

The grade of PASS and PASS* is a non-punitive grade used in unique situations where a semester is disrupted (e.g. natural disaster, pandemic, etc.). In spring 2020, students had the option of electing a PASS grade in place of a letter grade of "A" through "D." In fall 2020, students had the option of electing a PASS grade in place of a letter grade of

"A" through "C" and a PASS* grade in place of a letter grade of "D." Course credits will be counted as attempted and earned credits, but hours taken will not enter into the computation of the student's QPA.

The grade of NC is a non-punitive grade used in unique situations where a semester is disrupted (e.g. natural disaster, pandemic, etc.). When use of this grade is invoked, it will be issued in place of a letter grade of "F" for a student who does not successfully complete the requirements for a course. Course credits will be counted as attempted credits, but no credit is earned and hours taken will not enter into the computation of the student's QPA.

Academic Progress and Standing

Your progress in each class is regularly evaluated by the instructor of the course. Instructors schedule regular office hours to allow you to confer regarding academic achievements or particular problems with course work. At the end of each semester a final grade is recorded on your permanent record for each course taken.

Students are officially classified according to the number of credit hours completed as follows:

Freshman	0-29 credit hours
Sophomore	30-59 credit hours
Junior	60-89 credit hours
Senior	90 or more credit hours

Students classified as juniors or seniors are considered to be upperclassmen.

Issuance of Grades

In accordance with the Family Educational Rights and Privacy Act, commonly known as the Buckley Amendment, students are provided with privacy safeguards of their educational records. The university provides reports of progress including grades, written evaluations, and letters of warning. You may have access to all information pertaining to your educational records and academic status.

During your academic career, you will receive early warning reports. These reports, which do not become part of your academic record, are intended to warn you about classes you are in danger of failing. The early warning reports are posted on the myShip portal, and a notification of availability of early warning grades is sent to your university e-mail account.

Dean's List

A dean's list is published at the end of each semester of the academic year. It includes the names of those full-time students whose semester QPA is 3.50 or better. Only the course work completed in the current term is considered in computing this score. The achievement of the high academic status, which this listing represents, is a great honor to the student's ability and willingness to work.

If you are a part-time student, you are eligible for dean's list any semester in which you have a QPA of 3.50 or better in the last 15 or more sequential credits of part-time work, including summer and winter term courses, if taken. These credits must have been earned since your last inclusion on the dean's list.

Grade Appeals Procedure

(I) Introduction

An undergraduate student contemplating filing a grade appeal understands that consistent with the practice of academic freedom, faculty bear responsibility for assigning course grades in accordance with professionally acceptable standards which have previously been communicated to students verbally or in writing. At the same time, students have a right to ensure that grades are calculated accurately and consistently, fairly and equitably, and without discrimination.

Note: *Any grade appeals or grade change requests initiated on the basis of alleged academic misconduct shall be handled under the procedures set forth for academic misconduct discussed later in this chapter.*

(II) Basis for Appealing a Final Course Grade

Undergraduate students may appeal a final course grade assigned to them by an instructor based on one of three conditions:

1. The course instructor miscalculated the final course grade.
2. The course instructor committed an oversight in calculating the final course grade.
3. The course instructor acted in an arbitrary, and/or capricious manner in assigning grades to the student, including the final course grade.

For an instructor to act in an arbitrary and/or capricious manner in assigning grades is defined as follows:

1. The instructor assigned a course grade to a student on some basis other than performance in the course
2. The instructor assigned a course grade to a student by resorting to unreasonable standards different from those which were applied to other students in that course
3. The instructor assigned a course grade to a student in a manner that represented a substantial, unreasonable, and unannounced departure from the instructor's previously articulated standards.

(III) Selection and Composition of the Academic Appeals Committee

The Academic Appeals Committee of the department shall consist of a minimum of three regular tenure-track faculty members in the department (excluding the department chairperson) and an equal number of undergraduate students who are majors in the department, with a faculty member and student serving as co-chairs. In the event a faculty or student member of the Academic Appeals Committee is a party in a grade appeal, an alternate previously selected shall serve in his or her place.

Within the first week of the fall semester, each academic department shall elect at least three faculty members and one faculty member alternate to serve on the Academic Appeals Committee for the academic year and designate three undergraduate students and one undergraduate alternate enrolled in the academic department to serve on the Academic Appeals Committee. Each academic department shall develop a standard process for selecting student members for the Academic Appeals Committee. By the end of the first full week of the fall semester, the names of the faculty and student members of the Academic Appeals Committee and alternates selected for each academic year shall then be forwarded to the dean's office of the college within which the department is located. In the event a department lacks sufficient faculty to staff the Academic Appeals Committee and provide a faculty alternate member, it shall notify the dean of the college in which the department is located. The Dean's Office shall provide assistance in identifying a suitable pool of faculty from the college to staff the Academic Appeals Committee and provide an alternate member for the committee if the need should arise.

(IV) Timetable and Procedures for the Grade Appeal Process

Compliance with all timelines set forth in this policy is required.

A student may initiate a grade appeal within thirty (30) calendar days following the first day of the next regular (fall or spring) academic semester. However, appeals from the winter term shall be filed within sixty (60) calendar days following the first day of spring semester; appeals from the summer terms shall be filed within thirty (30) calendar days

from the first day of fall semester. Should the deadline for completing a step in the grade appeal process set forth below fall on a day the university is not open for business, that deadline shall be moved to the next date the university is open for business

In the event a faculty member, department chairperson (or chair of the department's Professional Affairs Committee if necessary) fails to comply with the timelines or procedures set forth in this policy, the student shall have the right to appeal to the dean of the college in which the appeal has arisen. If the dean determines the student's rights under this policy have been violated he or she shall direct the department to schedule the Formal Grade Appeal Hearing in a timely fashion consistent with the intent of the policy.

A. Meeting with the Faculty Member Assigning the Final Course Grade-Following notification of a final grade assigned in a course a student disagreeing with a final course grade shall meet informally with the course instructor at a mutually acceptable place in an effort to resolve the matter, prior to resorting to the formal appeal process.* Either party may choose to have another person present at this meeting. This informal meeting between the student and the faculty member assigning the disputed grade shall occur no later than thirty (30) calendar days following the onset of the next regular (fall or spring) academic semester.** If the faculty member finds in favor of the student, a grade change will be sent to the Registrar's Office after the department chair has signed the grade change form. A copy will be sent to the student. However, if the faculty member decides the grade as given was correct, the student will be notified in writing within seven (7) calendar days. Students who are not satisfied with the results may initiate a formal appeal of the final grade assigned in the course, as outlined below.

**In the event the faculty member assigning the final grade in the course is no longer an employee of Shippensburg University the student desiring to appeal a course grade shall meet with the department chairperson to establish procedures consistent with this policy and past practice for entertaining the desired grade appeal.*

***Shippensburg University policy permits faculty members to change grades if there has been a miscalculation or oversight in grading, but not on the basis of additional student work or revision of previously accepted work.*

B. Initiating a Formal Grade Appeal-A student wishing to formally appeal a final course grade based on the factors listed in Section II, Basis for Appealing a Final Course Grade, must file a written appeal with the chairperson of the academic department home to the course whose grade they are seeking to appeal no later than thirty (30) calendar days following the first day of the next regular (fall or spring) academic semester. Appeals from the winter term shall be filed within sixty (60) calendar days following the first day of spring semester; appeals from the summer terms shall be filed within thirty (30) calendar days from the first day of fall semester.

Formal appeals from the spring semester and summer terms shall be filed no later than thirty (30) calendar days from the first day of the fall semester; formal appeals from the fall semester shall be filed no later than thirty (30) calendar days from the first day of the spring semester; formal appeals from winter term shall be filed no later than sixty (60) calendar days from the first day of spring semester. Failure to meet the deadline for formally filing a grade appeal shall result in the forfeiture of a student's appeal rights.

A student wishing to pursue a grade appeal shall by this date*** submit to the department chairperson (or chair of the department's Professional Affairs Committee in the event that the student is appealing a grade assigned by the department chairperson) the completed grade appeal form, signed and dated, and supporting documentation which sets forth the basis for the appeal and the desired resolution. An undergraduate grade appeal form may be obtained in the department office of the major/program where the appeal is filed or from an academic dean's office. Formal Grade Appeals may not be filed electronically; a fax with legal signature is acceptable.

****Both the informal attempt at resolving the disputed grade with the faculty member assigning such grade and the formal initiation of the formal grade appeal must be completed no later than thirty (30) calendar days following the first day of the next regular (fall or spring) academic semester. Winter term formal appeals must be initiated no later than sixty (60) days following the first day of the subsequent spring semester.*

C. Meeting with Department Chairperson-Within seven (7) calendar days of receiving a completed grade appeal form, the department chairperson (or designee) will notify the faculty member that a formal appeal has been filed and shall meet individually and/or jointly, if useful, with the student and the faculty member to discuss the disputed grade

in an effort to mediate an amicable resolution to disagreement over the final grade assigned. Such meeting(s) may occur in person or via conference call if necessary. The mediated result must be given in writing to both the student and faculty.

D. Formal Departmental Grade Appeal Hearing-If the student finds that the mediated effort fails to address his or her concerns or achieve the desired results, he or she must notify the department chairperson in writing within fourteen (14) calendar days of the meeting with the department chairperson (or designee) of his or her desire to continue on to the formal grade appeal hearing before the Academic Appeals Committee of the department. Failure to meet this fourteen (14) day deadline for proceeding with the formal grade appeal shall result in the forfeiture of a student's appeal rights.

1. Scheduling of the Academic Appeals Hearing-Upon notification by the student of his or her desire to continue with the appeal, the Academic Appeals Committee shall have fourteen (14) calendar days to conduct a hearing on the matter and to issue its findings and recommendations.
2. An equal number of students and faculty, but in no case fewer than four members, shall be present at the Appeals Hearing.
3. Conduct of the Academic Appeals Hearing-The chairpersons of the Academic Appeals Committee shall have sole responsibility for the conduct of the hearing. Prior to the hearing the student shall submit to the committee a written statement setting forth the issue(s) in the dispute and the desired resolution. Only the student and the faculty member in the dispute have the right to attend the hearing. Both the student and faculty member involved in the grade appeal shall have the right to be present during the grade appeal hearing itself. Both the student and the faculty member have the right to introduce materials into the hearing that are directly relevant to the assignment of the final grade in the course, including such items as:
    - Course syllabi as given to the student
    - Graded assignments such as, but not limited to, journals, research papers, group projects, examinations
    - Other material relevant to the determination of the student's final course grade

E. Decision of the Academic Appeals Committee-Only members of the undergraduate Academic Appeals Committee shall be present during the discussion of and deliberations on the outcome of the student's grade appeal. The Academic Appeals Committee's deliberations shall be viewed as confidential and no transcripts, notes, or records shall be made regarding their discussion other than a record of their final decision. The record of the final decision will be maintained in the department office for three years. The committee has the power to decide the outcome of the final grade dispute by simple majority vote taken by secret ballot. A tie vote upholds the faculty member's decision in the case. If the committee sustains the appeal (i.e., rules in favor of the student) a grade change form will be sent to the Registrar's Office after being signed by the department chair. With the exception of the grade, no part of these proceedings will become part of the student's official academic record. In addition, no part of these proceedings will become part of the faculty member's record or file. The evidence, proceedings, and the final decision of the Academic Appeals Committee shall remain confidential.

(V) Request for Reconsideration

A student whose grade appeal has been denied may file a written request for reconsideration within seven (7) calendar days with the appropriate academic dean of the college in which the academic department is housed upon the following grounds:

1. The student can demonstrate substantial procedural irregularities or inequities in the conduct of the hearing.
2. The student provides substantial new evidence that was not available at the time of the hearing that would have had a bearing on the outcome of the appeal.
3. The student is able to demonstrate that the Academic Appeals Committee's decision was erroneous or unfair.

In the absence of a written request for reconsideration of the committee's decision filed with the appropriate academic dean in the college wherein the appeal arose within the specified seven (7) day period, the committee's initial findings and action on the appeal filed shall be final.

(VI) Reconsideration of the Academic Appeals Committee Determination

Within seven (7) calendar days of the request for reconsideration, the academic dean of the college in which the grade appeal arose shall determine whether a compelling reason has been presented for setting aside the initial decision of the Academic Appeals Committee. If the dean finds that a compelling reason exists to take such action he or she may direct the committee to reconsider their findings and determination or take other appropriate action consistent with the guidelines. If the dean does not find a compelling reason to ask the Academic Appeals Committee to reconsider, the dean communicates with the student and this record will be maintained by the dean's office for three years.

Upon direction from the dean, the departmental Academic Appeals Committee shall have ten (10) calendar days to reconvene and reconsider their initial decision on the grade appeal. The committee in undertaking such review and reconsideration shall examine and take into account the concerns raised by the dean.

The decision of the Grade Appeals Committee, following review and reconsideration, shall be final.

Academic Standards and Policy on Probation, Continuing Probation, and Academic Dismissal Status

Students admitted to the university are expected to maintain satisfactory academic standing, which requires a cumulative quality point average (QPA) of 2.0 (C) or better in their total program of courses and minimum 2.0 in the course work of their major areas of specialization.

The Registrar's Office reviews the academic progress of students at the end of each semester and places those students who fail to maintain a cumulative QPA of 2.0 or better on academic probation or dismissal. Students who do not meet the required quality point average may be granted one probationary semester in which to raise their average. Students who earn higher than a 2.0 semester QPA may continue on academic probation.

Any student who fails to meet the conditions of academic probation is subject to dismissal. A student whose adjusted cumulative average beyond the first semester falls below 1.7 or whose semester average is below a 1.0 is subject to immediate dismissal unless the overall QPA remains at 2.0 or above. A first-year student must pass at least 3 or more credits of the courses attempted during his or her first semester or he/she will be academically dismissed for a minimum of one academic year.

Students who are subject to dismissal based on this policy who have fewer than 32 cumulative QPA credits or students who have 32 or more cumulative QPA credits with a semester QPA of 2.0 must submit an academic recovery program intake survey and participate in a Continuing Academic Progress and Success (CAPS) recovery program to return to the university on academic probation. Otherwise, their dismissal status will continue.

A student cannot be considered for readmission to the university for at least one calendar year following dismissal. A decision to readmit is made only when a student presents compelling evidence of some fundamental change which allows the student to perform academically at the level needed to graduate. Typically, this would include at least three transferable courses taken at another accredited institution of higher education, resulting in a grade point average of at least 2.5. Courses for which a student has received a D or F grade at Shippensburg can only be repeated at Shippensburg and any specific courses taken at another institution must have prior approval of the academic dean. If a student has been dismissed twice for academic reasons, including when a dismissal appeal has been granted, he/she is ineligible for readmission to the university for at least three years, when he/she may be considered for fresh start upon readmission.

Notice and Appeal

If you are placed in one of these categories (probation or dismissal), you will be notified in writing and via email by the registrar's office. If you are academically dismissed you may appeal your dismissal by writing a letter to your academic dean by the date indicated in the letter from the registrar. Appeals should be accompanied by appropriate written documentation. All appeals will be considered by the Academic Review Committee.

Withdrawal and Leave of Absence

If a student decides to withdraw from the university, the student must contact their academic dean. The academic dean's office will process a student withdrawal as of the date the student initiated the withdrawal.

If a student is in good standing with a cumulative QPA of 2.0 or better, the student may apply to their academic dean for a leave of absence. This permits the student to return to Shippensburg University without having to apply for readmission. Leaves may be granted for up to one year.

When a leave of absence is granted, the student must contact their acadmic dean before they return in order to schedule classes. If a student does not return to the university within one year, the student must apply for readmission.

A student who is registered for classes will be eligible for a refund only if the withdrawal occurs within the time period normally allowed for refunds, as outlined in BOG policy 1983-19-A. Any student who is receiving federal financial aid should be aware that a total withdrawal will likely result in their financial aid being adjusted, as outlined in PASSHE Procedure/Standard Number 2016-17. This may result in owing payment to the University and possibly reducing future eligibility for financial aid. Students should contact the Financial Aid Office prior to making a university withdrawal decision.

Involuntary Withdrawal

Occasionally a university physician and a licensed counseling psychologist determine a student has medical or psychological problems that make it impossible to function effectively in the university environment. The following involuntary withdrawal policy is necessary in those cases where a student in that condition refuses to voluntarily withdraw from the university.

In those cases where counseling or medical evaluation indicate it is necessary for a student to withdraw from Shippensburg University and the student refuses to withdraw voluntarily, an involuntary withdrawal may be imposed by the vice president for student affairs upon the recommendation of a university physician and a licensed counseling psychologist.

A copy of the involuntary withdrawal letter will be forwarded to the Registrar's Office and will become part of the student's official file. When evidence is presented to the director of health services and the director of counseling services that the health condition has been satisfactorily resolved, the student may seek readmission. The student may be readmitted after filing a formal application for readmission and upon recommendation of the director of counseling services and the director of health services.

Readmission of Students

Readmission Process

If you would like to return to the university and were not on an approved leave of absence or if you were dismissed or withdrew for academic reasons, you must file a formal application for readmission with the Admissions Office.

Readmission When in Good Academic Standing

If you were in good standing at the time of your withdrawal, your application will be reviewed by either the Admissions Office or your academic dean, as well as other university officials, to ensure successful plan for readmission is in place. Readmission may be denied or deferred if university enrollment is full or if you are applying for a program that is restricted or closed.

Readmission When Not in Good Academic Standing

If you were academically dismissed, you are not permitted to take courses at the university for one calendar year. You will not be considered for possible readmission for one year.

Readmission is never guaranteed following academic dismissal. It may be granted only if you present compelling evidence of some fundamental change that will then allow you to perform academically at the level needed to graduate. Approval of the Academic Review Committee is required.

Readmission: Determination of Program Requirements

If you are readmitted within one year of leaving the university, you will be subject to the academic policies and requirements that were in effect at the time of your original matriculation date as defined at the beginning of this chapter. After one year, Enrollment Management, after advisement with the impacted academic offices, may determine whether current policies and requirements (in whole or part) will be applied.

Fresh Start

Former Shippensburg University students may request the Academic Review Committee to consider them for fresh start. Students are limited to applying for fresh start one time. If you have an unacceptable QPA for readmission, which is a cumulative QPA less than 2.0, and you have withdrawn from the university for at least three years, you may request your previous record not be calculated in your QPA for subsequent course work at Shippensburg.

Under fresh start, previous course work at Shippensburg in which you received at least a D and which is appropriate in meeting current requirements will be treated as transfer credit. The grades will appear on your academic record, but they will not be calculated in your QPA. If you are approved for readmission under this program, you will be considered as newly matriculating; and you will be subject to all policies and requirements in effect at the time of your new matriculation.

Graduation Requirements and Majors

As a fulfillment of its obligation to higher education, Shippensburg University has established high standards of achievement and promise for its students, which must be met without question before graduation is approved by the university's faculty or administration. Specific requirements relating to general education and individual majors may be found in the chapter, University Curricula. The university has established certain academic requirements for all students seeking a bachelor's degree.

Requirements for Graduation

In order to graduate you must meet the following requirements:

- The completion of a minimum of 120 credit hours in the selected curriculum. Note: Developmental course work does not count towards the 120-credit minimum. If your program includes developmental course work, your degree program will require more than the 120-credit minimum.
- The completion of all general education courses and the course sequence requirements in effect in the selected curriculum
- A cumulative QPA of at least 2.0 (C average) for the total program of courses
- A QPA of at least 2.0 (C average) in the academic sequences or majors
- In the case of teacher education students, a satisfactory history of development in student teaching
- The resolution of all outstanding judicial and/or academic misconduct matters
- Completion of all final course work

To receive a bachelor's degree you must complete a minimum of 30 credit hours of work at Shippensburg, where those 30 credits must be completed within your last 60 credit hours of work at Shippensburg. At least one half of all courses

in your major field must be completed at Shippensburg or another State System University except where program requirements dictate a higher percentage of courses in the major be completed here. Courses taken by students who participate in formal articulation agreements where students may reverse-transfer credits back to Shippensburg University will be counted toward residency requirements. Students in programs requiring off-campus instruction may be exempted from this requirement by the Provost.

It is your responsibility to make certain all requirements for graduation have been met. An application for graduation must be filed with the Registrar's Office prior to the beginning of your final semester. Applications will be reviewed by your academic dean, and you will be notified if there are any problems.

Commencement ceremonies are generally held on the Saturday at the end of final examination week. Students who complete all graduation requirements during the fall or spring semester are expected to participate in the commencement ceremonies at the end of the semester in which they complete all requirements for graduation. Students who, at the completion of either the fall or spring semester, are within six credits of completing their degree requirements may petition their academic dean's office to participate in the preceding semester's commencement ceremony. Final approval is given by the Provost's Office. Approval will be granted when there is evidence that the student will be unable to attend the ceremony following completion of all requirements.

Students who complete all graduation requirements in the summer are expected to participate in the commencement ceremony at the end of the spring semester. Students who meet those requirements in the winter are expected to participate in the commencement ceremony at the end of the fall semester. Students who are completing their degree requirements at the end of the summer or winter may petition their academic dean's office to participate in the commencement ceremony immediately following the completion of their requirements. Final approval is given by the Provost's Office. Approval will be granted when there is evidence that the student will be unable to attend the ceremony directly preceding the completion of all requirements.

Graduation Honors

Students with appropriate academic records may be graduated with one of the following distinctions. Such recognition becomes a permanent part of every graduating senior's record, with designation based upon the following cumulative QPA: *Cum Laude* (3.40 or better), *Magna Cum Laude* (3.60 or better), *Summa Cum Laude* (3.80 or better).

Graduation honors will be noted in the commencement program if you have attained the appropriate QPA at the time you apply for graduation. A list of students with honors is posted in the registrar's office for review. Honors posted on your permanent record will be based on your final cumulative QPA.

Transfer students and fresh start students who have earned at least 15 semester hours at Shippensburg University at the time they apply for graduation will be eligible for honors recognition in the commencement program. Transfer students and fresh start students who have earned at least 30 semester hours at Shippensburg University by the end of their program of study will be eligible for graduation honors to be posted on their permanent record.

Major Field of Study

You may declare a major field of study during the admissions process or you may choose to remain exploratory and select a major at some point during your first three semesters at Shippensburg University.

In deciding on a major, you may receive personal and academic advisement and guidance from your faculty advisor and from your classroom professors who maintain regularly scheduled office hours for this purpose.

Each department chair arranges for the assignment of declared students to faculty advisors who will help students as they plan their academic programs. When you have declared a major field of study, your departmental academic advisor will review your academic record and assist you with the selection of a schedule of courses for each semester prior to registration.

Selecting a Major

Many students select a major field of study prior to beginning their freshman year. If you have chosen not to declare a major prior to matriculating at the university, you are considered exploratory and you will be assigned an advisor by the dean of the Elnetta G. Jones University Center for Student Success and Exploratory Studies. This advisor will assist you in preparing an appropriate schedule of predominantly general education courses. These courses should be acceptable as general education background for any major you eventually select. Exploratory students are cautioned that any specialized courses they take which are not listed as general education may not be applicable in the major field eventually chosen.

If you are exploratory, you should select and declare a major program by the middle of your sophomore year. In some majors, such as those of the natural sciences and education, it is essential the declaration be made even earlier so as to allow adequate time to schedule the required courses to graduate in four years.

You should begin the selection process early. The more time you spend exploring majors and preparing for your career, the easier it will be to make the right choice. To help you select a major visit the Department of Academic Engagement and Exploratory Studies (AEES) website at www.ship.edu/exploratory.

You should be aware there is no assurance you will be able to declare any program you choose. Programs with limited capacity may be restricted or closed. The key to improving your ability to declare any major is your academic performance. If you earn good grades (a 3.0 or higher), you will have more and better choices.

Make It Count

Finish in Four

Your time and money are valuable. When you make every class and credit count to finish your Ship degree in four years instead of five or more, here's what you save or receive.

1. Classes - Make your classes count toward your degree. You've paid for it; don't waste it with a Withdrawal. Attend class, engage in discussion, and participate in your learning.
2. Credits - Take 15 credits a semester, 30 per year, to finish your degree on time in four years. Work with your academic advisor to develop a plan to take 15 credits per semester or 30 in a calendar year, and revise it every semester until you graduate.
3. Money - In-state students who finish their degree in four years instead of five save about $20,000 and avoid additional school loan debt.
4. Time - When you finish in four instead of five you can start grad school or your career sooner... and you'll make your parents very happy.

Changing Majors

Changing from one major into another major field of your choice is not automatic or guaranteed. The change is subject to the approval of the chair of the department in which the new or intended major is located following a review of your academic record. Requests for and processing of changes in declarations of majors and minors can be submitted at any time. A change of major is permitted only when you meet university and departmental qualifications for transfer and when no program enrollment restrictions apply.

To change from one college within the university to another you must meet certain conditions. You may not have any F grades in courses applicable to the new program. Your cumulative QPA must meet any requirements set by the new department and you must receive approval of the appropriate department chair.

You should also be aware if you have accumulated more than 60 credit hours, you may change from one division to another only if you have the agreement of all appropriate department chairs and you understand you might lose a significant number of credit hours which would not be appropriate for graduation in the new curriculum.

To be graduated from the university, any student changing majors must meet the requirements of the curriculum to which he or she is transferring.

Dual Degrees

Dual degrees are earned when students enroll in programs that have different degree designations, such as a B.S. and a B.A. If you wish to simultaneously pursue two bachelor's degrees, you must consult with the dean and department chair of your primary program of study as to the procedure to be followed. Where such an option is available, students intending to opt for two degrees shall be required to take a minimum of 150 credit hours and complete the prescribed specified courses in each respective program of study. Students are expected to complete a minimum of 30 credit hours in courses not included in their first degree (usually these credit hours are in the second degree) and any other requirements for the second degree, which cannot be equated to courses taken in the first degree program.

Double Majors

Double majors are earned when students enroll in programs that have the same degree designations, such as both programs are a B.S. or both programs are a B.A.

If you wish to pursue a second major, you must consult with the dean and department chair of your primary major as to the procedure to be followed. Students intending to opt for two majors shall be required to take a minimum of 120 credits and complete the prescribed specified courses in each respective major. Only one (three credit) course may be double counted toward both majors, including any concentrations. Exceptions will be made for students majoring in the departments of biology, chemistry, computer science and engineering, economics, exercise science, mathematics, and physics because of the large number of duplicate requirements in each of these fields. Double majors must share the same degree designation. Interdisciplinary majors declaring a second major in a related discipline may double-count a maximum of 12 credit hours between the requirements of their two majors. Courses fulfilling general education requirements of both majors may be double-counted without restriction.

Second Baccalaureate Degree

It may be desirable for certain students, who already hold a baccalaureate degree, to obtain a second baccalaureate degree in a different or related field. Where such an option is available, you are expected to complete a minimum of 30 credit hours in courses not included in your original degree (usually these credit hours are in the new major) and any other requirements for the second degree, which cannot be equated to courses taken in the first degree program. The election of a minor as a secondary field of study must be outside the student's former and current academic major. At least 50 percent of the minor must consist of coursework completed while pursuing the second baccalaureate degree. To exercise this option you must be admitted through the Office of Admissions.

Minors

An academic minor is an organized program of study that comprises the fundamental requirements of an academic major (core and cognate courses) equivalent to a minimum of 18 semester credit hours. As a secondary field of study, the academic minor should reflect a minimum of six credits of advanced standing coursework from the academic major. Exceptions to the advanced standing requirements may be granted on a case-by-case basis per request to the chancellor. If you are interested in electing a minor, you should confer with the chair of your major department and the

dean of your college. You may not major and minor in the same program. A full list of minors is available on the Programs of Study page.

It is possible to have more than one minor. Only two courses (6-8 credit hours) in one minor may be counted toward the fulfillment of another minor.

A minimum of a 2.0 QPA in the minor is the university requirement for the granting of a minor. At least 50 percent of the minor (defined as at least 9 credits or as 3 or more classes) must consist of coursework completed at Shippensburg University or another State System University.

Academic Requirements for Undergraduate Certificates

Undergraduate Certificates awarded by Shippensburg University have the following common denominators:

- Must be a minimum of 9 credits
- Minimum required cumulative QPA for courses satisfying this requirement is 2.0
- Courses may not be taken on a satisfactory/unsatisfactory basis
- Half or more of the courses must be taken at Shippensburg University
- Only six credit hours taken for one Certificate may be counted toward another Certificate

Earning Academic Credits

You may earn academic credits at Shippensburg University in several ways: by taking normal course work at the university, through the Advanced Placement Program, through credit by examination, and by taking courses at other accredited institutions for transfer back to Shippensburg University.

Registering for Classes

The normal semester hour workload varies between 15 and 18 credit hours. Students with less than 12 credit hours are classified as part-time. To take more than 17 credit hours in a semester you must have approval of your academic dean. Freshmen may not take more than 17 credit hours during their first semester.

Current students may register for classes at the university during the registration period held each semester for the next semester or during official schedule adjustment periods. New freshmen will be pre-registered their first semester. Schedules will be disseminated to new freshman at the students's orientation session that occurs prior to the beginning of their first term. New transfers will be provided registration guidance from the department under which their major resides with regard to their first semester schedule. New transfers will have an opportunity to register at their orientation session that occurs prior to the beginning of their first semester.

If you have an outstanding obligation to the university, a hold may be placed on your account and you will not be permitted to schedule. Reasons for holds include but are not limited to: unpaid tuition or fees, health form not submitted, placement test not taken, unpaid library fines, and final transcripts not submitted. You will be notified in writing about these obligations before a hold is placed. It is your responsibility to satisfy the obligation with the office that placed the hold before you will be allowed to schedule.

Even though you may be scheduled for classes, you must also meet all financial obligations by clearing your semester bill with full payment or by notifying the Student Accounts Office of any anticipated financial aid. If you do not pay or clear your bill by the stated deadline, your schedule of classes may be canceled.

Satisfying Your Bill

It is the policy of Shippensburg University that students who fail to make appropriate, acceptable payment arrangements by the published deadline will have their semester schedule canceled.

When a schedule is canceled, payment is required prior to re-registration. The Registrar's Office will be notified when payment is made, and the student will be rescheduled, subject to space availability in the classes.

Students who have not registered and satisfied their bill for class(es) by the end of the W grade period will not receive any credit or grades for the course(s). Payment cannot be made and a grade retroactively assigned.

First Day Attendance

If you are unable to attend the first class session of a course in which you plan to remain enrolled, you must give notice of your intended absence to the instructor, academic department secretary, or academic dean's office of that course. Failure to provide such notification may result in your name being removed from the roster by the instructor and your place in that class being given to another student. If you do not attend the first day of class, you cannot assume, however, that you have been dropped from this class. It is your responsibility to verify your enrollment status by checking your schedule on the myShip portal.

Class Attendance

At Shippensburg University, your participation in class is viewed as essential to the learning process. Therefore, it is expected you will attend every class. It is recognized that there may come a time when you are absent from a course and in these cases, please note the following:

1. Students are responsible for knowing what each instructor's absence policy is as defined in the course syllabus.
2. Students who are absent will be held responsible for all material covered in classes.
3. A university-excused absence is: religious observances, scheduled in-season department of athletics competitions; academic competitions in which the student is a participant; military duties; death of an immediate family member; jury duty; legally required court appearance; and hospitalization or similar documented medical emergencies or issues. Verification of such absences may be required by the instructor, and the student is responsible for the completion of work (in advance of or following the excused absence) as required by the instructor.
4. Students with university-excused absences are permitted to make up missed work by a deadline established by the instructor and are responsible for completing all missed assignments by this deadline to receive a grade without penalty. In the case of a university-excused absence, the instructor is expected to provide a makeup opportunity for the same or equivalent graded activity.
5. In cases where there have been multiple absences, the student should consult with the instructor and academic advisor to determine if completion of course requirements is possible or reasonable.
6. Faculty may permit other absences in their syllabus by labeling these as (instructor-) excused absences.
7. In cases when the student's absence is not a university-excused absence, the course syllabus will define how any missed graded-activity will be handled.

Withdrawal from a Class

Students may drop a course without penalty or record notation during the official schedule adjustment period for the course. Students may drop a course that runs the entire length of the fall or spring semesters through the 8th calendar day of the semester. If the 8th calendar day of the semester happens to be a holiday, students will be permitted to drop a course through the 9th calendar day of the semester. The period to drop a course with start and end dates that do not run the entire length of the fall or spring semesters, summer terms, and winter terms will be pro-rated based on the length of the course. These dates will be published on the Registrar's section of the Shippensburg University website.

Students may withdraw from a course that runs the entire length of the fall or spring semesters through the 10th week of classes. The period to withdraw for courses with start and end dates that do not run the entire length of the fall or spring semesters, summer terms, and winter terms will be pro-rated based on the length of the course. These dates will be published on the Registrar's section of the Shippensburg University website. You may not withdraw from a course in which you have been accused of or found guilty of academic misconduct and have been assigned the penalty of an F grade for the course, according to the academic misconduct policy.

A course withdrawal will be recorded as a W grade on a student's transcript.

Should a student wish to withdraw from any course, it is their responsibility to do so officially, even if they have never attended class. If a student does not attend and does not withdraw, the student's name will remain on the class roster until the final grading period, and the student will receive a grade of F for the course.

You should be aware that if you drop or withdraw from the following courses, you may not be able to register for them in future semesters without permission: UNIV 101 Shippensburg University First Year Seminar, ENGL 114 Academic Writing, ENGL 113 Introduction to Academic Writing, ENGL 115 Advanced Academic Writing , MATH 050 Developmental Mathematics, READ 050 Developmental Reading and Study Skills, COST 100 Introduction to Human Communication, and HIST 105 Historical Foundations of Global Cultures. The skills learned in these courses are essential for successful progression through your academic degree and therefore you need to take these during your first year at Shippensburg.

Students should carefully consider the ramifications before withdrawing from a course. Course withdrawals may delay graduation and increase costs by preventing a student from accumulating the necessary number of credits or by disrupting the timing of a required sequence of courses in your major. If withdrawing from a course causes a student to drop below 12 credit hours for the semester, the student will be considered part-time, which may jeopardize financial aid, athletic eligibility, health insurance, and residence hall status. Students should consult their academic advisor, department chair, or academic dean before withdrawing from any course after the initial schedule adjustment period.

Students may be allowed to withdraw from all courses with grades of W after the normal withdrawal period if the student provides their academic dean with clear medical evidence they are unable to continue their course work. It will be the determination of the dean whether this evidence is substantial enough to merit a medical withdrawal. Notification of a medical withdrawal must be received by the academic dean prior to the end of the current semester. Medical withdrawals are not permitted after the semester ends. If a medical withdrawal is authorized, the student will be eligible for a refund only if the withdrawal occurs within the time period normally allowed for refunds, as outlined in BOG policy 1983-19-A.

Repeated Courses

Students may avail themselves of the repeat/grade replacement option a total of six times. However, the most recent grade of the course will be used in the QPA calculation, regardless of whether that grade is higher or lower. The QPA recalculation will take effect with the term in which the course being evaluated for grade replacement was taken. Other than the QPA recalculation, no other retroactive changes will be made to a student's academic record based on repeated coursework. The course and grade for each instance that a course is taken is noted on the academic transcript regardless of whether the grade is included in the QPA calculation.

Students may repeat any course taken previously, no matter what letter grade was initially earned, and the most recent grade will replace the previous grade. Grade replacement of a repeated course is not limited to courses in which D and F grades were originally earned. If you repeat a passed course and fail, you will lose both the quality points and the credits you had previously earned.

A single course repeat for grade improvement will be limited to two times. The six repeats may include repeating six courses one time each, repeating three single courses two times each, or any combination which adds up to six instances where a single course is not repeated more than two times. After the single course or overall course repeat limits are met, any additional course repeats will include both the previous and new grade in the QPA calculation.

Prior to any student athlete and/or any student with financial aid utilizing the repeat option, the student should ensure it will not jeopardize their status as a student athlete or their ability to receive financial aid.

A D or F grade earned at Shippensburg University may not be made up or replaced by credits earned at another institution of higher learning for the same course.

As a second degree student, a grade earned at Shippensburg University during the pursuit of the original degree may not be replaced by grade or credits earned during the pursuit of the second baccalaureate degree.

Online Courses

Students are required to complete Online Student Readiness before registering for a distance education course under any of the following conditions if they have not passed a college course online in the past 2 years, have a GPA below a 2.0, or are directed to take or re-take the online orientation course as part of their remediation plan. Students can schedule no more than 11 credits in online and/or face-to-face format per summer term. Students can schedule no more than 8 credits in online and/or face-to-face for the winter term.

Transfer Credits

If you wish to do work at another college or university for transfer credit back to Shippensburg University, you must first obtain approval of your academic dean. Once a final grade is awarded for the course work, please request an official transcript be sent to the Registrar's Office. Transfer credit will be posted to your academic record after your dean's office has reviewed and evaluated the transcript. In general, a grade of C or better is required for transfer credit to be accepted. The transfer credit will appear on your transcript with a grade of TR and will not be used in calculating your QPA. Transfer credit will not be awarded to replace a D or F grade earned at Shippensburg University.

Advanced Placement Program

The university participates in the College Entrance Examination Board's Advanced Placement Program. Under this program, consideration is given to advanced credit and placement for those able and ambitious students admitted to the university who participate in this program in high school and who take the Advanced Placement Program Examinations.

The Advanced Placement Program, administered by the College Entrance Examination Board, is designed for all high school students who are about to enter college and who wish to demonstrate their readiness for courses more advanced than those most frequently studied in the freshman year.

Advanced classes are offered in many high schools in one or more of the following subjects: French, Latin, German, Spanish, English literature, English composition, American history, European history, chemistry, physics, and mathematics.

A national examination in each subject is administered in May by the Educational Testing Service, which is designed to test the competence of the student relative to the point at which college study could begin in that subject. The score required for credit and/or advanced placement is determined by the department chair along with the appropriate dean. Scores of 3, 4, or 5 generally will earn college credit.

College-Level Examination Program

The College-Level Examination Program (CLEP), administered by the College Entrance Examination Board, is utilized by the university primarily to evaluate nontraditional college-level education for the purpose of granting credit and placement. *This will apply particularly to adults who have acquired their knowledge and understanding through independent study, work experience, service schools, or from university courses taken years before.* The amount of credit and the score required for granting credit is determined by the appropriate dean. You may earn up to 30 credits through CLEP Examinations. Contact the Admissions Office for additional information regarding the test.

International Baccalaureate Program

The International Baccalaureate (IB) Program is an internationally recognized curriculum that offers 11th and 12th grade students an opportunity to earn the IB diploma. The IB diploma is a passport to higher education. The program is offered in over 800 public and private secondary schools in more than 100 countries around the world. To earn the diploma, students complete and test in six subjects; write an extended essay of independent research guided by a faculty mentor, complete 150 hours of creative, action, and service activities (CAS); and participate in a critical thinking course called Theory of Knowledge. This advanced, comprehensive program of study offers an integrated approach to learning across the disciplines with an emphasis on meeting the challenges of living and working in a global, technological society. Students who take IB courses without completing the entire program may earn IB certificates by testing in selected IB courses.

Shippensburg University recognizes the IB Diploma as well as IB Certificates.

Credit by Examination

If you are in good academic standing, you are entitled to request from your dean the opportunity to take a comprehensive examination in a particular course offered at the university if there is reasonable evidence you have covered essentially the same materials before in other classes or from private study and experience. The Credit by Examination form is available at https://www.ship.edu/registrar/registrar_office_forms/. The $80 administrative fee must be paid before the exam is administered. If you make satisfactory scores on the examination, you will receive full credit-hour credit toward meeting graduation requirements. The courses will be listed on your transcript with the symbol T in the semester in which the credits were awarded through examination.

Students with advanced high school courses recognized by the university are invited to request from the chair of the department in which the course is offered the opportunity to take examinations in the areas of special preparation.

Credit in Performance Areas

It is possible to earn academic credit through participation in certain musical performance areas. These include Brass Ensemble, Concert Band, Concert Choir, Women's Chorale, Inspirational Chorale, Jazz Ensemble, Madrigals, Marching Band, Orchestra, and Woodwind Ensemble. Students participating in these areas must schedule the appropriate course through the music department. All grades received in these courses will be included in your cumulative QPA; however, a maximum of three credits earned in performance areas can be counted towards graduation.

Requesting Transcripts

Shippensburg University has retained National Student Clearinghouse (NSC) to accept transcript orders electronically. This option allows you to submit transcript requests 24 hours a day, 7 days a week.

NSC has been appointed as the designated agent for processing and sending official electronic transcripts on behalf of Shippensburg University. The PDF transcript that is produced using this service contains the identical information as

the printed transcript and can be certified as unaltered by uploading the file to the company's website that is provided during the delivery process. NSC has been granted the authority to deliver all such electronic transcript requests on behalf of Shippensburg University and respond to any inquiries regarding the transactions.

Requests for electronic transcripts cost $8 per individual transcript. Requests for paper transcripts cost $10 per individual transcript. Paper transcripts will be mailed within three (3) business days. Additional fees will be incurred if same business day or international mailing is required. All fees are outlined at the NSC order site and will be summarized prior to your submission of your request.

Please click on the appropriate link below to enter your order.

- Order Transcripts Online

If you have placed an order you may check the status of your order by navigating to the Parchment track your order screen.

Click here to check the status of your order.

Questions regarding this process should be directed to the Registrar's Office, located in Old Main 110. To contact the office call (717) 477-1381.

Academic Options

In addition to its regular academic programs, Shippensburg University provides a variety of academic options to interested and qualified students. These include independent study, internships and field experiences, the Wood Honors College, foreign study, graduate course work, and cooperative arrangements with other institutions.

Independent Study

Shippensburg University affords opportunity to deserving and capable students to engage in independent study related to their major field, a supporting area, or specialized interest. This program is highly individualized, related entirely to the student's preparation and interest, and the overall appropriateness of study as judged by the department and college dean.

Independent study must include some new experience of inquiry, evaluation, and/or creative activity. This experience must be one that is not available through an established course, including a course by appointment.

To be selected and approved for an independent study project you should have a cumulative QPA of at least 2.50. The faculty member you would like to work with must agree to oversee your project. You will also need approval from your department chair and academic dean as well as the faculty member's chair and dean. Final approval is required from the provost and senior vice president for academic affairs. You must register for the independent study project in the semester for which it is approved. The independent study must be accepted as a part of your student course load (not to exceed 18 credits per semester at the undergraduate level).

The acceptance of independent study students shall be voluntary on the part of the faculty member; however, when such students are accepted, at least five hours of faculty time per credit offered shall be made available upon request of each student. This time shall be outside the periods already allocated by the faculty member to classroom and office commitments.

In some unusual cases it is possible for independent study to span several semesters if the department chair(s) and college dean(s) are convinced of the need. A special designation by the dean will indicate approval for continuation of the independent study. A grade will be given during the semester of its completion only. At the time a grade is given, there should be a one-page written record of the completion and the evaluation of the independent study project

prepared and signed by both the student and the faculty member. A copy should be placed in the college dean's office and, if desired, in the department office.

An independent study course may not be used to repeat or replace a course in which a grade of D or F was earned.

Individualized Instruction

In some cases, you may be able to earn credit for a course during a semester in which the course is not offered. If a faculty member is willing to work with you on an individual basis, you may apply for individualized instruction. These courses are generally restricted to students who have completed a substantial portion of their degree program and who need the particular course to complete their degree requirements.

Application forms for individualized instruction are available in your academic department or dean's office. Your course must be agreed to by the faculty member you would like to work with and then approved by your advisor or department chair as well as the faculty member's chair and dean. Final approval is required from the Provost's Office.

Individualized instruction may not be used to repeat or replace a course in which a grade of D or F was earned.

Internships

Experiential learning in the form of internships and field experiences is available to students in many areas of study. You should contact your academic advisor or department chair for information regarding these academic opportunities. When the department chair in your major approves an internship, you must schedule the appropriate number of credit hours and pay all course fees.

The Washington Center Internship Semester

Shippensburg University has a relationship with The Washington Center for Internships and Academic Seminars, an organization that provides quality internship experiences and academic seminars for credit, either in the regular term or during the summer. Participating students get 12-15 credits for both the internship and the course, which is transferred back in either a student's program or as an elective. Internships are available for virtually every major with over 4,000 companies, agencies, and organizations-federal, private, and non-profit.

The Washington Center has a new home. Its new Residential and Academic Facility is located near Union Station in northwest Washington, D.C., close to metro stations in the heart of the city. Students live in state-of-the art apartments with classroom space in the same building, along with a fitness center, computer lab, and common space. Each student has a program advisor who assists in setting up the internship placement and who monitors progress, career goals, and professional development.

Acceptance to the program is somewhat selective, and the application process requires letters of recommendation, an essay, and transcripts as well as the endorsement of the campus liaison. Students can read more about the program at http://www.twc.edu, or contact the Associate Dean of Arts and Sciences, the campus liaison for The Washington Center.

Study Abroad

Shippensburg University encourages students in all majors to consider the value of a study abroad experience. The Study Abroad Program is designed to assist students in deciding if education abroad is appropriate and then help them to select a country and academic term as well as complete the application process and support them while they are overseas. The university has exchange agreements with universities in France, Germany, Sweden, Switzerland, South Korea, and Taiwan as well as other countries. Our membership in the Pennsylvania State System of Higher Education

International Educators Network enables our students to study abroad in each member's programs. These experiences enable students to gain cultural knowledge and social skills that enhance their opportunities for advanced study and careers.

Courses taken by students who study in an institutionally approved Shippensburg University Study Abroad Program will be counted toward residency requirements. Grades equivalent to C or above will appear as TR on the academic record. Grades equivalent to D or F will not earn transfer credit.

To study abroad and receive academic credit, you must complete the following steps. Meet with a representative of the Global Education Office staff and complete a Shippensburg University Study Abroad Application. This application must be complete in advance of enrolling at a university or program overseas. Approval for courses on a study abroad experience must be approved by your academic department chair or program director, and the associate dean of your college in addition to the Director of Global Engagement in advance of travel and enrollment in classes at an overseas university or program. Failure to complete the Shippensburg University Study Abroad application and obtain approval prior to travel may result in a denial of transfer of credits from an overseas university or program. For transfer credit to be posted to your academic record, an official transcript of the work must be sent to Shippensburg University for final review and awarding of credits.

For further information about the Study Abroad Program, contact the Center for Global Education, Mowrey Hall, Globaleducation@ship.edu, or call 717-477-1279.

Graduate Credit

A senior (90 credits or more) pursuing a bachelor's degree who has an overall grade point average of 3.00, at the time of course, may with the written approval of their department chair,academic dean, and department chair of the course take graduate coursework under the following categories:

1. To supplement their undergraduate courses with graduate course work. The graduate coursework will count towards the bachelor's degree, the student must submit a completed "Undergraduate Require to Take Graduate Level Course" form. The form is available on the Office of the Registrar website. Students may enroll for only one graduate course per semester/term for a maximum of nine graduate credits over a 12-month period. The graduate coursework will be used to fulfill the undergraduate degree requirements and added to the undergraduate record. Any graduate course on the undergraduate transcript will not be eligible to count towards a graduate degree.
2. To begin graduate course work as non-degree graduate student for non-accelerated graduate programs. The graduate coursework will be on a separate graduate record, graduate coursework will not be added to the undergraduate record. The student must submit a completed "Undergraduate Require to Take Graduate Level Course" form. The form is available on the Office of the Registrar website. Students may register in their final year for up to two graduate courses for which they receive graduate credit and may be count toward a master's degree. Students will be enrolled simultaneously as a degree seeking undergraduate and as non-degree graduate student. Students will not be charged a non-degree application fee. If the student wishes to take graduate work at Shippensburg after completing the bachelor's degree, they will be required to pay the application fee when they apply to a master's degree program.

Students may not elect to change between undergraduate and graduate credit after the term or semester has begun.

Full-time undergraduate seniors taking graduate courses pay the undergraduate tuition rate for graduate courses.

Undergraduate part-time seniors taking a mix of undergraduate and graduate courses pay at the undergraduate rate for all courses.

Undergraduate seniors who are permitted to register for a graduate class in any of the summer sessions pay at the undergraduate rate.

Accelerated (4+1) Programs

Shippensburg University offers accelerated bachelor's to master's programs permitting undergraduate students with at least junior standing to take graduate coursework in order to get an early start on the graduate degree. Accelerated programs can expedite the time to completion of the master's degree. Accelerated programs can also decrease the overall combined credits necessary to complete the undergraduate and graduate degrees since graduate credits may be used to satisfy both undergraduate and graduate degree requirements. Accelerated programs are an ideal option for students whose desired profession requires a master's degree to practice and/or those students seeking accelerated completion of graduate-level work. Please note that accelerated offerings are limited to those programs that have elected to provide for such a format. A student must apply and be accepted into an accelerated program prior to enrollment in any graduate course(s).

Academic Requirements:

1. Students in accelerated programs must satisfy the requirements and student learning outcomes of both degree programs.
2. A student must have attained at least junior standing (a minimum of 60 completed credits) and have a minimum cumulative GPA of 3.00 before taking graduate courses in the intended graduate program.
3. All prerequisites for the intended graduate courses must be satisfied prior to taking those graduate courses.
4. A maximum of 40% of graduate program credits (rounded to the nearest whole number) may be applied to satisfy the credit and/or program requirements for the undergraduate degree. Departments may choose to apply a smaller percentage of graduate credits to the degree. The total number of credits required for both the undergraduate and graduate degrees will be reduced by the number of graduate credits used to satisfy requirements for the undergraduate degree.

Cooperative Agreement with Wilson College

Through a cooperative agreement Wilson College and Shippensburg University students may schedule courses on each other's campus. Wilson College students may schedule courses at Shippensburg, and Shippensburg University students may schedule courses at Wilson. The course credit will not be treated as transfer credit. Course work will appear on the student's official record along with the grade earned. Students will register and pay tuition at the institution at which they have been matriculated.

A list of courses being offered at each institution will be available. To schedule one of these courses you will need to have the approval of your major department and your academic dean. Once this permission is obtained, you will schedule the course through the Registrar's Office at your home institution. Attendance will also have to be approved by the other institution through appropriate procedures. Most course offerings at each institution will be open to those students at the other institution who have the necessary prerequisites for entry into a course. However, you may not schedule at the alternate institution a course available on your own campus. Your course load, including the course scheduled at the other institution, should not exceed the maximum for your home institution.

Visiting Student Program

Students at Shippensburg University have the option of taking courses at one of the other schools in Pennsylvania's State System of Higher Education. Under the Visiting Student Program, courses you take will be recorded on your academic record at Shippensburg and the grades you receive will be included in your QPA calculation. This program is intended to allow you to take advantage of courses available across the State System, without loss of institutional residency, eligibility for honors or athletics, or credits toward graduation at the home institution.

To participate in the Visiting Student Program you must have completed at least 12 credits and be in good academic standing. Students may take a maximum of 24 credits via the Visiting Student Policy. Advance approval is required

from your academic dean. This program may not be used to repeat any D or F grades earned at Shippensburg University.

Academic Integrity

It is the policy of Shippensburg University to expect academic integrity from students and to create an environment where academic integrity thrives. Learning is the result of student time and effort with the guidance of their faculty. Faculty measure the depth of student learning through various evaluations: graded homework, quizzes, exams, papers, reports, oral presentations, etc. When students decide to use another's work on an evaluation, learning has not occurred. The feedback you get on the evaluation is not relevant to your mastery of the material because you did not create it. When you submit your own work, the faculty member can guide your learning, and you make progress toward becoming an effective self-directed learner.

Orientation, online training, and syllabi are designed so that you can learn about academic integrity to become an effective partner in mastering the content and skills that are taught.

Students who commit breaches of academic integrity will be subject to the various sanctions outlined in this section. Students will not be allowed to withdraw from a class to avoid the consequences of a possible violation. This policy applies to all students enrolled at Shippensburg during and after their time of enrollment.

Definitions

A violation of academic integrity is committed by students who give, as well as receive, unauthorized assistance in course and laboratory work and/or who purposefully violate or assist other students in violating the university's policy regarding academic integrity. Violating academic integrity also means deceit or misrepresentation in attempting (successfully or unsuccessfully) to influence the grading process or to obtain academic credit by a means that is not authorized by the course instructor or university policy.

Violations of academic integrity include but are not limited to:

- Plagiarism, as defined in the next section below.
- Using unauthorized materials or devices (i.e., technology) such as crib notes during an examination.
- Providing and/or receiving unauthorized assistance during an examination.
- Intentionally and without authorization falsifying or inventing any information or citation in an academic exercise, such as making up data in an experiment or observation.
- Allowing others, or technological assistance such as artificial intelligence (A.I.), to generate content, conduct research, or prepare your work without advance authorization from the instructor.
- Possessing or sharing course examination questions and directions, even partially, prior to administration of the examination by the instructor without the instructor's consent.
- Using unauthorized assistance and / or a substitute to take an examination or course.
- Using the services of commercial term paper companies.
- Bribing, or attempting to bribe, faculty or staff personnel to attain an unfair academic advantage.
- Misusing transcripts, records or identification, such as forgery or alteration of transcripts.
- The preceding list is only for the purpose of illustration. Other forms of inappropriate academic conduct as outlined in the faculty member's syllabus are also subject to charges of academic dishonesty.

Plagiarism

Plagiarism is a violation of academic integrity. Shippensburg University will not tolerate plagiarism and the faculty will make all reasonable efforts to discourage it.

Plagiarism is your unacknowledged use of other sources' work or specific facts or propositions or materials in your own writing. When other sources' work or materials (even short phrases or specific terminology) are used, you should put these words, phrases, or sentences inside quotation marks (or else indent and single-space more extended quotations) and you should then cite the source of the quotation either in the text of your writing or in footnotes. Failure to do so may be considered plagiarism. When the propositions of another source are restated in your own words (paraphrased), you should also indicate the source of the paraphrased material in your own text or in footnotes. Comparable citations should be made for borrowings from media other than printed texts, such as lectures, interviews, internet / online sources, or computer programs.

- The more flagrant form of plagiarism is your submission of an entire paper or computer program or lab report (or a substantial portion of a longer work), or creative works from another source and presented as your own work. This can include material obtained from a friend, from a fraternity or sorority file, from commercial sources, from published materials, or from other sources.
- Less egregious, however still serious, is the unacknowledged borrowing from other sources (either words or propositions) and the integration of such material in your own work.

Activities That Are Not Plagiarism

In demonstrating your learning process, you may fear that you are plagiarizing when in fact you are not. The following is a list of activities that are not plagiarism, with the understanding that this list is not meant to be comprehensive.

- Improper format for documentation. Improper documentation is not plagiarism but a technical writing problem. Different professors, different academic departments, and different academic disciplines have various ways of documenting sourced materials. Professors should make clear how they would like sourced materials documented for given writing or programming assignments. You should make every effort to understand precisely what your professor expects regarding documentation. Provided you make a clear effort to document all sourced materials, you are not plagiarizing.
- Excessive use of source material or citations may indicate that your work does not represent your learning. It is recommended that you refer to your syllabus and / or the faculty member for clarification of what is acceptable and what is not.
- Use of help on an assignment: Various tutorial resources are available at the university, including the Learning Center and assistance from faculty who assist students during the process of completing an assignment. When you seek these kinds of legitimate academic assistance, you are not plagiarizing. In fact, you are attempting to improve your writing and / or academic performance. In such cases, you should inform your instructor of the fact you have sought assistance from a given source on an assignment. The prohibition against plagiarism should in no way inhibit or discourage you from seeking legitimate supplemental instruction in developing an assignment. It is recommended that you refer to your syllabus and / or the faculty member for whether you are to acknowledge the assistance you received.
- Careful review of your work before submission: It is recommended as part of the learning process that you seek assistance with the review of your work prior to submission. This can be done informally with a friend or your professor, or formally with the goal of strengthening your learning and submitted work. It is recommended that you refer to your syllabus and / or the faculty member regarding what kinds of review are not acceptable.

In summary, plagiarism is the unacknowledged use of other sources. To avoid plagiarism, you should acknowledge assistance received in completing your assignment. You are encouraged to seek assistance if needed or desired.

Potential Outcomes

When a student has violated academic integrity, the outcome(s) of the resolution process is to promote students to become self-directed learners. To this end, the outcomes are intentionally designed to hold the student accountable in a supportive, educational way. Students are expected to have learned what is and is not acceptable for academic integrity through university training, the instructions in course syllabi, and conversations with their faculty when

needed. Therefore, the possible consequences reflect the expectation that students understand their responsibility in having academic integrity.

The following types of outcomes may be imposed in any order and may be combined.

- Required learning opportunities to understand how to engage in academic growth with academic honesty and integrity.

- Grade Reduction. The grade for a particular unit of work or for the entire course may be reduced by one or more lower grades.

OR

- Assignment of a Failing (F) grade. The student may receive an F grade for the assignment or the course.

OR

- Suspension or expulsion from the University for severe violations.

These outcomes are the result of a resolution process that begins with an informal settlement process with the faculty member and can end with a separate formal process.

- The informal process, when appropriate, involves the student(s) and the faculty member(s) working together to develop a resolution which encourages a growth mindset and demonstrates learning of the material while maintaining academic integrity. The resolution is documented and reported to the Academic Integrity Board.
- The formal process is started when violations are repeated or more serious, or when the informal process is not appropriate and / or was not completed. It is the responsibility of the Academic Integrity Board to review the violation and determine the formal consequence(s). The resolution is documented and placed on file.

For more detailed process information, see ship.edu/provost.

The purpose of these processes is to provide a structured way to strengthen our students' growth mindset in a supportive, learning environment.

Student Matters

Full-time students at Shippensburg University spend an average of 16 hours each week attending classes. It is evident, then, the individual student determines to a large extent how much will be gained from an education at Shippensburg. The university makes every effort to provide an environment of curricular and extracurricular activities to enhance student life.

University Housing

Shippensburg University provides accommodations for approximately 2,000 registered full-time degree-seeking students in eight residence facilities. The university offers six suite-style residence halls: Kieffer Hall, Lackhove Hall, McCune Hall, Naugle Hall, Harley Hall, and Seavers Hall. All suites are fully furnished. Full suites include food prep and living rooms. No more than two students share a bathroom in any of the five suite unit types.

McLean Hall and Mowrey Hall are communal residence halls with double occupancy and common bathrooms. Mowrey Hall provides a single room living option to graduate students that also work for the university.

All housing facilities are wired with a free wireless computer network that allows each student access to e-mail, the Internet, library resources, and the university mainframe computer. Laundry services are also available in all of the residential buildings and costs are included in the housing rates. Student mail and packages are processed at the UPS Store in the CUB.

Residency requirements for residing in campus housing are posted on the campus housing website. All students who either choose or are required to live in university campus housing are obligated to reside there for the entire academic year. Those students who live in university campus housing are required to enroll in one of the required university campus food service plans. Furthermore, all students living in university campus housing are required to have a meningitis vaccination or a signed declination statement on file prior to moving into their assignment.

For more detailed information concerning university campus housing, go to ship.edu/housing.

Student Services

Career Center

The Career Center, located in Ceddia Union Building (CUB 108), supports students and alumni in achieving their personal and professional goals through a range of services, including career counseling, mentoring, networking programs, internships, and experiential learning opportunities. The Center fosters career readiness by collaborating with employers, alumni, and local businesses, while also engaging with on-campus partners.

The Career Center offers valuable resources to help students explore career/ major options, refine job search skills, and prepare for internships and professional roles. Services include career coaching, resume and cover letter assistance, interview preparation, job search strategies, and access to part-time, full-time, and internship opportunities through the Handshake platform (ship.joinhandshake.com).

In addition, the Career Center hosts express hours, workshops, mock interviews, outreach programs for classes and student organizations, and one-on-one appointments. Evening and virtual hours are also available to accommodate students' schedules. For more information, contact the Career Center at (717) 477-1484, email career@ship.edu, or visit us in person. Explore additional career, mentoring, internship, and networking resources on our website at Career.ship.edu.

Child Care

The university offers childcare through the Bartos Child and Family Center conveniently located on campus in the Grace B. Luhrs University Elementary School. The center offers developmentally appropriate curriculum, designed and led by four-year degreed teachers, as well as plenty of free play. Classes are tailored to four age ranges which include: Toddler A (12-24 months), Toddler B (24-36 months), Pre-school A (30 months-age 3), and Pre-school B (ages 4-6). Students enrolled at Shippensburg University are invited to make use of the Child and Family Center. In 2006, the center achieved NAEYC accreditation and currently holds a Keystone STARS Four-Star rating. Tuition subsidies may be available for qualified applicants. For information call (717) 477-1792 or visit the Bartos Child and Family Center website at BartosChildandFamilyCenter.org.

Computing and Network Services

The university provides computing and network services for instruction, research, and administration. Students may access university e-mail, file space, and academic records. Students may also create a personal web site. Visit our website at www.ship.edu/technology.

Computer Labs

The university maintains four general-purpose computer labs as well as dozens of departmental labs and computer classrooms. All campus labs include access to printing, the complete Microsoft Office suite, SPSS statistical software, and other standard course applications. Internet access for e-mail services, research, and accessing course management

systems is available in each facility. A general purpose lab in MCT054 is open 24 hours, 7 days per week. Computer workstations and laptops are also available in Ezra Lehman Memorial Library.

Technology Help Desk

The university technology help desk provides a single point of contact for students experiencing problems relating to personal computer systems and/or network connectivity. Services provided to all students include assistance with wireless connectivity, computer cleanup (virus, spyware and malware) and help with installation of university supplied software (such as anti-virus programs).

Counseling Services

The University Counseling Center (UCC) offers free, confidential counseling and psychological services for a wide range of issues, from personal growth and development to mental health concerns. Services provided include individual, couples, and group counseling; crisis intervention; and psychiatric services for undergraduate and graduate students; as well as prevention and consultation services for the entire university community.

Students' more common concerns include the following: depression; anxiety; self-critical feelings; academic concerns including procrastination and time management; sleeping problems; uncertainty about future/life after college; finances; relationships with family, friends, roommates, or romantic partners; problems with body image, eating, or weight; sexual concerns; and alcohol/other drug abuse.

The UCC is accredited by the International Association of Counseling Services, Inc. UCC records are confidential, and do not become a part of students' academic records. Only with a client's written permission will information be released to anyone outside of the UCC, except as required by law. The UCC is located in the Wellness Center in Naugle Hall and is open Monday through Friday. Visit www.ship.edu/counseling_center/ for more information.

Health Center

Student Health Services are provided at the Etter Health Center in the ground floor of Naugle Hall. Hours and information regarding the services at the health center can be found at: www.ship.edu/Health_Center/.

Shippensburg University Libraries

Ezra Lehman Memorial Library

The mission of the Ezra Lehman Memorial Library is to foster a community of academic success in an environment of personalized service, research mentorship and instruction, and connection to resources. In fulfilling this mission, the Library provides a variety of services, including the following:

- Individualized assistance in locating books, articles, and other resources.
- Document delivery of resources housed in the Lehman or Luhrs Libraries and acquired through interlibrary loan services.
- Help in evaluating useful Internet resources.
- Guidance in citing resources, avoiding plagiarism, and understanding copyright law and fair use guidelines.
- Personalized research consultations, for one-on-one research support and mentorship.
- Videoconferencing facilities.
- One-touch studio facility for simplified video recording without video production experience.

- Equipment check-out for digital cameras, digital camcorders, LCD projectors, laptops, etc.

Visit the library online at http://library.ship.edu. For more information or assistance, call:

Lehman Library Circulation Desk
(717) 477-1465

Lehman Library Research & Information Desk
(717) 477-1474

Technology Help Desk
(717) 477-4357

Grace B. Luhrs Library

The mission of the Grace B. Luhrs Library is to encourage members of the elementary school and university community to become life-long learners using knowledge effectively in all formats to be informed and productive members of society. In fulfilling this mission, the Library provides a variety of services, including the following:

- Individualized assistance in locating books, articles, and other resources.
- Help in locating and evaluating online educational resources.
- Pre-K through Grade 5 library instruction available for observation as arranged through the Grace B. Luhrs University Elementary School.
- A large collection of pre-K through grade 8 books and materials, including a substantial collection of leveled readers.

Visit the library online at http://library.ship.edu/luhrs. For more information or assistance, call:

Grace B. Luhrs Library (Children's Collection)

(717) 477-1003

Academic Technology and User Services

Visit Academic Technology and User Services online at www.ship.edu/technology

Instructional Design

- Training and assistance for faculty with instructional strategies, pedagogy, and technology applications used at the university, including the D2L Brightspace learning management system.

For more information or assistance, call:

Instructional Design

(717) 477-1816

Web Technologies

- Coordination of visual design and layout, web content management system development, training, and support services for the university's web sites.

For more information or assistance, call:

Web Technologies

(717) 477-1938

Media Services

- Technology support in presentation software including video, audio, and image editing.
- Videoconferencing and classroom media support.
- Television studio production facilities and remote television production support.

For more information or assistance, call:

Media Services

(717) 477-1646

Broadcasting and Campus Media Support

- Supervision of student programmed and operated broadcasts.
- General technical assistance to student managers and faculty advisors of SUTV, WSYC-FM, The Slate, Cumberland Yearbook, and PRSSA.

For more information or assistance, call:

Broadcast Services

(717) 477-1759

Technology Help Desk

- Support and assistance with campus technology and student computing at the Technology Help Desk.

For more information or assistance, call:

Technology Help Desk

(717) 477-4357

Religious Life

Students are encouraged to continue to participate in religious services of their choice while attending the university. As such, many local church ministers, student religious organizations and a catholic campus minister are available to support students. Information can be found at Shippensburg University - Shippensburg University - Campus Ministries

University Store

The University Store is located in the Ceddia Union Building.

The store provides textbooks, trade books, school supplies, gift items, imprinted clothing, greeting cards, and book-buy-back. For additional information and hours, call (717) 477-1600 or visit our website http://ship.bkstr.com.

Veteran's Services

Veterans Services provides support for students who are veterans or recipients of veteran's benefits. The office coordinates veteran's benefits and supports students with academic and personal issues and works to engage military-affiliated learners within the broader campus community.

The Veterans Resource Center, located in the Ceddia Union Building (CUB 235), provides a space to gather, meet, study, and relax on-campus. The university also has an active chapter of Student Veterans of America (SVA), which provides a fellowship of like-minded individuals and creates a network of students and alumni for professional and leadership development. For more information, go to www.ship.edu/veterans/. To contact Veteran Services, email sva@ship.edu or call 717-477-1165.

Tuition and Fees

Please note: All fees and dates listed in this chapter are subject to change. For up-to-date tuition & fee information, go to www.ship.edu/Student_Accounts/Tuition_and_Fees/.

Payment of Fees

The fees for each student are payable in advance as indicated below. Payment may be made online with check or credit card (Visa, MC, Discover, American Express) or by mail with check or money order. All checks shall be made payable to Shippensburg University. **Do not send cash by mail.** To be admitted to classes, the dining halls, or any university activity, each student must have satisfied their semester tuition bill and be in possession of a valid identification card. Fee payment for fall semester is due early August and for spring semester is due early January.

Delinquent Accounts

No student shall be enrolled, graduated, or receive a transcript until all previous accounts have been paid. Accounts delinquent for 90 days are turned over to the Pennsylvania Attorney General for collection.

Tuition

Pennsylvania Residents

For 2024-2025, a basic tuition fee of $319 per credit will be charged to each registered student **(all fees subject to change).** Summer session basic fee shall be $319 per credit hour for all Pennsylvania residents.

Undergraduate students pay the undergraduate rate for all courses, both undergraduate and graduate courses.

Tuition policy subject to change.

Out-of-State Students

For 2024-2025, full-time domestic students whose legal residence is not in the state of Pennsylvania shall be charged an out-of-state tuition fee of $5,787 per semester in addition to all other fees. Students taking more than 18 credit hours shall pay the out-of-state tuition fee plus $482 per credit hour over 18.

Domestic out-of-state students who are part-time shall be charged a tuition fee of $482 per credit hour and other applicable fees. Summer sessions tuition is $482 per credit hour.

Full-time international students shall be charged a tuition fee of $8,681 per semester in addition to all other fees. International students taking more than 18 credit hours shall pay the out-of-state tuition fee plus $725 per credit hour over 18. International students who are part-time shall be charged a tuition fee of $725 per credit hour and other applicable fees. Summer sessions tuition is $725 per credit hour.

Fees are subject to change. Summer fees are for 2025 only and are subject to change.

Semester Fees

Please note: All fees and dates listed in this chapter are subject to change.

Housing and Food Fee

Students may currently choose to live in suite-style residence halls. The 2024-2025 room fee for suite living ranges from $3,979 to $5,665. All students residing in the residence halls must pay the room fee, as well as a meal plan. The most common meal plan, 14 meals per week with $300 flex, currently costs $1,914. Housing and food is available for summer sessions.

Students arranging for housing services for periods of time differing from those set forth in the foregoing regulations shall pay fees on a pro-rated basis.

All arrangements for housing services other than those indicated above shall require prior approval by the Vice President for Student Affairs.

For a comprehensive list of room and meal rates, visit the Student Accounts web page.

Student Activity Fee

This fee is collected from all undergraduate students and is administered through Student Services, Inc. under regulations approved by the Council of Trustees. This fee covers the cost of supporting student organizations, athletics, lectures, entertainment, and publications.

The student activity fee is currently $24 per credit. The activity is not capped. The summer activity fee is $18 per credit. *(2025 rates)*

Student Recreation Fee

This fee is collected from all undergraduate students and is administered through Student Services, Inc. under regulations approved by the Council of Trustees. This fee is used to fund the construction, maintenance/operational, and personnel costs related to the student recreation building and the 12-acre lighted outdoor recreation facility which includes playing fields for football, rugby, soccer, and baseball/softball; volleyball courts; fitness track; street hockey pavilion; and picnic pavilion.

The student recreation fee is currently $198 per semester for students taking 12 or more credits; students taking 1-11 credits pay $16 per credit. The summer recreation fee is $13 per credit. *(2025 rates)*

Student Union Fee

State law and policies of the Board of Governors of Pennsylvania's State System of Higher Education require the cost of constructing the original Ceddia Union Building and its additions be paid by students enrolled at the university. This

fee is applicable to all full- and part-time students, both graduate and undergraduate, during both regular semesters and summer sessions, in accordance with the following schedule established by the university Council of Trustees:

The student union fee is currently $300 per semester for undergraduates taking 12 or more credits; students taking 1-11 credits pay $25 per credit. The summer student union fee is $20 per credit. *(2025 rates)*

Comprehensive Health Fee

A Comprehensive Health Fee will be charged to all full- and part-time students in all semesters and sessions to finance, in part, the Etter Health Center and its various programs of treatments and education and the Counseling Center. Students have access to the services of the health center 24 hours a day, 7 days a week. Under the policies of the State System Board of Governors, auxiliary enterprises, such as health centers, must be financially self-sufficient. The Comprehensive Health Fee is not an insurance fee and must be paid whether or not the student has his/her own health insurance. This fee is currently $170 per semester for students taking 12 credits or more. Students taking 1-11 credits pay $14 per credit.

The summer Comprehensive Health Fee is $5 per credit. *(2025 rates)*

Educational Services Fee

An educational services fee will be charged to all students in all semesters and sessions to cover unusual costs of certain special programs and/or operational and equipment needs. This fee is currently $408 per semester for students taking 12 credits or more. Students taking 1-11 credits pay $34 per credit.

The summer educational services fee is $34 per credit. *(2025 rates)*

Technology Tuition Fee

This fee is set annually by the State System Board of Governors. Purposes of the technology tuition fee are: to acquire, install, and maintain up-to-date and emerging technologies for the purpose of enhancing student-learning outcomes; to provide equitable access to technology resources; and to ensure State System graduates are competitive in the technologically sophisticated workplace.

The technology tuition fee is not a user fee. It is a fee paid by all students, proportional to their enrollment status (full-time/part-time) and to their residency status (in-state/out-of-state).

Currently, the technology tuition fee for full-time students is $239 in-state and $364 out-of-state. Part-time students are charged $20 per credit in-state and $30 per credit out-of-state. The summer technology tuition fee is $20 per credit in-state, $30 per credit out-of-state. *(2025 rates)*

Student Success Fee

This fee is paid by all full and part-time matriculating undergraduate students. It is charged for all courses regardless of the geographic location of the course. The Student Success fee supports the experiential learning programs that are offered outside of the classroom. The fee provides funding to maintain areas such as the Learning Center, Student Retention Initiatives, Students First, Early Alert, MLK Program, First Year Experience and Community Engagement, Career Mentoring and Professional Development, Counseling Center, Connections Program, Student/Faculty Research, and Institutional Aid. The programs contribute significantly to the total student experience and prepare SU students for success while enrolled and after graduation. The Student Success fee provides funding to ensure that these vital programs remain available to all students. This fee is currently $325 per semester for students taking 12 credits or more. Students taking 1-11 credits pay $27 per credit.

The summer Student Success Fee is $27 per credit. *(2025 rates)*

Special Fees

Please note: All fees and dates listed in this chapter are subject to change.

Application Fee

An application fee of $45 for students seeking admission or readmission to the university shall accompany the application for admission. This fee covers processing the application and is not refundable. Non-degree students shall pay an application fee of $15.

Orientation Fee

A one-time $150 orientation fee will be paid by each new student (first year and transfer) to support orientation programs at the university. This fee will be charged whether or not the student chooses to attend orientation.

Damage Fee

Students are financially liable for damage, breakage, loss, or delayed return of university property, as determined by the appropriate university administrators. A common damage fee of $10 per semester per residence hall student will be charged.

Degree Fee

A fee of $35 shall be paid by each undergraduate candidate to cover the cost of the diploma.

Bad Check Fee

A fee of $35 may be charged for each paper check or electronic check that is not honored by the payer's bank.

Credit by Exam Fee

An administrative fee of $80 will be charged for each course taken by examination for credit, regardless of the number of credits. This fee is payable prior to sitting for the examination.

Late Registration Fee

Students confirming attendance by submitting the semester payment after the semester billing due date will be required to pay a late payment fee of $100.

Deposits

Please note: All fees, deposits, refunds, and dates listed in this chapter are subject to change.

Advance Registration Deposit

An advance registration deposit of $100 shall be paid by all new students. This deposit is required when the student is approved for admission to the university. This is a guarantee of the applicant's intention to register at the university for the semester indicated on the admissions letter. The amount of $100 is deposited with Shippensburg University to the credit of the student's basic fee. Advance deposits are non-refundable.

Residence Hall Room Deposit

Returning students who arrange to live in university housing during the academic year are required to confirm the room assignment by paying a deposit. New students will pay the deposit when they are approved for admission to the university and annually when making a residence hall reservation. This deposit will be an advance payment toward the room fee for the second semester of the academic year. No residence hall reservation will be held unless it is confirmed by the payment of this deposit. The current housing deposit amount is $200 and is applied as a payment to the spring semester bill.

Refunds to Students

Please note: All fees, deposits, refunds, and dates listed in this chapter are subject to change.

The refund procedure and schedules below are currently in effect. Refund policies and percentages may be changed by Pennsylvania's State System of Higher Education.

Requests for refunds must be submitted in writing to the dean of the appropriate college, who must consider each such request and forward a recommendation to the registrar, who will notify the Student Accounts Office. For refunding purposes, a student is considered to be in class attendance up to the date on which official notification of withdrawal is given. **Students will not receive refunds for courses dropped after the drop period each semester**. Refunds are only issued for full university withdrawals from all classes in the semester. The official date of withdrawal is the date the student contacts the academic dean's office to withdraw. Refunds are not authorized for temporary absences within the semester.

The housing fee is not refundable when a student terminates occupancy of a residence hall for reasons other than withdrawal from the university, except when a student moves to his/her permanent home address because of financial or other emergency reasons. This exception must be authorized by the housing director.

The refund policy is summarized below and applies to students who withdraw from the university. The policy is mandated by the State System Board of Governors.

Refund Policy for University Withdrawals for classes held in the full 16 week semester

Reduction in Charges

Through drop period	100%
Drop period through 2nd week	80%
3rd week	60%

4th week	50%
5th week	40%
After 5th week	No refund

Refund Policy for Housing and Food

Reduction in Charges

Day 1- end of 1st week	90%
2nd week	80%
3rd week	60%
4th week	50%
5th week	40%
After 5th week	No refund

Charges are based on the check-out date and date of last meals or flex eaten. Block meal plans and flex plans are based on actual usage through the 5th week. Standard meal plans are based on the percentages above.

Advance deposits, orientation fee, and technology fee are non-refundable.

Refund Policy for Summer Sessions (2025) for a Full 12-Week Term

Reduction in Charges

	12-Week Term
Day 1-9	100%
Day 10	80%
Day 11-16	60%
Day 17-22	50%
Day 23-27	40%
Day 28	No Refund

Days in the summer refund schedule include weekend days.

The refund schedules assume the student account is paid in full and the percentages are not being applied to a partial payment of tuition.

If a student is a recipient of federal Title IV financial aid, calculations must be made to determine the percentage of earned and unearned aid based upon the official withdrawal date. The amount of aid that is earned is determined on a pro-rated basis. For example, if 30 percent of the semester has been completed, then 30 percent of the aid is earned. Once more than 60 percent of the semester has been completed, then 100 percent of the aid is earned. If more Title IV aid has been earned than received, then a post withdrawal disbursement may be due to the student. If more Title IV aid has been received than earned, the school must return a portion of the excess aid.

Returns of unearned aid to the federal programs are required by law to be the first priority and must be returned in the following order:

1. Federal Unsubsidized Loan
2. Federal Subsidized Loan
3. Federal Parent PLUS Loan
4. Federal Pell Grant
5. Federal SEOG
6. Federal TEACH Grant

In many cases a student may owe a balance to the university after Title IV aid is returned.

For more up-to-date detailed information regarding refunding and the calculations of earned and unearned aid, please visit the Student Accounts link of the Shippensburg University website at www.ship.edu.

Refund policies are subject to change by the university and the State System.

Fee Waiver for Senior Citizens

Tuition charges and all fees, except the Educational Service Fee, Student Success Fee and Technology Fee, may be waived for senior citizens enrolled in any undergraduate program providing space is available within the desired course(s) and class(es). The application for this waiver is available at https://www.ship.edu/globalassets/registrar/senior-citizen-fee-waiver.pdf

The form should be completed by the requesting student and submitted to the Registrar's Office, Old Main Room 110 or registrar@ship.edu, prior to registration for the course(s) to which it will apply. Requests for retroactive waivers will not be considered. All other fees described in this catalog are due and payable at time of registration.

A senior citizen is defined as a retired United States citizen residing in the Commonwealth of Pennsylvania who is 60 or more years of age. Documentation proving the requesting student meets the above eligibility criteria will be required.

Pennsylvania Resident Status

Students enrolling at Shippensburg University shall be classified as resident or nonresident for admission, tuition, and fee purposes by the Admissions Office. The decision shall be based upon information furnished by the student and all other relevant information. The Admissions Office is authorized to require such written documents, affidavits, verifications, or other evidence as are deemed necessary to establish the domicile of a student. The burden of establishing residency for tuition and fee purposes is upon the student.

If there is a question as to residence after the student matriculates, the matter must be brought to the attention of the vice president for student affairs at least two weeks prior to the deadline for the payment of tuition and fees. Any student found to have made a false or misleading statement concerning residence shall be subject to institutional disciplinary action and will be charged the non-resident fees for each academic term heretofore attended.

Residence Determined by Domicile

A minor is presumed to have the domicile of his/her parent(s) or guardian. The age of majority in the Commonwealth for establishing a domicile for tuition purposes is 22. Domicile within the Commonwealth means adoption of the state as a fixed permanent home and involves personal presence within the state with no intent on the part of the applicant or, in the case of the dependent student, the applicant's parent(s) to return to another state or country. Residing with relatives (other than parent(s)/legal guardian) does not, in and of itself, cause the student to attain residence in the Commonwealth for admission or fee payment purposes. Pennsylvania domicile may be established upon the completion of at least 12 months of continued residence within the state prior to the date of registration, provided such 12 months residency is not primarily for the purpose of attendance at Shippensburg University.

Establishment of Pennsylvania domicile with less than 12 months residence prior to the date of registration must be supported by proof of positive and unequivocal action. Priority consideration will normally be given to such evidence as the purchase of a Pennsylvania home, full-time employment within the state, paying Pennsylvania property tax, filing Pennsylvania income tax returns, and registering motor vehicles in Pennsylvania. Other items of importance that are required are registering to vote in Pennsylvania and the actual exercise of such right, possessing a valid Pennsylvania driver's license, and various other acts which may give evidence of intent to remain indefinitely within the state. Proof of a number of these actions shall be considered only as evidence which may be used in determining whether or not a domicile has been established. Factors mitigating against establishment of Pennsylvania residency might include such considerations as the student not being self-supporting, being claimed as a dependent on federal or state income tax returns, or the parents' health insurance if the parents reside out-of-state, and receiving financial assistance from state student aid programs in other states.

A student receiving a scholarship or grant dependent upon domicile from a state other than Pennsylvania is not domiciled in Pennsylvania.

Dependency Status

A dependent student is one who is listed as a dependent on the federal or state income tax return of his/her parent(s) or legal guardian or who received major financial support from that person. Such a student maintains the same residency as that of the parent(s) or legal guardian. In the event the parents are divorced or legally separated, the dependent student takes the residence of the parent with whom he/she lives or to whom he/she has been assigned by court order.

A minor may prove emancipation and independent domicile through convincing evidence. A non-resident student who becomes independent while a student at Shippensburg University does not, by reason of such independence alone, attain residence in the state for admission and fee payment purposes.

Change of Residence

A student who has been classified as an out-of-state resident and who seeks resident status must assume the burden of providing conclusive evidence he/she has established domicile in Pennsylvania with the intention of making his/her permanent home in this state. The intent to remain indefinitely in Pennsylvania is evidenced not only by a person's statements but also by that person's actions.

An application should be obtained from the Office of the Vice President for Student Affairs and returned to that office at least two weeks prior to the deadline for the payment of tuition and fees with sufficient evidence to support a request for a change to in-state residency for fee paying purposes.

A student who changes domicile from Pennsylvania to another state must promptly give written notice to the Office of the Vice President for Student Affairs.

Military

A member of the armed forces who was domiciled in the Commonwealth immediately preceding entry into government service and who has continuously maintained Pennsylvania as his or her legal residence shall be presumed to have a Pennsylvania domicile.

Any military personnel or their dependents who are assigned to an active duty station in Pennsylvania and who reside in Pennsylvania shall be considered Pennsylvania residents for tuition payment purposes.

Shippensburg University's Veteran Verification Office certifies enrollment for undergraduate students who are eligible for veterans' education benefits. Veterans, reservists, spouses, and children of deceased or disabled veterans should contact the Veteran Verification Office before enrollment. Veteran dependents and reservists must submit the following:

1. Certificate of Eligibility
2. Enrollment Certification Form

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

Out-of-state students may qualify for in-state tuition rates if they meet the criteria defined in the Choice Act of 2014 and the PA House Bill 804. The term "resident" or "residency," or any other term or expression used to designate a Commonwealth resident student, when used to determine the rate of tuition to be charged students attending public institutions of higher learning shall be construed to mean and include **any veterans, their spouses and dependent children who do not currently reside in Pennsylvania. The term shall also be construed to mean and include** military personnel [or their dependents], **their spouses and dependent children** who are assigned to an active-duty station in Pennsylvania and who reside in Pennsylvania and any civilian personnel [or their dependents], t**heir spouses and dependent children** employed at a Department of Defense facility who are transferred to Pennsylvania by the Department of Defense and who reside in Pennsylvania.

If you have questions about your eligibility, contact the Veteran Verification Office, 717-477-1710.

Aliens

A person attempting to establish domicile shall be a citizen or shall have indicated by formal action intention to become a citizen or shall have been admitted to the United States on an Immigrant Visa.

Financial Aid

The university makes every effort to serve eligible students in need of financial assistance through part-time employment, loans and grants, or scholarships.

Please note: All fees, dates and aid amounts listed in this chapter are subject to change .

Financial Aid Application

All prospective and returning students who wish to receive financial aid (grants, loans, and student employment) must complete the Free Application for Federal Student Aid (FAFSA) every year. Financial need will be determined by subtracting the Expected Family Contribution (calculated using a federally legislated formula and the information provided on the FAFSA) from the total cost of attendance for a year at Shippensburg University, to determine need for aid.

The results of the FAFSA must be received by the Financial Aid Office by May 1st of the upcoming academic year for a Pennsylvania student to be considered for PA State Grant. Students are advised to complete the FAFSA by March 30th in order to meet the State Grant date of May 1st. Our Title IV School Code is 003326.

Course Program of Study

Your enrollment affects eligibility for federal financial aid. Federal regulations require students to be enrolled in an approved degree-seeking program. Only coursework that counts toward the completion of the degree will be used in determining enrollment status for federal financial aid purposes (grants, loans, and Federal Work-Study).

Academic Progress

Federal regulation requires students to make Satisfactory Academic Progress (SAP) toward the completion of a degree in order to maintain their eligibility for the following programs: Federal Pell Grant, Federal Teach Grant, Federal Perkins Loan, Federal Supplemental Educational Opportunity Grant (SEOG), Federal Work Study, Federal Direct Loans, and Federal PLUS Loan. Federal policies concerning SAP dictate that SAP must be measured three ways. By:

- Cumulative GPA
- Percentage of Credits Earned (Pace)
- Maximum Time Frame

Undergraduates must meet the following guidelines for federal aid:

- Maintain a 2.0 cumulative GPA for the student's enrollment
- Complete (pass) at least 67% of credits attempted. Example: if the student has attempted 30 credits, and have passed 21 credits, you have passed 70% of the credits. If 30 credits is attempted and only 18 credits passed, the student has earned only 60% of the credits and would not be making Satisfactory Academic Progress.

The PA State Grant program has slightly different criteria for determining satisfactory academic progress. A full-time State Grant recipient must complete 24 new credits* per academic year to maintain eligibility for the grant. A part-time student must complete the proportional equivalent in order to maintain eligibility (e.g., if two half-time awards are awarded in a year, the student must complete at least 12 new credits in that year).

Satisfactory Academic Progress for federal aid will be measured at the end of fall, spring and summer terms. Satisfactory Academic Progress for PA State Grant is determined annually, at the end of spring term.

For complete information on Satisfactory Academic Progress, go to http://www.ship.edu/Financial_Aid/Eligibility/.

*Repeated courses count as new credits only if the student originally received an F or W in the course.

Student Campus Employment

Part-time employment opportunities on campus are available through the Federal (FWS) and Commonwealth work programs. Students with financial need as demonstrated through the completion of a Free Application for Federal Student Aid (FAFSA) are considered for Federal Work Study (FWS). Students receiving FWS can receive guidance in job placement from the Financial Aid Office. These positions include work in administrative and faculty offices, the library, residence halls, and campus grounds.

All students interested in working on campus (both FWS awarded students, and all other students) are encouraged to utilize the electronic job board hosted by the Career Center. Directions on setting up a profile and exploring available positions on campus and in the surrounding area can be found at: http://www.career.ship.edu.

Summer Campus Employment

Summer employment opportunities can be accessed through the electronic job board hosted by the Career Center. Please refer to Student Campus Employment section and follow those instructions.

Grants and Loans

PA State Grant

The Pennsylvania State Grant program is a potential source of funding for Shippensburg University students who are residents of Pennsylvania. The PA State Grant program is administered by PHEAA (Pennsylvania Higher Education Assistance Agency). PA State Grant awards can range from $500 to $4,000 depending on the level of funding set by PHEAA each year. A student's eligibility will be determined by PHEAA based on financial need and cost of attendance at the college.

Students apply for the PA State Grant by completing the FAFSA application no later than May 1st of each year. All FAFSA applications submitted after May 1st will be considered late for the PA State Grant program.

When students complete the FAFSA and indicate Pennsylvania residency, they will be offered an optional link on the FAFSA certification page that will ask if they would like to complete the PA State Grant form. Those students who choose this link will be moved directly to the on-line State Grant form. For students who do not complete the State Grant form at the same time as they submit their initial FAFSA, an email from PHEAA will be generated directing the student to Account Access at www.pheaa.org to complete the State Grant form.

Additional information may be requested by PHEAA after the initial PA State Grant form is filed. This request will be sent to the email address provided on the FAFSA. Students and parents should respond directly to PHEAA with the information requested.

Federal PELL Grant

The Federal Pell Grant is gift aid and awarded to undergraduate students pursuing their first bachelor's degree. Eligibility is based on a federal formula using the information provided on the Free Application for Federal Student Aid (FAFSA). Awards vary from $672 to $7,395 (in the 23-24 year) depending on financial need. Eligibility will vary based on credit hours. Amounts may change based on federal regulations. Not all students will qualify.

Federal Supplemental Educational Opportunity Grant (SEOG)

A limited amount of funds from the Federal Supplemental Grant (SEOG) program are available for students demonstrating highest financial need. The information provided on the FAFSA will be used to determine student eligibility. Federal SEOG is awarded to Pell eligible students. Awards vary based on financial need and fund availability. Not all students will qualify.

Federal Direct Loan Program

The Federal Direct Loan

The Federal Direct Loan is available for all students enrolled at least half-time. There are two types of Federal Direct Loans: subsidized and unsubsidized. The subsidized loan is interest-free while the student is in school and is awarded based on financial need. Interest accrues on the unsubsidized loan while the student is enrolled in school. The borrower may opt to pay it as it accrues, or allow it to accrue and capitalize. The unsubsidized loan is a non-need based loan program.

The maximum Federal Direct Loan per academic year is currently $5,500 for freshmen, $6,500 for sophomores, and $7,500 for juniors and seniors. An independent student may borrow an additional $4,000 per year as a freshman or sophomore, and an additional $5,000 per year as a junior or senior. To be eligible for a loan, a student must be accepted for matriculation or matriculating at Shippensburg University.

The Federal Direct Parent Loan

The Federal Direct Parent Loan for Undergraduate Students is available for parents of dependent undergraduate students. A parent may borrow up to the cost of attendance less any other financial aid received. It is a fixed interest rate loan on which the parent may begin repayment 60 days after it is disbursed or allow it to accrue and capitalize.

Application Instructions and Disbursement Information

To apply for a Federal Direct Loan, the student/parent should apply online at www.studentaid.gov.

The amount borrowed will be issued via electronic funds transfer. Loans are disbursed in two equal disbursements over the course of the loan period (for example, a fall/spring loan would have two disbursements: one in the fall semester and the other in the spring semester). The loan must be for educational expenses. The student borrower, regardless of age, will be solely responsible for receiving and repaying any student loan under the Federal Direct Loan program.

Elnetta G. Jones University Center for Student Success and Exploratory Studies

The Elnetta G. Jones School of Academic and Exploratory Studies uniquely supplements and reinforces the university's commitments to serve a more diverse student population and to cultivate a learning-centered environment where students persist to graduation. We enrich the teaching and learning mission of the university by delivering specialized, high-impact academic and student enrichment resources that empower students to successfully attain their educational goals.

Department of Academic Engagement and Exploratory Studies

If you have not decided on a major at the time you are admitted, you will be enrolled as an exploratory student, and the Department of Academic Engagement and Exploratory Studies, within the Student Success Center, located in Mowrey Hall, will serve as your academic home until you declare a major. The department provides exploratory students with a wide variety of academic support resources so they can make normal progress toward a degree while exploring educational and career options. (Unlike the three undergraduate colleges, the University Center for Student Success and Exploratory Studies does not grant degrees.) By the middle of their sophomore year, exploratory students are required to have in place a plan to declare a major. The Dean of Exploratory Programs is the academic dean for all exploratory students.

Opportunities provided by the Dean's Office and Department of Academic Engagement and Exploratory Studies (AEES) include an academic orientation to the university, assistance in understanding the university's policies and procedures, and an administrative unit for your academic records. However, probably the most important resource provided is your faculty academic advisor. You will be assigned an advisor before you arrive at Shippensburg University and will be expected to meet with him or her at least twice a semester. Your advisor might wish to see you more frequently if he or she believes additional support will enhance your academic success. Your academic advisor will be your primary resource for assistance with selection of appropriate courses, registration information, and other important academic advice and information, particularly with regard to your selection of a major. He or she will also direct you to other appropriate support resources should you need them. We consider your relationship with your academic advisor an integral part of your successful experience as an exploratory student at Shippensburg University.

Academic Success Program/ACT 101

The Academic Success Program (ASP) provides access and academic support to students who do not meet the regular admission criteria to Shippensburg University but who have demonstrated the potential, desire, and motivation to

succeed in college. The ACT 101 component of ASP is Pennsylvania legislation that provides educational funding support to qualified students seeking admission to the institutions of higher learning in Pennsylvania.

As part of the Elnetta G. Jones School of Academic and Exploratory Programs, ASP's goals are to promote academic success and to build self-confidence with guided support throughout our students' college experience.

Summer Bridge Program

The Summer Bridge program is a mandatory five-week program. The focus of the program is to provide a realistic orientation to the roles and expectations of Shippensburg University students. Upon successful completion of this required experience, students are considered for admission to Shippensburg for the fall semester.

The Summer Bridge Program provides:

- An extensive orientation to college life
- An assessment of academic strengths and areas needing improvement
- An opportunity to develop academic skills in reading and writing
- An opportunity to explore and improve attitudes and expectations regarding the transition to college

Summer Bridge students will:

- Enroll in *Foundations for Academic Success (AEES 101):* This three-credit course is designed to provide students with an orientation to academic and social expectations of higher education. Students examine the factors which impact their learning, select relevant methods for deepening their learning and thinking processes, and develop self-regulation strategies for maximizing the effectiveness of their efforts. Skill development in learning strategies, reading, writing, and critical thinking are stressed.
- Enroll in a second three-credit course, taught by university faculty, that is paired with AEES 101.
- Participate in workshops, seminars, and selected activities
- Participate in individual and small group meetings with program faculty and staff members
- Attend campus and community cultural events and activities

Note: The cost of tuition and housing and food is waived to those students who meet all of the ACT 101 State Guidelines, but all students are required to pay for textbooks at the beginning of the summer program.

Learning Center

The Learning Center, located on the first floor of the Student Success Center in Mowrey Hall, is the university's primary site for tutoring services and academic support at Shippensburg University. Learning Center services are designed to help students improve their academic performance, writing proficiency, and learning abilities. Students can visit the Learning Center's website at https://www.ship.edu/learning/ for detailed information about tutoring services and workshops, access writing and study skills resources, and learn how to schedule an appointment with a tutor or a Learning Specialist. The Learning Center works with departments and programs across the campus community to enhance the learning experiences of students and help them achieve their academic goals.

Tutoring Services

Content-based tutoring is available for most general education courses and a number of upper-level disciplinary courses. Free one-on-one tutoring, small group tutoring, and drop-in tutoring is provided by trained peer tutors and graduate assistants. Tutoring sessions are interactive experiences where students are engaged in the learning process and work to develop their understanding of course-related concepts.

Writing tutoring: The Learning Center also offers writing support to help students develop their writing through all stages of the writing process including brainstorming for assignments, organizing and developing ideas, revision of drafts, and documenting source material. Students can schedule an individual appointment with a trainied writing tutor to discuss their writing goals and enhance their writing abilities. Students will find that working collaboratively with a writing tutor can help them strengthen their writing skills and improve the quality of their writing assignments.

Learning Specialists

Professional Learning Specialists are available to help students develop effective learning strategies and reach their academic goals. Learning Specialists are equipped to help students improve their study and testing habits and learn how to manage their time, test anxiety, and stress. Learning Specialists help students identify barriers to their academic success and develop a skill development plan to address those areas to assist in students' academic success. Students can schedule an appointment to meet with a Learning Specialist on a one-on-one basis.

Continuing Academic Progress and Success (CAPS) Program

The staff of the Continuing Academic Progress and Success (CAPS) program work with students on academic probation in weekly meetings to develop strategies and skills that will help them improve their cumulative grade point average. This structured program is designed to help students develop skills in studying, self-management, emotional intelligence, and personal responsibility, all of which are necessary to improve their academic standing and achieve success in their courses.

The Learning Center is open to all students in the university community. To learn more about the resources and services provided by the Learning Center, call (717) 477-1420 or visit the center's website at www.ship.edu/learning/.

Division of Retention and Student Success

Shippensburg University's Division of Retention and Student Success is comprised of professionals who are dedicated to the mission of student success. We strive to meet the complex needs of our student body through our programming, outreach, and compassion. We support all students in meeting their personal, career and educational aspirations and empower our diverse student population to become independent, self-directed learners. We provide an array of supportive services in a safe and collaborative environment.

Office of Accessibility Resources

Shippensburg University is committed to serving all students, including those with documented disabilities. The Office of Accessibility Resources (OAR) determines, coordinates, and provides reasonable and appropriate accommodations for eligible students who present current and comprehensive documentation. In compliance with Section 504 of the Rehabilitation Act of 1973, the Americans with Disabilities Act (ADA) of 1990, and the ADA Amendments Act of 2008, OAR coordinates services as outlined by Pennsylvania's State System of Higher Education and by Shippensburg University's equity plans.

Additionally, the office works with the Human Resource Office to coordinate accommodations for campus faculty and staff with diagnosed disabilities.

Examples of disabilities include, but are not limited to:

- Learning Disability (e.g., dyslexia, dysgraphia, reading/math disability, etc.)
- Medical/health (e.g., cardiac disease, diabetes, arthritis, cancer, seizure disorder, etc.)
- ADHD

- Physical / Mobility (ambulatory, wheelchair)
- Autism Spectrum Disorder
- Emotional/Psychological diagnoses (e.g., Generalized Anxiety Disorder, PTSD, Bipolar Disorder, etc.)
- Traumatic brain injury
- Visual Impairment including Blindness
- Hearing Impairment including Deafness

Temporary disabilities - disabilities existing for a short period of time (6-months or less) as a result of injuries, surgery, or short-term medical conditions

The Office of Accessibility Resources is in Suite 252 Mowrey Hall. For further information, visit the website at www.ship.edu/oar or contact the office at (717) 477-1364 or the Director at (717) 477-1326.

Kathryn Hughes Seaber Raiders Academic Center for Student-Athletes

The Kathryn Hughes Seaber Raiders Academic Center for Student-Athletes (Seaber RAC), is located inside Ezra Lehman Memorial Library to support the academic well-being of our nearly 500 student-athletes. The Seaber RAC staff focus their efforts on helping student-athletes identify personalized goals that are within their aspirations and to help them surpass their expected potential. The mission of the Seaber RAC is to empower, uplift, and educate student-athletes at Shippensburg University by providing holistic support that enhances the academic, personal, and professional development of student-athletes.

Office for Retention and Student Success

Retention and Student Success offer a comprehensive array of support services aimed at guiding undergraduate students through their academic journey, culminating in degree completion. By leveraging qualitative and quantitative data, our office designs tailored interventions to reduce overall student attrition and address attrition within specific sub-groups.

The Early Alert Program, a signature program administered by the Office for Retention and Student Success, creates a collective commitment to student success. It provides timely assistance to students who are struggling in the classroom with attendance and other academic issues. Faculty and staff initiate an alert that prompts the Early Alert Management Team to act. The team coaches students who may face barriers that hinder their academic or social success, while working strategically and collaboratively with campus constituencies to positively impact student success.

University Curricula

All undergraduate curricula of the university lead to the bachelor's degree and have a common area of general education subjects, which provide a rich, liberal education. The selection of a particular curriculum is one of the most important decisions you will make as a college student. It determines your major area of concentrated study and also directly or indirectly determines your professional future.

The selection of a curriculum or area of specialization should be made with care after considering your academic strengths, areas of interest, plans for future study, and career goals. You may want to consult with friends, family members, university counselors, or faculty advisors before making a decision. If you plan to undertake graduate study after completing your bachelor's degree, you should look into the admissions requirements for the schools and graduate programs you are considering.

If you do not declare a major at the time you are admitted, you will be enrolled as an exploratory studies student under the Office for Exploratory Studies. The office provides a wide variety of academic support services so exploratory studies students can make normal progress toward a degree while exploring educational and career options. Exploratory Studies students must declare a major by the middle of their sophomore year. The dean of the School of Academic Programs and Services is the academic dean for all exploratory studies students.

Undergraduate Degrees

Shippensburg University provides undergraduate curricula leading to five degrees:

- *Bachelor of Arts (B.A.)*
- *Bachelor of Science (B.S.)*
- *Bachelor of Science in Business Administration (B.S.B.A.)*
- *Bachelor of Science in Education (B.S.Ed.)*
- *Bachelor of Social Work (B.S.W.)*

These degree programs are offered by the College of Arts and Sciences, the John L. Grove College of Business, and the College of Education and Human Services.

Departments and Majors

The following table lists the departments in each college and the major programs available for each department.

Shippensburg University

General Education Program

General Education Program (45 crs.)

The Shippensburg University General Education Program is the university curriculum that is shared by all undergraduate students. Drawing on the liberal arts tradition, it provides a framework for lifelong learning and the development of skills necessary for career readiness and informed citizenship in a democratic society. Students are given the opportunity to develop the intellectual, personal, and social capabilities they need to thrive as effective citizens prepared to embark on a career immediately upon graduation or after advanced study.

Depth of knowledge is provided by the academic major which a student chooses and which prepares students for a useful vocation; breadth of knowledge is the concern and aim of the general education curriculum. General education serves a vital function by helping students to develop the capacity to think in an integrative way, while preparing them to effectively navigate the increasingly complex career pathways that they will face after graduation. Our general education program makes sure that students are equipped with fundamental skills for oral and written communication, quantitative analysis, and critical thinking, as well as providing many opportunities to develop competencies across multiple disciplines. This fosters the knowledge integration, innovation, and adaptability necessary to solve complex interdisciplinary problems, creates awareness of the interdependence among people and ideas, and develops openness to the perspectives and needs of others in a diverse world.

Our new general education program took effect with the Fall 2018 entering class. The courses which make up the curriculum are organized around a series of broad themes and focused learning goals. Our new general education curriculum is designed to keep up with changing times through a continuous review process. This process may result in some changes to the program that may affect the sequencing and delivery of the program within the current course

requirements and will broaden the general education experience. Should such changes occur, they will be announced to the university community in a timely manner and added as a supplement to this catalog.

Please Note: All students are prohibited from counting more than two (2) courses from the same participating academic program toward their General Education requirements.

Foundations - We want our students to build solid Foundations - 15 credits

Foundational courses coupled with other experiences provide students with their core First Year Experience, providing opportunities to develop the requisite quantitative, analytical, written communication, and oral communication skills needed to succeed while in college and throughout life after college. **Five program goals** express the purpose of these foundational courses and how they support student success, with students completing one course for each goal.

1. **First Year Seminar -** Guide and prompt students to develop skills in support of scholarly and academic success, engage with the university community, foster personal development and wellness, and promote understanding of diversity and social responsibility through a **first year seminar**.
2. **Writing -** Guide and prompt students to locate and organize information with appropriate evidence and language for clear **written communication**.
3. **Oral Communication -** Guide and prompt students to develop **oral communication** skills necessary to organize and deliver a clear message with appropriate supporting material.
4. **History -** Guide and prompt students to understand major **historical themes**, applying critical analysis to generate arguments based on appropriate evidence.
5. **Quantitative -** Guide and prompt students to interpret mathematical forms, analyze through calculations, and communicate **quantitative reasoning**.

Placement Testing

The mission of the Placement Testing Program is to ensure that undergraduate students are sufficiently prepared to succeed in the courses required by Shippensburg University's General Education Program. Student proficiency is ascertained by administering surveys and tests to assist in placing students in the proper writing (English), mathematics, and reading classes. Transfer students who need further coursework in mathematics and/or writing may be required to test. Students who must take these tests will be notified. Visit our Placement Testing website for details regarding placement testing.

Interconnections - We want our students to recognize Interconnections - 9 credits

This curriculum will provide students with opportunities to explore human behavior, social interactions, and global communities through humanities and the social and behavioral sciences. Open discourse about the causes and consequences of human behavior and thought, and the interconnectedness of societies revealed by examining traditions and structures, provides a pathway to mutual respect and tolerance in a diverse world. Three program goals express what we will do for students. Each goal has an associated rubric that outlines what we expect students to learn or accomplish.

Students must complete three (3) courses in this curriculum, with at least one (1) course being a **diversity course** ('D' rubric) and at least one (1) course being a **global perspectives course** ('G' rubric).

Diversity (D)

Guide and prompt students to understand how racism and other forms of discrimination form institutional systems of oppression that characterize and shape the human experience and are fundamental to the development of individual identity. Students will learn how diversity is expressed by intersecting identities (including, but not limited to age, caste, class, color, culture, disability and ability, ethnicity, gender, gender identity and expression, generational status, immigration status, legal status, marital status, political ideology, race, nationality, religion/spirituality, sex, sexual

orientation, and tribal sovereign status) that operate within broader systems of power. They will explore ways to promote social justice and develop allyship through movements for equality.

Global Perspectives (G)

Guide and prompt students to develop **global perspectives** by analyzing systems, and evaluating interrelationships.

Foreign Languages (F)

Guide and prompt students to understand and demonstrate oral and written communication in a **foreign language** as well as awareness of a foreign culture.

Citizenship and Responsibility - We want our students to consider the importance of Citizenship & Responsibility - 6 credits

This curriculum will provide students with opportunities to consider the function and development of institutions, as well as their own responsibilities in society. Tools for development of students as informed and responsible citizens can include study of principles and research in social science, analysis of the development of social and political systems and practices, application of critical analysis and reasoning, and contemplation of ethics and values. Each goal has an associated rubric that outlines what we expect students to learn or accomplish.

Students are required to complete two (2) courses (or their equivalents) in this curriculum, with no more than one (1) course being attributed with the same program goal.

Citizenship (S)

Guide and prompt students to understand responsible citizenship through the development of ideas of citizenship and rights, how society protect or fails to protect basic rights, and avenues for individual or collective action.

Ethical Reasoning (E)

Guide and prompt students to identify ethical theories or guidelines and apply appropriate **ethical reasoning** to reach conclusions and support moral judgments.

Critical Reasoning (R)

Guide and prompt students to use appropriate **critical analysis and reasoning** to explain and analyze concepts, and apply concepts to issues to determine significance or value.

Natural World and Technology - We want our students to better understand the Natural World and the Technologies that surround them - 9 credits

This curriculum will provide students the opportunity to learn how new knowledge is created by applying scientific principles and technology to address historical and contemporary questions. Two program goals express what we will do for students. Each goal has an associated rubric that outlines what we expect students to learn or accomplish.

Students must complete three (3) courses in this curriculum, with at least two (2) courses (or their equivalents) involving the natural world ('N' rubric).

Natural World (N)

Guide and prompt students to understand the scientific method and resulting principles and theories, critically evaluating data to answer questions about the **natural world**.

Technology (T)

Guide and prompt students to acquire knowledge, skills, and competencies regarding a broad range of computer **technologies** and software, and to use them responsibly.

Creativity and Expression - We want our students to appreciate Creativity & Expression - 6 credits

This part of the curriculum will provide students with opportunities to explore artistic and literary disciplines and their modes of expression, considering the processes by which artistic works are imagined and created as well as the analytical tools for describing and appraising works of art and literature. Each goal has an associated rubric that outlines what we expect students to learn or accomplish.

Students must complete two (2) courses (or their equivalents) in this curriculum, with one (1) course being a **literature** course ('L' rubric) and one course in either the arts or creativity ('A' or 'C' rubrics).

Literature (L)

Guide and prompt students to comprehend, analyze, and determine the significance for works of **literature**.

Arts (A)

Guide and prompt students to describe, analyze, and respond to the scope of works in the **arts**.

Creative (C)

Guide and prompt students to demonstrate and apply **creative competencies**, problem solving and preparation in the realization of a creative work.

Transfer Students

Transfer students enter the university under the requirements of the New General Education program enacted in December 2017. However, the Admissions Office staff responsible for reviewing and evaluating transfer student transcripts will have the discretion of bringing in students under an earlier catalog year. A student can enter under the degree requirements of an earlier catalog year if doing so will enable the student to enter the university having fulfilled more of the requirements for their program of study, or it will enable the student to transfer additional credits from other accredited institutions where they have studied before arriving at Shippensburg University.

All transfer students will be required to take UNIV 101 with the following exceptions:

- Students who have completed a Bachelor's degree at an accredited institution are automatically exempt from Shippensburg University's general education requirements, and thus would not be required to take UNIV 101.
- Students who successfully completed an Associate's degree at an accredited institution would be exempt from taking UNIV 101 at Shippensburg University.
- Students who transferred a minimum of 45 credits from one or more other accredited institutions that will be applied towards their program of study at Shippensburg University would be exempt from taking UNIV 101 at Shippensburg University.
- Students who have completed a first-year seminar at an accredited institution that is determined to have comparable learning objectives to UNIV 101 will be able to use that course to fulfill the requirement for UNIV 101. The Office of Admissions and the Faculty Coordinator(s) of the First Year Experience will work together to develop a list of courses at other institutions deemed equivalent to Shippensburg's UNIV 101.

Appeals Process

Transfer students who are able to apply at least fifteen credits of coursework completed at another accredited institution towards their Shippensburg University degree requirements and who do not meet the criteria listed above may appeal to have the requirement for UNIV 101 waived. Waivers will be granted to students who can determine that they have met the learning outcomes for UNIV 101 in other ways, such as through college coursework, employment, or professional experiences. An application process and criteria developed jointly by the Office of Admissions and the Faculty Coordinator(s) of the First Year Experience will be used to determine the circumstances that would permit a student to have the UNIV 101 requirement waived. Students who clearly meet the criteria will have the requirement waived as part of the Admissions process. They will substitute UNIV 101 with a free elective. For cases requiring further consideration, the Faculty Coordinators of the First Year Experience in consultation with Admissions staff will review the applications to determine whether or not students will be exempt from taking UNIV 101.

Library/Information Skills

An integral aspect of the General Education Program is the development of research and information skills. Information literacy is embedded in ENGL 114 Academic Writing and information literacy sessions are taught in many other first year classes. The partnership between the library and the writing program provides students with an introduction to the research skills they will need to succeed in their other courses. This information literacy component is a foundation for appropriately leveled instruction in classes meeting the Writing (W) requirement, and subject oriented information literacy provided within the context of other courses.

Additional Study

With advisement, students entering Shippensburg as first year students may complete many of the requirements of the general education program within their first two years at the university. However, Shippensburg University believes general education is a process and not just a series of defined courses taken early in the academic experience. The need for and the value of a liberal education extends beyond the first and second years and the university strongly encourages students to elect to take courses in the general education curriculum and in areas outside of their majors as juniors and seniors. Carefully selected, these courses can help not only to enrich and to continue the search for breadth of knowledge, but also to integrate a student's entire academic study, further demonstrating the basic interdisciplinary connectedness of human understanding.

Summary of Requirements

Foundations - 15 credits - 5 courses

Interconnections - 9 credits - 3 courses, with at least 1 diversity course (D) and at least one (1) global perspectives course (G)

Citizenship and Responsibility - 6 credits - 2 courses, with no more than 1 course from the same program goal (S, E, R)

Natural World and Technology - 9 credits, 3 courses, with at least two (2) courses involving the natural world (N)

Creativity and Expression - 6 credits - 2 courses, with 1 literature course (L) and one course in either the arts (A) or creativity (C)

Foundations (15 crs.)

First Year Seminar

- UNIV 101 - Shippensburg University First Year Seminar Credits: 3

- HONR 113 - Honors: Shippensburg University First Year Seminar Credits: 3

Writing

- ENGL 114 - Academic Writing Credits: 3
- ENGL 115 - Advanced Academic Writing Credits: 3
- HONR 106 - Honors: Academic Writing Credits: 3

Oral Communications

- COST 100 - Introduction to Human Communication Credits: 3
- HONR 100 - Honors: Introduction to Human Communication Credits: 3

History

- HIST 105 - Historical Foundations of Global Cultures Credits: 3
- HONR 122 - Honors: Historical Foundations of Global Cultures Credits: 3

Quantitative

- MATH 105 - Mathematics for Liberal Studies Credits: 3
- MATH 107 - Mathematical Models Applied to Money Credits: 3
- MATH 111 - Fundamentals of Mathematics II Credits: 3
- MATH 117 - Applied Statistics Credits: 3
- MATH 140 - College Algebra Credits: 3
- MATH 175 - Precalculus Credits: 3
- MATH 181 - Applied Calculus Credits: 3
- MATH 211 - Calculus I Credits: 4
- MATH 217 - Statistics I Credits: 4

Interconnections (9 crs.)

3 courses, with at least 1 diversity course (D) and at least one (1) global perspectives course (G)

Diversity (D)

- COMM 245 - Diversity and the Media Credits: 3
- DISA 100 - Introduction to Disability Studies Credits: 3
- ETHS 100 - Introduction to Ethnic Studies Credits: 3
- ETHS 101 - Introduction to African-American Studies Credits: 3
- ETHS 102 - Introduction to Latino Studies Credits: 3
- FREN 150 - Modern France and the Francosphere Credits: 3
- SOCI 101 - Introduction to Sociology: Society and Diversity Credits: 3
- HONR 161 - Honors: Introduction to Sociology: Society and Diversity Credits: 3
- SOCI 243 - Race in America Credits: 3
- SPAN 150 - Hispanic Civilization and Culture Credits: 3
- SPEE 273 - Introduction to Exceptionalities: Understanding Diverse Learners Credits: 3
- SOWK 265 - Understanding Human Diversity for Social Justice Credits: 3
- WMST 100 - Introduction to Women's and Gender Studies Credits: 3
- HONR 102 - Honors: Introduction to Women's Studies Credits: 3

Global Perspectives (G)

- ANTH 105 - Great Discoveries in Archaeology Credits: 3
- ANTH 111 - Cultural Anthropology Credits: 3
- HONR 160 - Honors: Cultural Anthropology Credits: 3
- ECON 101 - Principles of Macroeconomics Credits: 3
- HONR 165 - Honors: Principles of Macroeconomics Credits: 3
- FREN 204 - Ideas and Cultures from the French-Speaking World Credits: 3

- GEOG 101 - World Geography Credits: 3
- HONR 141 - Honors: World Geography Credits: 3
- GERM 150 - German Civilization and Culture Credits: 3
- GERM 204 - Contemporary German Culture Credits: 3
- HIST 106 - Modern World History Credits: 3
- HONR 123 - Honors: Modern World History Credits: 3
- INTL 358 - Global Political Economy & Security Credits: 3
- POLI 141 - World Politics Credits: 3
- SOCI 265 - Global Society Credits: 3
- SPAN 153 - Latino Pop Culture Credits: 3
- SPAN 204 - Ideas and Cultures from the Spanish-Speaking World Credits: 3

Foreign Language (F)

- ASL 101 - American Sign Language Credits: 3
- ASL 102 - American Sign Language II Credits: 3
- CHIN 101 - Beginner's Chinese Credits: 3
- CHIN 102 - Beginner's Chinese II Credits: 3
- CHIN 103 - Intermediate Chinese Credits: 3
- FREN 101 - Beginning French I Credits: 3
- FREN 102 - Beginning French II Credits: 3
- FREN 103 - Intermediate French Credits: 3
- FREN 202 - Intermediate Conversation Through the Media Credits: 3
- FREN 320 - French for the Professions Credits: 3
- GERM 101 - Beginning German I Credits: 3
- GERM 102 - Beginning German II Credits: 3
- GERM 103 - Intermediate German Credits: 3
- GERM 203 - Intermediate German Communication Credits: 3
- SPAN 101 - Beginning Spanish I Credits: 3
- SPAN 102 - Beginning Spanish II Credits: 3
- SPAN 103 - Intermediate Spanish Credits: 3
- SPAN 202 - Intermediate Conversation Credits: 3
- SPAN 330 - Spanish for the Professions Credits: 3

Citizenship and Responsibility (6 crs.)

2 courses, with no more than 1 course from the same program goal (S, E, R)

Citizenship (S)

- COMM 111 - Media Literacy Credits: 3
- ESSC 108 - Introduction to Environmental Sustainability Credits: 3
- HIST 201 - Early History of the United States Credits: 3
- HIST 202 - Recent History of the United States Credits: 3
- POLI 100 - U.S. Government and Politics Credits: 3
- HONR 279 - Honors: U.S. Government and Politics Credits: 3
- POLI 359 - European Political Culture & Identity Credits: 3

Ethical Reasoning (E)

- PHIL 105 - Ethical Theories and Problems Credits: 3
- HONR 105 - Honors: Ethical Theories and Problems Credits: 3

Critical Reasoning (R)

- ACEX 120 - Academic Literacies for the 21st Century Credits: 3
- ACEX 210 - Writing Tutoring Theory & Praxis Credits: 3
- COST 125 - Survey of Communication Studies Credits: 3
- ECON 113 - Principles of Economics Credits: 4
- ENGR 110 - Modeling and Simulation Credits: 3
- EXER 207 - Stress Management Credits: 3
- FINA 101 - Personal Finance Credits: 3
- GEOG 103 - Geography of the United States and Canada Credits: 3
- HONR 140 - Honors: Geography of the United States and Canada Credits: 3
- GEOG 140 - Human Geography Credits: 3
- GERT 100 - Introduction to Gerontology Credits: 3
- MATH 225 - Discrete Mathematics Credits: 4
- PBHL 100 - Introduction to Public Health Credits: 3
- PHIL 101 - Introduction to Philosophy Credits: 3
- HONR 130 - Honors: Introduction to Philosophy Credits: 3
- PHIL 102 - Critical Thinking Credits: 3

Natural World and Technology (9 crs.)

9 credits, 3 courses, with at least two (2) courses involving the natural world (N)

Natural World (N)

- ANTH 121 - Physical Anthropology Credits: 3
- HONR 159 - Honors: Physical Anthropology Credits: 3
- BIOL 100 - Basic Biology Credits: 3
- BIOL 145 - Environmental Biology Credits: 3
- HONR 145 - Honors: Environmental Biology Credits: 3
- BIOL 150 - Human Biology Credits: 3
- HONR 186 - Honors: Human Biology Credits: 3
- BIOL 161 - Principles of Biology: Cell Structure and Function Credits: 4
- BIOL 162 - Principles of Biology: Organismal Diversity Credits: 4
- BIOL 208 - Field Biology Credits: 3
- BIOL 237 - Human Anatomy & Physiology I Credits: 4
- CHEM 103 - A Cultural Approach Credits: 3
- HONR 196 - Honors: A Cultural Approach Credits: 3
- CHEM 105 - An Observational Approach Credits: 3
- CHEM 121 - Chemical Bonding Credits: 3
- ESSC 110 - Introduction to Geology Credits: 3
- HONR 244 - Honors: Introduction to Geology Credits: 3
- ESSC 111 - Introduction to Weather and Climate Credits: 3
- HONR 142 - Honors: Introduction to Weather and Climate Credits: 3
- ESSC 115 - Coastal Hazards and Sustainability Credits: 3
- GEOG 105 - Physical Geography Credits: 3
- PHYS 108 - Astronomy Credits: 3
- HONR 108 - Honors: Astronomy Credits: 3
- PHYS 110 - Physics for Society Credits: 3
- HONR 180 - Honors: Physics for Society Credits: 3
- PHYS 121 - Introductory Physics I - Lecture Credits: 3

- PHYS 122 - Introductory Physics II - Lecture Credits: 3
- PHYS 205 - Intermediate Physics I Credits: 3
- PHYS 221 - Fundamentals of Physics I Credits: 5
- PSYC 101 - General Psychology Credits: 3
- HONR 151 - Honors: General Psychology Credits: 3

Technology (T)

- CMSC 103 - Overview of Computer Science Credits: 3
- CMSC 104 - Programming in Python Credits: 3
- ECON 102 - Principles of Microeconomics Credits: 3
- HONR 166 - Honors: Principles of Microeconomics Credits: 3
- ENGR 120 - Programming for Engineers Credits: 3
- ITAN 300 - Information Technology and Business Operations Credits: 3
- MATH 219 - Data Science I Credits: 3

Creativity & Expression (6 crs.)

6 credits - 2 courses, with 1 literature course (L) and one course in either the arts (A) or creativity (C)

Literature (L)

- ENGL 243 - The Art of the Film Credits: 3
- HONR 224 - Honors: The Art of the Film Credits: 3
- ENGL 248 - Introduction to Culturally Diverse Literature of the U.S. Credits: 3
- ENGL 250 - Literature and Society Credits: 3
- HONR 249 - Honors: Literature and Society Credits: 3
- FREN 330 - Masterpieces of French Literature Credits: 3
- FREN 331 - Masterpieces of Francophone Literature Credits: 3
- GERM 151 - German Cinema Credits: 3
- SPAN 152 - Latino Literature Credits: 3
- SPAN 360 - Masterpieces of Spanish Literature Credits: 3
- SPAN 361 - Masterpieces of Spanish-American Literature Credits: 3
- THAR 121 - Introduction to the Theatre Credits: 3
- HONR 101 - Honors: Introduction to the Theatre Credits: 3

Arts (A)

- ART 101 - Art Appreciation Credits: 3
- ART 231 - Art History I Credits: 3
- ART 232 - Art History II Credits: 3
- ART 233 - Art History III Credits: 3
- HONR 135 - Honors: Art History III Credits: 3
- ART 339 - History of American Art Credits: 3
- INST 111 - Introduction to Interdisciplinary Arts Credits: 3
- HONR 111 - Honors: Introduction to Interdisciplinary Arts Credits: 3
- MUSI 121 - Introduction to Music Credits: 3
- HONR 210 - Honors: Introduction to Music Credits: 3
- MUSI 129 - American Popular Music Credits: 3
- MUSI 216 - Music & Film Credits: 3
- MUSI 227 - Opera and Music Theatre Credits: 3
- MUSI 261 - World Music Credits: 3
- HONR 261 - Honors: World Music Credits: 3

Creative (C)

- ENGL 224 - Introduction to Creative Writing Credits: 3
- ENTR 110 - Introduction to Entrepreneurship Credits: 3
- MCAE 100 - Engineering Graphics Credits: 3

College of Arts and Sciences

College of Arts and Sciences Overview

The College of Arts and Sciences has three primary areas of emphasis: educating undergraduates, offering master's level programs where the college can offer a program that is distinctive and of high quality and providing general education courses to all undergraduate students. The college, the largest in the university, occupies a central place in the education of all undergraduate students because of its general education mission. The college also has a public service role it fulfills through the activities of the Center for Land Use and the SU Fashion Archives and Museum.

In both its degree programs and in the general education curriculum, the college strives to enable students:

- to read critically
- to write and speak clearly and eloquently
- to use numbers and scientific methodology effectively
- to understand the fundamentals of the current state of scientific knowledge
- to appreciate works of art and other cultural artifacts from their own and other societies
- to understand the fundamentals of world history and geography, the importance of other cultures, and the increasing interdependence of cultures
- to understand the structure of social, political and psychological processes
- to function effectively as informed and active participants in a democratic society

For many students, participating in an internship connects classroom learning with real-world experience. The college offers internships in many programs, subject to approval. Check with the department chair for more information.

The ultimate aim of the college is to enhance the development of students so they may lead meaningful lives as private individuals, professionals, and citizens.

Providing students with opportunities to acquire the knowledge and habits of mind that lead to present and future accomplishment is the goal of a liberal arts education and of the programs that define Shippensburg University's College of Arts and Sciences.

In the College of Arts and Sciences, students have available to them programs leading to the degree of Bachelor of Arts, Bachelor of Science, or Bachelor of Science in Education.

All students completing a Bachelor of Arts degree are required to attain proficiency in a foreign language. Proficiency may be satisfied by completing a language class at the 103 (intermediate) level *or* three years of any one foreign language in high school.

Students may also meet this requirement through AP testing or CLEP testing.

Bachelor of Science in Education Degree Programs

Physics

Comprehensive Social Studies

The specific requirements for each of these fields are presented in the following pages under each department.

Transfer students should note the restrictions that apply to transfer admission into programs in the biology, chemistry, communication/journalism, and psychology programs.

Students interested in law school should consult with Dr. Steven Lichtman of the Political Science Department, who is the representative of the American Law School Committee of Admissions.

The graduate programs of the College of Arts and Sciences are presented in the Graduate Catalog.

Art and Design Department

The Department of Art and Design offers an undergraduate program leading to a Bachelor of Arts degree or a Bachelor of Arts in Art Education Certification, K-12. For successful completion of both B.A. degree in art and art education certification, K-12, each student is expected to demonstrate knowledge, skills, and understandings within the following five categories (No. 5 pertains to the B.A. in Art Education Certification, K-12):

1. Promote visual literacy; e.g., the understanding of a work of art through its connections with history, criticism, aesthetics, culture, style, and the formal elements.
2. Demonstrate the ability to create and solve the production of original, visual forms of expression in different media designed around a theme and to promote the interdisciplinary importance of art making as a method of knowing.
3. Develop critical thinking in strategies of inquiry, iconology, and comparative studies that will promote cross-cultural and ethnically diverse methods of art making.
4. Establish methods of working and understanding the creative process and production in a variety of two- and three-dimensional media-graphics, computers, painting, ceramics, sculpture, printmaking, and conceptional/interdisciplinary work styles.
5. Develop methodology for effective teaching; creating lesson plans appropriate for a variety of academic venues; learn how to communicate effectively; be able to demonstrate effective technical skills; and understand the role of art education in human development.

Art Education K-12 students seeking Pennsylvania certification should see requirements outlined in the College of Education and Human Services.

Yearly Student Art Exhibit

Each year art majors are required to submit a minimum of two pieces of art for the annual student art exhibit. These works of art must be properly framed or mounted using appropriate materials for display.

Senior Art Seminar and Exhibit

The Senior Art Seminar is a three-credit capstone course which is a two semester sequential program beginning in the fall semester of each academic year. Students may not enter the course mid-year and must plan their schedule accordingly. Students planning to graduate in December must complete this course the academic year prior to their graduation. Students enrolled in the Senior Art Seminar examine contemporary artists, art movements and influences which directly impact their work and area of concentration. Emphasis will be placed on creating a portfolio of work with a specific focus conceived by the student. These works will be presented in a public exhibition, which is juried and held annually the week before graduation. Participation in this exhibition is required for graduation. Résumé preparation and developing a career portfolio will also be included in this course.

Art and Design Features

The Department of Art and Design offers an undergraduate program leading to a Bachelor of Arts degree in art or Bachelor of Arts in Art Education Certification-K-12. For students who wish to pursue a career in graphic design, the department offers a Certificate in Graphic Design. Because of the department's variety of courses, innovation and degrees, its cooperative program with the Fashion Institute of Technology (FIT), the Shippensburg art graduate has a wide range of career opportunities.

The Department of Art and Design has a strong and effective advising program which encompasses the entire educational experience of every art and art education major. Twice yearly, advising meetings bring alumni back to the university for panel discussions and "real-life" dialogue. Continual development of selected topics, visiting artists' programs, trips to Washington, D.C., New York City, Philadelphia, trips to european countries provide students with ample opportunities to view the world of art.

Other options: With the 33 credits of free electives, many students choose a number of different options. The student can double major, minor in another field such as business, or strengthen their art major by taking additional unrestricted art electives. Selecting a double major, including art/communication, art/business or art/psychology, increases career options. Programs such as the Interdisciplinary Arts degree allow students to create a program to match their needs.

Art Education K-12 students seeking Pennsylvania certification should see requirements outlined in the College of Education and Human Services.

Internships provide important real-life experiences. Some students serve as interns in galleries, museums, advertising agencies, or art supply stores. Some art students, especially those in the art education program, assist in local community art centers by helping to teach classes for adults and children. Others have worked as apprentices on art projects in the Department Art and Design's Apple Computer Lab or Sculpture Studio, or in graphic agencies. Some students have apprenticed with professional painters, ceramicists, and sculptors. The department is continually supportive sources for internships in both the public and private sector.

Three Department of Art and Design organizations give students an opportunity to have some first-hand experiences in the field. One organization, the Student Art League, holds weekly "art making and critiquing" studios. The Visivo Club creates a professional artistic publication yearly using the computer creatively to design and lay out the work for the book. Through this publication students gain practical experiences in design, photography, writing, editing, and printing. The Art Exhibitions Committee gains practical gallery training through organizing and staging eight exhibitions yearly.

Art students who may one day wish to own and operate their own businesses are encouraged to take the Business Minor offered through the John L. Grove College of Business.

Art Career Opportunities

Art is actually used in any circumstance that requires visual discrimination: What looks better, this or that? The fine artist attempts to make a visual statement through a painting or a piece of sculpture by continuously discriminating with the art elements. All of the design fields actively engage in visual decision making-industrial, fabric, fashion, interior, graphic and advertising design.

Courses provide students with a sound fine arts background in studio experience, art history, and art criticism. Computer design courses prepare students' marketability in industry, publishing, and advertising. They can prepare for a number of art-related careers. Our graduates are museum curators, art educators, gallery directors, illustrators, photographers, practicing and exhibiting artists/craftspeople, graphic designers, fabric designers, and antique dealers. A number of our graduates have opted to go on for advanced degrees in art, particularly the Master of Fine Arts degree. These graduates are practicing and exhibiting artists, and some teach at colleges and universities. Students are well prepared for their careers.

Visiting Student Programs

A visiting student program has been established between Shippensburg University and the Fashion Institute of Technology of New York City, N.Y. This program offers art majors the opportunity to take courses at FIT in order to supplement the art program at Shippensburg University without the necessity of a formal transfer. The areas in which art majors may apply are fashion design, advertising design, textile/surface design, and accessories design.

Art, B.A.

Credit Requirements*

- **Foreign Language Requirement:** 3 credits
- **General Education:** 45 credits
- **Major Requirements**: 39 credits
- **Free Electives:** 33 credits
- *Total Credits to Graduate:* **120 credits**

* All undergraduate degree programs require a minimum of 120 credits. Some courses meet multiple requirements, but are only counted once toward the 120 credit total required to graduate.

Requirements for the Art Major - 39 crs.

The art major program for a B.A. in art consists of basic core courses plus a selected concentration, which may be fine arts, history, or studio. Please note that some courses are only offered in the fall or spring. Students should plan their schedules accordingly and with care. All art majors are required to take the following courses:

Foundation Courses (9 crs.)

(Taken during first year of program)

- ART 110 - Basic Drawing Credits: 3
- ART 215 - Color and Two-Dimensional Design Credits: 3 offered in fall only
- ART 218 - Three-Dimensional Design Credits: 3 offered in spring only

Additional Foundation Courses (12 crs.)

- ART 210 - Drawing II Credits: 3
- ART 232 - Art History II Credits: 3 offered in fall only
- ART 233 - Art History III Credits: 3 offered in spring only
- ART 385 - Senior Art Seminar Credits: 3 (One year sequential course which begins in the fall; students may not enter mid-year.)

Art Electives (18 crs.)

Not all courses are offered every semester. Students should check with their advisor to learn the sequence of courses and the general education courses required for their major as they develop their four-year plan. Four of the six electives must be 300 level or higher. Courses are selected from the following list:

- ART 211 - Figure Drawing Credits: 3 offered in 'even' year fall only
- ART 217 - Computer Design I Credits: 3
- ART 231 - Art History I Credits: 3 offered in 'even' year fall only
- ART 300 - Independent Studio/Ceramics Credits: 3
- ART 301 - Independent Studio/Drawing Credits: 3
- ART 302 - Independent Studio/Enameling Credits: 3
- ART 303 - Independent Studio/Painting Credits: 3
- ART 304 - Independent Studio/Sculpture Credits: 3
- ART 305 - Independent Studio /Computer Design Credits: 3
- ART 306 - Computer Design II Credits: 3 offered in spring only
- ART 309 - Independent Studio Credits: 3
- ART 319 - Computer Design III Credits: 3 offered in spring only
- ART 321 - Watercolor I Credits: 3 offered in spring only
- ART 322 - Watercolor II Credits: 3 offered in fall only
- ART 326 - Painting I Credits: 3 offered in fall only
- ART 327 - Painting II Credits: 3 offered in spring only
- ART 337 - Printmaking I Credits: 3
- ART 339 - History of American Art Credits: 3 offered in 'even' year fall only
- ART 340 - Ceramics Credits: 3 offered in fall only
- ART 341 - Advanced Ceramics Credits: 3 offered in spring only
- ART 356 - Social Structures of Aesthetics, Philosophy and Criticism in the Arts Credits: 3
- ART 370 - Sculpture Credits: 3 offered in fall only
- ART 393 - Selected Topics in Art Credits: 1-3
- ART 395 - Internship in Art I Credits: 3
- ART 399 - Independent Study Credits: 3
- ART 400 - Contemporary Methods in Art Education Credits: 3
- ART 425 - Computer Design IV Credits: 3 offered in spring only
- ART 430 - Computer Design V Credits: 3
- ART 435 - Computer Design VI Credits: 3 offered in spring only
- ART 490 - Selected Topics in Art Credits: 1-3

General Education

General Education Requirements

- General Education Program (45 crs.)

General Education Requirements Specific for this major

- Arts (A): ART 101

Bachelor of Arts Foreign Language Requirement:

All students completing a Bachelor of Arts degree are required to attain proficiency in a foreign language. Proficiency may be satisfied by completing a language class at the 103 (intermediate) level or three years of any one foreign language in high school. Students may also meet this requirement through AP or CLEP testing.

Advising Notes:

1. Year 1: ART 101, ART 110, ART 215, ART 232, ART 210, ART 218
2. Double majors such as Art/Communications increase career options.

Art Education Certification, B.A.

The following are required courses for the Art Education Certification program, including the College of Education and Human Services required courses for Pennsylvania Certification, K-12.

Credit Requirements*

- **Foreign Language Requirement:** 0 - 3 credits
- **General Education:** 45 credits
- **Major Requirements**: 66 credits
- **Free Electives:** 6 - 9 credits
- *Total Credits to Graduate:* **120 credits**

* All undergraduate degree programs require a minimum of 120 credits. Some courses meet multiple requirements, but are only counted once toward the 120 credit total required to graduate.

Required Art Courses (33 crs.)

- ART 110 - Basic Drawing Credits: 3
- ART 210 - Drawing II Credits: 3
- ART 215 - Color and Two-Dimensional Design Credits: 3
- ART 218 - Three-Dimensional Design Credits: 3
- ART 232 - Art History II Credits: 3
- ART 233 - Art History III Credits: 3
- ART 385 - Senior Art Seminar Credits: 3
- ART 217 - Computer Design I Credits: 3
- ART 326 - Painting I Credits: 3 offered in fall only
- ART 340 - Ceramics Credits: 3
- ART 370 - Sculpture Credits: 3 offered in fall only

Required Art Education Courses (33 crs.)

- ART 356 - Social Structures of Aesthetics, Philosophy and Criticism in the Arts Credits: 3
- ART 400 - Contemporary Methods in Art Education Credits: 3
- SPEE 423 - Effective Instructional Strategies for Students with Exceptionalities Credits: 3
- SPEE 483 - Assessing Children with Exceptionalities for Curricular Decision-Making Credits: 3
- TEED 207 - Organizational and Psychological Foundations in Secondary Education Credits: 3
- SPEE 273 - Introduction to Exceptionalities: Understanding Diverse Learners Credits: 3
- READ 413 - Teaching Reading to English Language Learners Credits: 3
- EDFN 495 - Student Teaching Credits: 6-15
  (Students in the K-12 Art Certification program will take 12 crs. of EDFN 495)

Praxis Exams:

Students must also take the Praxis I and II Examinations and complete all Pennsylvania Certification requirements to earn K-12 certification from the Pennsylvania Department of Education (PDE).

Bachelor of Arts Foreign Language Requirement:

All students completing a Bachelor of Arts degree are required to attain proficiency in a foreign language. Proficiency may be satisfied by completing a language class at the 103 (intermediate) level or three years of any one foreign language in high school. Students may also meet this requirement through AP or CLEP testing.

General Education

General Education Requirements

- General Education Program (45 crs.)

General Education Requirements Specific for this major:

- Arts (A): ART 101
- Diversity (D): GEOG 103
- Diversity (D): PSYC 101

Advising Notes:

1. Year 1: ART 101, ART 110, ART 215, ART 232, ART 210, ART 218

Graphic Design Certificate

Required Courses (18 crs.)

- ART 217 - Computer Design I Credits: 3
- ART 306 - Computer Design II Credits: 3 offered in spring only
- ART 319 - Computer Design III Credits: 3 offered in fall only
- ART 425 - Computer Design IV Credits: 3 offered in spring only
- ART 430 - Computer Design V Credits: 3 offered in fall only
- ART 435 - Computer Design VI Credits: 3 offered in spring only

Art Minor

21 crs.

Foundation Courses (9 crs.)

- ART 110 - Basic Drawing Credits: 3
- ART 215 - Color and Two-Dimensional Design Credits: 3 Offered in fall only

- ART 218 - Three-Dimensional Design Credits: 3 Offered in spring only

Art History Elective (3 crs.)

- ART 231 - Art History I Credits: 3 Offered in 'even year' fall only
- ART 232 - Art History II Credits: 3 Offered in fall only
- ART 233 - Art History III Credits: 3 Offered in spring only
- ART 339 - History of American Art Credits: 3

Art Electives (9 crs.)

At least 6 credits must be 300/400 level courses.

- ART 210 - Drawing II Credits: 3
- ART 211 - Figure Drawing Credits: 3
- ART 217 - Computer Design I Credits: 3
- ART 300 - Independent Studio/Ceramics Credits: 3
- ART 301 - Independent Studio/Drawing Credits: 3
- ART 302 - Independent Studio/Enameling Credits: 3
- ART 303 - Independent Studio/Painting Credits: 3
- ART 304 - Independent Studio/Sculpture Credits: 3
- ART 305 - Independent Studio /Computer Design Credits: 3
- ART 306 - Computer Design II Credits: 3 Offered in spring only
- ART 309 - Independent Studio Credits: 3
- ART 319 - Computer Design III Credits: 3 Offered in fall only
- ART 321 - Watercolor I Credits: 3 Offered in spring only
- ART 322 - Watercolor II Credits: 3 Offered in fall only
- ART 326 - Painting I Credits: 3 Offered in fall only
- ART 327 - Painting II Credits: 3 Offered in spring only
- ART 337 - Printmaking I Credits: 3
- ART 340 - Ceramics Credits: 3
- ART 341 - Advanced Ceramics Credits: 3 Offered in spring only
- ART 356 - Social Structures of Aesthetics, Philosophy and Criticism in the Arts Credits: 3
- ART 370 - Sculpture Credits: 3 Offered in fall only
- ART 395 - Internship in Art I Credits: 3
- ART 399 - Independent Study Credits: 3
- ART 400 - Contemporary Methods in Art Education Credits: 3
- ART 425 - Computer Design IV Credits: 3 Offered in spring only
- ART 430 - Computer Design V Credits: 3 Offered in fall only
- ART 435 - Computer Design VI Credits: 3 Offered in spring only

Biology Department

The Department of Biology offers undergraduate programs leading to the Bachelor of Science degree in Biology with concentrations in health professions, ecology and environmental biology, biotechnology, clinical sciences and secondary education certification. The undergraduate program in biology is designed to provide students with a comprehensive foundation in life science, including experience with both theoretical and practical aspects of the

discipline. Students will develop an understanding of significant core areas, including genetics, cellular biology, physiology, ecology, and organismal biology. In addition to the core curriculum, students may choose from a broad selection of courses that focus intensely on the various biological sub-disciplines. The program features exposure to the biological sciences through experiences in a combination of classroom, laboratory, and field studies. Studies in cognate areas such as chemistry, mathematics, and physics are an integral and significant component of contemporary biological education.

Biology Features

In addition to earning a Bachelor of Science (B.S.) degree in biology, students may choose to gain specialized training in one of the following concentrations: biotechnology (with a pre-forensics option), clinical sciences, ecology and environmental biology, health professions, and secondary education certification. As the cornerstone of the biology department, our faculty is concerned about instruction and our students. In addition to small classes taught by highly trained professors with expertise in their fields, we also offer the opportunity to participate directly in research with faculty members. Students may receive small research grants from the Shippensburg University Foundation to purchase supplies or to help defray the cost of attending professional meetings. Students are assigned a faculty advisor from the department to help guide them in course selection and career goals. Numerous opportunities exist for students to engage in internship experiences off campus. Students with an interest in marine science may enroll in summer courses through our affiliation with the Chincoteague Bay Field Station at Wallops Island, Virginia. Beta Beta Beta Biological Honor Society, the Biology Club, and the Health Sciences Club provide opportunities for service, learning, and recreation. Biology Education 7-12 students seeking Pennsylvania certification should see requirements outlined in the College of Education and Human Services.

Biology Career Opportunities

Undergraduate degree programs in the Department of Biology make possible a multitude of career options. Students with an interest in a career in the health fields may enter professional schools to train for careers in medicine, veterinary science, optometry, dentistry, podiatry, chiropractic, physical therapy, or pharmacy. The clinical sciences concentration allows students to incorporate their clinical education in medical technology, histotechnology, cytotechnology or respiratory therapy as their fourth year of undergraduate studies. Students with an interest in field studies and the environment can consider careers or graduate programs in conservation, wildlife biology, fisheries management, forestry, and ecology. Industries and pharmaceutical companies recruit students with a background in cell biology, microbiology, and biotechnology. Students who earn secondary education certification begin professions as secondary school teachers. Careers in clinical or academic research, college teaching, and other specialized fields usually require master's or doctoral-level degrees.

Chincoteague Bay Field Station

Shippensburg University is a charter member of the Chincoteague Bay Field Station, a joint venture with a number of the other Pennsylvania State System of Higher Education universities and several colleges and universities of neighboring states. The field station operates at Wallops Island, Virginia, for field and laboratory studies in marine sciences. An assortment of small boats provides a wide range of teaching and research capabilities. A laboratory, dormitory, dining facilities, and a full-time permanent staff are a part of the station. Four separate three-week sessions operate during the summer months with a variety of courses taught during each session by faculty from the member institutions. In addition, the station facilities are available for class field trips or weekend trips during the fall and spring. Students interested in these courses should contact the Shippensburg director of the Chincoteague Bay Field Station or visit www.cbfieldstation.org.

The following courses and others are offered regularly during the summer at the station:

- Field Methods of Oceanography

- Marine Biology
- Marine Invertebrates
- Marine Ecology
- Marine Ichthyology
- Marine Mammals
- Coastal Herpetology
- Coastal Ornithology
- Behavior of Marine Organisms
- Ecology of Marine Plankton
- Problems in Marine Sciences

Biology, B.S.

Credit Requirements*

- **General Education:** 47 credits
- **Major Requirements**: 55-56 credits
- **Free Electives:** 17-18 credits
- *Total Credits to Graduate:* **120 credits**

* All undergraduate degree programs require a minimum of 120 credits. Some courses meet multiple requirements, but are only counted once toward the 120 credit total required to graduate.

Requirements

Students enrolled in a program of studies leading to the Bachelor of Science degree will fulfill the following requirements:

Biology Core Courses (12 crs.)

Students must earn a "C" or higher in BIOL 161 and BIOL 162 before upper-level biology electives may be taken.

- BIOL 162 - Principles of Biology: Organismal Diversity Credits: 4
- BIOL 260 - Genetics Credits: 4
- BIOL 430 - Principles of Evolution Credits: 3
- BIOL 499 - Capstone Seminar in Biology Credits: 1

Physiology Elective (4 crs.)

- BIOL 350 - Human Physiology Credits: 4
  OR
- BIOL 351 - Animal Physiology Credits: 4

Additional Biology Electives (18 crs.)

Electives should be selected with advisement; professional program requirements should considered when choosing electives. At least 6 credits need to be at the 300-level or above.

Please note only 3 credits of research or internship may count as biology electives. Credits in excess of that number count as free electives.

Allied Fields (21-22 crs.)

Mathematics

Note: Students unable to start at the level of MATH 211 Calculus I will take MATH 175 - Precalculus Credits: 3 or other prerequisite courses.

- MATH 117 - Applied Statistics Credits: 3
  OR
- MATH 217 - Statistics I Credits: 4

Physics

- PHYS 123 - Physics Ia Laboratory Credits: 1
- PHYS 122 - Introductory Physics II - Lecture Credits: 3
- PHYS 125 - Physics IIa Laboratory Credits: 1

Chemistry

- CHEM 125 - Laboratory IB-Stoichiometry and Reactions Credits: 1
- CHEM 122 - Chemical Dynamics Credits: 3
- CHEM 126 - Laboratory IIB-Equilibrium and Instrumentation Credits: 1
- CHEM 221 - Modern Organic Chemistry I Credits: 3
- CHEM 225 - Laboratory IIIB-Basic Organic Techniques Credits: 1
- CHEM 227 - Introduction to Biochemistry Credits: 4
  OR
- CHEM 222 - Modern Organic Chemistry II Credits: 3
  WITH
- CHEM 226 - Laboratory IVB-Experimental Organic Studies Credits: 1

Note:

Students who have successfully completed more difficult physics and chemistry courses can substitute them for lower level required courses in those fields.

General Education

General Education Requirements

- General Education Program (45 crs.)
  - Due to some 4 credit directed gen eds, Biology majors must all take 47 credits of gen ed coursework.

General Education Requirements Specific for this major:

- Quantitative (Q): MATH 211

- Natural World (N) BIOL 161 grade of C or better required
- Natural World (N): PHYS 121
- Natural World (N): CHEM 121

Advising Notes:

1. Students should begin either their math sequence or chemistry coursework in their 1st year, in addition to taking BIOL161 and BIOL162.
2. Physics often fits in best during the junior year.
3. Students lacking strong chemistry/math backgrounds could consider taking CHEM105 before CHEM121.

Biology, Biotechnology Concentration, B.S.

Biotechnology is a collection of techniques that uses living organisms or substances from those organisms for specific applications. Individuals with training in biotechnology can work in a variety of jobs in industrial, government, and academic settings. These careers may be in research, product development, production, quality control, technical writing, sales, education, or administration. Students in the biology program at Shippensburg University may choose the concentration in biotechnology. Students enrolled in this program will obtain a broad background in biology, chemistry, and physics as well as gain substantial biotechnology laboratory experience that includes the cloning and manipulation of DNA, immunochemical analyses, and cell culture. Students interested in pre-forensics should take 7-8 credits of suggested Criminal Justice courses.

Students in the biotechnology concentration must maintain at least a 2.5 QPA in their major and overall program through graduation. Students who are withdrawn from this concentration because their QPA has fallen below the minimum 2.5 may reapply when they reattain the minimum QPA.

Credit Requirements*

- **General Education:** 47 credits
- **Major Requirements**: 59-61 credits
- **Free Electives:** 12-14 credits
- *Total Credits to Graduate:* **120 credits**

* All undergraduate degree programs require a minimum of 120 credits. Some courses meet multiple requirements, but are only counted once toward the 120 credit total required to graduate.

Biology Core Courses (22 crs.)

Students must earn a "C" or higher in BIOL 161 and BIOL 162 before upper-level biology electives may be taken.

- BIOL 162 - Principles of Biology: Organismal Diversity Credits: 4
- BIOL 220 - Microbiology Credits: 4
- BIOL 260 - Genetics Credits: 4
- BIOL 385 - Cell Biology Credits: 3
- BIOL 418 - Molecular Biology Credits: 3
- BIOL 461 - Techniques in Biotechnology Credits: 3
- BIOL 499 - Capstone Seminar in Biology Credits: 1

Upper Division Electives (10 crs.)

Physiology Elective (4 crs.)

- BIOL 351 - Animal Physiology Credits: 4
  OR
- BIOL 350 - Human Physiology Credits: 4

Experiential Elective (3 crs.)

Please note only 3 credits of research or internship may count as biology electives. Credits in excess of that number count as free electives.

- BIOL 397 - Introduction to Research Credits: 3
- BIOL 398 - Research II Credits: 3
  OR
- BIOL 391 - Biology Internship I Credits: 1-3
- BIOL 392 - Biology Internship II Credits: 1-3

Additional Biology Electives (3 crs.)

Electives should be selected with advisement. Biology credits should total at least 32.

Strongly Recommended Electives:

- BIOL 230 - Botany Credits: 3
- BIOL 324 - Pathogenic Microbiology Credits: 3
- BIOL 408 - Principles of Virology Credits: 3
- BIOL 409 - Immunology Credits: 3

Allied Fields (27-29 crs.)

Chemistry

- CHEM 125 - Laboratory IB-Stoichiometry and Reactions Credits: 1
  OR
- CHEM 123 - Laboratory IA-Chemical Systems Credits: 1
- CHEM 122 - Chemical Dynamics Credits: 3
- CHEM 126 - Laboratory IIB-Equilibrium and Instrumentation Credits: 1
  OR
- CHEM 124 - Laboratory IIA-Experimental Quantitative Analysis Credits: 3
- CHEM 221 - Modern Organic Chemistry I Credits: 3
- CHEM 225 - Laboratory IIIB-Basic Organic Techniques Credits: 1
  OR
- CHEM 223 - Laboratory IIIA-Experimental Organic Techniques Credits: 1
- CHEM 222 - Modern Organic Chemistry II Credits: 3
- CHEM 226 - Laboratory IVB-Experimental Organic Studies Credits: 1
  OR
- CHEM 224 - Laboratory IVA-Qualitative Organic Analysis Credits: 3

- CHEM 301 - Biochemistry I Credits: 3

- CHEM 371 - Analytical Chemistry Credits: 4
  OR
- CHEM 420 - Biochemistry II Credits: 3

Physics

- PHYS 123 - Physics Ia Laboratory Credits: 1
- PHYS 125 - Physics IIa Laboratory Credits: 1
- PHYS 122 - Introductory Physics II - Lecture Credits: 3
  OR
- PHYS 206 - Intermediate Physics II Credits: 3

Mathematics

Students unable to start at the level of MATH 211 : Calculus I will take MATH 175: Precalculus or other prerequisite courses.

- MATH 117 - Applied Statistics Credits: 3
  OR
- MATH 217 - Statistics I Credits: 4

Note:

Students who have successfully completed more difficult physics and chemistry courses can substitute them for lower level required courses in those fields.

General Education

General Education Requirements

- General Education Program (45 crs.)
  - Due to some 4 credit directed gen eds, Biology majors must all take 47 credits of gen ed coursework.

General Education Requirements Specific for this major:

- Quantitative (Q): MATH 211
- Natural World (N): BIOL 161 grade of C or better required
- Natural World (N): PHYS 121
- Natural World (N): CHEM 121

Advising Notes:

1. Students should begin either their math sequence or chemistry coursework in their 1st year, in addition to taking BIOL161 and BIOL162.
2. Physics often fits in best during the junior year.
3. Students lacking strong chemistry/math backgrounds could consider taking CHEM105 before CHEM121.

Biology, Clinical Sciences Concentration, B.S.

The Clinical Sciences concentration enables students who are interested in Medical Technology, Histotechnology, Cytotechnology or Respiratory Therapy to include their clinical training as part of their B.S. in Biology degree requirements. Students in this concentration may enter a clinical program in medical technology (aka: medical laboratory science), histotechnology, cytotechnology, or respiratory therapy after their junior year of college and then transfer credits back to Shippensburg University following successful completion of their clinical education. An overall GPA of at least 2.5 is required to be eligible for this concentration and application to clinical sites is required one year in advance of the professional program starting date. Credits from the clinical year will be used to meet remaining elective requirements for Biology in addition to meeting "free electives" to complete the B.S. in Biology degree.

The clinical year may be taken at any of the hospital schools affiliated with Shippensburg University or any other hospital program accredited by the National Accrediting Agency for Clinical Laboratory Science. Although hospitals give preference to their affiliates, admission is on a competitive basis and Shippensburg University cannot guarantee admission to a hospital program for the clinical year.

The following is a list of current hospital affiliations for Shippensburg University (or non-affiliated but approved sites):

Medical Technology

- Altoona Hospital, Augusta Health (Fishersville, VA)
- Conemaugh Memorial Medical Center (Johnstown, PA)
- Pennsylvania College of Health Sciences
- Reading Medical Center
- Rockingham Memorial Hospital (Harrisonburg, VA)
- Saint Vincent Health Center (Erie, PA)
- Williamsport Hospital Histotechnology
- York Hospital

Histotechnology

- Conemaugh Memorial Medical Center (Johnstown, PA)

Cytotechnology

- Thomas Jefferson University (Philadelphia, PA)
- Magee Women's Hospital (Pittsburgh, PA; non-affiliate)

Respiratory Therapy

- Lancaster Regional Medical Center (via Millersville University)

Credit Requirements*

- **General Education:** 47 credits
- **Major Requirements**: 48 credits

- **Free Electives: 25** credits
- *Total Credits to Graduate:* **120 credits**

* All undergraduate degree programs require a minimum of 120 credits. Some courses meet multiple requirements, but are only counted once toward the 120 credit total required to graduate.

Biology Core Courses (20 crs.)

Students must earn at least a "C" or higher in BIOL 161 and BIOL 162 before upper-level biology electives may be taken.

- BIOL 162 - Principles of Biology: Organismal Diversity Credits: 4
- BIOL 220 - Microbiology Credits: 4
- BIOL 260 - Genetics Credits: 4
- BIOL 350 - Human Physiology Credits: 4
- BIOL 385 - Cell Biology Credits: 3
- BIOL 300 - Careers in the Health Professions Credits: 1

Additional Biology Electives

(Must take at least 7 additional Biology elective credits; see below). Specific electives to meet Clinical Sciences concentration requirements.

Please note only 3 credits of research or internship may count as biology electives. Credits in excess of that number count as free electives.

Medical Technology

Required:

- BIOL 409 - Immunology Credits: 3
- BIOL 324 - Pathogenic Microbiology Credits: 3
- BIOL 374 - Hematology Credits: 2

Also recommended:

- BIOL 317 - Parasitology Credits: 3
- BIOL 418 - Molecular Biology Credits: 3

Cytotechnology

Recommended:

- BIOL 371 - Human Anatomy Credits: 4
- BIOL 418 - Molecular Biology Credits: 3

Histotechnology

Required:

- BIOL 371 - Human Anatomy Credits: 4
- BIOL 375 - Histology Credits: 3

Respiratory Therapy

Required:

- BIOL 350 - Human Physiology Credits: 4
- Biology Elective at 100, 200, 300 or 400 level

Also recommended:

- BIOL 409 - Immunology Credits: 3
- ENGL 238 - Technical/Professional Writing Credits: 3

Allied Fields (21 crs.)

Chemistry

- CHEM 125 - Laboratory IB-Stoichiometry and Reactions Credits: 1
  OR
- CHEM 123 - Laboratory IA-Chemical Systems Credits: 1

- CHEM 122 - Chemical Dynamics Credits: 3
  and
- CHEM 126 - Laboratory IIB-Equilibrium and Instrumentation Credits: 1
  OR
- CHEM 124 - Laboratory IIA-Experimental Quantitative Analysis Credits: 3

- CHEM 221 - Modern Organic Chemistry I Credits: 3
  and
- CHEM 225 - Laboratory IIIB-Basic Organic Techniques Credits: 1
  OR
- CHEM 223 - Laboratory IIIA-Experimental Organic Techniques Credits: 1

- CHEM 227 - Introduction to Biochemistry Credits: 4
  OR (based on educational goals)
- CHEM 222 - Modern Organic Chemistry II Credits: 3
  AND
- CHEM 226 - Laboratory IVB-Experimental Organic Studies Credits: 1
  OR CHEM 224

Physics

- PHYS 123 - Physics Ia Laboratory Credits: 1

- PHYS 122 - Introductory Physics II - Lecture Credits: 3
  OR
- PHYS 206 - Intermediate Physics II Credits: 3
  and
- PHYS 125 - Physics IIa Laboratory Credits: 1

Mathematics

Students unable to start at the level of MATH 211 Calculus I will take MATH 175 - Precalculus Credits: 3 or other prerequisite courses.

- MATH 117 - Applied Statistics Credits: 3
  OR
- MATH 217 - Statistics I Credits: 4

Note:

Students who have successfully completed more difficult physics and chemistry courses can substitute them for lower level required courses in those fields.

General Education

General Education Requirements

- General Education Program (45 crs.)
  - Due to some 4 credit directed gen eds, Biology majors must all take 47 credits of gen ed coursework.

General Education Requirements specific for this major:

- Quantitative (Q): MATH 211
- Natural World (N): BIOL 161 grade of C or better required
- Natural World (N): PHYS 121 or PHYS 205
- Natural World (N): CHEM 121

Advising Notes:

1. Students should begin either their math sequence or chemistry coursework in their 1st year, in addition to takingBIOL161 and BIOL162.
2. Physics often fits in best during the junior year.
3. Students lacking strong chemistry/math backgrounds could consider taking CHEM105 before CHEM121.

Biology, Ecology, Environment and Conservation Concentration, B.S.

Students interested in ecological and environmental fields may choose the ecology, environment, and conservation concentration within the biology program. Students enrolled in this program will fulfill the following requirements:

Credit Requirements*

- **General Education:** 47 credits
- **Major Requirements**: 57-59 credits
- **Free Electives:** 14-16 credits
- *Total Credits to Graduate:* **120 credits**

* All undergraduate degree programs require a minimum of 120 credits. Some courses meet multiple requirements, but are only counted once toward the 120 credit total required to graduate.

Biology Core Courses (15 crs.)

Students must earn at least a "C" or higher in BIOL 161 and BIOL 162 before upper-level biology electives may be taken.

- BIOL 162 - Principles of Biology: Organismal Diversity Credits: 4
- BIOL 230 - Botany Credits: 3
- BIOL 242 - Ecology Credits: 3
- BIOL 260 - Genetics Credits: 4
- BIOL 499 - Capstone Seminar in Biology Credits: 1

Upper Division Electives (19-20 crs.)

Cellular Elective (3-4 crs.)

BIOL 385 is recommended for students planning to attend graduate school.

- BIOL 220 - Microbiology Credits: 4
  OR
- BIOL 385 - Cell Biology Credits: 3

Physiology Elective (4 crs.)

BIOL 351 is recommended.

- BIOL 350 - Human Physiology Credits: 4
  OR
- BIOL 351 - Animal Physiology Credits: 4

Conservation and Management Elective (3 crs.)

- BIOL 444 - Conservation Biology Credits: 3
  OR
- BIOL 483 - Wildlife and Fisheries Management Credits: 3

Ecology Electives (9 crs.)

Choose any 3 of the following:

- BIOL 363 - Vertebrate Zoology Credits: 3
- BIOL 406 - Mammalogy Credits: 3
- BIOL 412 - Ichthyology Credits: 3
- BIOL 417 - Herpetology Credits: 3
- BIOL 419 - Ornithology Credits: 3
- BIOL 425 - Biota of Florida Credits: 3
- BIOL 428 - Entomology Credits: 3
- BIOL 430 - Principles of Evolution Credits: 3
- BIOL 442 - Aquatic Ecology Credits: 3
- BIOL 448 - Field Botany and Plant Taxonomy Credits: 3
- BIOL 464 - Freshwater Invertebrate Zoology Credits: 3
- BIOL 444 - Conservation Biology Credits: 3 OR BIOL 483 Wildlife and Fisheries Management - *See Conservation and Management elective above*
- BIOL 475 - Natural History of Costa Rica Credits: 3

Additional Biology Electives (6 crs.)

Electives should be selected with advisement. Biology credits should total at least 40.

Please note only 3 credits of research or internship may count as biology electives. Credits in excess of that number count as free electives.

One of the following Geography/Earth Science courses may be substituted for a Biology elective course:

- ESSC 110 - Introduction to Geology Credits: 3
- ESSC 220 - Oceanography Credits: 3
- ESSC 226 - Hydrology Credits: 3
- ESSC 424 - Soils Credits: 3
- GEOG 202 - GIS I: Introduction to Geographic Information Systems Credits: 3
- GEOG 244 - Community and Land Use Planning Credits: 3
- GEOG 405 - Environmental Conservation and Management in PA Credits: 3
- GEOG 421 - Environmental Law Credits: 3
- GEOG 444 - Environmental Land-Use Planning Credits: 3

Allied Fields (17-18 crs.)

Mathematics

Students unable to start at the level of MATH 211 - Calculus I Credits: 4 will take MATH 175 - Precalculus Credits: 3 or other prerequisite courses.

- MATH 117 - Applied Statistics Credits: 3
  OR
- MATH 217 - Statistics I Credits: 4

Physics

PHYS 122 and PHYS 125 may be required for some graduate and professional programs.

- PHYS 123 - Physics Ia Laboratory Credits: 1

Chemistry

- CHEM 125 - Laboratory IB-Stoichiometry and Reactions Credits: 1
- CHEM 122 - Chemical Dynamics Credits: 3
- CHEM 126 - Laboratory IIB-Equilibrium and Instrumentation Credits: 1
- CHEM 221 - Modern Organic Chemistry I Credits: 3
- CHEM 225 - Laboratory IIIB-Basic Organic Techniques Credits: 1
- CHEM 227 - Introduction to Biochemistry Credits: 4
  OR
- CHEM 222 - Modern Organic Chemistry II Credits: 3
  and
- CHEM 226 - Laboratory IVB-Experimental Organic Studies Credits: 1

Note:

Students who have successfully completed more difficult physics and chemistry courses can substitute them for lower level required courses in those fields.

General Education

General Education Requirements

- General Education Program (45 crs.)
  - Due to some 4 credit directed gen eds, Biology majors must all take 47 credits of gen ed coursework.

General Education Requirements Specific for this major:

- Quantitative (Q): MATH 211
- Natural World (N): BIOL 161 grade of C or better required
- Natural World (N):PHYS 121
- Natural World (N): CHEM 121

Advising Notes:

1. Students should begin either their math sequence or chemistry coursework in their 1st year, in addition to taking BIOL161 and BIOL162.
2. Physics often fits in best during the junior year.
3. Students lacking strong chemistry/math backgrounds could consider taking CHEM105 before CHEM121.

Biology, Health Professions Concentration, B.S.

Students in biology may pursue studies in a number of health sciences including pre-medicine, pre-dentistry, pre-optometry, pre-podiatry, pre-veterinary medicine, pre-pharmacy, pre-chiropractic, and pre-physical therapy. The Health

Professions Committee, consisting of members of the Biology and Chemistry departments, provides students with advisement on such matters as course selection, professional school admission test information, and professional school interviews. Health professions-oriented students are encouraged to join the Health Sciences Club. This organization hosts professional program representatives and health care practitioners who discuss admissions procedures and criteria and career opportunities.

Shippensburg University Health Professions Committee Policy regarding support of pre-professional health science applicants is as follows:

The Health Professions Committee, comprised of faculty members from the biology and chemistry departments, provides students who are applying to medical, dental, optometry, podiatric, and veterinary medical programs practice interviews and committee letters of recommendation to support their applications. These particular disciplines are identified because admissions committees for these programs prefer committee letters of reference in lieu of individual reference letters. Students applying to other health professional programs will obtain individual letters of reference as required for their professional school applications.

The policy of the Shippensburg University Health Professions Committee requires a minimum 3.2 cumulative QPA (medical, dental, veterinary applicants) or 3.0 cumulative QPA (optometry, podiatric applicants) in order for a student to be granted a practice interview and committee letter. For transfer students, at least two semesters must be completed at Shippensburg University before a committee interview and letter will be provided. This minimum QPA requirement is based on the past history of success for former students and the recommendations set forth by professional programs. However, this requirement does not imply these minimum QPAs will be competitive for successful application.

Students should seek counsel from their pre-health advisor regarding the suitability of their qualifications for their desired program of study prior to requesting a committee interview and letter. Committee interviews are typically conducted in mid-April and requests for interviews should be made to the primary health science advisor prior to April 1 of the application year.

Affiliations

Shippensburg University has several agreements with health professional schools that enable qualified and motivated students to enter a professional program before they complete their requirements for the baccalaureate degree. If students complete at least 90 credits of specific course work (with advisement), Shippensburg University will accept credits transferred from the affiliated program after students complete their first professional year. Students are then awarded a B.S. in biology. Though admission is not guaranteed, the programs do give Shippensburg University students preferred consideration for admission. Accelerated articulation agreements exist with:

- Salus University - College of Optometry
- Temple University School of Podiatric Medicine
- Northeast College of Health Sciences Chiropractic Program
- Logan Chiropractic College

Students in the health professions concentration must maintain at least a 2.8 QPA in their major and overall program through graduation. Students who are withdrawn from the health professions track because their QPA has fallen below the 2.8 minimum may reapply when they reattain the minimum QPA.

Credit Requirements*

- **General Education:** 47 credits
- **Major Requirements**: 56-61 credits
- **Free Electives:** 12-17 credits
- *Total Credits to Graduate:* **120 credits**

* All undergraduate degree programs require a minimum of 120 credits. Some courses meet multiple requirements, but are only counted once toward the 120 credit total required to graduate.

Biology Core Courses (13 crs.)

Students must earn a "C" or better in BIOL 161 and BIOL 162 before upper-level biology electives may be taken.

- BIOL 162 - Principles of Biology: Organismal Diversity Credits: 4
- BIOL 220 - Microbiology Credits: 4
- BIOL 260 - Genetics Credits: 4
- BIOL 499 - Capstone Seminar in Biology Credits: 1

Upper Division Electives (13-14 crs.)

Physiology Elective:

- BIOL 351 - Animal Physiology Credits: 4
  OR
- BIOL 350 - Human Physiology Credits: 4 (required for pre-physical therapy students.)

Anatomy Elective:

- BIOL 370 - Comparative Vertebrate Anatomy Credits: 4
  OR
- BIOL 371 - Human Anatomy Credits: 4 (required for pre-physical therapy students.)
  OR
- BIOL 375 - Histology Credits: 3

Molecular/Cellular Elective:

- BIOL 385 - Cell Biology Credits: 3
  OR
- BIOL 418 - Molecular Biology Credits: 3

Breadth Elective: Choose One

- BIOL 208 - Field Biology Credits: 3
- BIOL 210 - Field Zoology Credits: 3
- BIOL 230 - Botany Credits: 3
- BIOL 242 - Ecology Credits: 3
- BIOL 330 - Animal Behavior Credits: 3
- BIOL 362 - Invertebrate Zoology Credits: 3
- BIOL 363 - Vertebrate Zoology Credits: 3
- BIOL 406 - Mammalogy Credits: 3
- BIOL 412 - Ichthyology Credits: 3
- BIOL 417 - Herpetology Credits: 3

- BIOL 419 - Ornithology Credits: 3
- BIOL 425 - Biota of Florida Credits: 3
- BIOL 430 - Principles of Evolution Credits: 3
- BIOL 475 - Natural History of Costa Rica Credits: 3

Additional Biology Electives (9 crs.)

Electives should be selected with advisement. Certain professional schools may have specific requirements.

BIOL 300 - Careers in the Health Professions Credits: 1 (strongly recommended)

Please note only 3 credits of research or internship may count as biology electives. Credits in excess of that number count as free electives.

Allied Fields (21-25 crs.)

Mathematics

- MATH 117 - Applied Statistics Credits: 3
  OR
- MATH 217 - Statistics I Credits: 4

Physics

- PHYS 123 - Physics Ia Laboratory Credits: 1

- PHYS 122 - Introductory Physics II - Lecture Credits: 3
  OR
- PHYS 206 - Intermediate Physics II Credits: 3
  and
- PHYS 125 - Physics IIa Laboratory Credits: 1

Chemistry

- CHEM 125 - Laboratory IB-Stoichiometry and Reactions Credits: 1
  OR
- CHEM 123 - Laboratory IA-Chemical Systems Credits: 1

- CHEM 122 - Chemical Dynamics Credits: 3
  and
- CHEM 126 - Laboratory IIB-Equilibrium and Instrumentation Credits: 1
  OR
- CHEM 124 - Laboratory IIA-Experimental Quantitative Analysis Credits: 3

- CHEM 221 - Modern Organic Chemistry I Credits: 3
  and
- CHEM 225 - Laboratory IIIB-Basic Organic Techniques Credits: 1
  OR

- CHEM 223 - Laboratory IIIA-Experimental Organic Techniques Credits: 1

- CHEM 227 - Introduction to Biochemistry Credits: 4
  OR (based on educational goals)
- CHEM 222 - Modern Organic Chemistry II Credits: 3 (required for pre-med, pre-dental, pre-vet, and pre-pharmacy students. Check professional program chemistry prerequisites for other health disciplines.)
  AND
- CHEM 226 - Laboratory IVB-Experimental Organic Studies Credits: 1 OR CHEM 224 (required for pre-med, pre-dental, pre-vet, and pre-pharmacy students. Check professional program chemistry prerequisites for other health disciplines.)
  AND
- CHEM 301 - Biochemistry I Credits: 3 (required for pre-med, pre-dental, pre-vet, and pre-pharmacy students. Check professional program chemistry prerequisites for other health disciplines.)

Note:

Students who have successfully completed more difficult physics and chemistry courses can substitute them for lower level required courses in those fields.

General Education

General Education Requirements

- General Education Program (45 crs.)
  - Due to some 4 credit directed gen eds, Biology majors must all take 47 credits of gen ed coursework.

General Education Requirements Specific for this major:

- Quantitative (Q): MATH 211
- Natural World (N): BIOL 161 grade of C or better required
- Natural World (N): PHYS 121 or PHYS 205
- Natural World (N): CHEM 121

Advising Notes:

1. Students should begin either their math sequence or chemistry coursework in their 1st year, in addition to taking BIOL161 and BIOL162.
2. Physics often fits in best during the junior year.
3. Students lacking strong chemistry/math backgrounds could consider taking CHEM105 before CHEM121.

Biology with Secondary Certification, B.S.

Students enrolled in a program of studies leading to the Bachelor of Science degree with secondary certification will fulfill the following requirements:

Credit Requirements*

- **General Education:** 47 credits

- **Major Requirements**: 80-83 credits
- **Free Electives:** 0 credits
- *Total Credits to Graduate:* **127-130 credits**

* All undergraduate degree programs require a minimum of 120 credits. Some courses meet multiple requirements, but are only counted once toward the 120 credit total required to graduate.

Biology Core Courses (21 crs.)

Students must earn a "C" or higher in BIOL 161 and BIOL 162 before upper-level biology electives may be taken.

- BIOL 162 - Principles of Biology: Organismal Diversity Credits: 4
- BIOL 208 - Field Biology Credits: 3
- BIOL 242 - Ecology Credits: 3
- BIOL 260 - Genetics Credits: 4
- BIOL 385 - Cell Biology Credits: 3
- BIOL 430 - Principles of Evolution Credits: 3
- BIOL 499 - Capstone Seminar in Biology Credits: 1

Physiology Elective (4 crs.)

- BIOL 350 - Human Physiology Credits: 4
  OR
- BIOL 351 - Animal Physiology Credits: 4

Additional Biology Electives (9 crs.)

Electives should be selected with advisement. Biology credits should total at least 38.

Please note only 3 credits of research or internship may count as biology electives. Credits in excess of that number count as free electives. (BIOL 100, 145 150 161 237 238 may not be taken as electives).

Allied Fields (13-16 crs.)

Chemistry

- CHEM 125 - Laboratory IB-Stoichiometry and Reactions Credits: 1
  OR
- CHEM 123 - Laboratory IA-Chemical Systems Credits: 1

- CHEM 122 - Chemical Dynamics Credits: 3
  and
- CHEM 126 - Laboratory IIB-Equilibrium and Instrumentation Credits: 1
  OR
- CHEM 124 - Laboratory IIA-Experimental Quantitative Analysis Credits: 3

- CHEM 221 - Modern Organic Chemistry I Credits: 3
  and
- CHEM 225 - Laboratory IIIB-Basic Organic Techniques Credits: 1

OR

- CHEM 223 - Laboratory IIIA-Experimental Organic Techniques Credits: 1

Mathematics

- MATH 117 - Applied Statistics Credits: 3
  OR
- MATH 217 - Statistics I Credits: 4

Physics

- PHYS 123 - Physics Ia Laboratory Credits: 1

Note:

Students who have successfully completed more difficult physics and chemistry courses can substitute them for lower level required courses in those fields.

(Not required but strongly recommended)

- PHYS 122 - Introductory Physics II - Lecture Credits: 3
- PHYS 125 - Physics IIa Laboratory Credits: 1
- CHEM 227 - Introduction to Biochemistry Credits: 4

Professional Education Requirements (33 crs.)

- TEED 207 - Organizational and Psychological Foundations in Secondary Education Credits: 3
- EDFN 440 - Teaching of Science in Secondary Schools Credits: 3
- EDFN 441 - Curriculum and Evaluation in the Secondary Science Classroom Credits: 3
- SPEE 273 - Introduction to Exceptionalities: Understanding Diverse Learners Credits: 3
- SPEE 423 - Effective Instructional Strategies for Students with Exceptionalities Credits: 3
- SPEE 483 - Assessing Children with Exceptionalities for Curricular Decision-Making Credits: 3
- READ 413 - Teaching Reading to English Language Learners Credits: 3
- EDFN 495 - Student Teaching Credits: 6-15
  (Biology Secondary Certification Students will take 12 crs. of EDFN 495*)*

General Education

General Education Requirements

- General Education Program (45 crs.)

General Education Requirements Specific for this Major:

- Quantitative (Q): MATH 211
- Natural World (N): BIOL 161 grade of C or better required

- Natural World (N):PHYS 121 or PHYS 205
- Natural World (N): CHEM 121

Advising Notes:

1. Students should begin their math sequence in their 1st year.
2. Semester I: BIOL 161, CHEM 121, CHEM 125
3. Semester II: BIOL 162, CHEM 122, CHEM 126
4. Physics is normally taken in the junior year.
5. Students lacking strong chemistry/math backgrounds should consider taking CHEM 105 before CHEM 121.

Biology, Health Sciences, B.S.

Credit Requirements*

- **General Education:** 47 credits
- **Major Requirements**: 54-56 credits
- **Free Electives:** 17-19 credits
- *Total Credits to Graduate:* **120 credits**

* All undergraduate degree programs require a minimum of 120 credits. Some courses meet multiple requirements, but are only counted once toward the 120 credit total required to graduate.

Health Science Requirements (22-23 cr.)

Biology Requirements (14 cr.)

- BIOL 220 - Microbiology Credits: 4
- BIOL 238 - Human Anatomy & Physiology II Credits: 4
- BIOL 260 - Genetics Credits: 4
- BIOL 300 - Careers in the Health Professions Credits: 1
- BIOL 499 - Capstone Seminar in Biology Credits: 1
  (BIOL 499 is optional for students admitted into 3+ program)

Chemistry Requirements (5 crs.)

- CHEM 125 - Laboratory IB-Stoichiometry and Reactions Credits: 1 (Must be taken concurrently with CHEM 121, see Natural World requirement)
- CHEM 122 - Chemical Dynamics Credits: 3
  with
- CHEM 126 - Laboratory IIB-Equilibrium and Instrumentation Credits: 1

Math Requirement (3-4 crs.)

- MATH 175 - Precalculus Credits: 3
  OR
- MATH 211 - Calculus I Credits: 4

Health Science-Related Selectives (32-33 crs.)

Choose with advisement.

Professional program dependent. Review proposed professional program requirements when making your selections.

Biology Selectives (12-15 crs.)

Pick four or five

- BIOL 162 - Principles of Biology: Organismal Diversity Credits: 4
- BIOL 317 - Parasitology Credits: 3
- BIOL 324 - Pathogenic Microbiology Credits: 3
- BIOL 373 - Developmental Biology Credits: 3
- BIOL 374 - Hematology Credits: 2
- BIOL 375 - Histology Credits: 3
- BIOL 385 - Cell Biology Credits: 3
- BIOL 408 - Principles of Virology Credits: 3
- BIOL 409 - Immunology Credits: 3
- BIOL 418 - Molecular Biology Credits: 3
- BIOL 450 - Endocrinology Credits: 3
- BIOL 461 - Techniques in Biotechnology Credits: 3
- BIOL 391 - Biology Internship I Credits: 1-3
  OR
- BIOL 397 - Introduction to Research Credits: 3

Additional Health Science Selectives (18-21 crs.)

Choose with advisement. Not all course are offered on a regular basis. Consider any professional program requirement or recommendations.

Chemistry

- CHEM 221 - Modern Organic Chemistry I Credits: 3
  with
- CHEM 225 - Laboratory IIIB-Basic Organic Techniques Credits: 1
  AND
- CHEM 222 - Modern Organic Chemistry II Credits: 3
  with
- CHEM 226 - Laboratory IVB-Experimental Organic Studies Credits: 1
  OR
- CHEM 227 - Introduction to Biochemistry Credits: 4

Physics

- PHYS 121 - Introductory Physics I - Lecture Credits: 3
  with

- PHYS 123 - Physics Ia Laboratory Credits: 1

- PHYS 122 - Introductory Physics II - Lecture Credits: 3
  with
- PHYS 125 - Physics IIa Laboratory Credits: 1

Psychology

- PSYC 101 - General Psychology Credits: 3
- PSYC 250 - Psychology of Life Span Development Credits: 3
- PSYC 265 - Childhood and Adolescence Credits: 3
- PSYC 330 - Adult Psychopathology Credits: 3
- PSYC 352 - Adulthood and Aging Credits: 3

English

- ENGL 238 - Technical/Professional Writing Credits: 3

Exercise Science

- EXER 260 - Principles of Nutrition Credits: 3
- EXER 278 - Medical Terminology Credits: 3

Disability Studies / Gerontology / Philosophy / Sociology / Languages

- COST 342 - Health Communication Credits: 3
- DISA 100 - Introduction to Disability Studies Credits: 3
- FREN 320 - French for the Professions Credits: 3
- GERT 100 - Introduction to Gerontology Credits: 3
- PHIL 105 - Ethical Theories and Problems Credits: 3
- SOCI 369 - Medical Sociology Credits: 3
- SOCI 371 - Sociology of Aging Credits: 3
- SPAN 330 - Spanish for the Professions Credits: 3

Management Information Systems

- ITAN 142 - Business Computer Systems Credits: 3

Clinical Year

OR

Clinical Year option (3+1): If a student in this major receives early acceptance into an approved health professional program, up to 30 credits may be tranferred back from the clinical program to substitute for 30 credits of Health Science-Related Selectives/ Free electives. Prerequisites for professional programs must be met. Any student earning a Shippensburg University degree must complete at least 90 credits prior to entering professional program.

General Education

General Education Requirements

General Education Program (45 crs.)

- Due to some 4 credit directed gen eds, Health Science majors must take 47 credits of gen ed coursework.

General Education Requirements Specific for this major:

- Quantitative (Q): MATH 117
- Natural World (N) BIOL 161
- Natural World (N): BIOL 237
- Natural World (N): CHEM 121
- Diversity (D) SOCI 101

Free Electives (17-19 crs.)

17-19 credits depending on which math and health science selectives courses are chosen.

Consider classes that might be required for health professional programs when selecting your Free Electives.

A minimum of 120 credits is required for graduation.

Advising Notes:

1. Students should take BIOL161 and begin their math sequence in their 1st year.
2. For students with a math level 5 or higher, chemistry courses could be taken in their first year.
3. Students lacking strong chemistry/math backgrounds could consider taking CHEM 105 before CHEM 121.
4. Physics is normally taken in the junior year.

Biology Minor

18 crs.

Required (8 crs.)

Students must earn a "C" or higher in BIOL 161 and BIOL 162 before upper-level biology electives may be taken.

- BIOL 161 - Principles of Biology: Cell Structure and Function Credits: 4
- BIOL 162 - Principles of Biology: Organismal Diversity Credits: 4

Electives (10 crs.)

Electives are to be selected from courses intended for biology majors. At least two 3 credit-hour courses must be at the 300-level or above. BIOL 237 or BIOL 238 (but not both), seminar, internship, and research cannot be used to meet requirements for the minor.

General Science Certification

Students completing the requirements leading to certification as a secondary school teacher may elect to satisfy the requirements for additional certification in General Science by completing the following requirements:

Biology (9 crs.)

- BIOL 161 - Principles of Biology: Cell Structure and Function Credits: 4
- BIOL 162 - Principles of Biology: Organismal Diversity Credits: 4
- BIOL 145 - Environmental Biology Credits: 3
- BIOL 208 - Field Biology Credits: 3
- BIOL 210 - Field Zoology Credits: 3
- BIOL 242 - Ecology Credits: 3
- BIOL 448 - Field Botany and Plant Taxonomy Credits: 3

Chemistry (8 crs.)

- CHEM 121 - Chemical Bonding Credits: 3
- CHEM 122 - Chemical Dynamics Credits: 3
- CHEM 125 - Laboratory IB-Stoichiometry and Reactions Credits: 1
- CHEM 126 - Laboratory IIB-Equilibrium and Instrumentation Credits: 1

Physics (9 crs.)

- PHYS 108 - Astronomy Credits: 3
- PHYS 121 - Introductory Physics I - Lecture Credits: 3
- PHYS 122 - Introductory Physics II - Lecture Credits: 3

Mathematics (8 crs.)

- MATH 117 - Applied Statistics Credits: 3 or
- MATH 211 - Calculus I Credits: 4
- MATH 212 - Calculus II Credits: 4

Computer Science (3 crs.)

- CMSC 103 - Overview of Computer Science Credits: 3
- EDFN 420 - Microcomputers in the Classroom Credits: 3

Earth-Space Science (3 crs.)

- ESSC 111 - Introduction to Weather and Climate Credits: 3
- ESSC 212 - Historical Geology Credits: 3
- ESSC 220 - Oceanography Credits: 3
- ESSC 355 - Meteorology Credits: 3

Biology, B.S with accelerated 4+1 M.S. in Biology

Well-qualified biology students have the opportunity to complete a Master's in Biology in two additional semesters and one summer of enrollment beyond their B.S. program. Interested students apply to the program during their junior or first-semester senior year, after accumulating 75 credits, and admission to the program would require an Shippensburg University grade point average of 3.0 overall. Students seeking to enroll in the program must be admitted to the graduate program and maintain a 3.0 grade point average at the time they begin their final undergraduate semester.

Chemistry and Biochemistry Department

The Department of Chemistry offers undergraduate programs leading to the Bachelor of Science degree with programs in chemistry and the following concentrations: chemistry-biochemistry, chemistry-pre-pharmacy, chemistry-forensics, chemistry-medical sciences and certification as a secondary school teacher. The major in chemistry is designed to provide students with a thorough grounding in the fundamental areas of the discipline. Within the core curriculum, students will receive a solid foundation in the basic areas of inorganic, organic, biochemical, physical, and analytical/instrumental chemistry. In addition to this core curriculum, individuals can choose from a selection of elective courses intended to develop a deeper understanding of specific areas. The course of study weds the theoretical and experimental aspects of chemistry through a series of laboratory courses designed to augment classroom work. Chemistry Education 7-12 students seeking Pennsylvania certification should see requirements outlined in the College of Education and Human Services.

Chemistry Features

The chemistry program is certified by the American Chemical Society (ACS). The chemistry major allows for a B.S. as well as concentrations in biochemistry, pre-pharmacy, forensics and medical sciences. Students desiring admissions to medical, dental, veterinary or other professional schools post graduation are encouraged to consider the medical sciences or biochemistry concentrations. Opportunities exist for undergraduate research projects under the direction of individual professors. A research experience during the senior year is strongly encouraged and supported. Students desiring certification by the American Chemical Society must complete the required core curriculum and in addition complete the ACS certification minor. All chemistry majors take a comprehensive exam after completion of their junior year.

Chemistry Career Opportunities

The degree in chemistry affords a variety of career opportunities. It allows students to enter the fields of industry, government, teaching, or advanced study in professional or graduate schools. Industrial or business employment generally involves laboratory testing and research with energy, petrochemical, pharmaceutical, environmental analysis, or agricultural chemical companies. Government agencies such as the Environmental Protection Agency, Department of Agriculture, National Institutes of Health, or law enforcement agencies require chemists for entry level positions. Additionally, there is a strong demand for science teachers in the secondary schools. Chemistry graduates have access to postgraduate programs at major universities. Professional and graduate degrees lead to careers in medicine, dentistry, other health related professions, or to careers in clinical or academic research.

ACS Certification

Shippensburg University offers a program of study in chemistry approved by the American Chemical Society (ACS). This program is designed for students who plan technical careers in industry or government or graduate work in chemistry. All concentrations within the Chemistry B.S. except Medical Sciences are eligible for ACS certification if all requirements described in this section are met. Any student desiring departmental recommendation for graduate

work and certification by the ACS should satisfactorily complete the ACS Certification minor. Additional requirements are mathematics through MATH 212, a computer skills course meeting the requirements as specified by the department (CMSC 103 does not satisfy this requirement), and eight hours of calculus-based physics. All chemistry majors will take a comprehensive examination in the beginning of the fall semester of their senior year at a time and place designated by the department. A satisfactory performance in all areas of this examination is a requirement for departmental recommendation and ACS certification.

Chemistry, B.S.

Shippensburg University offers a program of study in chemistry approved by the American Chemical Society (ACS). This program is designed for students who seek technical careers in industry or government or graduate work in chemistry. Students desiring admissions to medical, dental, veterinary or other professional schools post graduation are encouraged to consider the medical sciences or biochemistry concentrations.

Credit Requirements*

- **General Education:** 47 credits
- **Major Requirements**:58 credits
- **Free Electives:** 15 credits
- *Total Credits to Graduate:* **120 credits**

* All undergraduate degree programs require a minimum of 120 credits. Some courses meet multiple requirements, but are only counted once toward the 120 credit total required to graduate.

Chemistry Core Curriculum

The following courses are part of the department core curriculum. These courses are required for all chemistry majors and concentrations. All chemistry majors will take a comprehensive examination in the beginning of the fall semester of their senior year at a time and place designated by the department. A satisfactory performance in all areas of this examination is a requirement for departmental recommendation and ACS certification.

Required (36 crs.)

- CHEM 110 - The Chemistry Experience Credits: 1
- CHEM 123 - Laboratory IA-Chemical Systems Credits: 1
- CHEM 122 - Chemical Dynamics Credits: 3
- CHEM 124 - Laboratory IIA-Experimental Quantitative Analysis Credits: 3
- CHEM 221 - Modern Organic Chemistry I Credits: 3
- CHEM 223 - Laboratory IIIA-Experimental Organic Techniques Credits: 1
- CHEM 222 - Modern Organic Chemistry II Credits: 3
- CHEM 224 - Laboratory IVA-Qualitative Organic Analysis Credits: 3
- CHEM 301 - Biochemistry I Credits: 3
- CHEM 363 - Physical Chemistry I Credits: 4
- CHEM 364 - Physical Chemistry II Credits: 4
- CHEM 371 - Analytical Chemistry Credits: 4
- CHEM 381 - Inorganic Chemistry Credits: 3

Allied Fields (9 crs.)

Arts and Sciences students majoring in chemistry must take the following courses in allied fields.

- MATH 212 - Calculus II Credits: 4
- PHYS 124 - Physics Ib Laboratory Credits: 1
- PHYS 206 - Intermediate Physics II Credits: 3
- PHYS 126 - Physics IIb Laboratory Credits: 1

Additional Chemistry Courses (9 crs.)

- CHEM 313 - Chemistry Seminar Credits: 1
- CHEM 324 - Advanced Organic Chemistry Laboratory Credits: 1
- CHEM 382 - Inorganic Chemistry Laboratory Credits: 1

- CHEM 420 - Biochemistry II Credits: 3 or
- CHEM 490 - Selected Topics in Chemistry Credits: 1-3

Allied Fields (4 crs.)

Arts and sciences students majoring in chemistry must take the following courses in allied fields.

- CMSC 110 - Computer Science I Credits: 4

General Education

General Education Requirements

- General Education Program (45 crs.)

General Education Requirments Specific for this Major:

- Quantitative (Q): MATH 211
- Natural World (N): CHEM 121
- Natural World (N): BIOL 161
- Natural World (N): PHYS 205

Advising Notes:

1. Students should begin their math sequence in their 1st year.
2. Semester I: CHEM 121, CHEM 123, MATH 211
3. Semester II: CHEM 122, CHEM 124, MATH 212, BIOL 161
4. Semester III: PHYS 205, PHYS 123, CHEM 221, CHEM 223
5. Semester IV: PHYS 206, PHYS 125, CHEM 222, CHEM 224
6. Chemistry minor is available - 23-27 cr
7. Biochemistry minor is available - 24-28 cr

Chemistry, Biochemistry Concentration, B.S.

Biochemistry is the study of chemistry focused on living organisms. The biochemistry concentration is designed to prepare students for careers or graduate study in biochemistry and meets the recommended guidelines of both the American Society for Biochemistry and Molecular Biology and the American Chemical Society. The biochemistry curriculum also prepares students for application to medical, dental, and veterinary school. Students interested in completing the chemistry-biochemistry concentration must complete all courses in the chemistry core curriculum and those listed below. Students desiring additional preparation and certification by the American Chemical Society should also complete the requirements listed under ACS Certification.

Credit Requirements*

- **General Education:** 47 credits
- **Major Requirements**: 65-66 credits
- **Free Electives:** 7-8 credits
- *Total Credits to Graduate:* **120 credits**

* All undergraduate degree programs require a minimum of 120 credits. Some courses meet multiple requirements, but are only counted once toward the 120 credit total required to graduate.

Chemistry Core Curriculum

The following courses are part of the department core curriculum. These courses are required for all chemistry majors and concentrations. All chemistry majors will take a comprehensive examination in the beginning of the fall semester of their senior year at a time and place designated by the department. A satisfactory performance in all areas of this examination is a requirement for departmental recommendation and ACS certification.

Required (36 crs.)

- CHEM 110 - The Chemistry Experience Credits: 1
- CHEM 123 - Laboratory IA-Chemical Systems Credits: 1
- CHEM 122 - Chemical Dynamics Credits: 3
- CHEM 124 - Laboratory IIA-Experimental Quantitative Analysis Credits: 3
- CHEM 221 - Modern Organic Chemistry I Credits: 3
- CHEM 223 - Laboratory IIIA-Experimental Organic Techniques Credits: 1
- CHEM 222 - Modern Organic Chemistry II Credits: 3
- CHEM 224 - Laboratory IVA-Qualitative Organic Analysis Credits: 3
- CHEM 301 - Biochemistry I Credits: 3
- CHEM 363 - Physical Chemistry I Credits: 4
- CHEM 364 - Physical Chemistry II Credits: 4
- CHEM 371 - Analytical Chemistry Credits: 4
- CHEM 381 - Inorganic Chemistry Credits: 3

Allied Fields (9 crs.)

Arts and Sciences students majoring in chemistry must take the following courses in allied fields.

- MATH 212 - Calculus II Credits: 4
- PHYS 124 - Physics Ib Laboratory Credits: 1
- PHYS 206 - Intermediate Physics II Credits: 3
- PHYS 126 - Physics IIb Laboratory Credits: 1

Biochemistry Concentration

Chemistry Courses Required for Concentration (7 crs.)

Biochemistry concentration students who choose to earn an American Chemical Society certified B.S. must complete 2 credits of research (CHEM 497 Introduction to Research) and take CHEM 313

- CHEM 324 - Advanced Organic Chemistry Laboratory Credits: 1
- CHEM 420 - Biochemistry II Credits: 3
- CHEM 421 - Biochemistry Laboratory Credits: 1
- CHEM 497 - Introduction to Research II Credits: 1-3
- CHEM 313 - Chemistry Seminar Credits: 1

Allied Fields Required (13-14 crs.)

- BIOL 260 - Genetics Credits: 4
- BIOL 385 - Cell Biology Credits: 3
- BIOL 461 - Techniques in Biotechnology Credits: 3

Choose 1 of the following:

- BIOL 220 - Microbiology Credits: 4
- BIOL 408 - Principles of Virology Credits: 3
- BIOL 409 - Immunology Credits: 3

General Education

General Education Requirements

- General Education Program (45 crs.)

General Education Requirements Specific for this Major:

- Quantitative (Q): MATH 211
- Natural World (N):CHEM 121
- Natural World (N): BIOL 161
- Natural World (N):PHYS 205

Advising Notes:

1. Students should begin their math sequence in their 1st year.
2. Semester I: CHEM 121, CHEM 123, MATH 211
3. Semester II: CHEM 122, CHEM 124, MATH 212, BIOL 161
4. Semester III: PHYS 205, PHYS 123, CHEM 221, CHEM 223, BIOL 260
5. Semester IV: PHYS 206, PHYS 125, CHEM 222, CHEM 224

Chemistry, Forensics Concentration, B.S.

The forensics concentration has a curriculum that includes the Chemistry B.S. with additional courses in biology and criminal justice to prepare a student for application to a masters program in forensic science. Ultimately, these students will be candidates for employment in the forensic chemistry field. Students interested in completing the chemistry-forensics concentration must complete all courses in the chemistry core curriculum and those listed below. Students desiring additional preparation and certification by the American Chemical Society should also complete the requirements listed under ACS Certification.

Students enrolled in the forensic concentration may apply for an internship at the Cumberland County District Attorney's Office Forensic Laboratory in Carlisle, PA. To be eligible for the internship students must have completed Organic Chemistry II, have a minimum QPA of 3.0, complete a background check and polygraph test at an interview. Students who would like to graduate with ACS certification must take an additional 2 credits in research and CHEM 313 - Chemistry Seminar.

Credit Requirements*

- **General Education:** 47 credits
- **Major Requirements**: 65 credits
- **Free Electives:** 8 credits
- *Total Credits to Graduate:* **120 credits**

* All undergraduate degree programs require a minimum of 120 credits. Some courses meet multiple requirements, but are only counted once toward the 120 credit total required to graduate.

Chemistry Core Curriculum

The following courses are part of the department core curriculum. These courses are required for all chemistry majors and concentrations. All chemistry majors will take a comprehensive examination in the beginning of the fall semester of their senior year at a time and place designated by the department. A satisfactory performance in all areas of this examination is a requirement for departmental recommendation and ACS certification.

Required (36 crs.)

- CHEM 110 - The Chemistry Experience Credits: 1
- CHEM 123 - Laboratory IA-Chemical Systems Credits: 1
- CHEM 122 - Chemical Dynamics Credits: 3
- CHEM 124 - Laboratory IIA-Experimental Quantitative Analysis Credits: 3
- CHEM 221 - Modern Organic Chemistry I Credits: 3
- CHEM 223 - Laboratory IIIA-Experimental Organic Techniques Credits: 1
- CHEM 222 - Modern Organic Chemistry II Credits: 3
- CHEM 224 - Laboratory IVA-Qualitative Organic Analysis Credits: 3
- CHEM 301 - Biochemistry I Credits: 3
- CHEM 363 - Physical Chemistry I Credits: 4
- CHEM 364 - Physical Chemistry II Credits: 4
- CHEM 371 - Analytical Chemistry Credits: 4
- CHEM 381 - Inorganic Chemistry Credits: 3

Allied Fields (9 crs.)

Arts and Sciences students majoring in chemistry must take the following courses in allied fields.

- MATH 212 - Calculus II Credits: 4
- PHYS 124 - Physics Ib Laboratory Credits: 1
- PHYS 206 - Intermediate Physics II Credits: 3
- PHYS 126 - Physics IIb Laboratory Credits: 1

Chemistry Courses Required for Concentration (4-5 crs.)

- CHEM 324 - Advanced Organic Chemistry Laboratory Credits: 1
- One 400 level Chemistry Course Credits: 3-4

Allied Fields Required (16 crs.)

- CRJU 100 - Introduction to Criminal Justice Credits: 3
- CRJU 261 - Criminal Law and Procedure Credits: 3
- CRJU 336 - Introduction to Forensic Science Credits: 3
- CRJU 456 - Forensic Science: Evidence Analysis Credits: 3
- BIOL 260 - Genetics Credits: 4

General Education

General Education Requirements

- General Education Program (45 crs.)

General Education Requirements Specific for this Major:

- Quantitative (Q): MATH 211
- Natural World (N): CHEM 121
- Natural World (N): BIOL 161
- Natural World (N): PHYS 205

Advising Notes:

1. Students should begin their math sequence in their 1st year.
2. Semester I: CHEM 121, CHEM 123, MATH 211
3. Semester II: CHEM 122, CHEM 124, MATH 212, BIOL 161
4. Semester III: PHYS 205, PHYS 123, CHEM 221, CHEM 223, BIOL 260
5. Semester IV: PHYS 206, PHYS 125, CHEM 222, CHEM 224

Chemistry, Medical Sciences Concentration, B.S.

The medical sciences concentration curriculum prepares students for application to medical, dental and veterinary school while earning a B.S. in chemistry. Course advisement will be used when considering the varied requirements of schools of medicine, dentistry and veterinary medicine; however, all students who opt for this concentration will easily satisfy the course requirements to apply to several schools. Students will be encouraged to shadow medical

professionals as part of their preparation for application to medical programs. Before applying to any medical professional school, students must take the appropriate admissions exam (MCAT, DAT or GRE). A competitive score on the admissions exam and an excellent QPA is required for acceptance into any medical, dental or veterinary school.

To enter into this concentration, students must have a GPA of 3.2. Students in this concentration must maintain a GPA of 3.2 or better.

Students in this concentration are not eligible for American Chemical Society Certification.

Credit Requirements*

- **General Education:** 47 credits
- **Major Requirements**: 62 credits
- **Free Electives:** 11 credits
- *Total Credits to Graduate:* **120 credits**

* All undergraduate degree programs require a minimum of 120 credits. Some courses meet multiple requirements, but are only counted once toward the 120 credit total required to graduate.

Chemistry Requirements (34 crs.)

- CHEM 110 - The Chemistry Experience Credits: 1
- CHEM 122 - Chemical Dynamics Credits: 3
- CHEM 123 - Laboratory IA-Chemical Systems Credits: 1
- CHEM 124 - Laboratory IIA-Experimental Quantitative Analysis Credits: 3
- CHEM 221 - Modern Organic Chemistry I Credits: 3
- CHEM 222 - Modern Organic Chemistry II Credits: 3
- CHEM 223 - Laboratory IIIA-Experimental Organic Techniques Credits: 1
- CHEM 224 - Laboratory IVA-Qualitative Organic Analysis Credits: 3
- CHEM 301 - Biochemistry I Credits: 3
- CHEM 313 - Chemistry Seminar Credits: 1
- CHEM 363 - Physical Chemistry I Credits: 4
- CHEM 381 - Inorganic Chemistry Credits: 3
- CHEM 382 - Inorganic Chemistry Laboratory Credits: 1
- CHEM 420 - Biochemistry II Credits: 3
- CHEM 497 - Introduction to Research II Credits: 1-3

Additional Biology Requirements (15 crs.)

- BIOL 162 - Principles of Biology: Organismal Diversity Credits: 4
- BIOL 260 - Genetics Credits: 4

- BIOL 350 - Human Physiology Credits: 4
  OR
- BIOL 351 - Animal Physiology Credits: 4

- BIOL 385 - Cell Biology Credits: 3

Physics Requirements (5 crs.)

- PHYS 124 - Physics Ib Laboratory Credits: 1
- PHYS 206 - Intermediate Physics II Credits: 3
- PHYS 126 - Physics IIb Laboratory Credits: 1

Mathematics Requirements (4 crs.)

- MATH 212 - Calculus II Credits: 4

Restricted Electives (4 crs.)

Choose 1 or 2 courses, with advisement

- BIOL 220 - Microbiology Credits: 4
- BIOL 375 - Histology Credits: 3
- BIOL 408 - Principles of Virology Credits: 3
- BIOL 418 - Molecular Biology Credits: 3
- BIOL 461 - Techniques in Biotechnology Credits: 3
- CHEM 364 - Physical Chemistry II Credits: 4
- CHEM 371 - Analytical Chemistry Credits: 4
- CHEM 421 - Biochemistry Laboratory Credits: 1
- PSYC 101 - General Psychology Credits: 3

Free Electives (11 crs.)

Students must complete 11 credits of free electives. Recommended free electives include the following:

- BIOL 409 - Immunology Credits: 3
- CHEM 324 - Advanced Organic Chemistry Laboratory Credits: 1
- CHEM 490 - Selected Topics in Chemistry Credits: 1-3
- CMSC 110 - Computer Science I Credits: 4
- SOCI 369 - Medical Sociology Credits: 3

General Education

General Education Requirements

- General Education Program (45 crs.)

General Education Requirements Specific for this major

- Quantitative (Q): MATH 211
- Diversity (D): SOCI 101
- Natural World (N): CHEM 121
- Natural World (N): BIOL 161
- Natural World (N): PHYS 205

Advising Notes:

1. Students should begin their math sequence in their 1st year.
2. Semester I: CHEM 121, CHEM 123, MATH 211
3. Semester II: CHEM 122, CHEM 124, MATH 212, BIOL 161
4. Semester III: PHYS 205, PHYS 123, CHEM 221, CHEM 223, BIOL 260
5. Semester IV: PHYS 206, PHYS 125, CHEM 222, CHEM 224

Chemistry, Pre-Pharmacy Concentration, B.S.

The pre-pharmacy concentration includes a curriculum that prepares students for application to a doctorate in pharmacy (Pharm.D.) program while earning a B.S. in chemistry. The curriculum prepares students for transfer into the first of four professional years of pharmacy school after receiving their B.S in chemistry from Shippensburg University. Students need not commit to the concentration until the end of their sophomore year. Course advisement will be used when considering the varied requirements of the Pennsylvania colleges of pharmacy; however, all students who opt for this concentration will easily satisfy the course requirements to apply to several pharmacy schools. In addition, students will be encouraged to shadow pharmacists in the area and to attend seminars within our department that will introduce the various jobs that pharmacists perform. The chemistry and biology curriculum requirements prepare students to successfully take the Pharmacy College Admissions Test (PCAT) exam.

Students interested in completing the chemistry-pre-pharmacy concentration must complete all courses in the chemistry core curriculum and those listed below. Students desiring additional preparation and certification by the American Chemical Society should also complete the requirements listed under ACS Certification.

The pre-pharmacy concentration is intended to prepare students who complete four years at Shippensburg University to apply for entrance to the third year of a six-year pharmacy program. Students intending to apply to a pharmacy school will be advised to take an additional 9-10 credits of free electives to specifically meet the pre-professional requirements of individual schools prior to matriculating. Before applying to any pharmacy school, students must take the Pharmacy College Admission Test (PCAT). A competitive score on the PCAT and QPA is required for acceptance into pharmacy school.

Credit Requirements*

- **General Education:** 47 credits
- **Major Requirements**: 61 credits
- **Free Electives:** 12 credits
- *Total Credits to Graduate:* **120 credits**

* All undergraduate degree programs require a minimum of 120 credits. Some courses meet multiple requirements, but are only counted once toward the 120 credit total required to graduate.

Chemistry Core Curriculum

The following courses are part of the department core curriculum. These courses are required for all chemistry majors and concentrations. All chemistry majors will take a comprehensive examination in the beginning of the fall semester of their senior year at a time and place designated by the department. A satisfactory performance in all areas of this examination is a requirement for departmental recommendation and ACS certification.

Required (36 crs.)

- CHEM 110 - The Chemistry Experience Credits: 1
- CHEM 123 - Laboratory IA-Chemical Systems Credits: 1
- CHEM 122 - Chemical Dynamics Credits: 3
- CHEM 124 - Laboratory IIA-Experimental Quantitative Analysis Credits: 3
- CHEM 221 - Modern Organic Chemistry I Credits: 3
- CHEM 223 - Laboratory IIIA-Experimental Organic Techniques Credits: 1
- CHEM 222 - Modern Organic Chemistry II Credits: 3
- CHEM 224 - Laboratory IVA-Qualitative Organic Analysis Credits: 3
- CHEM 301 - Biochemistry I Credits: 3
- CHEM 363 - Physical Chemistry I Credits: 4
- CHEM 364 - Physical Chemistry II Credits: 4
- CHEM 371 - Analytical Chemistry Credits: 4
- CHEM 381 - Inorganic Chemistry Credits: 3

Allied Fields (9 crs.)

Arts and Sciences students majoring in chemistry must take the following courses in allied fields.

- MATH 212 - Calculus II Credits: 4
- PHYS 124 - Physics Ib Laboratory Credits: 1
- PHYS 206 - Intermediate Physics II Credits: 3
- PHYS 126 - Physics IIb Laboratory Credits: 1

Chemistry Courses Required for Concentration (1 cr.)

- CHEM 324 - Advanced Organic Chemistry Laboratory Credits: 1

Allied Fields Required (15 crs.)

- MATH 117 - Applied Statistics Credits: 3
- BIOL 162 - Principles of Biology: Organismal Diversity Credits: 4
- BIOL 220 - Microbiology Credits: 4
- BIOL 350 - Human Physiology Credits: 4
  OR
- BIOL 371 - Human Anatomy Credits: 4

General Education

General Education Requirements

- General Education Program (45 crs.)

General Education Requirements Specific for this major

- Quantitative (Q): MATH 211
- Natural World (N): CHEM 121

- Natural World (N): BIOL 161
- Natural World (N): PHYS 205

Advising Notes:

1. Students should begin their math sequence in their 1st year.
2. Semester I: CHEM 121, CHEM 123, MATH 211
3. Semester II: CHEM 122, CHEM 124, MATH 212, BIOL 161
4. Semester III: PHYS 205, PHYS 123, CHEM 221, CHEM 223, BIOL 260
5. Semester IV: PHYS 206, PHYS 125, CHEM 222, CHEM 224

Chemistry Secondary Certification, B.S.

Students interested in teaching chemistry in the state of Pennsylvania should enroll in the Chemistry Secondary Education Certification program. Students enrolled in a program of studies leading to the degree of Bachelor of Science with secondary certification will fulfill the chemistry core curriculum and the requirements listed below. Students are expected to graduate with a minimum QPA of 3.0 as required by the state of Pennsylvania for certification. Any student enrolled in chemistry-secondary education desiring the additional preparation for this program and certification by the American Chemical Society must complete the Chemistry- secondary education curriculum and the additional requirements specified under ACS certification.

Teacher Education students majoring in chemistry must take the chemistry core curriculum and the following courses in allied fields. Some of these may be taken as general education

Credit Requirements*

- **General Education:** 47 credits
- **Major Requirements**: 78 credits
- *Total Credits to Graduate:* **125 credits**

* All undergraduate degree programs require a minimum of 120 credits. Some courses meet multiple requirements, but are only counted once toward the 120 credit total required to graduate.

Chemistry Requirements (36 crs.)

- CHEM 110 - The Chemistry Experience Credits: 1
- CHEM 123 - Laboratory IA-Chemical Systems Credits: 1
- CHEM 122 - Chemical Dynamics Credits: 3
- CHEM 124 - Laboratory IIA-Experimental Quantitative Analysis Credits: 3
- CHEM 221 - Modern Organic Chemistry I Credits: 3
- CHEM 223 - Laboratory IIIA-Experimental Organic Techniques Credits: 1
- CHEM 222 - Modern Organic Chemistry II Credits: 3
- CHEM 224 - Laboratory IVA-Qualitative Organic Analysis Credits: 3
- CHEM 301 - Biochemistry I Credits: 3
- CHEM 363 - Physical Chemistry I Credits: 4
- CHEM 364 - Physical Chemistry II Credits: 4
- CHEM 371 - Analytical Chemistry Credits: 4
- CHEM 381 - Inorganic Chemistry Credits: 3

Professional Education Requirements (33 crs.)

- TEED 207 - Organizational and Psychological Foundations in Secondary Education Credits: 3
- EDFN 440 - Teaching of Science in Secondary Schools Credits: 3
- EDFN 441 - Curriculum and Evaluation in the Secondary Science Classroom Credits: 3
- SPEE 273 - Introduction to Exceptionalities: Understanding Diverse Learners Credits: 3
- SPEE 423 - Effective Instructional Strategies for Students with Exceptionalities Credits: 3
- SPEE 483 - Assessing Children with Exceptionalities for Curricular Decision-Making Credits: 3
- READ 413 - Teaching Reading to English Language Learners Credits: 3
- EDFN 495 - Student Teaching Credits: 6-15
  (Chemistry Secondary Certification Students will take 12 crs. of EDFN 495 *)*

Allied Fields (9 crs.)

Teacher Education students majoring in chemistry must take the following courses in allied fields.

- MATH 212 - Calculus II Credits: 4
- PHYS 124 - Physics Ib Laboratory Credits: 1
- PHYS 206 - Intermediate Physics II Credits: 3
- PHYS 126 - Physics IIb Laboratory Credits: 1

Note:

Students seeking certification in secondary education must also complete 1 writing course (ENGL 114 or ENGL 115) and 1 literature course (ENGL 190 , ENGL 243 , ENGL 248 , or ENGL 250).

General Education

General Education Requirements

- General Education Program (45 crs.)

General Education Requirements Specific for this Major:

- Quantitative (Q): MATH 211
- Natural World (N): CHEM 121
- Natural World (N): BIOL 161
- Natural World (N): PHYS 205

Advising Notes:

1. Students should begin their math sequence in their 1st year.
2. Semester I: CHEM 121, CHEM 123, MATH 211
3. Semester II: CHEM 122, CHEM 124, MATH 212, PSYC 101
4. Semester III: PHYS 205, PHYS 123, CHEM 221, CHEM 223, BIOL 161
5. Semester IV: PHYS 206, PHYS 125, CHEM 222, CHEM 224

ACS Certification Minor

This minor can be added to any Chemistry majors/concentrations to earn American Chemical Society certification

19 credits

Required (17 crs.)

- CHEM 324 - Advanced Organic Chemistry Laboratory Credits: 1
- CHEM 364 - Physical Chemistry II Credits: 4
- CHEM 313 - Chemistry Seminar Credits: 1
- CHEM 371 - Analytical Chemistry Credits: 4
- CHEM 382 - Inorganic Chemistry Laboratory Credits: 1
- CHEM 497 - Introduction to Research II Credits: 1-3
- CHEM 490 - Selected Topics in Chemistry Credits: 1-3

Biochemistry Minor

Required (24/28 crs.)

- CHEM 121 - Chemical Bonding Credits: 3

- CHEM 123 - Laboratory IA-Chemical Systems Credits: 1 or
- CHEM 125 - Laboratory IB-Stoichiometry and Reactions Credits: 1

- CHEM 122 - Chemical Dynamics Credits: 3

- CHEM 124 - Laboratory IIA-Experimental Quantitative Analysis Credits: 3 or
- CHEM 126 - Laboratory IIB-Equilibrium and Instrumentation Credits: 1

- CHEM 221 - Modern Organic Chemistry I Credits: 3

- CHEM 223 - Laboratory IIIA-Experimental Organic Techniques Credits: 1 or
- CHEM 225 - Laboratory IIIB-Basic Organic Techniques Credits: 1

- CHEM 222 - Modern Organic Chemistry II Credits: 3

- CHEM 224 - Laboratory IVA-Qualitative Organic Analysis Credits: 3 or
- CHEM 226 - Laboratory IVB-Experimental Organic Studies Credits: 1

- CHEM 301 - Biochemistry I Credits: 3
- CHEM 420 - Biochemistry II Credits: 3
- CHEM 421 - Biochemistry Laboratory Credits: 1
- CHEM 496 - Introduction to Biochemistry Research Credits: 1

Chemistry Minor

Required (23-27 crs.)

- CHEM 121 - Chemical Bonding Credits: 3
- CHEM 123 - Laboratory IA-Chemical Systems Credits: 1 or
- CHEM 125 - Laboratory IB-Stoichiometry and Reactions Credits: 1
- CHEM 122 - Chemical Dynamics Credits: 3
- CHEM 124 - Laboratory IIA-Experimental Quantitative Analysis Credits: 3 or
- CHEM 126 - Laboratory IIB-Equilibrium and Instrumentation Credits: 1
- CHEM 221 - Modern Organic Chemistry I Credits: 3
- CHEM 223 - Laboratory IIIA-Experimental Organic Techniques Credits: 1 or
- CHEM 225 - Laboratory IIIB-Basic Organic Techniques Credits: 1
- CHEM 222 - Modern Organic Chemistry II Credits: 3
- CHEM 224 - Laboratory IVA-Qualitative Organic Analysis Credits: 3 or
- CHEM 226 - Laboratory IVB-Experimental Organic Studies Credits: 1
- 7 additional chemistry course credits at the 300 or 400 level. CHEM 313: Chemistry Seminar cannot fulfill the requirements for Chemistry Minor.

Communication, Journalism & Media Department

The Communication, Journalism and Media Department offers an undergraduate program leading to a Bachelor of Science degree in communication, journalism and media. The department's goal is to prepare students for successful careers in journalism, media production, public relations, visual media and other related communication professions. The program provides students with skill and theory courses in four professional concentrations - public relations, journalism, broadcast media production and visual media. Throughout an undergraduate's program of study, instruction in practical skills is interwoven with the student's intellectual, conceptual and professional development. Upon graduation, students are well qualified to obtain an entry-level position in their field of interest or to use their education as a foundation for advanced study in communication or other fields.

Communication, Journalism and Media Features

The department offers classes with an average size of 22 students. Students engage in hands-on learning experiences in class and as members of student media organizations. All students build their skills using industry-standard digital technology, developing competencies in digital publication design, web design, audio and video production and photography.

Four student organizations offer practical experience in communication media:

- Public Relations Student Society of America campus chapter
- SUTV, the campus television station
- The Slate/theslateonline.com, the print and online campus newspaper
- WSYC-FM, the campus radio station

Opportunities for professional internships with local, regional, national and international media and businesses are available to qualified juniors and seniors. Although not departmentally required, students are urged to use the two available internship opportunities as a springboard to professional employment. The department's internship coordinator and faculty academic advisers, as well as the university's Career, Mentoring and Professional Development Center, are available to assist students in their internship searches and to connect them with alumni and professional contacts. Recent students in the program have earned competitive internships with The Jimmy Fallon Show, The (Harrisburg) Patriot-News/PennLive, Tierney public relations firm, Hershey Entertainment & Resorts, Volvo Construction Equipment, Chincoteague Bay Field Station, Pittsburgh Post-Gazette, CBS-21 WHP, ABC-27 WHTM, The Gettysburg Times, QVC.com and more.

Communication, Journalism and Media Career Opportunities

A career in communication, journalism and media offers the dynamic challenges of working in today's media: the excitement of breaking news and events, the opportunity to meet and work with distinguished leaders and performers, and the satisfaction of being creative in your day-to-day work. Key employers include online news media, newspapers and television stations. Opportunities for employment in public relations come through agencies, all levels of government, nonprofit institutions and corporations. Practitioners often move from the creative side of the business to media or organizational administration and management.

Admission Requirements

SU students wishing to transfer into the Department of Communication, Journalism and Media need a 2.3 cumulative QPA. Students will be admitted based on the above criteria and space availability in the professional concentration the student selects.

Communication, Journalism & Media, Broadcast Media Production Concentration, B.S.

The broadcast media production concentration prepares students for careers in television production, radio, podcasts and other online media. Students learn to produce, direct, create and edit content for diverse audiences and a variety of platforms. The concentration focuses on studio and field production and performance using industry-standard software and equipment. Students are introduced to script writing, storyboarding and other pre- and post-production processes, and produce live events and recorded programming using professional-quality, digital HD television equipment. Students use a state-of-the-art mobile production vehicle to cover live sporting events on campus. While studio production and producing and performance courses provide hands-on learning at SU's industry-standard television studio. Courses in the concentration also examine media advertising and sales, media management principles and the production of sports broadcasts, films and documentaries. Students are encouraged to join SUTV during their first semester at Shippensburg University. DSLR and video cameras, audio kits, mobile phone gimbals, and all accompanying accessories are available for check out from the department's equipment room for course and SUTV projects.

Credit Requirements*

- **Foreign Language Requirement:** 0 - 3 credits
- **General Education:** 45 credits
- **Major Requirements**: 48 credits
- **Free Electives:** 24 - 27 credits
- *Total Credits to Graduate:* **120 credits**

* All undergraduate degree programs require a minimum of 120 credits. Some courses meet multiple requirements, but are only counted once toward the 120 credit total required to graduate.

48 crs.

All students must complete 48 credits in the major to qualify for graduation. The major consists of five core courses (15 credits), four courses in a professional concentration (12 credits), and seven elective courses (21 credits).

Theory and Writing Core (15 crs.)

Majors/minors must achieve a C or better grade in COMM 112 before taking any other COMM courses:

- COMM 112 - Media Writing Credits: 3
- COMM 284 - Basic Media Production Credits: 3
- COMM 294 - Social Media Strategy Credits: 3
- COMM 345 - Media Law Credits: 3
- COMM 445 - Media Ethics & Professionalism Credits: 3

COM 445 & Professional Practicum

All majors are required to complete three semesters of practical experience in one of the four student media organizations (PRSSA, SUTV, The Slate or WSYC) advised by the department as outlined below:

- Students will be required upon acceptance into the major to sign a form committing them to working in a student media organization for one semester by the end of their second year, a second semester by the end of their third year, and a third semester by the end of their first semester of their last year.
- Students who will be enrolled in COMM 445 their senior year must have proven experience working for a student media organization and produced documentation that they fulfilled the obligation as well as examples of the work that they produced. Faculty academic advisers will meet during scheduling advising to ensure that students are meeting the commitment and coordinate with the faculty who serve as student media organization advisers to guide students.
- This will provide flexibility for students who wish to explore and gain experience with different media. Students who have not completed their student media practical experience in their sophomore or junior years and have not progressed in producing tangible materials for a professional portfolio will not be permitted to schedule COMM 445 until they have completed the practical experience. Transfer students who join the major as juniors will be required to perform three semesters of practical experience in their junior and senior years in order to schedule COMM 445.

Broadcast Media Production Concentration (12 crs.)

- COMM 224 - Media Scriptwriting Credits: 3
- COMM 251 - Media Studio Production Credits: 3
- COMM 351 - Media Field Production Credits: 3
- COMM 424 - Media Producing & Performance Credits: 3
  COMM 424 is open to seniors only.

Elective Courses (21 crs.)

All students must select seven (7) elective courses, three (3) of which must be at the 300/400 level, to complete the major.

- COMM 201 - Principles of Public Relations Credits: 3
- COMM 241 - Public Relations Writing I Credits: 3
- COMM 252 - Digital Media Tools Credits: 3
- COMM 260 - Visual Literacy Credits: 3
- COMM 285 - Basic News Reporting Credits: 3
- COMM 290 - Advertising Copywriting Credits: 3
- COMM 293 - News Editing & Design Credits: 3
- COMM 305 - Sports Journalism Credits: 3
- COMM 335 - Media Advertising and Sales Credits: 3
- COMM 342 - Public Relations Writing II Credits: 3
- COMM 360 - Basic Digital Photography Credits: 3
- COMM 362 - Photojournalism Credits: 3
- COMM 375 - Advanced News Reporting Credits: 3
- COMM 381 - Promotional Publication Design Credits: 3
- COMM 395 - Internship I Credits: 1-6
- COMM 396 - Internship II Credits: 1-6
- COMM 401 - Film in the Contemporary World Credits: 3
- COMM 405 - Brand Journalism Credits: 3
- COMM 410 - Women and the Media Credits: 3
- COMM 425 - Feature Writing Credits: 3
- COMM 432 - Public Relations Research and Campaigns Credits: 3
- COMM 460 - Case Studies in Public Relations Credits: 3
- COMM 465 - Documentary Storytelling Credits: 3
- COMM 470 - Advanced Digital Photography Credits: 3
- COMM 476 - Magazine Media & Design Credits: 3
- COMM 478 - Digital Journalism Credits: 3
- COMM 481 - Interactive Media Design Credits: 3
- COMM 482 - Web Content Management Credits: 3
- COMM 483 - Issues in Media Management Credits: 3
- COMM 484 - Media Programming Credits: 3
- COMM 490 - Selected Topics in Communication, Journalism & Media Credits: 1-3
- COMM 491 - Selected Topics in Communication, Journalism & Media Credits: 1-3
- COMM 492 - Selected Topics in Communication, Journalism & Media Credits: 1-3

Note

COMM 395 and COMM 396 may be scheduled through the department secretary by qualified juniors/seniors who have a 2.5 QPA and who have written approval from the department's internship coordinator. Only 6 credits of internship count towards the major; additional internship credits available only by departmental permission.

Foreign Language Requirement

All students in the Communication, Journalism & Media major, all concentrations, are required to attain proficiency in a foreign language. Proficiency may be satisfied by completing a language class at the 103 (intermediate) level or three

years of any one foreign language in high school. Students may also meet this requirement through AP testing or CLEP testing.

General Education

General Education Requirements

- **General Education Program (45 crs.)**

General Education Specific for this Major

- Quantitative (Q): MATH 117 or MATH 217
- Diversity (D): COMM 245
- Citizenship (R): COMM 111 grade of C or better required

Communication, Journalism & Media, Journalism Concentration, B.S.

The journalism concentration is designed to prepare students for careers as multimedia journalists and media-related professionals in a variety of organizations, telling stories that matter to their audience of diverse communities. The concentration focuses on multimedia storytelling based on reporting and writing long-form and short-form journalistic styles that encompass online, print and broadcast media. Students are introduced to breaking news coverage, enterprise journalism, investigative journalism and beat reporting, covering such areas as government, police and courts, sports, education, business and technology. Courses in the concentration also examine podcasting, scriptwriting and feature writing. Students use industry-standard software and technology to create multimedia content with text, video, audio, photography and graphics.

Credit Requirements*

- **Foreign Language Requirement:** 0 - 3 credits
- **General Education:** 45 credits
- **Major Requirements**: 48 credits
- **Free Electives:** 24 - 27 credits
- *Total Credits to Graduate:* **120 credits**

* All undergraduate degree programs require a minimum of 120 credits. Some courses meet multiple requirements, but are only counted once toward the 120 credit total required to graduate.

48 crs.

All students must complete 48 credits in the major to qualify for graduation. The major consists of five core courses (15 credits), four courses in a professional concentration (12 credits), and seven elective courses (21 credits).

Theory and Writing Core (15 crs.)

Majors/minors must achieve a C or better grade in COMM 112 before taking any other COMM courses:

- COMM 112 - Media Writing Credits: 3

- COMM 284 - Basic Media Production Credits: 3
- COMM 294 - Social Media Strategy Credits: 3
- COMM 345 - Media Law Credits: 3
- COMM 445 - Media Ethics & Professionalism Credits: 3

COM 445 & Professional Practicum

All majors are required to complete three semesters of practical experience in one of the four student media organizations (PRSSA, SUTV, The Slate or WSYC) advised by the department as outlined below:

- Students will be required upon acceptance into the major to sign a form committing them to working in a student media organization for one semester by the end of their second year, a second semester by the end of their third year, and a third semester by the end of their first semester of their last year.
- Students who will be enrolled in COMM 445 their senior year must have proven experience working for a student media organization and produced documentation that they fulfilled the obligation as well as examples of the work that they produced. Faculty academic advisers will meet during scheduling advising to ensure that students are meeting the commitment and coordinate with the faculty who serve as student media organization advisers to guide students.
- This will provide flexibility for students who wish to explore and gain experience with different media. Students who have not completed their student media practical experience in their sophomore or junior years and have not progressed in producing tangible materials for a professional portfolio will not be permitted to schedule COMM 445 until they have completed the practical experience. Transfer students who join the major as juniors will be required to perform three semesters of practical experience in their junior and senior years in order to schedule COMM 445.

Journalism Concentration Requirements (12 crs.)

- COMM 285 - Basic News Reporting Credits: 3
- COMM 293 - News Editing & Design Credits: 3
- COMM 375 - Advanced News Reporting Credits: 3
- COMM 478 - Digital Journalism Credits: 3
  COMM 478 is open to seniors only.

Elective Courses (21 crs.)

All students must select seven (7) elective courses, three (3) of which must be at the 300/400 level, to complete the major.

- COMM 201 - Principles of Public Relations Credits: 3
- COMM 224 - Media Scriptwriting Credits: 3
- COMM 241 - Public Relations Writing I Credits: 3
- COMM 251 - Media Studio Production Credits: 3
- COMM 252 - Digital Media Tools Credits: 3
- COMM 260 - Visual Literacy Credits: 3
- COMM 290 - Advertising Copywriting Credits: 3
- COMM 305 - Sports Journalism Credits: 3
- COMM 335 - Media Advertising and Sales Credits: 3
- COMM 342 - Public Relations Writing II Credits: 3
- COMM 351 - Media Field Production Credits: 3

- COMM 360 - Basic Digital Photography Credits: 3
- COMM 362 - Photojournalism Credits: 3
- COMM 381 - Promotional Publication Design Credits: 3
- COMM 395 - Internship I Credits: 1-6
- COMM 396 - Internship II Credits: 1-6
- COMM 401 - Film in the Contemporary World Credits: 3
- COMM 405 - Brand Journalism Credits: 3
- COMM 410 - Women and the Media Credits: 3
- COMM 424 - Media Producing & Performance Credits: 3
- COMM 425 - Feature Writing Credits: 3
- COMM 432 - Public Relations Research and Campaigns Credits: 3
- COMM 460 - Case Studies in Public Relations Credits: 3
- COMM 465 - Documentary Storytelling Credits: 3
- COMM 470 - Advanced Digital Photography Credits: 3
- COMM 476 - Magazine Media & Design Credits: 3
- COMM 481 - Interactive Media Design Credits: 3
- COMM 482 - Web Content Management Credits: 3
- COMM 483 - Issues in Media Management Credits: 3
- COMM 484 - Media Programming Credits: 3
- COMM 490 - Selected Topics in Communication, Journalism & Media Credits: 1-3
- COMM 491 - Selected Topics in Communication, Journalism & Media Credits: 1-3
- COMM 492 - Selected Topics in Communication, Journalism & Media Credits: 1-3

Note

COMM 395 and COMM 396 may be scheduled through the department secretary by qualified juniors/seniors who have a 2.5 QPA and who have written approval from the department's internship coordinator. Only 6 credits of internship count towards the major; additional internship credits available only by departmental permission.

Foreign Language Requirement

All students in the Communication, Journalism & Media major, all concentrations, are required to attain proficiency in a foreign language. Proficiency may be satisfied by completing a language class at the 103 (intermediate) level or three years of any one foreign language in high school. Students may also meet this requirement through AP testing or CLEP testing.

General Education

General Education Requirements

- **General Education Program (45 crs.)**

General Education Specific for this Major

- Quantitative (Q): MATH 117 or MATH 217
- Diversity (D): COMM 245
- Citizenship (R): COMM 111 grade of C or better required

Communication, Journalism & Media Public Relations Concentration, B.S.

The public relations concentration prepares students for careers in public relations, strategic communications, content marketing and promotion within a multitude of organizations, corporations, governmental agencies and more. The concentration focuses on development of a broad range of strategies to achieve organizational goals and objectives, with students learning to research, write, create, design and implement strategic communication content for diverse audiences and a variety of media platforms. Students are introduced to writing news releases, public service announcements, blogs, newsletters, feature stories, white papers and social media content and to producing video and audio content for social media and websites. Using industry-standard software and technology, they design and produce promotional materials for online media, social media, print and television. Students also explore and produce public relations campaigns for not-for-profit and for-profit organizations.

Credit Requirements*

- **Foreign Language Requirement:** 0 - 3 credits
- **General Education:** 45 credits
- **Major Requirements**: 48 credits
- **Free Electives:** 24 - 27 credits
- *Total Credits to Graduate:* **120 credits**

* All undergraduate degree programs require a minimum of 120 credits. Some courses meet multiple requirements, but are only counted once toward the 120 credit total required to graduate.

48 crs.

All students must complete 48 credits in the major to qualify for graduation. The major consists of five core courses (15 credits), four courses in a professional concentration (12 credits), and seven elective courses (21 credits).

Theory and Writing Core (15 crs.)

Majors/minors must achieve a C or better grade in COMM 112 before taking any other COMM courses:

- COMM 112 - Media Writing Credits: 3
- COMM 284 - Basic Media Production Credits: 3
- COMM 294 - Social Media Strategy Credits: 3
- COMM 345 - Media Law Credits: 3
- COMM 445 - Media Ethics & Professionalism Credits: 3

COM 445 & Professional Practicum

All majors are required to complete three semesters of practical experience in one of the four student media organizations (PRSSA, SUTV, The Slate or WSYC) advised by the department as outlined below:

- Students will be required upon acceptance into the major to sign a form committing them to working in a student media organization for one semester by the end of their second year, a second semester by the end of their third year, and a third semester by the end of their first semester of their last year.
- Students who will be enrolled in COMM 445 their senior year must have proven experience working for a student media organization and produced documentation that they fulfilled the obligation as well as examples

of the work that they produced. Faculty academic advisers will meet during scheduling advising to ensure that students are meeting the commitment and coordinate with the faculty who serve as student media organization advisers to guide students.

- This will provide flexibility for students who wish to explore and gain experience with different media. Students who have not completed their student media practical experience in their sophomore or junior years and have not progressed in producing tangible materials for a professional portfolio will not be permitted to schedule COMM 445 until they have completed the practical experience. Transfer students who join the major as juniors will be required to perform three semesters of practical experience in their junior and senior years in order to schedule COMM 445.

Public Relations Concentration (12 crs.)

- COMM 201 - Principles of Public Relations Credits: 3
- COMM 241 - Public Relations Writing I Credits: 3
- COMM 342 - Public Relations Writing II Credits: 3
- COMM 432 - Public Relations Research and Campaigns Credits: 3
  COMM 432 is open to seniors only.

Elective Courses (21 crs.)

All students must select seven (7) elective courses, three (3) of which must be at the 300/400 level, to complete the major.

- COMM 224 - Media Scriptwriting Credits: 3
- COMM 251 - Media Studio Production Credits: 3
- COMM 252 - Digital Media Tools Credits: 3
- COMM 260 - Visual Literacy Credits: 3
- COMM 285 - Basic News Reporting Credits: 3
- COMM 290 - Advertising Copywriting Credits: 3
- COMM 293 - News Editing & Design Credits: 3
- COMM 305 - Sports Journalism Credits: 3
- COMM 335 - Media Advertising and Sales Credits: 3
- COMM 351 - Media Field Production Credits: 3
- COMM 360 - Basic Digital Photography Credits: 3
- COMM 362 - Photojournalism Credits: 3
- COMM 375 - Advanced News Reporting Credits: 3
- COMM 381 - Promotional Publication Design Credits: 3
- COMM 395 - Internship I Credits: 1-6
- COMM 396 - Internship II Credits: 1-6
- COMM 401 - Film in the Contemporary World Credits: 3
- COMM 405 - Brand Journalism Credits: 3
- COMM 410 - Women and the Media Credits: 3
- COMM 424 - Media Producing & Performance Credits: 3
- COMM 425 - Feature Writing Credits: 3
- COMM 460 - Case Studies in Public Relations Credits: 3
- COMM 465 - Documentary Storytelling Credits: 3
- COMM 470 - Advanced Digital Photography Credits: 3
- COMM 476 - Magazine Media & Design Credits: 3

- COMM 478 - Digital Journalism Credits: 3
- COMM 481 - Interactive Media Design Credits: 3
- COMM 482 - Web Content Management Credits: 3
- COMM 483 - Issues in Media Management Credits: 3
- COMM 484 - Media Programming Credits: 3
- COMM 490 - Selected Topics in Communication, Journalism & Media Credits: 1-3
- COMM 491 - Selected Topics in Communication, Journalism & Media Credits: 1-3
- COMM 492 - Selected Topics in Communication, Journalism & Media Credits: 1-3

Note

COMM 395 and COMM 396 may be scheduled through the department secretary by qualified juniors/seniors who have a 2.5 QPA and who have written approval from the department's internship coordinator. Only 6 credits of internship count towards the major; additional internship credits available only by departmental permission.

Foreign Language Requirement

All students in the Communication, Journalism & Media major, all concentrations, are required to attain proficiency in a foreign language. Proficiency may be satisfied by completing a language class at the 103 (intermediate) level or three years of any one foreign language in high school. Students may also meet this requirement through AP testing or CLEP testing.

General Education

General Education Requirements

- **General Education Program (45 crs.)**

General Education Specific for this Major

- Quantitative (Q): MATH 117 or MATH 217
- Diversity (D): COMM 245
- Citizenship (R): COMM 111 grade of C or better required

Communication, Journalism & Media, Visual Media Concentration, B.S.

The visual media concentration is designed to prepare students for careers in photography, photojournalism, documentary storytelling, magazine design and web and social media design. Visual media are the foundation in today's world of digital communication and provide a way to share information with diverse audiences. The concentration focuses on building skills and techniques needed for creative and entrepreneurial careers, as well as exploring visual literacy so students understand the impact of the visual content they create. Students are introduced to basic digital photographic techniques; advanced photographic techniques, including HDR photography and lighting and studio techniques for fashion and product photography; concepts and techniques of documentary storytelling; effective web and social media design; and creative publication design, including magazines and other print media. Using industry-standard software and technology, students take and edit photographs for a variety of applications, record and

edit video for documentaries, design and build websites and social media platforms, and design and layout magazines and other publications.

Credit Requirements*

- **Foreign Language Requirement:** 0 - 3 credits
- **General Education:** 45 credits
- **Major Requirements**: 48 credits
- **Free Electives:** 24 - 27 credits
- *Total Credits to Graduate:* **120 credits**

* All undergraduate degree programs require a minimum of 120 credits. Some courses meet multiple requirements, but are only counted once toward the 120 credit total required to graduate.

48 crs.

All students must complete 48 credits in the major to qualify for graduation. The major consists of five core courses (15 credits), four courses in a professional concentration (12 credits), and seven elective courses (21 credits).

Theory and Writing Core (15 crs.)

Majors/minors must achieve a C or better grade in COMM 112 before taking any other COMM courses:

- COMM 112 - Media Writing Credits: 3
- COMM 284 - Basic Media Production Credits: 3
- COMM 294 - Social Media Strategy Credits: 3
- COMM 345 - Media Law Credits: 3
- COMM 445 - Media Ethics & Professionalism Credits: 3

COM 445 & Professional Practicum

All majors are required to complete three semesters of practical experience in one of the four student media organizations (PRSSA, SUTV, The Slate or WSYC) advised by the department as outlined below:

- Students will be required upon acceptance into the major to sign a form committing them to working in a student media organization for one semester by the end of their second year, a second semester by the end of their third year, and a third semester by the end of their first semester of their last year.
- Students who will be enrolled in COMM 445 their senior year must have proven experience working for a student media organization and produced documentation that they fulfilled the obligation as well as examples of the work that they produced. Faculty academic advisers will meet during scheduling advising to ensure that students are meeting the commitment and coordinate with the faculty who serve as student media organization advisers to guide students.
- This will provide flexibility for students who wish to explore and gain experience with different media. Students who have not completed their student media practical experience in their sophomore or junior years and have not progressed in producing tangible materials for a professional portfolio will not be permitted to schedule COMM 445 until they have completed the practical experience. Transfer students who join the major as juniors will be required to perform three semesters of practical experience in their junior and senior years in order to schedule COMM 445.

Visual Media Concentration (12 crs.)

- COMM 260 - Visual Literacy Credits: 3
- COMM 360 - Basic Digital Photography Credits: 3

- COMM 362 - Photojournalism Credits: 3
  OR
- COMM 476 - Magazine Media & Design Credits: 3

- COMM 470 - Advanced Digital Photography Credits: 3
  OR
- COMM 481 - Interactive Media Design Credits: 3

Elective Courses (21 crs.)

All students must select seven (7) elective courses, three (3) of which must be at the 300/400 level, to complete the major.

- COMM 201 - Principles of Public Relations Credits: 3
- COMM 224 - Media Scriptwriting Credits: 3
- COMM 241 - Public Relations Writing I Credits: 3
- COMM 251 - Media Studio Production Credits: 3
- COMM 252 - Digital Media Tools Credits: 3
- COMM 285 - Basic News Reporting Credits: 3
- COMM 290 - Advertising Copywriting Credits: 3
- COMM 293 - News Editing & Design Credits: 3
- COMM 305 - Sports Journalism Credits: 3
- COMM 335 - Media Advertising and Sales Credits: 3
- COMM 342 - Public Relations Writing II Credits: 3
- COMM 351 - Media Field Production Credits: 3
- COMM 375 - Advanced News Reporting Credits: 3
- COMM 381 - Promotional Publication Design Credits: 3
- COMM 395 - Internship I Credits: 1-6
- COMM 396 - Internship II Credits: 1-6
- COMM 401 - Film in the Contemporary World Credits: 3
- COMM 405 - Brand Journalism Credits: 3
- COMM 410 - Women and the Media Credits: 3
- COMM 424 - Media Producing & Performance Credits: 3
- COMM 425 - Feature Writing Credits: 3
- COMM 432 - Public Relations Research and Campaigns Credits: 3
- COMM 460 - Case Studies in Public Relations Credits: 3
- COMM 465 - Documentary Storytelling Credits: 3
- COMM 478 - Digital Journalism Credits: 3
- COMM 482 - Web Content Management Credits: 3
- COMM 483 - Issues in Media Management Credits: 3
- COMM 484 - Media Programming Credits: 3
- COMM 490 - Selected Topics in Communication, Journalism & Media Credits: 1-3
- COMM 491 - Selected Topics in Communication, Journalism & Media Credits: 1-3
- COMM 492 - Selected Topics in Communication, Journalism & Media Credits: 1-3

Note

COMM 395 and COMM 396 may be scheduled through the department secretary by qualified juniors/seniors who have a 2.5 QPA and who have written approval from the department's internship coordinator. Only 6 credits of internship count towards the major; additional internship credits available only by departmental permission.

Foreign Language Requirement

All students in the Communication, Journalism & Media major, all concentrations, are required to attain proficiency in a foreign language. Proficiency may be satisfied by completing a language class at the 103 (intermediate) level or three years of any one foreign language in high school. Students may also meet this requirement through AP testing or CLEP testing.

General Education

General Education Requirements

- **General Education Program (45 crs.)**

General Education Specific for this Major

- Quantitative (Q): MATH 117 or MATH 217
- Diversity (D): COMM 245
- Citizenship (R): COMM 111 grade of C or better required

Communication, Journalism & Media Minor

18 crs.

Required Core Courses (6 crs.)

- COMM 111 - Media Literacy Credits: 3
- COMM 112 - Media Writing Credits: 3

  You must complete the above two courses (COMM 111 & COMM 112) with a "C" or better grade before taking any other Communication, Journalism & Media courses:

Elective Courses (12 crs.)

Students enrolled in the minor may take any four 200-400 level COMM courses with approval of Communication, Journalism & Media faculty advisor. Two of these courses must be 300-400 level.

Note:

The Department of Communication, Journalism & Media does not permit **any** transfer courses to be counted toward fulfillment of minor requirements.

Communication Studies Department

The Department of Communication Studies offers an undergraduate program leading to a Bachelor of Arts degree.

Both the major and minor in Communication Studies maximize a bank of communication skills and their theoretical bases, which are applicable to career goals and private lives. These skills include, but are not limited to, effective listening, interpersonal dynamics, group dynamics, critical analysis, persuasion, conflict management and resolution, and message construction and delivery, both orally and in writing. An emphasis on the ethical use and the cultural dimensions of communication, both of which are fundamental to effective human communicative strategies, are key to each course offered. Careful consideration is given to both the theoretical understanding of communication and the application of practical skill sets.

Majors: Must complete a total of 36 credits in the discipline. A core of 21 credits is requried then the students select 15 credits of electives within the department.

Minors: Musto complete a total of 18 credits in the discipline. A core of 9 credits is required and then students select 9 credits of electives within the department.

Communication Studies Features

Personalized advisement help facilitate student choices, which ensure a timely approach to course selection and graduation goals. The advisement, while important to academic progression, is also fundamental to student preparation for careers.

Internships are an optional part of the Communication Studies program. They are tailored to the career plans of each student and provide access to those already working in those fields. To qualify for an internship, students must meet specified criteria and apply through their advisor.

Communication Studies Career Opportunities

Communication Studies majors are prepared to enter virtually any field which requires communicative contact, in either spoken or written form. Recent graduates work in all aspects of sales, marketing, advertising, radio/television broadcast, public relations, human resources, and higher education. Many go on to continue their graduate studies.

Advisors encourage students to select and study in a minor area of concentration. Some good fits include business management, communications/journalism, criminal justice, math, psychology, and political science. The options are essentially limitless. The selection of a minor advances career preparation in specific areas and reinforces student credentials for application to graduate study.

Communication Studies, B.A.

Credit Requirements*

- **Foreign Language Requirement:** 0 - 3 credits
- **General Education:** 45 credits
- **Major Requirements**: 36 credits
- **Free Electives:** 36 - 39 credits
- *Total Credits to Graduate:* **120 credits**

* All undergraduate degree programs require a minimum of 120 credits. Some courses meet multiple requirements, but are only counted once toward the 120 credit total required to graduate.

Bachelor of Arts Foreign Language Requirement:

All students completing a Bachelor of Arts degree are required to attain proficiency in a foreign language. Proficiency may be satisfied by completing a language class at the 103 (intermediate) level or three years of any one foreign language in high school. Students may also meet this requirement through AP or CLEP testing.

Required Courses (18 crs.)

The following courses are required for the HCS major:

- COST 200 - Human Communication Theory Credits: 3
- COST 210 - Public Speaking Credits: 3
- COST 270 - Intergroup/Intercultural Communication Credits: 3
- COST 360 - Research Methods in Communication Credits: 3
- COST 370 - Rhetorical Criticism Credits: 3
- COST 400 - Senior Seminar Credits: 3

Electives (18 crs.)

Students will work with advisors to develop a program of emphasis that incorporates courses that are connected to personal and professional goals. Students must take at least two courses at the 200-level and two courses at the 300-level or above. Additional credits may come from any level courses, and/or internships.

- COST 220 - Nonverbal Communication Credits: 3
- COST 225 - Communication and Sport Credits: 3
- COST 230 - Small Group Communication Credits: 3
- COST 241 - Practicum in Experiential Learning Credits: 1
- COST 250 - Interpersonal Communication Credits: 3
- COST 260 - Computer-Mediated Communication Credits: 3
- COST 265 - Interviewing Credits: 3
- COST 275 - Special Topics in Communication Skill Credits: 3

- COST 310 - African-American Communication Credits: 3
- COST 315 - Asian-American Communication Credits: 3
- COST 325 - Voices of Black Anti-Racism and Resistance Credits: 3
- COST 333 - Communicating Identity Credits: 3
- COST 335 - Popular Culture and Gender Construction Credits: 3
- COST 340 - Gender and Communication Credits: 3
- COST 342 - Health Communication Credits: 3
- COST 343 - Communication and Humor Credits: 3
- COST 344 - Family Communication Credits: 3
- COST 345 - Environmental Communication Credits: 3
- COST 350 - Theories of Organizational Communication Credits: 3
- COST 351 - Special Topics: Comm Contexts Credits: 3
- COST 352 - Argumentation & Debate Credits: 3

- COST 356 - Persuasion Credits: 3
- COST 363 - Political Rhetoric Credits: 3
- COST 365 - Language and Meaning Credits: 3
- COST 372 - Communication for Training and Instruction Credits: 3
- COST 381 - Professional Communication and Multi-media Presentation Credits: 3
- COST 385 - Resolving Conflict through Communication Credits: 3
- COST 386 - Crisis Communication Credits: 3

- COST 410 - Feminist Perspectives on Communication Theory and Research Methods Credits: 3
- COST 430 - Advanced Interpersonal Communication Credits: 3

Internships

Students may complete Internships for 1- 9 credits. Internships require Department and College approval and faculty advisor supervision.

- COST 390 - Internship I Credits: 1-9
- COST 391 - Internship II Credits: 1-9
- COST 392 - Internship III Credits: 1-9

General Education

General Education Requirements

- General Education Program (45 crs.)

Advising Notes:

1. Year 1: COST 100, COST 125 (prerequisite for COST 200)
2. Majors must select at least four COST courses at 300 level or above.
3. Communication Studies Minor available - 18 cr.

Communication Studies Minor

Required Courses (9 crs.)

- COST 200 - Human Communication Theory Credits: 3
- COST 210 - Public Speaking Credits: 3
- COST 270 - Intergroup/Intercultural Communication Credits: 3

Electives (9 crs.)

Students will work with advisors to develop a program of emphasis that incorporates courses that are connected to personal and professional goals. Communication Studies minors must take at least two courses at the 300-level or above. Additional credits may come from any level courses, and/or internships.

- COST 220 - Nonverbal Communication Credits: 3

- COST 225 - Communication and Sport Credits: 3
- COST 230 - Small Group Communication Credits: 3
- COST 241 - Practicum in Experiential Learning Credits: 1
- COST 250 - Interpersonal Communication Credits: 3
- COST 260 - Computer-Mediated Communication Credits: 3
- COST 265 - Interviewing Credits: 3
- COST 275 - Special Topics in Communication Skill Credits: 3
- COST 310 - African-American Communication Credits: 3
- COST 315 - Asian-American Communication Credits: 3
- COST 325 - Voices of Black Anti-Racism and Resistance Credits: 3
- COST 333 - Communicating Identity Credits: 3
- COST 335 - Popular Culture and Gender Construction Credits: 3
- COST 340 - Gender and Communication Credits: 3
- COST 342 - Health Communication Credits: 3
- COST 343 - Communication and Humor Credits: 3
- COST 344 - Family Communication Credits: 3
- COST 345 - Environmental Communication Credits: 3
- COST 350 - Theories of Organizational Communication Credits: 3
- COST 351 - Special Topics: Comm Contexts Credits: 3
- COST 352 - Argumentation & Debate Credits: 3
- COST 356 - Persuasion Credits: 3
- COST 363 - Political Rhetoric Credits: 3
- COST 365 - Language and Meaning Credits: 3
- COST 372 - Communication for Training and Instruction Credits: 3
- COST 381 - Professional Communication and Multi-media Presentation Credits: 3
- COST 385 - Resolving Conflict through Communication Credits: 3
- COST 386 - Crisis Communication Credits: 3
- COST 410 - Feminist Perspectives on Communication Theory and Research Methods Credits: 3
- COST 430 - Advanced Interpersonal Communication Credits: 3

Internships

Students may complete Internships for 1-6 credits. Internships require Department and College approval and faculty advisor supervision.

- COST 390 - Internship I Credits: 1-9
- COST 391 - Internship II Credits: 1-9
- COST 392 - Internship III Credits: 1-9

Sport Studies Minor

The Minor Program in Sport Studies allow students to explore the role of sport in society. An interdisciplinary program, Sport Studies draws from all three Colleges to provide students with the opportunity to explore sport from the academic perspectives of the physical and social sciences, business and economics, and the humanities. The Sport Studies program offers a unique, critically informed lens into the way in which sport(s) both reflects and shapes cultures and societies, while providing career readiness skills for students who intend to pursue employment in sport related industries.

Required Courses (6 crs.)

- COST 225 - Communication and Sport Credits: 3
- MKTG 380 - Sports Marketing Credits: 3

Electives (12 crs.)

At least one 3 credit elective course must be at the 300-level or above.

Between 9 and 12 credits must come from the following:

- COMM 305 - Sports Journalism Credits: 3
- ECON 377 - Sports Economics Credits: 3
- EXER 213 - Organization and Administration for Fitness and Sport Facilities Credits: 3
- EXER 325 - Sport Psychology Credits: 3
- HIST 385 - Selected Topics in History Credits: 3
- POLI 344 - Sport in Comparative Political Perspective Credits: 3
- SOCI 275 - Sociology of Sport and Leisure Credits: 3

A maximum of 3 credits may come form the following:

- COST 230 - Small Group Communication Credits: 3
- COST 350 - Theories of Organizational Communication Credits: 3
- COST 386 - Crisis Communication Credits: 3
- COST 391 - Internship II Credits: 1-9
- MATH 117 - Applied Statistics Credits: 3
- MATH 217 - Statistics I Credits: 4
- MATH 375 - Probability and Statistics for Engineers Credits: 4

Sport Studies Certificate

The Certificate in Sport Studies allow students to explore the role of sport in society. An interdisciplinary program, Sport Studies draws from all three Colleges to provide students with the opportunity to explore sport from the academic perspectives of the physical and social sciences, business and economics, and the humanities. The Sport Studies program offers a unique, critically informed lens into the way in which sport(s) both reflects and shapes cultures and societies, while providing career readiness skills for students who intend to pursue employment in sport related industries.

Required Courses (3 crs.)

- COST 225 - Communication and Sport Credits: 3
- MKTG 380 - Sports Marketing Credits: 3

Electives (6 crs.)

- COMM 305 - Sports Journalism Credits: 3
- ECON 377 - Sports Economics Credits: 3
- EXER 213 - Organization and Administration for Fitness and Sport Facilities Credits: 3

- EXER 325 - Sport Psychology Credits: 3
- HIST 385 - Selected Topics in History Credits: 3
- POLI 344 - Sport in Comparative Political Perspective Credits: 3
- SOCI 275 - Sociology of Sport and Leisure Credits: 3

A maximum of 3 credits may come from the following:

- COST 230 - Small Group Communication Credits: 3
- COST 350 - Theories of Organizational Communication Credits: 3
- COST 386 - Crisis Communication Credits: 3
- COST 391 - Internship II Credits: 1-9 , with permission only
- MATH 117 - Applied Statistics Credits: 3
- MATH 217 - Statistics I Credits: 4
- MATH 375 - Probability and Statistics for Engineers Credits: 4

Disability Studies Program

The Disability Studies Minor provides students with a cuttingedge, interdisciplinary body of knowledge and skills geared toward the exploration of the meaning and impact of disability across time, place, and group. As a field akin to Women's and Gender Studies and Ethnic Studies, Disability Studies sees individuals with disabilities as a valuable and integral part of the human community, and it examines the ways in which understandings of disability shape the fundamental aspects of our lives, relationships, and societies. In addition, the program raises awareness of disability issues, knowledge of disability rights and laws, and best practices towards creative toward inclusive and accessible environments and communities. The knowledge and skills gained will prepare students for disability-related careers and advanced study in disability studies, and will enhance and deepen their understanding of the multicultural fabric of contemporary society.

Disability Studies Minor

The Disability Studies Minor provides students with a cutting-edge, interdisciplinary body of knowledge and skills geared toward the exploration of the meaning and impact of disability across time, place, and group. As a field akin to Women's and Gender Studies and Ethnic Studies, Disability Studies sees individuals with disabilities as a valuable and integral part of the human community, and it examines the ways in which understandings of disability shape the fundamental aspects of our lives, relationships, and societies. In addition, the program raises awareness of disability issues, knowledge of disability rights and laws, and best practices towards creative toward inclusive and accessible environments and communities. The knowledge and skills gained will prepare students for disability-related careers and advanced study in disability studies, and will enhance and deepen their understanding of the multicultural fabric of contemporary society.

18 crs.

Core Requirements (6 crs.)

To complete the Disability Studies minor, students will take the two core courses (DISA 100 and DISA 400) and four of the approved electives. Elective coursework must represent at least two academic disciplines (defined by course prefix). At least six credits of the minor coursework must be at the 300 or 400 level. At least 50% of the courses for the minor must be taken at Shippensburg University.

- DISA 100 - Introduction to Disability Studies Credits: 3
- DISA 400 - Capstone in Disability Studies Credits: 3

Approved Electives (12 crs.)

- ASL 101 - American Sign Language Credits: 3
- ASL 102 - American Sign Language II Credits: 3
- COMM 245 - Diversity and the Media Credits: 3
- CRJU 326 - Victimology: The Victim and the Law Credits: 3
- CRJU 377 - Hate Crime Credits: 3
- CRJU 381 - Mental Health in the Criminal Justice System Credits: 3
- DISA 391 - Internship in Disability Studies Credits: 3
- DISA 392 - Internship in Disability Studies II Credits: 1-3
- SPEE 273 - Introduction to Exceptionalities: Understanding Diverse Learners Credits: 3
- SPEE 280 - Best Practices in Collaboration: Educators, Families, & Related Service Providers Credits: 3
- SPEE 423 - Effective Instructional Strategies for Students with Exceptionalities Credits: 3
- ENGL 362 - Studies in Disability & Literature Credits: 3
- GERT 100 - Introduction to Gerontology Credits: 3
- COST 333 - Communicating Identity Credits: 3
- COST 335 - Popular Culture and Gender Construction Credits: 3
- COST 342 - Health Communication Credits: 3
- COST 344 - Family Communication Credits: 3
- COST 410 - Feminist Perspectives on Communication Theory and Research Methods Credits: 3
- HONR 411 - Honors: Introduction to Exceptionalities: Understanding Diverse Learners Credits: 3
- MGMT 340 - Human Resource Management Credits: 3
- MGMT 346 - Employment Law Credits: 3
- PSYC 315 - Psychology of Prejudice and the Minority Experience Credits: 3
- PSYC 345 - Psychiatric Rehabilitation Credits: 3
- PSYC 355 - Child and Adolescent Psychopathology Credits: 3
- PSYC 365 - Multicultural Psychology Credits: 3
- SOCI 257 - Family in Modern Society Credits: 3
- SOCI 320 - Sociology of Disability Credits: 3
- SOCI 369 - Medical Sociology Credits: 3
- SOCI 371 - Sociology of Aging Credits: 3
- SOWK 265 - Understanding Human Diversity for Social Justice Credits: 3
- SOWK 347 - Special Fields of Social Work: Behavioral Health Credits: 3
- SOWK 351 - Social Work Elective: Aging Credits: 3
- SOWK 356 - Social Work Elective: Intellectual and Developmental Disabilities Credits: 3
- SOWK 420 - Gender Issues for Helping Professionals Credits: 3
- SOWK 450 - Social Welfare Policies and Services Credits: 3

Economics Department

The Department of Economics offers undergraduate programs leading to the Bachelor of Science (B.S.) degree. The economics major is designed to enable students to analyze problems relating to choice, equity, and efficiency from an individual as well as from a social standpoint. Students are prepared to be active, thinking members of society capable of productive and constructive participation. Many issues and policies are examined, ranging from globalization, technological change, and environmental concerns to questions of fiscal and monetary policy, poverty, inflation, and unemployment.

Economics Features

Shippensburg University's economics department faculty members' academic specialties cover nearly all important topics in the field. In addition to both micro and macro theory and policy areas, the faculty have expertise in such diverse topics as healthcare and environmental issues, international trade, and econometrics. The department sponsors an Economics Club for interested students and has a local chapter of the national economic honor society, Omicron Delta Epsilon (ODE). The department has successfully competed in the Fed Challenge, a student-team panel competition sponsored annually by the Richmond Federal Reserve Bank.

Internship Policy

Students can explore employment options and perhaps gain an edge in the labor market by having an internship. Internship hours will count as free electives.

Economics, Business Concentration, B.S.

This concentration combines a solid background in economics with a significant exposure to important business-related analytical and conceptual skills. By completing the business minor students will gain an appreciation for managerial decision making and develop an awareness of how business skills are applied.

Credit Requirements*

- **General Education:** 45 - 47 credits
- **Major Requirements**: 42 - 46 credits
- **Free Electives:** 27 - 33 credits
- *Total Credits to Graduate:* **120 credits**

* All undergraduate degree programs require a minimum of 120 credits. Some courses meet multiple requirements, but are only counted once toward the 120 credit total required to graduate.

Economics B.S.

The Bachelor of Science degree is anchored by a strong core of required economics, mathematics, and statistics courses that provide a solid foundation of analytical and quantitative reasoning. Flexibility comes from selecting one of six concentrations to complement the economics foundation courses. Each concentration has been designed to meet the specific and interests of students focused upon a variety of career or professional options. By partnering with other disciplines, our students are assured of gaining insights from cross-disciplinary studies.

Course Requirements

Required Economics (21 crs.)

- ECON 270 - Intermediate Macroeconomic Theory Credits: 3
- ECON 280 - Managerial Economics Credits: 3
- 15 Credits of Economics Electives at the 300-level or higher

Concentration Requirements

Students may choose from pre-approved concentrations or seek departmental approval for a concentration of their own design. The decision regarding one's concentration should be made normally during the sophomore year. The current pre-approved concentrations are: business, data science, mathematics, political science, public administration, and the social sciences. Each of the concentrations (other than social sciences) has been structured to ensure students earn a minor in the complementary discipline.

Business Concentration

Required Mathematics/Statistics (3-7 crs.)

- MATH 140 - College Algebra Credits: 3

- MATH 117 - Applied Statistics Credits: 3
  OR
- MATH 217 - Statistics I Credits: 4
  OR
- SCMG 200 - Statistical Applications in Business Credits: 3

Note:

MATH 140 not required if math placement test level is 5 or 6.

Required Business Courses (18 crs.)

- ACCT 200 - Fundamentals of Financial Accounting Credits: 3
- FINA 311 - Financial Management Credits: 3
- MGMT 305 - Organizational Behavior Credits: 3
- MKTG 205 - Principles of Marketing Credits: 3
- Three credits from either a finance or accounting course
- Three additional John L. Grove College of Business credits

Note:

SCMG 200 requires ITAN 142 as a prerequisite.

Students will have completed the required 18 credits for the business minor

General Education

General Education Requirements

- General Education Program (45 crs.)

General Education Requirements Specific for this major

- Quantitative (Q): MATH 181 OR MATH 211

- Both Global Perspective (G): ECON 101 AND Technology (T): ECON 102 OR Critical Reasoning (R): ECON 113

Economics, Data Science Concentration, B.S.

The B.S. in Economics and Data Science concentration provides students the foundation to employ the appropriate statistical techniques to help answer a wide variety of questions confronted by decision makers. According to CNBC.com, "With more and more companies using big data, the demand for [those]...who know how to manage the tsunami of information, spot patterns within it and draw conclusions and insights-is nearing a frenzy."

Credit Requirements*

- **General Education:** 45 - 47 credits
- **Major Requirements**: 40 - 43 credits
- **Free Electives:** 30 - 35 credits
- *Total Credits to Graduate:* **120 credits**

* All undergraduate degree programs require a minimum of 120 credits. Some courses meet multiple requirements, but are only counted once toward the 120 credit total required to graduate.

Economics B.S.

The Bachelor of Science degree is anchored by a strong core of required economics, mathematics, and statistics courses that provide a solid foundation of analytical and quantitative reasoning. Flexibility comes from selecting one of six concentrations to complement the economics foundation courses. Each concentration has been designed to meet the specific and interests of students focused upon a variety of career or professional options. By partnering with other disciplines, our students are assured of gaining insights from cross-disciplinary studies.

Course Requirements

Required Economics (21 crs.)

- ECON 270 - Intermediate Macroeconomic Theory Credits: 3
- ECON 280 - Managerial Economics Credits: 3
- 15 Credits of Economics Electives at the 300-level or higher

Concentration Requirements

Students may choose from pre-approved concentrations or seek departmental approval for a concentration of their own design. The decision regarding one's concentration should be made normally during the sophomore year. The current pre-approved concentrations are: business, data science, mathematics, political science, public administration, and the social sciences. Each of the concentrations (other than social sciences) has been structured to ensure students earn a minor in the complementary discipline.

Required Math (0-3 crs.)

- MATH 140 - College Algebra Credits: 3
  Note: MATH 140 not required if math placement test level is 5 or 6.

Data Science Courses (19-20 crs.)

- CMSC 104 - Programming in Python Credits: 3
  OR
- CMSC 110 - Computer Science I Credits: 4
  OR
- ITAN 240 - Python Programming for Business and Analytics Credits: 3

- ECON 333 - Research and Analysis in Economics Credits: 3
- MATH 217 - Statistics I Credits: 4
- MATH 219 - Data Science I Credits: 3
- MATH 317 - Statistics II Credits: 3
- MATH 319 - Data Science II Credits: 3

General Education

General Education Requirements

- General Education Program (45 crs.)

General Education Requirements Specific for this major

- Quantitative (Q): MATH 181 OR MATH 211
- Both Global Perspective (G): ECON 101 AND Technology (T): ECON 102 OR Critical Reasoning (R): ECON 113

Note: If ECON 113 is taken then student may use CMSC 104 to fulfill Techology (T)

Economics, Mathematics Concentration, B.S.

This concentration would be especially well-suited for students preparing for graduate study in economics, which has become increasingly focused upon mathematics and statistical analysis.

Students are strongly encouraged to take ECON 484 Mathematical Economics and ECON 485 Econometrics as economics electives.

Credit Requirements*

- **General Education:** 46 - 47 credits
- **Major Requirements**: 41 - 43 credits
- **Free Electives:** 30 - 33 credits
- *Total Credits to Graduate:* **120 credits**

* All undergraduate degree programs require a minimum of 120 credits. Some courses meet multiple requirements, but are only counted once toward the 120 credit total required to graduate.

Economics B.S.

The Bachelor of Science degree is anchored by a strong core of required economics, mathematics, and statistics courses that provide a solid foundation of analytical and quantitative reasoning. Flexibility comes from selecting one of six concentrations to complement the economics foundation courses. Each concentration has been designed to meet the specific and interests of students focused upon a variety of career or professional options. By partnering with other disciplines, our students are assured of gaining insights from cross-disciplinary studies.

Course Requirements

Required Economics (21 crs.)

- ECON 270 - Intermediate Macroeconomic Theory Credits: 3
- ECON 280 - Managerial Economics Credits: 3
- 15 Credits of Economics Electives at the 300-level or higher

Concentration Requirements

Students may choose from pre-approved concentrations or seek departmental approval for a concentration of their own design. The decision regarding one's concentration should be made normally during the sophomore year. The current pre-approved concentrations are: business, data science, mathematics, political science, public administration, and the social sciences. Each of the concentrations (other than social sciences) has been structured to ensure students earn a minor in the complementary discipline.

Mathematics Concentration

Economics Credits for Concentration (3 crs)

- Required Economics plus three (3) additional Economics credits at the 300-level or higher

Required Math/Statistics Courses (17-19 crs.)

- MATH 212 - Calculus II Credits: 4
- MATH 217 - Statistics I Credits: 4

Plus three additional mathematics courses from among the following.

Other mathematics courses at the 200-level or above may be substituted, with advisement. At least two of these additional courses must be at the 300-level or above. Students will have completed the required 21 credits for the mathematics minor.

- MATH 213 - Calculus III Credits: 4
- MATH 225 - Discrete Mathematics Credits: 4
- MATH 318 - Elementary Linear Algebra Credits: 3
- MATH 317 - Statistics II Credits: 3
- MATH 322 - Differential Equations Credits: 3
- MATH 425 - Advanced Algebraic Structures Credits: 3

General Education

General Education Requirements

- General Education Program (45 crs.)

General Education Requirements Specific for this major

- Quantitative (Q): MATH 211
- Both Global Perspective (G): ECON 101 AND Technology (T): ECON 102 OR Critical Reasoning (R): ECON 113

Economics, Political Science Concentration, B.S.

This combination will be appropriate for students planning to pursue careers in government, business, law, or international relations. While combining some aspects of a traditional political economy approach, this concentration will also heighten students' knowledge of the institutional and legal dimensions of major public policy debates.

Credit Requirements*

- **General Education:** 45 - 47 credits
- **Major Requirements**: 42 - 46 credits
- **Free Electives:** 27 - 33 credits
- *Total Credits to Graduate:* **120 credits**

* All undergraduate degree programs require a minimum of 120 credits. Some courses meet multiple requirements, but are only counted once toward the 120 credit total required to graduate.

Economics B.S.

The Bachelor of Science degree is anchored by a strong core of required economics, mathematics, and statistics courses that provide a solid foundation of analytical and quantitative reasoning. Flexibility comes from selecting one of six concentrations to complement the economics foundation courses. Each concentration has been designed to meet the specific and interests of students focused upon a variety of career or professional options. By partnering with other disciplines, our students are assured of gaining insights from cross-disciplinary studies.

Course Requirements

Required Economics (21 crs.)

- ECON 270 - Intermediate Macroeconomic Theory Credits: 3
- ECON 280 - Managerial Economics Credits: 3
- 15 Credits of Economics Electives at the 300-level or higher

Concentration Requirements

Students may choose from pre-approved concentrations or seek departmental approval for a concentration of their own design. The decision regarding one's concentration should be made normally during the sophomore year. The current pre-approved concentrations are: business, data science, mathematics, political science, public administration, and the

social sciences. Each of the concentrations (other than social sciences) has been structured to ensure students earn a minor in the complementary discipline.

Political Science Concentration

Required Math/Statistics Courses (3-7 crs.)

- MATH 140 - College Algebra Credits: 3

- MATH 117 - Applied Statistics Credits: 3 or
- MATH 217 - Statistics I Credits: 4

Note:

MATH 140 not required if math placement test level is 5 or 6.

Required Political Science Courses (18 crs.)

- POLI 100 - U.S. Government and Politics Credits: 3
- POLI 201 - Foundations of Political Science: Concepts and Critical Analysis Credits: 3
- POLI 300 - Advanced American Government and Public Policy Credits: 3
- POLI 301 - Political Science Research Methods Credits: 3
  OR
- POLI 302 - Public Policy Analysis Credits: 3
- POLI Elective Credits: 3
- POLI Elective at 300 or 400 level Credits: 3

Note:

To fulfill the requirements for the minor in Political Science, students will have to complete POLI 141 and one additional course.

General Education

General Education Requirements

- General Education Program (45 crs.)

General Education Requirements Specific for this major

- Quantitative (Q): MATH 181 OR MATH 211
- Both Global Perspective (G): ECON 101 AND Technology (T): ECON 102 OR Critical Reasoning (R): ECON 113

Economics, Public Administration Concentration, B.S.

This sequence of courses would prepare students for careers in the public sector at either the local, state, or federal level, as well as for graduate studies. Economics strongly complements the policy and institutional focus of public administration.

Credit Requirements*

- **General Education:** 45 - 47 credits
- **Major Requirements**: 42 - 46 credits
- **Free Electives:** 27 - 33 credits
- *Total Credits to Graduate:* **120 credits**

* All undergraduate degree programs require a minimum of 120 credits. Some courses meet multiple requirements, but are only counted once toward the 120 credit total required to graduate.

Economics B.S.

The Bachelor of Science degree is anchored by a strong core of required economics, mathematics, and statistics courses that provide a solid foundation of analytical and quantitative reasoning. Flexibility comes from selecting one of six concentrations to complement the economics foundation courses. Each concentration has been designed to meet the specific and interests of students focused upon a variety of career or professional options. By partnering with other disciplines, our students are assured of gaining insights from cross-disciplinary studies.

Course Requirements

Required Economics (21 crs.)

- ECON 270 - Intermediate Macroeconomic Theory Credits: 3
- ECON 280 - Managerial Economics Credits: 3
- 15 Credits of Economics Electives at the 300-level or higher

Concentration Requirements

Students may choose from pre-approved concentrations or seek departmental approval for a concentration of their own design. The decision regarding one's concentration should be made normally during the sophomore year. The current pre-approved concentrations are: business, data science, mathematics, political science, public administration, and the social sciences. Each of the concentrations (other than social sciences) has been structured to ensure students earn a minor in the complementary discipline.

Public Administration Concentration

Required Math/Statistics Sequence (3-7 crs.)

- MATH 140 - College Algebra Credits: 3

- MATH 117 - Applied Statistics Credits: 3 or
- MATH 217 - Statistics I Credits: 4

Note:

MATH 140 not required if math placement test level is 5 or 6.

Required Public Administration Courses (18 crs.)

- POLI 100 - U.S. Government and Politics Credits: 3
- POLI 271 - Introduction to Public Administration Credits: 3
- POLI 300 - Advanced American Government and Public Policy Credits: 3

- POLI 371 - Public Management Credits: 3 or
- POLI 373 - Public Financial Administration Credits: 3
- Political Science/Public Adminstrative Elective Credits: 3

Plus three additional Public Administrative credits from among the following:

- POLI 231 - State and Local Government Credits: 3
- POLI 371 - Public Management Credits: 3
- POLI 372 - Public Personnel Administration Credits: 3
- POLI 374 - Public Service Ethics Credits: 3

General Education

General Education Requirements

- General Education Program (45 crs.)

General Education Requirements Specific for this major

- Quantitative (Q): MATH 181 OR MATH 211
- Both Global Perspective (G): ECON 101 AND Technology (T): ECON 102 OR Critical Reasoning (R): ECON 113

Economics, Social Science Concentration, B.S.

Intended for students pursuing a broad based approach to understanding contemporary social issues, the social science concentration would be similar to traditional liberal arts or B.A. degree in economics. Students are encouraged to consider studying a foreign language as a purposeful use of some of their free elective credits.

Credit Requirements*

- **General Education:** 45 - 47 credits
- **Major Requirements**: 45 - 46 credits
- **Free Electives:** 27 - 33 credits
- *Total Credits to Graduate:* **120 credits**

* All undergraduate degree programs require a minimum of 120 credits. Some courses meet multiple requirements, but are only counted once toward the 120 credit total required to graduate.

Economics B.S.

The Bachelor of Science degree is anchored by a strong core of required economics, mathematics, and statistics courses that provide a solid foundation of analytical and quantitative reasoning. Flexibility comes from selecting one of six concentrations to complement the economics foundation courses. Each concentration has been designed to meet the specific and interests of students focused upon a variety of career or professional options. By partnering with other disciplines, our students are assured of gaining insights from cross-disciplinary studies.

Course Requirements

Required Economics (21 crs.)

- ECON 270 - Intermediate Macroeconomic Theory Credits: 3
- ECON 280 - Managerial Economics Credits: 3
- 15 Credits of Economics Electives at the 300-level or higher

Concentration Requirements

Students may choose from pre-approved concentrations or seek departmental approval for a concentration of their own design. The decision regarding one's concentration should be made normally during the sophomore year. The current pre-approved concentrations are: business, data science, mathematics, political science, public administration, and the social sciences. Each of the concentrations (other than social sciences) has been structured to ensure students earn a minor in the complementary discipline.

Social Science Concentration

Required Mathematics Sequence (6-7 crs.)

- MATH 140 - College Algebra Credits: 3
  OR
- MATH 175 - Precalculus Credits: 3

- MATH 117 - Applied Statistics Credits: 3
  OR
- MATH 217 - Statistics I Credits: 4

Note:

MATH 140 not required if math placement test level is 5 or 6.

Allied Fields (18 crs.)

Students concentrating in the social sciences must take the following courses and credits in the appropriate allied fields.

Political Science

- POLI 100 - U.S. Government and Politics Credits: 3
- POLI - Political Science elective at the 300 level or higher with advisement

Sociology or Anthropology

- SOCI 241 - Contemporary Social Problems
- Sociology elective at the 300 level or higher with advisement.

Geography

- GEOG 329 - Economic Geography Credits: 3
- GEOG - Geography Elective at the 300 level or higher

General Education

General Education Requirements

- General Education Program (45 crs.)

General Education Requirements Specific for this major

- Quantitative (Q): MATH 181 OR MATH 211
- Both Global Perspective (G): ECON 101 AND Technology (T): ECON 102 OR Critical Reasoning (R): ECON 113

Economics Minor

The minor in economics has advantages for both business majors and non-business majors. Minoring in economics may be a smart move academically and for your career.

Business Majors -19 crs.

The advantage for business majors is the minor in economics provides a liberal arts component to complement the business degree. Many employers are seeking students who can think about business problems in a broader context. They are also seeking students with problem solving and analytical abilities. A minor in economics demonstrates breadth, analytical ability, willingness to take challenging courses, and an understanding of the method of a social science. Business majors already take seven credit hours of economics. The economic minor requires only four additional elective courses (two of which must be at the 300/400 level), which can be selected to complement your major.

Core Courses (7 crs.)

Students may substitute ECON 101 and ECON 102 for ECON 113.

- ECON 113 - Principles of Economics Credits: 4
- ECON 280 - Managerial Economics Credits: 3

Electives (12 crs.)

Course selected by advisement.

A minimum of 6 credits must be earned at the 300/400 level

Non-business Majors - 18 crs.

A minor in economics is an excellent complement to many majors. Economics is a relevant major for students preparing for a career in business, law, and many other fields who prefer a liberal arts education. The minor in economics provides some of the same background, but with less depth. With proper advisement, a minor in economics can provide the economics prerequisites for an MBA program or for graduate work in economics. The minor in economics requires students to take ECON 101, ECON 102 and four additional electives courses (two of which must be at the 300/400 level). May students already have a sequence in economics required by their major and can complete a minor by taking only a few additional courses. The minor in economics can be combined with a sequence of courses in business for students who are seeking employment in the business world, but do not want a business major. For example, ACCT 200, ACCT 201, BLAW 261, ITAN 142, and SCMG 200 are some appropriate courses available to non-business majors at the lower division level for students who have taken the prerequisites. Some upper division business courses may also be available to non-business majors.

Core Courses (6 crs.)

Students may substitute ECON 113 for ECON 101 and ECON 102, but then will need to take an additional elective.

- ECON 101 - Principles of Macroeconomics Credits: 3
- ECON 102 - Principles of Microeconomics Credits: 3

Electives (12 crs.)

Course selected by advisement.

A minimum of 6 credits must be earned at the 300/400 level.

English Department

The Department of English offers undergraduate programs leading to the Bachelor of Arts degree. Students who graduate with a B.A. - Literary Studies, B.A. - Professional and Creative Writing, or a B.A. with Secondary Certification have learned to read critically and write effectively about literature and related fields. They will be familiar with works in drama, poetry, and prose and will understand the structures of the English language, the various literary genres, the historical and global contexts of literature, and the various methodologies that facilitate the analysis and understanding of literature. English Education 7-12 students seeking Pennsylvania certification should see requirements outlined in the College of Education and Human Services.

English Features

Students in English read deeply, think critically, and write extensively, and they learn to apply these skills outside the classroom. More than preparing for a profession, studying English allows students to work closely with accomplished faculty in a field that is at the heart of a liberal arts education. Shippensburg English majors visit historical archives; conduct independent research; attend and present their work at professional academic conferences; study abroad; hold

internships; work with local schools; serve in leadership roles across campus; act as tutors and peer mentors; meet with distinguished visiting writers, editors, filmmakers, and scholars; and learn skills in publishing, editing, and digital media. The study of language and literature at Ship provides our students with skills that are always in demand.

English Career Opportunities

Few majors prepare students for a variety of careers as well as English does. Because success in every profession demands effective communication skills, the study of English is excellent preparation for careers in law, medicine, higher education, technical writing, journalism, Human Resources, marketing, management, administration, publishing, writing, and digital media. In addition, the Shippensburg University English Department is known for placing high-quality secondary teachers in English Language Arts classrooms throughout the region. Shippensburg University English majors have successful careers as book editors, technical writers, web content editors, and social media managers. English majors' abilities to think creatively, to research, write, and edit complex documents, to work independently or in teams, to analyze and interpret information, and to present their analyses through clear and effective writing make them not only valuable employees but humane and thoughtful citizens.

English, Literary Studies, B.A.

The Bachelor of Arts in English with a Literary Studies concentration focuses intensively on English, American, and Global literatures and teaches students not only how to analyze literature but to apply that critical thinking and engagement to life. Students graduating with a degree in English have developed careers in publishing, communications, technical writing, web content writing, public relations, teaching, marketing, and other fields where writing, language skills, and textual interpretation are valued. From small businesses to large corporations; from local newspapers to mass media outlets: with an English major, the job possibilities are endless.

Credit Requirements*

- **Foreign Language Requirement:** 0 - 3 credits
- **General Education:** 45 credits
- **Major Requirements**: 39 credits
- **Free Electives:** 33 - 36 credits
- *Total Credits to Graduate:* **120 credits**

* All undergraduate degree programs require a minimum of 120 credits. Some courses meet multiple requirements, but are only counted once toward the 120 credit total required to graduate.

Bachelor of Arts Foreign Language Requirement:

All students completing a Bachelor of Arts degree are required to attain proficiency in a foreign language. Proficiency may be satisfied by completing a language class at the 103 (intermediate) level or three years of any one foreign language in high school. Students may also meet this requirement through AP or CLEP testing.

English Major Requirements (39 crs.)

Required Courses (9 crs.)

- ENGL 130 - Literary Studies for the English Major and Minor Credits: 3
- ENGL 213 - Writing and Research About Literature Credits: 3
- ENGL 480 - Professional Endeavors Credits: 3

Course of Study: Literary Studies (30 crs)

- 200 level literature
- 200 level literature
- 200 level writing
- 200 or 300 level writing class
- 300 level literature
- 300 level literature
- 400 level literature
- 400 level literature
- Any 300 or 400 level class
- Any writing class

General Education

General Education Requirements

- General Education Program (45 crs.)

Advising Notes:

1. Semester I: ENGL 130
2. Semester I: ENGL 213
3. An English minor is available - 18 cr

English, Professional and Creative Writing Concentration, B.A.

The Bachelor of Arts in English with a Professional and Creative Writing concentration uniquely blends creative writing with the professional skills in demand in today's marketplace. Students graduating with a degree in English have developed careers in publishing, communications, technical writing, web content writing, public relations, teaching, marketing, and other fields where writing, language skills, and textual interpretation are valued. From small businesses to large corporations; from local newspapers to mass media outlets: with an English major, the job possibilities are endless.

Credit Requirements*

- **Foreign Language Requirement:** 0 - 3 credits
- **General Education:** 45 credits
- **Major Requirements**: 39 credits
- **Free Electives:** 33 - 36 credits
- *Total Credits to Graduate:* **120 credits**

* All undergraduate degree programs require a minimum of 120 credits. Some courses meet multiple requirements, but are only counted once toward the 120 credit total required to graduate.

Bachelor of Arts Foreign Language Requirement:

All students completing a Bachelor of Arts degree are required to attain proficiency in a foreign language. Proficiency may be satisfied by completing a language class at the 103 (intermediate) level or three years of any one foreign language in high school. Students may also meet this requirement through AP or CLEP testing.

English Major Requirements (39 crs.)

Required Courses (9 crs.)

- ENGL 130 - Literary Studies for the English Major and Minor Credits: 3
- ENGL 213 - Writing and Research About Literature Credits: 3
- ENGL 480 - Professional Endeavors Credits: 3

Course of Study (30 crs.)

- 200 level literature (3 crs.)
- 200 level writing (3 crs.)
- Technical/Professional Writing or Reviewing the Arts (3 crs.)
- 300 level literature (3 crs.)
- 300 level writing (3 crs.)
- 300 or 400 level literature (3 crs.)
- 300 or 400 level writing (3 crs.)
- 400 level writing (3 crs.)
- Any 300 or 400 level class (3 crs.)
- Any writing class (3 crs.)

200-level Foundations Courses

Literature:

- ENGL 242 - Foundations in Literary Histories Credits: 3
- ENGL 246 - Foundations in Ethnic Literature Credits: 3

Writing:

- ENGL 222 - Foundations in Grammar and Editing Credits: 3
- ENGL 229 - Foundations in Creative Writing Credits: 3
- ENGL 238 - Technical/Professional Writing Credits: 3

300-level Studies Courses

Literature:

- ENGL 342 - Studies in Mythology Credits: 3
- ENGL 345 - Women's Literature Credits: 3
- ENGL 348 - Studies in Early British Literature Credits: 3
- ENGL 358 - Studies in U.S. Latinx Literature Credits: 3
- ENGL 359 - Studies in Indigenous Literature Credits: 3
- ENGL 360 - Studies in Popular Culture Credits: 3
- ENGL 362 - Studies in Disability & Literature Credits: 3
- ENGL 370 - Studies in Queer Literature Credits: 3
- ENGL 375 - Studies in African American Literature Credits: 3

- ENGL 380 - Studies in Later British Literature Credits: 3
- ENGL 381 - Studies in Later American Literature Credits: 3
- ENGL 385 - Studies in Postcolonial Literature Credits: 3

Writing:

- ENGL 307 - Poetry Writing Credits: 3
- ENGL 308 - Fiction Writing Credits: 3
- ENGL 323 - Reviewing the Arts for Publication Credits: 3
- ENGL 335 - Creative Nonfiction Writing Credits: 3
- ENGL 366 - History and Structure of the English Language Credits: 3

400-level Seminar Courses

400-level Seminar Courses:

Literature:

- ENGL 430 - Seminar in Literary History & Movements Credits: 3
- ENGL 440 - Seminar in Genre Credits: 3
- ENGL 445 - Seminar in Literature and Identities Credits: 3
- ENGL 450 - Seminar in Cultural Studies Credits: 3
- ENGL 466 - Seminar in Literary Criticism Credits: 3

Writing:

- ENGL 427 - Advanced Poetry Workshop Credits: 3
- ENGL 428 - Advanced Fiction Workshop Credits: 3
- ENGL 435 - Advanced Creative Nonfiction Credits: 3
- ENGL 438 - Advanced Technical/Professional Writing Credits: 3

Electives (36 crs.)

General Education

General Education Requirements

- General Education Program (45 crs.)

General Education Requirements Specific for this major:

- First Year Seminar (U): UNIV 101
- Writing (W): ENGL 114, ENGL 115, HONR 106
- Oral Communication (O): COST 100, HONR 100
- History (H): HIST 105, HONR 122
- Quantitative (Q): MATH 105, MATH 107, or MATH 117 recommended

Advising Notes:

1. Semester I: ENGL 130
2. Semester I: ENGL 213

3. An English minor is available - 18 cr

English with Secondary Certification, B.A.

The Bachelor of Arts in English with Secondary Certification prepares students to teach in grades 7-12 in Pennsylvania as well as in more than 40 other states with reciprocal agreements. Shippensburg University's program is nationally recognized by the National Council of Accreditation for Teacher Education and by the National Council of Teachers of English. The university also has the only public elementary lab school in the state.

Credit Requirements*

- **Foreign Language Requirement:** 0 - 3 credits
- **General Education:** 45 credits
- **Major Requirements**: 72 credits
- **Free Electives:** 0 - 3 credits
- *Total Credits to Graduate:* **120 credits**

* All undergraduate degree programs require a minimum of 120 credits. Some courses meet multiple requirements, but are only counted once toward the 120 credit total required to graduate.

Bachelor of Arts Foreign Language Requirement:

All students completing a Bachelor of Arts degree are required to attain proficiency in a foreign language. Proficiency may be satisfied by completing a language class at the 103 (intermediate) level or three years of any one foreign language in high school. Students may also meet this requirement through AP or CLEP testing.

English Major Requirements (30 crs.)

Students receiving certification must take one course in world literature.

Required Courses (6 crs.)

- ENGL 130 - Literary Studies for the English Major and Minor Credits: 3
- ENGL 213 - Writing and Research About Literature Credits: 3

Course of Study: Secondary Education (24 crs.)

- 200-level literature (3cr)
- 200-level literature (3cr)
- ENGL 229 - Foundations in Creative Writing Credits: 3
- 300- or 400-level literature (3cr)
- 300- or 400-level literature (3cr)
- 300 or 400-level writing (3cr)
- 400-level literature (3cr)
- Any 300- or 400-level course (3cr)

Professional Education Requirements (42 crs.)

- TEED 207 - Organizational and Psychological Foundations in Secondary Education Credits: 3
- EDFN 290 - Introduction to English/Language Arts Education: Teaching Adolescent Writers Credits: 3
- SPEE 273 - Introduction to Exceptionalities: Understanding Diverse Learners Credits: 3
- ENGL 366 - History and Structure of the English Language Credits: 3
- ENGL 426 - Teaching Adolescent Literature Credits: 3
- SPEE 423 - Effective Instructional Strategies for Students with Exceptionalities Credits: 3
- READ 413 - Teaching Reading to English Language Learners Credits: 3
- SPEE 483 - Assessing Children with Exceptionalities for Curricular Decision-Making Credits: 3
- EDFN 422 - Methods of Teaching English in Secondary Schools Credits: 3
- ENGL 423 - Field Studies in English, Secondary Certification Credits: 3
- EDFN 495 - Student Teaching Credits: 6-15
  (English Secondary Certification Students will take 12 crs. of EDFN 495 *)*

Note:

Students seeking certification in secondary education must also complete 2 math courses (except MATH 185).

General Education

General Education Requirements

- General Education Program (45 crs.)

General Education Requirements Specific for this major

- Diversity (D): PSYC 101

Creative Writing Certificate

Required Courses (12 cr.)

Creative Writing Electives (9 crs.)

- ENGL 224 - Introduction to Creative Writing Credits: 3
- ENGL 307 - Poetry Writing Credits: 3
- ENGL 308 - Fiction Writing Credits: 3
- ENGL 335 - Creative Nonfiction Writing Credits: 3
- ENGL 341 - Teaching Writing in the Secondary Schools Credits: 3
- ENGL 427 - Advanced Poetry Workshop Credits: 3
- ENGL 428 - Advanced Fiction Workshop Credits: 3
- ENGL 435 - Advanced Creative Nonfiction Credits: 3

Genres, Histories & Identities Electives (3 crs.)

- 3 credits from a 300-level English course listed in the Genres, Histories and Identities categories.

Students not currently pursuing a baccalaureate degree may substitute any English literature, including ENGL 248 /ENGL 250.

Professional Writing Certificate

Required Courses (12 crs.)

Technical/Professional Writing (6 crs.)

- ENGL 238 - Technical/Professional Writing Credits: 3
- ENGL 438 - Advanced Technical/Professional Writing Credits: 3

Professional Writing Electives (3 crs.)

- ENGL 229 - Foundations in Creative Writing Credits: 3
- ENGL 323 - Reviewing the Arts for Publication Credits: 3
- ENGL 366 - History and Structure of the English Language Credits: 3
- ENGL 387 - English Internship I Credits: 1-9
  OR
- ENGL 389 - English Internship II Credits: 1-9
  (Requires departmental approval)

Creative Writing Electives (3 crs.)

- ENGL 224 - Introduction to Creative Writing Credits: 3
- ENGL 307 - Poetry Writing Credits: 3
- ENGL 308 - Fiction Writing Credits: 3
- ENGL 335 - Creative Nonfiction Writing Credits: 3

Creative Writing Minor

A total of 18 credits are required for the minor.

Required Courses (12 cr.)

12 credits from these courses

- ENGL 224 - Introduction to Creative Writing Credits: 3
- ENGL 307 - Poetry Writing Credits: 3
- ENGL 308 - Fiction Writing Credits: 3
- ENGL 335 - Creative Nonfiction Writing Credits: 3
- ENGL 341 - Teaching Writing in the Secondary Schools Credits: 3
- ENGL 427 - Advanced Poetry Workshop Credits: 3
- ENGL 428 - Advanced Fiction Workshop Credits: 3
- ENGL 435 - Advanced Creative Nonfiction Credits: 3
  * At least one class must be at the 400 level.

Elective (6 cr.)

- 6 credits of 300 level English courses listed in the Genres, Histories and Identities categories.

Note

Students enrolled in BA in English, Professional & Creative Writing or the Certificate in Creative Writing may not earn a Minor in Creative Writing.

English Minor

18 crs.

Required (3 crs.)

- ENGL 130 - Literary Studies for the English Major and Minor Credits: 3

Note:

ENGL 130 is a required prerequisite for all English Minors enrolling in 300- or 400- level English courses.

Electives (15 crs.)

Five additional English courses, two of which (6 credits) must be 300- or 400-level. General education courses in English may not be used to fulfill free electives. May include an internship, up to three credits.

Professional Writing Minor

Required (6 crs.)

- ENGL 238 - Technical/Professional Writing Credits: 3
- ENGL 438 - Advanced Technical/Professional Writing Credits: 3

9 credits from the following

- ENGL 229 - Foundations in Creative Writing Credits: 3
- ENGL 323 - Reviewing the Arts for Publication Credits: 3
- ENGL 366 - History and Structure of the English Language Credits: 3
- ENGL 387 - English Internship I Credits: 1-9
  OR
- ENGL 389 - English Internship II Credits: 1-9
  (Requires department approval)

3 credits chosen from the following Creative Writing courses:

- ENGL 224 - Introduction to Creative Writing Credits: 3

- ENGL 307 - Poetry Writing Credits: 3
- ENGL 308 - Fiction Writing Credits: 3
- ENGL 335 - Creative Nonfiction Writing Credits: 3
  OR
  3 credits chosen from any 200 or 300-level literature course.

Note

Minor requires 6 credits at the 300/400 level.

Students enrolled in BA in English, Professional and Creative Writing or the Certificate in Professional Writing may not earn a minor in Professional Writing.

Ethnic Studies Program

Ethnic Studies is a multi-ethnic and interdisciplinary program that offers a broad and intense course of study of the various ethnic groups in the United States. Students are encouraged to develop concepts and theories that help clarify attitudes about people of other ethnicities. Through understanding and appreciating others' cultures, students can gain an understanding of the multiple realities of our complex and culturally diverse society.

Ethnic Studies Certificate

To complete the certificate in Ethnic Studies, students must take Introduction to Ethnic Studies (ETHS 100) and any three (3) of the approved electives or core courses. These three electives must be from at least two separate disciplines. Two of those courses can be counted toward the major at the 200 or higher level. All four courses must be taken at Shippensburg University.

12 crs.

Required

- ETHS 100 - Introduction to Ethnic Studies Credits: 3

Ethnic Studies Minor

Ethnic Studies is a multi-ethnic and interdisciplinary program that offers a broad and intense course of study of the various ethnic groups in the United States. Students are encouraged to develop concepts and theories that help clarify attitudes about people of other ethnicities. Through understanding and appreciating others' cultures, students can gain an understanding of the multiple realities of our complex and culturally diverse society.

18 crs.

To complete a minor in Ethnic Studies, students must take all three core classes and three approved electives. All students are required to take at least six credits of upper level (300/400 level) courses. Two courses must be taken from at least two different disciplines.All courses must be taken at Shippensburg University.

Core Requirements (9 crs.)

- ETHS 100 - Introduction to Ethnic Studies Credits: 3
- ETHS 101 - Introduction to African-American Studies Credits: 3
- ETHS 102 - Introduction to Latino Studies Credits: 3

Approved Electives (9 crs.)

- ANTH 111 - Cultural Anthropology Credits: 3
- ANTH 330 - Ancient Americans Credits: 3
- ANTH 341 - North American Indians Credits: 3
- COMM 245 - Diversity and the Media Credits: 3
- CRJU 411 - Terrorism Credits: 3
- CRJU 452 - Race, Ethnicity, and Crime Credits: 3
- CRJU 464 - Popular Culture, Crime and Justice Credits: 3
- ENGL 248 - Introduction to Culturally Diverse Literature of the U.S. Credits: 3
- ENGL 358 - Studies in U.S. Latinx Literature Credits: 3
- ENGL 375 - Studies in African American Literature Credits: 3
- ETHS 390 - Ethnic Studies Internship Credits: 3
- HIST 201 - Early History of the United States Credits: 3
- HIST 202 - Recent History of the United States Credits: 3
- HIST 305 - The Civil War Era Credits: 3
- HIST 341 - African-American History Credits: 3
- HIST 342 - U.S. Immigration and Ethnicity Credits: 3
- HIST 430 - U.S. Cultural History Credits: 3
- COST 270 - Intergroup/Intercultural Communication Credits: 3
- COST 310 - African-American Communication Credits: 3
- COST 315 - Asian-American Communication Credits: 3
- COST 325 - Voices of Black Anti-Racism and Resistance Credits: 3
- MUSI 129 - American Popular Music Credits: 3
- POLI 325 - African American Politics Credits: 3
- PSYC 315 - Psychology of Prejudice and the Minority Experience Credits: 3
- PSYC 365 - Multicultural Psychology Credits: 3
- SOCI 243 - Race in America Credits: 3
- SOCI 421 - Impact of International Migration Credits: 3
- SPAN 152 - Latino Literature Credits: 3
- SOWK 250 - Assessing Individuals in the Social Environment Credits: 3
- SOWK 265 - Understanding Human Diversity for Social Justice Credits: 3

Geography/Earth Science Department

The Department of Geography-Earth Science offers undergraduate programs leading to the Bachelor of Science degree. The undergraduate programs in the geography-earth science department are designed to give students an appreciation of the physical and cultural environment of the earth as well as the principles of sustainability. Students will develop skills in collecting, recording, and interpreting geoenvironmental data. They will become involved in laboratory work, field investigations, and environmental management that will sharpen student skills to arrive at solutions based on an inductive application of all available sources and materials. Students will be able to identify, distinguish trends, and analyze and interpret physical, socioeconomic, and geo-political patterns in an urban/rural or regional setting. The fundamental geographic themes of location, place, sustainability, interrelationships between the physical and cultural environment, movement, and regions are emphasized.

Geography-Earth Science Features

The geography-earth science department has a strong interdisciplinary nature. With diverse backgrounds, departmental faculty integrate findings from a variety of areas enabling members to develop insights on real problems in various areas such as studying environmental hazards in the Cumberland Valley or urban growth issues in China. In departmental courses and programs, faculty explain why location is important, and why areas and places are different physically and culturally. The unique quality of the geography-earth science department is its focus on how people have affected the landscapes of the earth using a spatial science perspective.

Geography-Earth Science Career Opportunities

Geography is both a natural science (because it deals with the land, sea and air of our planet) and a social science (because it is concerned with the distribution of cultural phenomena including people and industries). As the earth's population grows, it becomes increasingly imperative for people to understand sustainability and the global patterns that shape our lives. The world we live in requires an understanding of international issues and geographic relationships. For that reason, the field of geography-earth science will continue to expand and grow.

Most geographers/earth scientists work in one of five basic career fields: business, government, teaching, planning, and consulting. Within these five fields geographers/earth scientists are called upon for their expertise in such areas as selecting favorable locations for capital investments, developing effective strategies for corporate or governmental planning, environmental planning and land use analysis, geology and atmospheric studies, cartography, computer applications and geographic information systems, and educating all age groups regarding proper use of the environment. Career opportunities are growing rapidly in fields such as the environmental sciences, planning, sustainability, local and state government, remote sensing, geographic information systems, environmental impact analysis, water resources and hydrology. Our graduates are very successful obtaining jobs in their major field of study. The department has a strong internship program where students can obtain practical experience. An alumni network has been developed to assist majors in the job selection process.

Early/Dual Admission to the MS Program in Geoenvironmental Science and Sustainability

Well-qualified Geography-Earth Science undergraduate students have the opportunity to enroll early in the Master's Degree program in Geoenvironmental Science and Sustainability. Qualified students may double count some credits toward both BS and MS degrees in their junior and senior years and can complete the MS degree on an accelerated pace. Interested undergraduate students maintaining a Shippensburg University grade point average of at least 3.0 overall and in their major may apply to the program in their junior or senior year.

Geoenvironmental Science and Sustainability, B.S.

Credit Requirements*

- **General Education:** 46 credits
- **Major Requirements**: 43 credits
- **Free Electives:** 31 credits
- *Total Credits to Graduate:* **120 credits**

* All undergraduate degree programs require a minimum of 120 credits. Some courses meet multiple requirements, but are only counted once toward the 120 credit total required to graduate.

43 crs.

Foundations (22 Crs.)

- ESSC 108 - Introduction to Environmental Sustainability Credits: 3
- ESSC 110 - Introduction to Geology Credits: 3
- ESSC 111 - Introduction to Weather and Climate Credits: 3
- GEOG 101 - World Geography Credits: 3
- GEOG 103 - Geography of the United States and Canada Credits: 3
- GEOG 202 - GIS I: Introduction to Geographic Information Systems Credits: 3
- GEOG 360 - Internship in Geography I Credits: 3
- GEOG 391 - Geography Seminar Credits: 1

Allied Foundational Course (3 Crs.)

- MATH 140 - College Algebra Credits: 3

Environmental Systems (6 Crs.)

- ESSC 212 - Historical Geology Credits: 3
- ESSC 214 - Geology of National Parks Credits: 3
- ESSC 220 - Oceanography Credits: 3
- ESSC 226 - Hydrology Credits: 3
- ESSC 404 - Applied Weather and Climate Credits: 3
- ESSC 405 - Groundwater and Hydrogeology Credits: 3
- ESSC 410 - Sedimentary Geology and Paleoenvironments Credits: 3
- ESSC 413 - Mineral and Rock Resources Credits: 3
- ESSC 424 - Soils Credits: 3
- ESSC 442 - Environmental Geology Credits: 3
- ESSC 451 - Coastal Environmental Oceanography Credits: 3
- GEOG 450 - Geography-Geology Field Studies Credits: 1-3
- Marine Science Consortium Course

Sustainable Systems (6 Crs.)

- GEOG 203 - Climate, Energy, and Sustainability Credits: 3
- GEOG 244 - Community and Land Use Planning Credits: 3
- GEOG 310 - Transportation Geography Credits: 3
- GEOG 329 - Economic Geography Credits: 3
- GEOG 406 - Sustainable Food Systems from the Soil Up Credits: 3
- GEOG 415 - Geography of Africa Credits: 3
- GEOG 427 - Sustainability Credits: 3
- GEOG 444 - Environmental Land-Use Planning Credits: 3

- GEOG 450 - Geography-Geology Field Studies Credits: 1-3

Techniques (6 Crs.)

- GEOG 320 - Geoarchaeology Credits: 3
- GEOG 339 - Remote Sensing Credits: 3
- GEOG 352 - Cartography Credits: 3
- GEOG 363 - GIS2: Intermediate Geographic Information Systems Credits: 3
- GEOG 420 - GIS3: Advanced Geographic Information Systems Credits: 3
- GEOG 425 - Image Processing Credits: 3
- GEOG 440 - Field Techniques Credits: 3
- GEOG 441 - Quantitative Methods Credits: 3
- GEOG 450 - Geography-Geology Field Studies Credits: 1-3
- GEOG 463 - Applied Geophysical Imaging Credits: 3

Free Electives (32 Crs.)

4 courses by advisement. Could include:

- ENGL 238 - Technical/Professional Writing Credits: 3
- BIOL 242 - Ecology Credits: 3

General Education

General Education Requirements:

- General Education Program (45 crs.)

General Education Requirements Specific for this major:

- Quantitative (Q): MATH 117
- Diversity (D): SOCI 101
- Global Prespectives (G): ECON 101
- Natural World (N): BIOL 162 and CHEM 105

Geographic Information Systems (GIS) Certificate

12 crs.

Required

- GEOG 202 - GIS I: Introduction to Geographic Information Systems Credits: 3
- GEOG 363 - GIS2: Intermediate Geographic Information Systems Credits: 3

Select Two:

- GEOG 339 - Remote Sensing Credits: 3
- GEOG 352 - Cartography Credits: 3
- GEOG 420 - GIS3: Advanced Geographic Information Systems Credits: 3
- GEOG 425 - Image Processing Credits: 3
- GEOG 440 - Field Techniques Credits: 3
- GEOG 441 - Quantitative Methods Credits: 3
- GEOG 463 - Applied Geophysical Imaging Credits: 3

Geographic Information Science Minor

18 crs.

Required Core (9 crs.)

- GEOG 202 - GIS I: Introduction to Geographic Information Systems Credits: 3
- GEOG 363 - GIS2: Intermediate Geographic Information Systems Credits: 3
- GEOG 420 - GIS3: Advanced Geographic Information Systems Credits: 3

Allied Geo-techniques (6 crs.)

Choose two:

- GEOG 339 - Remote Sensing Credits: 3
- GEOG 352 - Cartography Credits: 3
- GEOG 425 - Image Processing Credits: 3
- GEOG 440 - Field Techniques Credits: 3
- GEOG 441 - Quantitative Methods Credits: 3

Geography-Earth Science courses (3 crs.)

Choose one:

- ESSC 220 - Oceanography Credits: 3
- ESSC 226 - Hydrology Credits: 3
- GEOG 244 - Community and Land Use Planning Credits: 3
- GEOG 301 - Introduction to Biogeography Credits: 3
- GEOG 310 - Transportation Geography Credits: 3
- GEOG 322 - Urban Geography Credits: 3
- GEOG 329 - Economic Geography Credits: 3
- GEOG 444 - Environmental Land-Use Planning Credits: 3

Geography-Earth Science Minor

21 crs.

Required (9 crs.)

- 100 level Geography and/or Earth Science course
- 200-300 level Geography-Earth Science course
- 400 level Geography-Earth Science course

Electives (12 crs.)

- ESSC or GEOG courses selected by advisement.

Sustainability Minor

Sustainability Core (6 crs.)

- ESSC 108 - Introduction to Environmental Sustainability Credits: 3
  OR
- BIOL 145 - Environmental Biology Credits: 3

- GEOG 427 - Sustainability Credits: 3

Sustainable Systems (3 crs.)

Choose 3 credits from the following:

- ESSC 214 - Geology of National Parks Credits: 3
- ESSC 404 - Applied Weather and Climate Credits: 3
- ESSC 413 - Mineral and Rock Resources Credits: 3
- ESSC 442 - Environmental Geology Credits: 3
- ESSC 451 - Coastal Environmental Oceanography Credits: 3
- GEOG 405 - Environmental Conservation and Management in PA Credits: 3
- GEOG 444 - Environmental Land-Use Planning Credits: 3
- GEOG 446 - Water Resources Management Credits: 3
- GEOG 450 - Geography-Geology Field Studies Credits: 1-3

Biology (3 crs.)

Choose 3 credits from the following:

- BIOL 205 - Marine Biology Credits: 3
- BIOL 208 - Field Biology Credits: 3
- BIOL 210 - Field Zoology Credits: 3
- BIOL 230 - Botany Credits: 3
- BIOL 242 - Ecology Credits: 3 *strongly recommended*
- BIOL 245 - Marine Ecology Credits: 3
- BIOL 442 - Aquatic Ecology Credits: 3
- BIOL 444 - Conservation Biology Credits: 3

Psychology & Sociology (3 crs.)

Choose 3 credits from the following:

- PSYC 350 - Psychology of Sustainability Credits: 3 *strongly recommended*
- SOCI 265 - Global Society Credits: 3
- SOCI 346 - City and Community Credits: 3
- SOCI 354 - Social Movements and Social Change Credits: 3
- SOCI 363 - Growth and Change of Human Populations Credits: 3
- SOCI 440 - Global Leadership for Global Society Credits: 3

Economics & Business (3 crs.)

Choose 3 credits from the following:

- ECON 355 - Environmental Economics Credits: 3 *strongly recommended*
- GEOG 329 - Economic Geography Credits: 3
- MGMT 447 - Business and Society Credits: 3
- ITAN 142 - Business Computer Systems Credits: 3
- ITAN 342 - 9:00 to 9:30 AM on August 12 Credits: 3
- SCMG 420 - Global Logistics Systems Credits: 3

English, History, & Communication (3 crs.)

Choose 3 credits from the following:

- ENGL 238 - Technical/Professional Writing Credits: 3
- ENGL 359 - Studies in Indigenous Literature Credits: 3
- COST 345 - Environmental Communication Credits: 3 *strongly recommended*
- HIST 358 - American Environmental History Credits: 3 *strongly recommended*

Marine Science Minor

19 crs.

Required Core Courses (7 crs.)

- BIOL 162 - Principles of Biology: Organismal Diversity Credits: 4
- ESSC 220 - Oceanography Credits: 3

Foundations of Marine Science (6 crs.)

- BIOL 190 - General Education Special Topics Credits: 3
- BIOL 205 - Marine Biology Credits: 3
- BIOL 245 - Marine Ecology Credits: 3
- ESSC 190 - General Education Special Topics Credits: 3

- ESSC 212 - Historical Geology Credits: 3
- ESSC 340 - Marine Geology Credits: 3

Advanced Marine Geoscience or Marine Biology (3 crs.)

- BIOL 315 - Marine Invertebrates Credits: 3
- BIOL 320 - Marine Botany Credits: 3
- BIOL 391 - Biology Internship I Credits: 1-3
- BIOL 392 - Biology Internship II Credits: 1-3
- BIOL 393 - Selected Topics in Biology Credits: 1-3
- BIOL 397 - Introduction to Research Credits: 3
- BIOL 398 - Research II Credits: 3
- BIOL 401 - Coral Reef Ecology Credits: 3
- BIOL 413 - Marine Ichthyology Credits: 3
- BIOL 417 - Herpetology Credits: 3
- BIOL 442 - Aquatic Ecology Credits: 3
- BIOL 444 - Conservation Biology Credits: 3
- BIO 547 - Wetland Ecology Credits: 3
- ESSC 397 - Introduction to Research Credits: 3
- ESSC 404 - Applied Weather and Climate Credits: 3
- ESSC 410 - Sedimentary Geology and Paleoenvironments Credits: 3
- ESSC 451 - Coastal Environmental Oceanography Credits: 3
- ESSC 490 - Selected Topics in Earth Science Credits: 1-3
- GEOG 203 - Climate, Energy, and Sustainability Credits: 3
- GEOG 332 - Field Methods in Oceanography Credits: 3
- GEOG 336 - Coastal Geomorphology Credits: 3
- GEOG 360 - Internship in Geography I Credits: 3
- GEOG 450 - Geography-Geology Field Studies Credits: 1-3

Marine Science Capstone (3 crs.)

Option A: Course-Based Capstone

- ESSC 451 - Coastal Environmental Oceanography Credits: 3
- GEOG 450 - Geography-Geology Field Studies Credits: 1-3
- BIOL 401 - Coral Reef Ecology Credits: 3
- BIOL 547 - Wetland Ecology Credits: 3

Option B: Research-Based Capstone

- ESSC 397 - Introduction to Research Credits: 3
- ESSC 475 - Problems in the Marine Science Environment Credits: 3
- BIOL 397 - Introduction to Research Credits: 3
- BIOL 398 - Research II Credits: 3

Option C: Internship-Based Capstone

- GEOG 360 - Internship in Geography I Credits: 3
- BIOL 391 - Biology Internship I Credits: 1-3
- BIOL 392 - Biology Internship II Credits: 1-3

Notes:

- Students must complete 6 or more credits at the 300 or 400 level
- Students must complete 6 or more credits at Chincoteague Bay Field Station

History/Philosophy Department

The Department of History/Philosophy offers undergraduate programs leading to two degrees: the Bachelor of Arts and the Bachelor of Science in Education. The department also offers a Bachelor of Arts with a Public History Concentration for students interested in careers at historical institutions such as museums, archives, or historic sites. The history major is designed to generate and sustain an interest in the world, past and present. This is done so students can become better citizens, more effective participants in society, and acquire the reading, writing, and thinking skills essential for success in any career or occupation. Social Studies Education 7-12 students seeking Pennsylvania certification should see requirements outlined in the College of Education and Human Services.

History Features

Shippensburg University's history department offers a wide range of opportunities to take courses and to pursue research in almost any area of student interest. These specialties fall into the three broad areas of American, European, and African/Asian/Latin American history. Also, there are studies in archival and museum work along with the opportunity for internships in these areas. The university is within driving distance of major collections of sources which enhance and enrich historical studies. Also, there are studies in archival and museum work, historic preservation, local history, and oral history. Hands-on experience can also be gained through internships at many local sites, including Gettysburg National Military Park, the United States Military History Institute, and the Pennsylvania Historical and Museum Commission.

History/Philosophy Career Opportunities

History majors develop reading, writing, research, critical thinking, and problem solving skills that can be applied to a wide array of professional careers, such as law, education, theology, writing, museum and archival work, business, and government service.

The philosophy minor provides students with training in logic, critical thinking, and ethics.

History, B.A.

Credit Requirements*

- **Foreign Language Requirement:** 0 - 3 credits
- **General Education:** 45 credits
- **Major Requirements**: 30 credits
- **Free Electives:** 42 - 45 credits
- *Total Credits to Graduate:* **120 credits**

* All undergraduate degree programs require a minimum of 120 credits. Some courses meet multiple requirements, but are only counted once toward the 120 credit total required to graduate.

Bachelor of Arts Foreign Language Requirement:

All students completing a Bachelor of Arts degree are required to attain proficiency in a foreign language. Proficiency may be satisfied by completing a language class at the 103 (intermediate) level or three years of any one foreign language in high school. Students may also meet this requirement through AP or CLEP testing.

History-Field of Specialization (30 crs.)

Required (12 crs.)

- HIST 201 - Early History of the United States Credits: 3
- HIST 202 - Recent History of the United States Credits: 3
- HIST 203 - Theory and Practice of History Credits: 3
- HIST 397 - Seminar in Comparative History Credits: 3

Restricted Electives (12 crs.)

- One level 300 or above American History Course
- One level 300 or above European History Course
- Two level 300 or above Non-Western History Courses

Free Electives in History (6 crs.)

- 6 credits and 2 courses in history atleast level 300 or above.

Portfolio Requirement:

For assessment and career development purposes, all B.A. and B.S.Ed. majors are required to assemble and submit a portfolio documenting their academic growth and their major accomplishments.

General Education

General Education Requirements

- General Education Program (45 crs.)

General Education Requirements Specific for this major

- Global Perspective (G): HIST 106

Advising Notes:

1. Year I: HIST 105, HIST 106
2. History minor also available - 18 cr.

History, American History Concentration, B.A.

Credit Requirements*

- **Foreign Language Requirement:** 0 - 3 credits
- **General Education:** 45 credits
- **Major Requirements**: 36 credits
- **Free Electives:** 36 - 39 credits
- *Total Credits to Graduate:* **120 credits**

* All undergraduate degree programs require a minimum of 120 credits. Some courses meet multiple requirements, but are only counted once toward the 120 credit total required to graduate.

Bachelor of Arts Foreign Language Requirement:

All students completing a Bachelor of Arts degree are required to attain proficiency in a foreign language. Proficiency may be satisfied by completing a language class at the 103 (intermediate) level or three years of any one foreign language in high school. Students may also meet this requirement through AP or CLEP testing.

Required History Courses (12 crs.)

- HIST 201 - Early History of the United States Credits: 3
- HIST 202 - Recent History of the United States Credits: 3
- HIST 203 - Theory and Practice of History Credits: 3
- HIST 397 - Seminar in Comparative History Credits: 3

Restricted History Electives (12 crs.)

- One level 300 or above American History Course
- One level 300 or above European History Course
- Two level 300 or above Non-Western History Courses

American History Concentration (12 crs.)

Select 12 credits from the following courses:

- HIST 301 - The West in American History Credits: 3
- HIST 305 - The Civil War Era Credits: 3
- HIST 307 - America from War to Watergate, 1945-1974 Credits: 3
- HIST 309 - History of the American Worker Credits: 3
- HIST 314 - History of Jacksonian America Credits: 3
- HIST 318 - History of U.S. Women Credits: 3
- HIST 319 - Introduction to Public History Credits: 3
- HIST 338 - Colonial America Credits: 3
- HIST 341 - African-American History Credits: 3
- HIST 342 - U.S. Immigration and Ethnicity Credits: 3
- HIST 345 - Military History of the United States Credits: 3

- HIST 352 - The US and Vietnam Credits: 3
- HIST 358 - American Environmental History Credits: 3
- HIST 374 - America Since Watergate, 1974-2008 Credits: 3
- HIST 385 - Selected Topics in History Credits: 3 (with advisement)
- HIST 386 - History Research Seminar Credits: 3 (with advisement)
- HIST 387 - History Internship Credits: 3 (with advisement)
- HIST 388 - Selected Topics in History Credits: 3 (with advisement)
- HIST 389 - History Internship Credits: 1-3 (with advisement)
- HIST 391 - History Internship Credits: 3-6 (with advisement)
- HIST 394 - Selected Topics in History Credits: 3 (with advisement)
- HIST 402 - Revolutionary America Credits: 3
- HIST 413 - Pennsylvania History Credits: 3
- HIST 428 - Issues in the Gilded Age and Progressive Era Credits: 3
- HIST 430 - U.S. Cultural History Credits: 3
- HIST 433 - Oral History Credits: 3
- HIST 490 - Selected Topics in History Credits: 1-3 (with advisement)
- HIST 496 - Select Topics in Public History Credits: 3 (with advisement)

General Education

General Education Requirements

- General Education Program (45 crs.)

General Education Requirements Specific for this major

- Global Perspective (G): HIST 106

Advising Notes:

1. Year I: HIST 105, HIST 106

History, Asian & Middle Eastern History Concentration, B.A.

The Bachelor of Arts in History with an Asian & Middle Eastern History Concentration program allows you to pursue specialized coursework and develop an expertise in Asian and Middle Eastern history. A number of Asian and Middle Eastern history options are available to students in this concentration, which is recommended for students with professional or personal interests in the region.

Credit Requirements*

- **Foreign Language Requirement:** 0 - 3 credits
- **General Education:** 45 credits
- **Major Requirements**: 36 credits
- **Free Electives:** 36 - 39 credits
- *Total Credits to Graduate:* **120 credits**

* All undergraduate degree programs require a minimum of 120 credits. Some courses meet multiple requirements, but are only counted once toward the 120 credit total required to graduate.

Bachelor of Arts Foreign Language Requirement:

All students completing a Bachelor of Arts degree are required to attain proficiency in a foreign language. Proficiency may be satisfied by completing a language class at the 103 (intermediate) level or three years of any one foreign language in high school. Students may also meet this requirement through AP or CLEP testing.

Required History Courses (12 crs.)

- HIST 201 - Early History of the United States Credits: 3
- HIST 202 - Recent History of the United States Credits: 3
- HIST 203 - Theory and Practice of History Credits: 3
- HIST 397 - Seminar in Comparative History Credits: 3

Restricted History Electives (12 crs.)

- One level 300 or above American History Course
- One level 300 or above European History Course
- Two level 300 or above Non-Western History Courses

Asian & Middle Eastern History Concentration (12 crs.)

Select 12 credits from the following courses:

- HIST 339 - The Central Islamic Lands, 500-1700 Credits: 3
- HIST 344 - History of the Modern Middle East Credits: 3
- HIST 350 - History of Modern Japan Credits: 3
- HIST 353 - Modern Southeast Asia Credits: 3
- HIST 354 - Traditional China Credits: 3
- HIST 355 - History of Modern China Credits: 3
- HIST 382 - Selected Topics in History Credits: 1-3 (with advisement)
- HIST 383 - Selected Topics in History Credits: 1-3 (with advisement)
- HIST 386 - History Research Seminar Credits: 3 (with advisement)
- HIST 387 - History Internship Credits: 3 (with advisement)
- HIST 389 - History Internship Credits: 1-3 (with advisement)
- HIST 391 - History Internship Credits: 3-6 (with advisement)
- HIST 394 - Selected Topics in History Credits: 3 (with advisement)
- HIST 445 - History of Saudi Arabia Credits: 3
- HIST 454 - China and the Outside World Credits: 3
- HIST 482 - Selected Topics in History Credits: 3 (with advisement)
- HIST 483 - Selected Topics in History Credits: 3 (with advisement)
- HIST 496 - Select Topics in Public History Credits: 3 (with advisement)
- PHIL 336 - Concepts in Buddhism Credits: 3

General Education

General Education Requirements

- General Education Program (45 crs.)

General Education Requirements Specific for this major

- Global Perspective (G): HIST 106

Advising Notes:

1. Year I: HIST 105, HIST 106

History, European History Concentration, B.A.

Credit Requirements*

- **Foreign Language Requirement:** 0 - 3 credits
- **General Education:** 45 credits
- **Major Requirements**: 36 credits
- **Free Electives:** 36 - 39 credits
- *Total Credits to Graduate:* **120 credits**

* All undergraduate degree programs require a minimum of 120 credits. Some courses meet multiple requirements, but are only counted once toward the 120 credit total required to graduate.

Bachelor of Arts Foreign Language Requirement:

All students completing a Bachelor of Arts degree are required to attain proficiency in a foreign language. Proficiency may be satisfied by completing a language class at the 103 (intermediate) level or three years of any one foreign language in high school. Students may also meet this requirement through AP or CLEP testing.

Required History Courses (12 crs.)

- HIST 201 - Early History of the United States Credits: 3
- HIST 202 - Recent History of the United States Credits: 3
- HIST 203 - Theory and Practice of History Credits: 3
- HIST 397 - Seminar in Comparative History Credits: 3

Restricted History Electives (12 crs.)

- One level 300 or above American History Course
- One level 300 or above European History Course
- Two level 300 or above Non-Western History Courses

European History Concentration (12 crs.)

Select 12 credits from the following courses:

- HIST 320 - Europe in the Early and High Middle Ages: 300 to 1270 Credits: 3
- HIST 321 - Late Medieval Europe: 1270 to 1517 Credits: 3
- HIST 325 - History of the Tsarist Russia Credits: 3
- HIST 326 - History of the U.S.S.R. Credits: 3
- HIST 330 - History of Modern Germany: 1919 to Present Credits: 3
- HIST 331 - History of Modern France: 1750 to Present Credits: 3
- HIST 332 - English History: 1066 to Present Credits: 3
- HIST 334 - Europe 1715-1815: The Era of the Industrial and French Revolutions Credits: 3
- HIST 337 - History of the Byzantine Empire Credits: 3
- HIST 348 - The History of Ancient Rome Credits: 3
- HIST 356 - History of 19th Century Europe Credits: 3
- HIST 357 - History of Holocaust Credits: 3
- HIST 359 - History of Western Political Thought, 1500-1800 Credits: 3
- HIST 361 - History of 20th Century Europe Credits: 3
- HIST 362 - Europe 1450-1715: The Era of the Renaissance and Reformation Credits: 3
- HIST 386 - History Research Seminar Credits: 3 (with advisement)
- HIST 387 - History Internship Credits: 3 (with advisement)
- HIST 389 - History Internship Credits: 1-3 (with advisement)
- HIST 390 - Selected Topics in History Credits: 3 (with advisement)
- HIST 391 - History Internship Credits: 3-6 (with advisement)
- HIST 394 - Selected Topics in History Credits: 3 (with advisement)
- HIST 423 - Issues in 20th-Century Europe Credits: 3
- HIST 492 - Selected Topics in History Credits: 3 (with advisement)
- HIST 496 - Select Topics in Public History Credits: 3 (with advisement)

General Education

General Education Requirements

- General Education Program (45 crs.)

General Education Requirements Specific for this major

- Global Perspective (G): HIST 106

Advising Notes:

1. Year I: HIST 105, HIST 106

History, Public History Concentration, B.A.

Credit Requirements*

- **Foreign Language Requirement:** 0 - 3 credits
- **General Education:** 45 credits
- **Major Requirements**: 36 credits
- **Free Electives:** 36 - 39 credits
- *Total Credits to Graduate:* **120 credits**

* All undergraduate degree programs require a minimum of 120 credits. Some courses meet multiple requirements, but are only counted once toward the 120 credit total required to graduate.

Bachelor of Arts Foreign Language Requirement:

All students completing a Bachelor of Arts degree are required to attain proficiency in a foreign language. Proficiency may be satisfied by completing a language class at the 103 (intermediate) level or three years of any one foreign language in high school. Students may also meet this requirement through AP or CLEP testing.

36 crs.

Required (12 crs.)

- HIST 201 - Early History of the United States Credits: 3
- HIST 202 - Recent History of the United States Credits: 3
- HIST 203 - Theory and Practice of History Credits: 3
- HIST 397 - Seminar in Comparative History Credits: 3

Restricted Electives (12 crs.)

- One level 300 or above American History Course
- One level 300 or above European History Course
- Two level 300 or above Non-Western History Courses

Public History Methods (6 crs.)

Required

- HIST 319 - Introduction to Public History Credits: 3

Select one: 3 crs.

- HIST 390 - Selected Topics in History Credits: 3
- HIST 413 - Pennsylvania History Credits: 3
- HIST 430 - U.S. Cultural History Credits: 3
- HIST 433 - Oral History Credits: 3
- HIST 460 - Archives and Public History Credits: 3
- HIST 490 - Selected Topics in History Credits: 1-3

Required Internship (6 crs.)

- HIST 387 - History Internship Credits: 3
- HIST 389 - History Internship Credits: 1-3
- HIST 391 - History Internship Credits: 3-6

Portfolio Requirement:

For assessment and career development purposes, all B.A. and B.S.Ed. majors are required to assemble and submit a portfolio documenting their academic growth and their major accomplishments.

General Education

General Education Requirements

- General Education Program (45 crs.)

General Education Requirements Specific for this major

- Global Perspective (G): HIST 106

Advising Notes:

1. Year I: HIST 105, HIST 106

History, Comprehensive Social Studies, B.S.Ed.

A 3.0 QPA will be required for entrance into the B.S.Ed. program and for matriculation to professional standing. The requirements for the B.S.Ed. include the completion of specific social studies, general education, and professional education courses. Where appropriate, these courses may also be used to fulfill general education categories.

All required courses (History, Required Allied Social Studies, Political Science Elective, Social Science Electives, and Required Professional Education Courses) must be passed with a grade of "C" or above.

Credit Requirements*

- **General Education:** 45 credits
- **Major Requirements**: 72 credits
- **Free Electives:** 3 credits
- *Total Credits to Graduate:* **120 credits**

* All undergraduate degree programs require a minimum of 120 credits. Some courses meet multiple requirements, but are only counted once toward the 120 credit total required to graduate.

History (24 crs.)

- HIST 201 - Early History of the United States Credits: 3
- HIST 202 - Recent History of the United States Credits: 3
  Restricted Electives
- One level 300 or above American History Course
- One level 300 or above European History Course
- Two level 300 or above Non-Western History Courses
  History Elective
- Two HIST courses at 300 level or above

Social Studies Certification Requirements (12 crs.)

- ECON 101 - Principles of Macroeconomics Credits: 3
- POLI Elective (POLI 141 or HONR 274 or any 200 or 300 level POLI course)
- 2 classes in Social Science Electives (ANTH 111 or HONR 160, ECON 102 or HONR 166, INTL 200 or any level 200 or 300 GEOG course, any 200 or 300 level POLI course or any PHIL course)

Required Professional Education Courses (36 crs.)

- Mathematics (MATH 117 Applied Statistics is recommended)
- TEED 207 - Organizational and Psychological Foundations in Secondary Education Credits: 3
- READ 413 - Teaching Reading to English Language Learners Credits: 3
- SPEE 273 - Introduction to Exceptionalities: Understanding Diverse Learners Credits: 3
- SPEE 423 - Effective Instructional Strategies for Students with Exceptionalities Credits: 3
- EDFN 412 - Teaching Social Studies in Secondary Schools I Credits: 3
- EDFN 413 - Teaching of Social Studies II Credits: 3
- SPEE 483 - Assessing Children with Exceptionalities for Curricular Decision-Making Credits: 3
- EDFN 495 - Student Teaching Credits: 6-15
  (History Secondary Certification Students will take 12 crs. of EDFN 495*)*

Note:

TEED 207 must be completed before EDFN 412 and EDFN 413

EDFN 412 and EDFN 413 must be taken simultaneously. A cumulative GPA of 3.0 is required to enroll in EDFN 412 and EDFN 413.

Required Field Experience

Required: 50 Level I hours and Portfolio due between 75-90 credits. See B.S.Ed. advisor for details.

General Education

General Education Requirements

- General Education Program (45 crs.)

General Education Requirements Specific for this major

- Diversity (D): SOCI 101 or HONR 161
- Global Perspective (G): HIST 106 or HONR 123
- Global Perspective (G): GEOG 101 or HONR 141
- Citizenship (S): POLI 100 or HONR 279
- Critical Reasoning (R): GEOG 103 or HONR 140
- Natural World (N) PSYC 101 or HONR 151
- Literature (L): ENGL 248, ENGL 250 or HONR 249

Advising Notes:

1. Year I: HIST 105, HIST 106, GEOG 103
2. All ANTH, ECON, GEOG, INTL, POLI, PHIL courses must be passed with a grade of C or above.

Public History Certificate

Foundation (3 crs.)

- HIST 319 - Introduction to Public History Credits: 3

History Content (6 crs.)

- Two (2) classes in any 200 or 300 level History courses.

Note: History majors may double count up to six credits of coursework completed towards the major towards thecertificate. However, History majors may not double count the History Content courses.

Public History Skills (9 crs)

- HIST 413 - Pennsylvania History Credits: 3
  OR
- HIST 430 - U.S. Cultural History Credits: 3
  OR
- HIST 433 - Oral History Credits: 3
  OR
- HIST 460 - Archives and Public History Credits: 3

  NOTE: Pending finalization of intercampus negotiations, one of the Public History Methods courses can be substituted with a transfer course from a partner PASSHE school. The course must be a History course, and must be approved by the Public History Program coordinator and department chair).

Field Experience (3 crs)

- HIST 387 - History Internship Credits: 3
  OR
- HIST 389 - History Internship Credits: 1-3
  OR
- HIST 391 - History Internship Credits: 3-6

History Minor

18 crs.

Required (9 crs.)

- HIST 105 - Historical Foundations of Global Cultures Credits: 3
- HIST 106 - Modern World History Credits: 3

- HIST 201 - Early History of the United States Credits: 3 or
- HIST 202 - Recent History of the United States Credits: 3

Electives (9 crs.)

- One course at the 300 level or above in Africa/Asia/Latin America
- One course at the 300 level or above in European History
- One course at the 300 level or above in American History

Philosophy Minor

18 crs.

Required Courses

- PHIL 248 - History of Ancient and Medieval Philosophy Credits: 3 or
- PHIL 249 - History of Modern Philosophy Credits: 3

- PHIL 340 - Contemporary Ethics Credits: 3
- PHIL 200 level course: except PHIL 248 or PHIL 249
- PHIL 300 level course
- PHIL course at any level
- PHIL course at any level

History, B.A. with accelerated 4+1 M.A. in Applied History

Students pursuing a Bachelor of Arts Degree in History (any concentration) have the opportunity to pursue an accelerated Master's Degree in Applied History. Qualified students will enter the university as first-year students or transfer students in the Bachelor of Arts in History program with provisional admission to the graduate program in Applied History. Current students can choose to pursue the 4 + 1 B.A./M.A. program any time prior to the start of their senior year at the university (two semesters before graduation/90 credits completed). For students on a four-year track, they would start the program during the fall of their senior year. All students seeking to enroll in the program must be admitted to the graduate program and have at least a 3.0 grade point average at the time they would begin the accelerated program.

Students will complete one 400-level or 500-level graduate course during each of their last two undergraduate semesters. Those courses will be double-counted towards both the B.A. and M.A. degree upon successful completion of graduate coursework. Students will then complete two additional semesters of full-time graduate work (9 graduate credits per semester), and a six-credit graduate internship the following summer to complete both degrees.

Interdisciplinary Arts Program

The Interdisciplinary Arts Program at Shippensburg University is the only one of its kind among the fourteen universities in the Pennsylvania State System of Higher Education. An ideal major for undergraduates who wish to acquire a comprehensive understanding of the arts and their interrelationships, the B.A. degree program in interdisciplinary arts offers course work in both arts performance and criticism across a broad range of media including painting, sculpture, dance, music, theatre, film, photography, and creative writing.

The Interdisciplinary Arts Program cultivates a student who is a critical thinker and a communicator. They are individual thinkers who are conversant in the communicative characteristics of multiple art forms and can navigate the waters of verbal, visual, musical, and performative expression. Many of our graduates are highly adept in collaborative work environments and their arts' training enables them to be flexible and accomplished problem solvers. Adaptability is another characteristic of our graduates, a trait most attractive in an ever-changing work place.

Career Opportunities

Although areas of study will vary from student to student, the goal of the Interdisciplinary Arts Program is to provide its majors with a broad-based perspective of the arts along with an individualized combination of skill sets. Our graduates find their way into the applied arts and those associated careers that intersect with them, careers in arts education and administration. Prospective students might consider the IA major as a suitable intersection with a psychology minor for a career oriented toward art or music therapy. Partnerships with a communications and/or a business minor are excellent foundations for an interest in special events planning. Our Interdisciplinary Arts Steering Committee is a mix of our teaching faculty combined with local and national arts professionals. They help guide our program goals and to mentor our majors on new developments in the industry. A broad-based arts' education combined with a diverse curriculum, hands on mentorship, and a range of capstone experiences results in a dynamic and versatile academic major.

Senior Capstone

The culmination of the Interdisciplinary Arts major is a Senior Capstone experience (6 credit hours). In the first semester of senior year, the IA major participates in a seminar (INST 449 Interdisciplinary Arts Senior Thesis) designed to guide and encourage an individual research project resulting in a thesis paper with an interdisciplinary approach to the arts-a critical study of the influence of painting and music in a work of literature, for example, or an original screenplay, or an illustrated essay on the interaction of the arts in a certain film, opera, dance performance, or work of musical theater. The IAP senior thesis is an exciting opportunity for students to engage in research and creative thinking and to share their ideas with other IA majors.

The second semester of senior year offers Interdisciplinary Arts majors a choice. They may use the senior thesis as a foundation for designing a public performance (INST 451 Interdisciplinary Arts Showcase), or undertake an internship in an arts-related organization (INST 452 Interdisciplinary Arts Internship). The senior showcase can take many forms. It might be an illustrated lecture, an exhibition of work, a multimedia presentation, a reading of poetry or fiction accompanied by slides, a performance piece, or a short film, video, or work of computer animation. The internship can involve work in galleries or museums, with performance companies, on arts exhibitions, in the mass media, public relations, arts foundations, or other arts-related professions. Students opting for the senior showcase have the opportunity to display their work in a public forum, while those taking an internship can use the experience as a springboard for professional employment in the arts industry.

Interdisciplinary Arts, B.A.

Credit Requirements*

- **Foreign Language Requirement:** 0 - 3 credits
- **General Education:** 45 credits
- **Major Requirements**: 42 credits

- **Free Electives:** 30 - 33 credits
- *Total Credits to Graduate:* **120 credits**

* All undergraduate degree programs require a minimum of 120 credits. Some courses meet multiple requirements, but are only counted once toward the 120 credit total required to graduate.

Bachelor of Arts Foreign Language Requirement:

All students completing a Bachelor of Arts degree are required to attain proficiency in a foreign language. Proficiency may be satisfied by completing a language class at the 103 (intermediate) level or three years of any one foreign language in high school. Students may also meet this requirement through AP or CLEP testing.

Curriculum Track

Foundation Courses

Students must satisfy One Foundation course for **Each of their Arts Concentrations** within the IA curriculum.

Art Concentration

- ART 101 - Art Appreciation Credits: 3

Communications Concentration

- COMM 111 - Media Literacy Credits: 3

English Concentration

- ENGL 243 - The Art of the Film Credits: 3
- ENGL 248 - Introduction to Culturally Diverse Literature of the U.S. Credits: 3
- ENGL 250 - Literature and Society Credits: 3

Music Concentration

- MUSI 121 - Introduction to Music Credits: 3

Theatre Concentration

- THAR 121 - Introduction to the Theatre Credits: 3

Categories of Knowledge

Students must select at *minimum of* **One Course** *from each of the following THREE catagories.* With permission of the program director, courses in other colleges or departments, special topics courses, internships, or individualized instruction may satisfy certain course requirements. Be aware that some of the courses listed below have pre-requisites or require proficiency in another langauge.

Category A: History and Culture

ART

- ART 231 - Art History I Credits: 3
- ART 232 - Art History II Credits: 3
- ART 233 - Art History III Credits: 3
- ART 339 - History of American Art Credits: 3

DANCE

- DNC 145: Historical Perspectives on Dance (Wilson College)
- DNC 147: Movement as Culture (Wilson College)
- DNC 235/335: Feminist Perspective Culturual Choregraphy (Wilson College)
- DNC 240: Dance in the American Musical Theatre (Wilson College)

ENGLISH

- ENGL 342 - Studies in Mythology Credits: 3
- ENGL 345 - Women's Literature Credits: 3
- ENGL 370 - Studies in Queer Literature Credits: 3
- ENGL 375 - Studies in African American Literature Credits: 3
- ENGL 380 - Studies in Later British Literature Credits: 3
- ENGL 385 - Studies in Postcolonial Literature Credits: 3

GLOBAL LANGUAGES

- FREN 204 - Ideas and Cultures from the French-Speaking World Credits: 3
- FREN 380 - Aspects De La Civilisation FranÇaise/Francophone Credits: 3
- GERM 151 - German Cinema Credits: 3
- GERM 204 - Contemporary German Culture Credits: 3
- GERM 320 - Berlin Credits: 3
- GERM 322 - Readings in German Literature Credits: 3
- SPAN 150 - Hispanic Civilization and Culture Credits: 3
- SPAN 204 - Ideas and Cultures from the Spanish-Speaking World Credits: 3
- SPAN 343 - Introduction to Literary Studies Credits: 3
- SPAN 360 - Masterpieces of Spanish Literature Credits: 3
- SPAN 361 - Masterpieces of Spanish-American Literature Credits: 3

MUSIC

- MUSI 129 - American Popular Music Credits: 3
- MUSI 227 - Opera and Music Theatre Credits: 3
- MUSI 261 - World Music Credits: 3
- MUSI 315 - Music in the United States Credits: 3
- MUSI 320 - Masterpieces of Music Credits: 3

THEATRE

- THAR 329 - Theatre History Credits: 3

Category B: Theory and Criticism

ART

- ART 356 - Social Structures of Aesthetics, Philosophy and Criticism in the Arts Credits: 3

COMMUNICATIONS JOURNALISM

- COMM 345 - Media Law Credits: 3

ENGLISH

COMMUNICATION STUDIES

- COST 335 - Popular Culture and Gender Construction Credits: 3

MUSIC

- MUSI 212 - Music Theory I Credits: 3
- MUSI 312 - Music Theory II Credits: 3

SOCIOLOGY

- SOCI 370 - Sociology of Music Credits: 3

Category C: Praxis and Professional Skills

ART

- ART 110 - Basic Drawing Credits: 3
- ART 210 - Drawing II Credits: 3
- ART 211 - Figure Drawing Credits: 3
- ART 217 - Computer Design I Credits: 3
- ART 218 - Three-Dimensional Design Credits: 3
- ART 306 - Computer Design II Credits: 3
- ART 319 - Computer Design III Credits: 3
- ART 321 - Watercolor I Credits: 3
- ART 322 - Watercolor II Credits: 3
- ART 326 - Painting I Credits: 3
- ART 327 - Painting II Credits: 3
- ART 340 - Ceramics Credits: 3
- ART 341 - Advanced Ceramics Credits: 3

- ART 370 - Sculpture Credits: 3
- ART 425 - Computer Design IV Credits: 3
- ART 430 - Computer Design V Credits: 3
- ART 435 - Computer Design VI Credits: 3

COMMUNICATIONS JOURNALISM

- COMM 112 - Media Writing Credits: 3
- COMM 241 - Public Relations Writing I Credits: 3
- COMM 360 - Basic Digital Photography Credits: 3
- COMM 381 - Promotional Publication Design Credits: 3
- COMM 470 - Advanced Digital Photography Credits: 3
- COMM 476 - Magazine Media & Design Credits: 3
- COMM 481 - Interactive Media Design Credits: 3

DANCE

- DNC 151: Dance Technique 1 (Wilson College)
- DNC 152: Dance Technique 2 (Wilson College)
- DNC 170: Spcial Topics in Dance (Wilson College)
- DNC 231: Dance Technique 3 (Wilson College)
- DNC 232: Dance Technique 4 (Wilson College)
- DNC 270: Special Topics in Dance (Wilson College)
- DNC 361: Advanced Techniques 1 (Wilson College)
- DNC 362: Advanced Techniques 2 (Wilson College)
- DNC 370: Special Topics in Dance (Wilson College)
- DNC 461: Advanced Techniques 3 (Wilson College)
- DNC 462: Advanced Techniques 4 (Wilson College)
- DNC 502/503: Summer Residency Contemporary Arts Practice (Wilson College)

ENGLISH

- ENGL 335 - Creative Nonfiction Writing Credits: 3
- ENGL 238 - Technical/Professional Writing Credits: 3
- ENGL 307 - Poetry Writing Credits: 3
- ENGL 308 - Fiction Writing Credits: 3
- ENGL 323 - Reviewing the Arts for Publication Credits: 3
- ENGL 428 - Advanced Fiction Workshop Credits: 3
- ENGL 438 - Advanced Technical/Professional Writing Credits: 3

MUSIC

- MUSI 101 - Brass Ensemble Credits: 1
- MUSI 103 - Marching Band Credits: 1
- MUSI 104 - Concert Band Credits: 1
- MUSI 105 - Concert Choir Credits: 1
- MUSI 109 - String Ensemble Credits: 1

- MUSI 113 - Jazz Ensemble Credits: 1
- MUSI 117 - Madrigal Singers Credits: 1
- MUSI 132 - University-Community Orchestra Credits: 1
- MUSI 140 - Class Piano, Level I Credits: 3
- MUSI 150 - Basic Guitar Credits: 3
- MUSI 158 - Woodwind Ensemble Credits: 1
- MUSI 260 - Voice Class, Level I Credits: 3
- MUSI 270 - Brass Instrument Class Credits: 3
- MUSI 272 - Strings Class Credits: 3
- MUSI 340 - Class Piano, Level II Credits: 3
- MUSI 380 - Basic Conducting Credits: 3
- MUSI 490 - Selected Topics in Music Credits: 1-3

THEATRE

- THAR 122 - Acting I: Fundamentals of Acting Credits: 3
- THAR 222 - Acting II: Scene Study and Analysis Credits: 3
- THAR 322 - Voice and Movement for the Stage Credits: 3
- THAR 323 - Children's Theatre Credits: 3
- THAR 324 - Theatre Practicum Credits: 3
- THAR 327 - Costumes and Make-Up Credits: 3
- THAR 395 - Theatre Internship Credits: 3
- THAR 396 - Theater Internship II Credits: 3
- THAR 490 - Selected Topics in Theatre Credits: 3

Primary Concentration (15 crs.)

To satisify the Requirements of the Concentration, students must take One Foundation class appropriate to the chosen concentration and earn a minimum of 3 credits in a 300-400 level class in that same concentration.

Secondary Concentration #1 (12 crs.)

To satisfy the Requirements of the Concentration, students must take One Foundation class apropriate to the chosen concentration and earn a minimum of 3 credits in a 300-400 level class in that same concentration.

Secondary Concentration #2 (12crs.)

To satisfy the Requirements of the Concentration, students must take One Foundation class appropiate to the chosen concentration and earn a minimum of 3 credits in a 300-400 level class within that same concentration.

Senior Capstone

The Interdisciplinary Arts Program offers three, distinctive opportunities for capstone experiences. These choices include completing a thesis presentation that demonstrates academic excellence in the area of scholarly research and writing. Some IA students may choose to apply their technique and creativity by making or interpreting a work of art of presenting a public, arts presentation. The Third option includes internships, where IA students can apply their arts based knowledge to relevant experiences in the work force.

- INST 449 - Interdisciplinary Arts Senior Thesis Credits: 3
- INST 451 - Interdisciplinary Arts Showcase Credits: 3
- INST 452 - Interdisciplinary Arts Internship Credits: 3
- INST 453 - Interdisciplinary Arts Internship Credits: 3

Elective Credits

Elective credits within the Interdisciplinary Arts program encourage students to explore how their multi-disciplinary arts education can engage with other areas of interest. Some students are encouraged to explore additional coursework in those Areas of Concentration, while others may use elective credits to explore cross-disciplinary, academic partnership. Those IA students might recognize how the Arts work in partnership within the fields of Psychology, Social Work, and Disability Studies (Art, Drama, & Music Therapy) or Business Management, Marketing, and Technical Writing (Arts Administration & Special Events Planning). Students that see these interconnections should consider Elective credits as an Opportunity for adding another academic minor or even a double major.

General Education

General Education Requirements

- General Education Program (45 crs.)

General Education Requirements Specific for this major

- Arts (A): INST 111

International Studies Program

International Studies Program

International Studies prepares students for the challenges of an ever-changing, interdependent world. It is an interdisciplinary program that enhances knowledge of the countries and cultures of the world as well as the forces of globalization knitting them together. The program offers an International Studies major (39 crs.), International Studies minor (21 crs.), and four different Areas Studies certificates (12 crs. each) in African & Middle Eastern Studies, Asian Studies, European Studies, and Latin American & Caribbean Studies. Students create programs of study tailored to their academic interests and career aspirations from an interdisciplinary array of courses on international topics. Graduates are prepared to cross into other cultures and navigate the global networks connecting the world's economies, governments, and societies.

International Studies Career Opportunities

International Studies graduates typically find employment in business, the federal government, international agencies, and social service, educational and media organizations. Businesses need employees who can operate in a multinational environment because exports, imports and tourism contribute substantially to the U.S. and Pennsylvania economies. Federal agencies, such as the FBI and State Department, and non-profit organizations, such as the Red Cross and UNICEF, require employees with the intercultural and linguistic competency needed to interact with foreign governments and peoples.

International Studies, B.A.

Required courses INTL 200 - Introduction to International Studies Concepts and Methods Credits: 3 and INTL 300 - International Studies Seminar Credits: 3 introduce and reinforce knowledge of globalization and intercultural relations. Majors also are required to study abroad or engage in an off-campus internship that develops intercultural competency and international understanding.

Students must elect one Global Perspectives concentration (12 crs.) in:

1. Comparative & Global Cultures
2. Global Political Relations *or*
3. Global Business & Economics.

Global Perspectives courses explore globalization's impacts on the cultures, economies, and political systems of the world that cause international interdependency and tensions.

Students also must elect one Area Studies concentration (12 crs.) and related foreign language (9 crs.) in:

1. African & Middle Eastern Studies,
2. Asian Studies,
3. European Studies *or*
4. Latin American & Caribbean Studies.

Area Studies and Foreign Language courses promote intercultural and linguistic competency essential to successful cross-cultural personal and professional relationships.

Majors must take a minimum of 21 credit hours of major courses, including INTL 200 and INTL 300, at Shippensburg. Students declaring dual majors may double-count a maximum of 12 credit hours of courses between the first major and courses fulfilling International Studies Global Perspectives, Area Studies and Foreign Language requirements. Courses fulfilling general education requirements of both majors may be double-counted without restriction.

Credit Requirements*

- **Foreign Language Requirement:** 0 - 3 credits
- **General Education:** 45 credits
- **Major Requirements**: 42 credits
- **Free Electives:** 30 - 33 credits
- *Total Credits to Graduate:* **120 credits**

* All undergraduate degree programs require a minimum of 120 credits. Some courses meet multiple requirements, but are only counted once toward the 120 credit total required to graduate.

Bachelor of Arts Foreign Language Requirement:

All students completing a Bachelor of Arts degree are required to attain proficiency in a foreign language. Proficiency may be satisfied by completing a language class at the 103 (intermediate) level or three years of any one foreign language in high school. Students may also meet this requirement through AP or CLEP testing.

42 crs.

Required Courses (9 crs.)

- INTL 200 - Introduction to International Studies Concepts and Methods Credits: 3
- INTL 300 - International Studies Seminar Credits: 3

- ANTH 111 - Cultural Anthropology Credits: 3 OR
- HONR 160 - Honors: Cultural Anthropology Credits: 3

- GEOG 101 - World Geography Credits: 3 OR
- HONR 141 - Honors: World Geography Credits: 3

Note:

*HONR 399 - Honors: Independent Study Credits: 3 may serve as a substitute for INTL 300 with an appropriate international topic, interdisciplinary research project, and permission of the director.

Foreign Language Requirement (9 crs.)

9 credit hours at the 200-level and higher. Students are strongly encouraged to strengthen their qualifications for international employment by completing a Global Languages and Cultures certificate (12 crs.) or minor (18 crs.).

Students who study a language not offered through Shippensburg University--such as Korean, Russian or Swahili--are required to earn a total of 9 credit hours. Language credits must be earned at Shippensburg University, or with permission of the director, from another accredited institution of higher learning in the U.S. or abroad.

Study Abroad or Internship Requirement

Majors are required to study abroad or engage in an off-campus internship. The study abroad or internship experience must satisfy a minimum of 3 credit hours of the major's general education or course requirements. Students studying abroad at an approved program may take a maximum of 18 credit hours of major courses. Majors studying abroad to fulfill special academic needs may obtain exemptions from the minimum or maximum credit hour requirement with prior approval of the Director of International Studies.

Global Perspectives Concentration (12 crs.)

Students must choose one Global Perspectives Concentration. 6 credit hours should be at the 300-level or higher. Courses must be in at least 2 disciplines.

* = Requires an appropriate topic and an Exception Form signed by the Director of International Studies for approval.

Comparative and Global Cultures Concentration

- ANTH 105 - Great Discoveries in Archaeology Credits: 3
- ANTH 211 - Comparative Cultures Credits: 3
- ANTH 310 - Magic, Science and Religion Credits: 3
- ART 231 - Art History I Credits: 3
- ART 232 - Art History II Credits: 3
- ART 233 - Art History III Credits: 3
- * COMM 245 - Diversity and the Media Credits: 3
- COMM 401 - Film in the Contemporary World Credits: 3
- ENGL 342 - Studies in Mythology Credits: 3

- * ENGL 359 - Studies in Indigenous Literature Credits: 3
- ENGL 385 - Studies in Postcolonial Literature Credits: 3
- COST 270 - Intergroup/Intercultural Communication Credits: 3
- HIST 379 - History of Science Credits: 3
- HIST 407 - Women in Comparative Perspective Credits: 3
- INTL 190 - General Education Special Topics Credits: 3
- INTL 280 - Selected Topics in International Studies: Comparative & Global Cultures Credits: 3-6
- INTL 380 - Selected Topics in International Studies Comparative & Global Cultures Credits: 3-6
- INTL 390 - International Studies Internship - Comparative & Global Cultures Credits: 3-6
- MUSI 261 - World Music Credits: 3
- PHIL 295 - Comparative Religions Credits: 3
- PSYC 365 - Multicultural Psychology Credits: 3
- SOCI 257 - Family in Modern Society Credits: 3
- SOCI 265 - Global Society Credits: 3
- SOCI 363 - Growth and Change of Human Populations Credits: 3
- SOCI 365 - Globalization and Health Credits: 3
- SOCI 421 - Impact of International Migration Credits: 3
- SOCI 440 - Global Leadership for Global Society Credits: 3

Global Political Relations Concentration

- CRJU 411 - Terrorism Credits: 3
- HIST 345 - Military History of the United States Credits: 3
- HIST 351 - World History since 1945 Credits: 3
- HIST 359 - History of Western Political Thought, 1500-1800 Credits: 3
- INTL 281 - Selected Topics in International Studies: Global Political Relations Credits: 3-6
- INTL 358 - Global Political Economy & Security Credits: 3
- INTL 381 - Selected Topics in International Studies Global Political Relations Credits: 3-6
- INTL 391 - International Studies Internship - Global Political Relations Credits: 3-6
- PHIL 230 - The Ethics of War and Terrorism Credits: 3
- POLI 251 - Introduction to Comparative Politics Credits: 3
- * POLI 326 - Politics and Popular Culture Credits: 3
- POLI 341 - International Law and Organization Credits: 3
- POLI 342 - American Foreign Policy Credits: 3
- POLI 343 - Global Economic and Political Conflict Credits: 3
- POLI 344 - Sport in Comparative Political Perspective Credits: 3
- POLI 347 - Applied Diplomacy Credits: 3
- POLI 348 - Applied Diplomacy Credits: 3
- POLI 356 - Politics of Developing Regions Credits: 3
- POLI 357 - Comparative Revolutions Credits: 3
- POLI 394 - Selected Topics in International Politics Credits: 3
- SOCI 440 - Global Leadership for Global Society Credits: 3

Global Business and Economics Concentration

- ECON 321 - International Economics Credits: 3
- ECON 345 - The Economics of Growth and Development Credits: 3

- FINA 425 - Global Financial Management Credits: 3
- GEOG 329 - Economic Geography Credits: 3
- INTL 282 - Selected Topics in International Studies Global Business & Economics Credits: 3-6
- INTL 382 - Selected Topics in International Studies Global Business & Economics Credits: 3-6
- INTL 392 - International Studies Internship - Global Business & Economics Credits: 3-6
- MGMT 349 - International Human Resource Management Credits: 3
- MGMT 370 - International Business Credits: 3
- MGMT 470 - International Management Credits: 3
- MKTG 360 - International Marketing Credits: 3
- SCMG 420 - Global Logistics Systems Credits: 3
- SOCI 440 - Global Leadership for Global Society Credits: 3

Note:

**Students taking these courses are required to elect a Business or Marketing to meet required prerequisites.

Area Studies Concentration (12 crs)

Students must choose one Area Studies concentration below. Courses must be in at least 2 disciplines. 2 courses should be at the 300-level or higher.

African and Middle Eastern Studies Concentration

Arabic, French or another African or Middle Eastern language is required to fulfill the language requirement. Study abroad in Africa or the Middle East is highly recommended.

- * ENGL 359 - Studies in Indigenous Literature Credits: 3
- * ENGL 385 - Studies in Postcolonial Literature Credits: 3
- FREN 150 - Modern France and the Francosphere Credits: 3
- * FREN 190 - General Education Special Topics Credits: 3
- FREN 204 - Ideas and Cultures from the French-Speaking World Credits: 3
- FREN 331 - Masterpieces of Francophone Literature Credits: 3
- * FREN 380 - Aspects De La Civilisation FranÇaise/Francophone Credits: 3
- * FREN 400 - Seminar: Advanced Studies in French Language and Literature Credits: 3
- * FREN 490 - Selected Topics in French Credits: 3
- GEOG 415 - Geography of Africa Credits: 3
- * GEOG 450 - Geography-Geology Field Studies Credits: 1-3
- HIST 339 - The Central Islamic Lands, 500-1700 Credits: 3
- HIST 344 - History of the Modern Middle East Credits: 3
- HIST 445 - History of Saudi Arabia Credits: 3
- INTL 283 - Selected Topics in International Studies Africa & Middle East Studies Credits: 3-6
- INTL 383 - Selected Topics in International Studies Africa & Middle East Studies Credits: 3-6
- INTL 393 - International Studies Internship - African & Middle Eastern Studies Credits: 3-6
- * POLI 326 - Politics and Popular Culture Credits: 3

Note:

FREN 204, FREN 331, and FREN 380 -Only Global Languages and Cultures courses that are not used to satisfy the B.A. language requirement or International Studies foreign language requirement may be counted toward the Area Studies Concentration requirement.

Asian Studies Concentration

An Asian language is required to fulfill the language requirement. Study abroad in Asia is highly recommended.

- * ENGL 359 - Studies in Indigenous Literature Credits: 3
- * ENGL 385 - Studies in Postcolonial Literature Credits: 3
- GEOG 313 - Geography of South and Southeast Asia Credits: 3
- * GEOG 450 - Geography-Geology Field Studies Credits: 1-3
- COST 315 - Asian-American Communication Credits: 3
- HIST 350 - History of Modern Japan Credits: 3
- HIST 353 - Modern Southeast Asia Credits: 3
- HIST 354 - Traditional China Credits: 3
- HIST 355 - History of Modern China Credits: 3
- HIST 454 - China and the Outside World Credits: 3
- INTL 284 - Selected Topics International Studies Asian Studies Credits: 3-6
- INTL 384 - Selected Topics in International Studies Asian Studies Credits: 3-6
- INTL 394 - International Studies Internship - Asian Studies Credits: 3-6
- PHIL 336 - Concepts in Buddhism Credits: 3
- * POLI 326 - Politics and Popular Culture Credits: 3

European Studies Concentration

French, German, Spanish or another continental European language is required to fulfill the requirement. Study abroad in Europe is highly recommended.

- * ENGL 342 - Studies in Mythology Credits: 3
- ENGL 348 - Studies in Early British Literature Credits: 3
- * ENGL 380 - Studies in Later British Literature Credits: 3
- FREN 150 - Modern France and the Francosphere Credits: 3
- * FREN 190 - General Education Special Topics Credits: 3
- FREN 204 - Ideas and Cultures from the French-Speaking World Credits: 3
- FREN 320 - French for the Professions Credits: 3
- FREN 330 - Masterpieces of French Literature Credits: 3
- FREN 340 - Genres Litteraires Credits: 3
- * FREN 380 - Aspects De La Civilisation FranÇaise/Francophone Credits: 3
- FREN 392 - French Cultural Studies Immersion Credits: 3
- * FREN 400 - Seminar: Advanced Studies in French Language and Literature Credits: 3
- * FREN 490 - Selected Topics in French Credits: 3
- * GEOG 450 - Geography-Geology Field Studies Credits: 1-3
- GERM 150 - German Civilization and Culture Credits: 3
- GERM 151 - German Cinema Credits: 3
- GERM 190 - General Education Special Topics Credits: 3
- GERM 204 - Contemporary German Culture Credits: 3
- GERM 221 - German Culture through Music Credits: 3

- GERM 300 - Introduction to German Literature Credits: 3
- GERM 320 - Berlin Credits: 3
- GERM 322 - Readings in German Literature Credits: 3
- GERM 323 - The Holocaust and its German Legacy Credits: 3
- GERM 400 - German Seminar Credits: 3
- HIST 320 - Europe in the Early and High Middle Ages: 300 to 1270 Credits: 3
- HIST 321 - Late Medieval Europe: 1270 to 1517 Credits: 3
- HIST 325 - History of the Tsarist Russia Credits: 3
- HIST 326 - History of the U.S.S.R. Credits: 3
- HIST 330 - History of Modern Germany: 1919 to Present Credits: 3
- HIST 331 - History of Modern France: 1750 to Present Credits: 3
- HIST 332 - English History: 1066 to Present Credits: 3
- HIST 334 - Europe 1715-1815: The Era of the Industrial and French Revolutions Credits: 3
- HIST 337 - History of the Byzantine Empire Credits: 3
- HIST 348 - The History of Ancient Rome Credits: 3
- HIST 356 - History of 19th Century Europe Credits: 3
- HIST 357 - History of Holocaust Credits: 3
- HIST 359 - History of Western Political Thought, 1500-1800 Credits: 3
- HIST 361 - History of 20th Century Europe Credits: 3
- HIST 362 - Europe 1450-1715: The Era of the Renaissance and Reformation Credits: 3
- HIST 423 - Issues in 20th-Century Europe Credits: 3
- INTL 285 - Selected Topics in International Studies European Studies Credits: 3-6
- INTL 385 - Selected Topics in International Studies European Studies Credits: 3-6
- INTL 395 - International Studies Internship - European Studies Credits: 3-6
- MUSI 320 - Masterpieces of Music Credits: 3
- * POLI 326 - Politics and Popular Culture Credits: 3
- POLI 351 - European Politics Credits: 3
- POLI 359 - European Political Culture & Identity Credits: 3
- SPAN 150 - Hispanic Civilization and Culture Credits: 3
- * SPAN 190 - General Education Special Topics Credits: 3
- SPAN 204 - Ideas and Cultures from the Spanish-Speaking World Credits: 3
- SPAN 330 - Spanish for the Professions Credits: 3
- SPAN 343 - Introduction to Literary Studies Credits: 3
- SPAN 360 - Masterpieces of Spanish Literature Credits: 3
- SPAN 400 - Seminar: Advanced Studies in Spanish Language and Literature Credits: 3

Latin American and Caribbean Studies Concentration

Spanish, French, or another Latin American or Caribbean language is required to fulfill the language requirement. Study abroad in Latin America or the Caribbean is highly recommended.

- ANTH 360 - Aztec and Maya Archaeology Credits: 3
- BIOL 475 - Natural History of Costa Rica Credits: 3
- * ENGL 359 - Studies in Indigenous Literature Credits: 3
- * ENGL 385 - Studies in Postcolonial Literature Credits: 3
- * FREN 190 - General Education Special Topics Credits: 3
- FREN 331 - Masterpieces of Francophone Literature Credits: 3
- * FREN 380 - Aspects De La Civilisation FranÇaise/Francophone Credits: 3

- * FREN 400 - Seminar: Advanced Studies in French Language and Literature Credits: 3
- * FREN 490 - Selected Topics in French Credits: 3
- GEOG 308 - Geography of Latin America Credits: 3
- * GEOG 450 - Geography-Geology Field Studies Credits: 1-3
- HIST 349 - History of Latin America Credits: 3
- HIST 360 - History of Mexico Credits: 3
- HIST 366 - History of Brazil Credits: 3
- HIST 444 - History of Women in Latin America Credits: 3
- HONR 388 - Honors Service-Learning Seminar: Reach Out Credits: 3
- INTL 252 - Costa Rica: Politics, Economy, & Society Credits: 3
- INTL 286 - Selected Topics in International Studies Latin American & Caribbean Studies Credits: 3-6
- INTL 386 - Selected Topics in International Studies Latin American & Caribbean Studies Credits: 3-6
- INTL 396 - International Studies Internship - Latin American & Caribbean Studies Credits: 3-6
- POLI 347 - Applied Diplomacy Credits: 3
- POLI 348 - Applied Diplomacy Credits: 3
- SPAN 150 - Hispanic Civilization and Culture Credits: 3
- * SPAN 190 - General Education Special Topics Credits: 3
- SPAN 204 - Ideas and Cultures from the Spanish-Speaking World Credits: 3
- SPAN 330 - Spanish for the Professions Credits: 3
- SPAN 361 - Masterpieces of Spanish-American Literature Credits: 3
- SPAN 400 - Seminar: Advanced Studies in Spanish Language and Literature Credits: 3

Note:

SPAN 204, SPAN 330, SPAN 361, SPAN 400 -Only Global Languages and Cultures courses that are not used to satisfy the B.A. language requirement or International Studies foreign language requirement may be counted toward the Area Studies Concentration requirement.

General Education

General Education Requirements

- General Education Program (45 crs.)

General Education Requirements Specific for this major

- Global Perspective (G): HIST 106
- Global Perspective (G): POLI 141
- If concentration is Comparative & Global Cultures or Global Political Relations:
  - Critical Reasoning (R): GEOG 140 or ECON 113
- If concentration is Global Business & Economics:
  - Critical Reasoning (R): ECON 113
- HIST 105 - Historical Foundations of Global Cultures Credits: 3
- HIST 106 - Modern World History Credits: 3
- POLI 141 - World Politics Credits: 3

African & Middle Eastern Studies Certificate

Required (3 crs.)

- INTL 200 - Introduction to International Studies Concepts and Methods Credits: 3
- Or an approved substitute
  Majors, minors, and students adding a Certificate in a second world area must consult with the Director of International Studies to choose an appropriate substitute course and complete an Exception Form.

Electives (9 crs.)

The remaining three courses must concentrate on one world area (Africa & Middle East, Asia, Europe, or Latin America). Two of the elective courses must be at the 300-level or higher. No courses may be double-counted between a Certificate and the International Studies major or minor, or a second Certificate in another world area. A complete list of approved courses is available on the International Studies website *www.ship.edu/ism*. Study abroad and advanced language study are strongly encouraged and may satisfy elective credit.

* = Requires an appropriate topic and an Exception Form signed by the Director of International Studies for approval.

- * ENGL 385 - Studies in Postcolonial Literature Credits: 3
- FREN 150 - Modern France and the Francosphere Credits: 3
- FREN 204 - Ideas and Cultures from the French-Speaking World Credits: 3
- FREN 331 - Masterpieces of Francophone Literature Credits: 3
- * FREN 380 - Aspects De La Civilisation FranÇaise/Francophone Credits: 3
- * FREN 400 - Seminar: Advanced Studies in French Language and Literature Credits: 3
- * FREN 490 - Selected Topics in French Credits: 3
- GEOG 415 - Geography of Africa Credits: 3
- * GEOG 450 - Geography-Geology Field Studies Credits: 1-3
- HIST 339 - The Central Islamic Lands, 500-1700 Credits: 3
- HIST 344 - History of the Modern Middle East Credits: 3
- INTL 283 - Selected Topics in International Studies Africa & Middle East Studies Credits: 3-6
- INTL 383 - Selected Topics in International Studies Africa & Middle East Studies Credits: 3-6
- INTL 393 - International Studies Internship - African & Middle Eastern Studies Credits: 3-6

Asian Studies Certificate

Required (3 crs.)

- INTL 200 - Introduction to International Studies Concepts and Methods Credits: 3
- Or an approved substitute
  Majors, minors, and students adding a Certificate in a second world area must consult with the Director of International Studies to choose an appropriate substitute course and complete an Exception Form.

Electives (9 crs.)

The remaining three courses must concentrate on one world area (Africa & Middle East, Asia, Europe, or Latin America). Two of the elective courses must be at the 300-level or higher. No courses may be double-counted between a Certificate and the International Studies major or minor, or a second Certificate in another world area. A complete list of approved courses is available on the International Studies website *www.ship.edu/ism*. Study abroad and advanced language study are strongly encouraged and may satisfy elective credit.

* = Requires an appropriate topic and an Exception Form signed by the Director of International Studies for approval.

- * ENGL 385 - Studies in Postcolonial Literature Credits: 3
- GEOG 313 - Geography of South and Southeast Asia Credits: 3
- * GEOG 450 - Geography-Geology Field Studies Credits: 1-3
- COST 315 - Asian-American Communication Credits: 3
- HIST 350 - History of Modern Japan Credits: 3
- HIST 353 - Modern Southeast Asia Credits: 3
- HIST 354 - Traditional China Credits: 3
- HIST 355 - History of Modern China Credits: 3
- HIST 454 - China and the Outside World Credits: 3
- INTL 284 - Selected Topics International Studies Asian Studies Credits: 3-6
- INTL 384 - Selected Topics in International Studies Asian Studies Credits: 3-6
- INTL 394 - International Studies Internship - Asian Studies Credits: 3-6
- PHIL 336 - Concepts in Buddhism Credits: 3

European Studies Certificate

Required (3 crs.)

- INTL 200 - Introduction to International Studies Concepts and Methods Credits: 3
- Or an approved substitute
  Majors, minors, and students adding a Certificate in a second world area must consult with the Director of International Studies to choose an appropriate substitute course and complete an Exception Form.

Electives (9 crs.)

The remaining three courses must concentrate on one world area (Africa & Middle East, Asia, Europe, or Latin America). Two of the elective courses must be at the 300-level or higher. No courses may be double-counted between a Certificate and the International Studies major or minor, or a second Certificate in another world area. A complete list of approved courses is available on the International Studies website *www.ship.edu/ism*. Study abroad and advanced language study are strongly encouraged and may satisfy elective credit.

* = Requires an appropriate topic and an Exception Form signed by the Director of International Studies for approval.

- * ENGL 380 - Studies in Later British Literature Credits: 3
- FREN 150 - Modern France and the Francosphere Credits: 3
- FREN 204 - Ideas and Cultures from the French-Speaking World Credits: 3

- FREN 320 - French for the Professions Credits: 3
- FREN 330 - Masterpieces of French Literature Credits: 3
- FREN 340 - Genres Litteraires Credits: 3
- * FREN 380 - Aspects De La Civilisation FranÇaise/Francophone Credits: 3
- FREN 392 - French Cultural Studies Immersion Credits: 3
- * FREN 400 - Seminar: Advanced Studies in French Language and Literature Credits: 3
- * FREN 490 - Selected Topics in French Credits: 3
- * GEOG 450 - Geography-Geology Field Studies Credits: 1-3
- GERM 150 - German Civilization and Culture Credits: 3
- GERM 151 - German Cinema Credits: 3
- GERM 204 - Contemporary German Culture Credits: 3
- GERM 320 - Berlin Credits: 3
- GERM 322 - Readings in German Literature Credits: 3
- GERM 400 - German Seminar Credits: 3
- HIST 320 - Europe in the Early and High Middle Ages: 300 to 1270 Credits: 3
- HIST 321 - Late Medieval Europe: 1270 to 1517 Credits: 3
- HIST 325 - History of the Tsarist Russia Credits: 3
- HIST 326 - History of the U.S.S.R. Credits: 3
- HIST 330 - History of Modern Germany: 1919 to Present Credits: 3
- HIST 331 - History of Modern France: 1750 to Present Credits: 3
- HIST 332 - English History: 1066 to Present Credits: 3
- HIST 334 - Europe 1715-1815: The Era of the Industrial and French Revolutions Credits: 3
- HIST 337 - History of the Byzantine Empire Credits: 3
- HIST 348 - The History of Ancient Rome Credits: 3
- HIST 356 - History of 19th Century Europe Credits: 3
- HIST 357 - History of Holocaust Credits: 3
- HIST 359 - History of Western Political Thought, 1500-1800 Credits: 3
- HIST 361 - History of 20th Century Europe Credits: 3
- HIST 362 - Europe 1450-1715: The Era of the Renaissance and Reformation Credits: 3
- HIST 423 - Issues in 20th-Century Europe Credits: 3
- INTL 285 - Selected Topics in International Studies European Studies Credits: 3-6
- INTL 358 - Global Political Economy & Security Credits: 3
- INTL 385 - Selected Topics in International Studies European Studies Credits: 3-6
- INTL 395 - International Studies Internship - European Studies Credits: 3-6
- MUSI 320 - Masterpieces of Music Credits: 3
- POLI 351 - European Politics Credits: 3
- POLI 359 - European Political Culture & Identity Credits: 3
- SPAN 150 - Hispanic Civilization and Culture Credits: 3
- SPAN 204 - Ideas and Cultures from the Spanish-Speaking World Credits: 3
- SPAN 330 - Spanish for the Professions Credits: 3
- SPAN 343 - Introduction to Literary Studies Credits: 3
- SPAN 360 - Masterpieces of Spanish Literature Credits: 3
- SPAN 400 - Seminar: Advanced Studies in Spanish Language and Literature Credits: 3

Latin American Studies Certificate

Required (3 crs.)

- INTL 200 - Introduction to International Studies Concepts and Methods Credits: 3
- Or an approved substitute
  Majors, minors, and students adding a Certificate in a second world area must consult with the Director of International Studies to choose an appropriate substitute course and complete an Exception Form.

Electives (9 crs.)

The remaining three courses must concentrate on one world area (Africa & Middle East, Asia, Europe, or Latin America). Two of the elective courses must be at the 300-level or higher. No courses may be double-counted between Certificate and the International Studies major or minor, or a second Certificate in another world area. A complete list of approved courses is available on the International Studies website *www.ship.edu/ism*. Study abroad and advanced language study are strongly encouraged and may satisfy elective credit.

** = Requires an appropriate topic and an Exception Form signed by the Director of International Studies for approval.*

- ANTH 360 - Aztec and Maya Archaeology Credits: 3
- FREN 331 - Masterpieces of Francophone Literature Credits: 3
- * FREN 380 - Aspects De La Civilisation FranÇaise/Francophone Credits: 3
- * FREN 400 - Seminar: Advanced Studies in French Language and Literature Credits: 3
- * FREN 490 - Selected Topics in French Credits: 3
- GEOG 308 - Geography of Latin America Credits: 3
- * GEOG 450 - Geography-Geology Field Studies Credits: 1-3
- HIST 349 - History of Latin America Credits: 3
- HIST 360 - History of Mexico Credits: 3
- HIST 366 - History of Brazil Credits: 3
- HIST 444 - History of Women in Latin America Credits: 3
- HONR 388 - Honors Service-Learning Seminar: Reach Out Credits: 3
- INTL 252 - Costa Rica: Politics, Economy, & Society Credits: 3
- INTL 286 - Selected Topics in International Studies Latin American & Caribbean Studies Credits: 3-6
- INTL 386 - Selected Topics in International Studies Latin American & Caribbean Studies Credits: 3-6
- INTL 396 - International Studies Internship - Latin American & Caribbean Studies Credits: 3-6
- POLI 347 - Applied Diplomacy Credits: 3
- POLI 348 - Applied Diplomacy Credits: 3
- SPAN 150 - Hispanic Civilization and Culture Credits: 3
- SPAN 204 - Ideas and Cultures from the Spanish-Speaking World Credits: 3
- SPAN 330 - Spanish for the Professions Credits: 3
- SPAN 361 - Masterpieces of Spanish-American Literature Credits: 3
- SPAN 400 - Seminar: Advanced Studies in Spanish Language and Literature Credits: 3

International Development Minor

The International Development minor guides students to fulfill the curricular requirements of Peace Corps Prep. Students not pursuing Peace Corps Prep can also declare the major.

Required Introductory Course (3 crs.)

- INTL 200 - Introduction to International Studies Concepts and Methods Credits: 3

Foreign Language (3 crs.)

One foreign language class in any language at any level (most courses fulfill General Education requirements).

Global Perspectives Elective (3 crs.)

*Requires an appropriate topic and an online Exception Form approved by your adviser and the Director of International Studies.

- ANTH 105 - Great Discoveries in Archaeology Credits: 3
- ANTH 111 - Cultural Anthropology Credits: 3
- ANTH 211 - Comparative Cultures Credits: 3
- ANTH 310 - Magic, Science and Religion Credits: 3
- ART 231 - Art History I Credits: 3
- ART 232 - Art History II Credits: 3
- ART 233 - Art History III Credits: 3
  Or
- HONR 135 - Honors: Art History III Credits: 3
- ECON 321 - International Economics Credits: 3
- ENGL 342 - Studies in Mythology Credits: 3
- * ENGL 359 - Studies in Indigenous Literature Credits: 3
- ENGL 385 - Studies in Postcolonial Literature Credits: 3
- GEOG 101 - World Geography Credits: 3
- GEOG 140 - Human Geography Credits: 3
- GEOG 329 - Economic Geography Credits: 3
- COST 270 - Intergroup/Intercultural Communication Credits: 3
- HIST 106 - Modern World History Credits: 3
- HIST 351 - World History since 1945 Credits: 3
- HIST 379 - History of Science Credits: 3
- HIST 407 - Women in Comparative Perspective Credits: 3
- INTL 190 - General Education Special Topics Credits: 3
- INTL 280 - Selected Topics in International Studies: Comparative & Global Cultures Credits: 3-6
- INTL 358 - Global Political Economy & Security Credits: 3
- INTL 380 - Selected Topics in International Studies Comparative & Global Cultures Credits: 3-6
- INTL 390 - International Studies Internship - Comparative & Global Cultures Credits: 3-6
- MUSI 261 - World Music Credits: 3
- POLI 141 - World Politics Credits: 3
- POLI 251 - Introduction to Comparative Politics Credits: 3
- * POLI 326 - Politics and Popular Culture Credits: 3
- POLI 341 - International Law and Organization Credits: 3
- POLI 343 - Global Economic and Political Conflict Credits: 3
- POLI 344 - Sport in Comparative Political Perspective Credits: 3
- POLI 356 - Politics of Developing Regions Credits: 3
- POLI 357 - Comparative Revolutions Credits: 3
- PSYC 365 - Multicultural Psychology Credits: 3

- SOCI 257 - Family in Modern Society Credits: 3
- SOCI 265 - Global Society Credits: 3
- SOCI 363 - Growth and Change of Human Populations Credits: 3
- SOCI 365 - Globalization and Health Credits: 3
- SOCI 421 - Impact of International Migration Credits: 3
- SOCI 440 - Global Leadership for Global Society Credits: 3

Area Studies Elective (3 crs.)

Choose one course in the world area where you prefer to work in international development to deepen knowledge of a developing country or region. Study abroad in the country or region is highly encouraged, but not required for the minor.

* = Requires an appropriate topic and an Exception Form approved by your adviser and the Director of International Studies

Africa and Middle East

- * ENGL 359 - Studies in Indigenous Literature Credits: 3
- * ENGL 385 - Studies in Postcolonial Literature Credits: 3
- FREN 150 - Modern France and the Francosphere Credits: 3
- FREN 204 - Ideas and Cultures from the French-Speaking World Credits: 3
- FREN 331 - Masterpieces of Francophone Literature Credits: 3
- * FREN 380 - Aspects De La Civilisation FranÇaise/Francophone Credits: 3
- * FREN 400 - Seminar: Advanced Studies in French Language and Literature Credits: 3
- * FREN 490 - Selected Topics in French Credits: 3
- GEOG 415 - Geography of Africa Credits: 3
- * GEOG 450 - Geography-Geology Field Studies Credits: 1-3
- HIST 339 - The Central Islamic Lands, 500-1700 Credits: 3
- HIST 344 - History of the Modern Middle East Credits: 3
- HIST 445 - History of Saudi Arabia Credits: 3
- INTL 283 - Selected Topics in International Studies Africa & Middle East Studies Credits: 3-6
- INTL 383 - Selected Topics in International Studies Africa & Middle East Studies Credits: 3-6
- INTL 393 - International Studies Internship - African & Middle Eastern Studies Credits: 3-6
- * POLI 326 - Politics and Popular Culture Credits: 3

Asian Studies

- * ENGL 359 - Studies in Indigenous Literature Credits: 3
- * ENGL 385 - Studies in Postcolonial Literature Credits: 3
- GEOG 313 - Geography of South and Southeast Asia Credits: 3
- * GEOG 450 - Geography-Geology Field Studies Credits: 1-3
- COST 315 - Asian-American Communication Credits: 3
- HIST 350 - History of Modern Japan Credits: 3
- HIST 353 - Modern Southeast Asia Credits: 3
- HIST 354 - Traditional China Credits: 3

- HIST 355 - History of Modern China Credits: 3
- HIST 454 - China and the Outside World Credits: 3
- INTL 284 - Selected Topics International Studies Asian Studies Credits: 3-6
- INTL 384 - Selected Topics in International Studies Asian Studies Credits: 3-6
- INTL 394 - International Studies Internship - Asian Studies Credits: 3-6
- PHIL 336 - Concepts in Buddhism Credits: 3
- * POLI 326 - Politics and Popular Culture Credits: 3

Eastern Europe

- * ENGL 342 - Studies in Mythology Credits: 3
- HIST 325 - History of the Tsarist Russia Credits: 3
- * HIST 326 - History of the U.S.S.R. Credits: 3
- HIST 337 - History of the Byzantine Empire Credits: 3
- HIST 356 - History of 19th Century Europe Credits: 3
- HIST 357 - History of Holocaust Credits: 3
- HIST 361 - History of 20th Century Europe Credits: 3
- HIST 423 - Issues in 20th-Century Europe Credits: 3
- * INTL 285 - Selected Topics in International Studies European Studies Credits: 3-6
- * INTL 385 - Selected Topics in International Studies European Studies Credits: 3-6
- * INTL 395 - International Studies Internship - European Studies Credits: 3-6
- POLI 351 - European Politics Credits: 3
- POLI 326 - Politics and Popular Culture Credits: 3
- * POLI 359 - European Political Culture & Identity Credits: 3

Latin America and Caribbean

- ANTH 360 - Aztec and Maya Archaeology Credits: 3
- BIOL 475 - Natural History of Costa Rica Credits: 3
- * ENGL 359 - Studies in Indigenous Literature Credits: 3
- * ENGL 385 - Studies in Postcolonial Literature Credits: 3
- FREN 331 - Masterpieces of Francophone Literature Credits: 3
- * FREN 380 - Aspects De La Civilisation FranÇaise/Francophone Credits: 3
- * FREN 400 - Seminar: Advanced Studies in French Language and Literature Credits: 3
- * FREN 490 - Selected Topics in French Credits: 3
- GEOG 308 - Geography of Latin America Credits: 3
- * GEOG 450 - Geography-Geology Field Studies Credits: 1-3
- HIST 349 - History of Latin America Credits: 3
- HIST 360 - History of Mexico Credits: 3
- HIST 366 - History of Brazil Credits: 3
- HIST 444 - History of Women in Latin America Credits: 3
- HONR 388 - Honors Service-Learning Seminar: Reach Out Credits: 3
- INTL 252 - Costa Rica: Politics, Economy, & Society Credits: 3
- INTL 286 - Selected Topics in International Studies Latin American & Caribbean Studies Credits: 3-6
- INTL 386 - Selected Topics in International Studies Latin American & Caribbean Studies Credits: 3-6
- INTL 396 - International Studies Internship - Latin American & Caribbean Studies Credits: 3-6
- * POLI 326 - Politics and Popular Culture Credits: 3

- POLI 347 - Applied Diplomacy Credits: 3
  Or
- POLI 348 - Applied Diplomacy Credits: 3
- SPAN 150 - Hispanic Civilization and Culture Credits: 3
- SPAN 204 - Ideas and Cultures from the Spanish-Speaking World Credits: 3
- SPAN 361 - Masterpieces of Spanish-American Literature Credits: 3
- * SPAN 400 - Seminar: Advanced Studies in Spanish Language and Literature Credits: 3

Work Sector (9 crs. in one Option or Sub-Option)

Select one of the six work sector options or sub-options below. Leveraging concrete knowledge and skills is central to on-the-ground international development work.

Option 1: Education

** = Course requires field palcement(s) in local public school(s) coordinated through the Office of Field Experience and Partnerships. Prior to first field placement, student must obtain teaching clearances, including a criminal backgraound check.

1a: Early Childhood/Elementary Education: Pre-K to 4 Grade Education

Restricted to Pre-K to 4 majors

- ECED 210 - The Early Childhood Profession Credits: 3
- ECED 453 - Integrated Curriculum Pre K-4 Credits: 3
- READ 363 - Reading and Writing in PK-4 Credits: 3

1b: Elementary/Middle Level Education: Grades 4-8

Restricted to Mid-Level majors

- READ 232 - Reading in the Elementary School Credits: 3
- TEED 206 - Social Foundations of Middle Level Education Credits: 3
- TEED 261 - Adolescent Development and Adolescent Learning Theory Credits: 3

1c. English Secondary Education

Restricted to English Secondary majors

- EDFN 290 - Introduction to English/Language Arts Education: Teaching Adolescent Writers Credits: 3
- EDFN 422 - Methods of Teaching English in Secondary Schools Credits: 3
- READ 413 - Teaching Reading to English Language Learners Credits: 3

1d: Mathematics Education (9-11 crs)

Required course (3 crs.)

- EDFN 434 - Teaching of Mathematics in the Secondary Schools I Credits: 3

Electives (6-8 crs.)

Any 200- or 300- level Math courses. Recommended: MATH 225

1e: Science/Mathematics Education (9-11 crs)

Required course(s) (3-6 crs.)

- EDFN 434 - Teaching of Mathematics in the Secondary Schools I Credits: 3
- ** EDFN 440 - Teaching of Science in Secondary Schools Credits: 3

Electives (6-8 crs.)

Any courses in Biology, Chemistry, Earth Science, Physics, or Sustainability at the 200-level.

1f: Special Education

- ** SPEE 273 - Introduction to Exceptionalities: Understanding Diverse Learners Credits: 3
  OR
- ** HONR 411 - Honors: Introduction to Exceptionalities: Understanding Diverse Learners Credits: 3

- ** SPEE 423 - Effective Instructional Strategies for Students with Exceptionalities Credits: 3
- ** SPEE 483 - Assessing Children with Exceptionalities for Curricular Decision-Making Credits: 3

1g: Teaching English as a Foreign Language (TEFL)

- ** EDFN 290 - Introduction to English/Language Arts Education: Teaching Adolescent Writers Credits: 3
- EDFN 426 - Methods of Teaching Foreign Languages Credits: 3
- ESL 450 - Foundations of English Language Learner Instruction a Credits: 3

Option 2: Health

2a: Biology/Pre-Medicine

- BIOL 161 - Principles of Biology: Cell Structure and Function Credits: 4
- BIOL 162 - Principles of Biology: Organismal Diversity Credits: 4
- BIOL 220 - Microbiology Credits: 4
- BIOL 237 - Human Anatomy & Physiology I Credits: 4
- BIOL 238 - Human Anatomy & Physiology II Credits: 4
- BIOL 317 - Parasitology Credits: 3
- GEOG 402 - Medical Geography Credits: 3
- SOCI 369 - Medical Sociology Credits: 3

2b: Disability Studies

- DISA 100 - Introduction to Disability Studies Credits: 3
- SOCI 320 - Sociology of Disability Credits: 3
- SOCI 369 - Medical Sociology Credits: 3

2c: Exercise Science

- EXER 150 - Introduction to Exercise Science Credits: 3
- EXER 200 - Health & Wellness Credits: 3
- EXER 207 - Stress Management Credits: 3
- EXER 278 - Medical Terminology Credits: 3
- ** EXER 340 - Prevention and Care of Athletic Injuries Credits: 3

2d: Public Health

Required course 3 crs.:

- PBHL 100 - Introduction to Public Health Credits: 3

Electives 6 crs.:

- COST 342 - Health Communication Credits: 3
- ECON 317 - Health Economics Credits: 3
- GEOG 402 - Medical Geography Credits: 3
- PBHL 205 - Health Policy Credits: 3
- PBHL 301 - Fundamentals of Epidemiology Credits: 3
- PBHL 400 - Internship in Public Health Credits: 3
- SOCI 320 - Sociology of Disability Credits: 3
- SOCI 365 - Globalization and Health Credits: 3
- SOCI 369 - Medical Sociology Credits: 3
- SOCI 371 - Sociology of Aging Credits: 3

Option 3: Environment

3a: Biology, Botany, or Ecology

- BIOL 161 - Principles of Biology: Cell Structure and Function Credits: 4
- BIOL 162 - Principles of Biology: Organismal Diversity Credits: 4
- BIOL 205 - Marine Biology Credits: 3
- BIOL 208 - Field Biology Credits: 3
- BIOL 210 - Field Zoology Credits: 3
- BIOL 230 - Botany Credits: 3
- BIOL 242 - Ecology Credits: 3
- BIOL 444 - Conservation Biology Credits: 3
- BIOL 475 - Natural History of Costa Rica Credits: 3

3b: Environmental Science/Engineering & Geology

- CIVE 330 - Environmental Engineering Credits: 3
- CIVE 350 - Soil Mechanics Credits: 4

- CIVE 440 - Water and Wastewater Treatment Credits: 3
- ESSC 110 - Introduction to Geology Credits: 3
- ESSC 226 - Hydrology Credits: 3
- ESSC 424 - Soils Credits: 3
- ESSC 451 - Coastal Environmental Oceanography Credits: 3
- GEOG 202 - GIS I: Introduction to Geographic Information Systems Credits: 3
- ESSC 405 - Groundwater and Hydrogeology Credits: 3
- GEOG 446 - Water Resources Management Credits: 3
- GEOG 450 - Geography-Geology Field Studies Credits: 1-3

3c: Natural Resources Conservation/Sustainability

Required Courses (6 crs.)

- BIOL 145 - Environmental Biology Credits: 3
  OR
- ESSC 108 - Introduction to Environmental Sustainability Credits: 3

- GEOG 427 - Sustainability Credits: 3

Elective (3 crs.)

Any BIO or ESS courses from Sustainability minor. Recommended: ECON 355 , GEOG 202, GEOG 406, GEOG 450

Option 4: Agriculture

- BIOL 162 - Principles of Biology: Organismal Diversity Credits: 4
- BIOL 230 - Botany Credits: 3
- BIOL 362 - Invertebrate Zoology Credits: 3
- ECON 102 - Principles of Microeconomics Credits: 3
- GEOG 406 - Sustainable Food Systems from the Soil Up Credits: 3
- ESSC 424 - Soils Credits: 3

Option 5: Youth in Development

5a: Human/Community Development

- BIOL 150 - Human Biology Credits: 3
  OR
- BIOL 238 - Human Anatomy & Physiology II Credits: 4
  OR
- BIOL 350 - Human Physiology Credits: 4

- EXER 343 - Foundations of Exercise Physiology Credits: 4
- EXER 220 - Fundamentals of Coaching Credits: 3
  OR

- EXER 348 - Group Exercise Techniques & Leadership Credits: 3

5b: Family Studies

- PSYC 265 - Childhood and Adolescence Credits: 3
- PSYC 410 - Psychology and Women (Effective Spring 2020: Psychology of Women and Gender) Credits: 3
- SOCI 257 - Family in Modern Society Credits: 3
- SOCI 258 - Gender, Culture, and Power Credits: 3
- WMST 100 - Introduction to Women's and Gender Studies Credits: 3

5c: Social Work

- SOWK 150 - Human Relations Lab Credits: 3
- SOWK 250 - Assessing Individuals in the Social Environment Credits: 3
- SOWK 265 - Understanding Human Diversity for Social Justice Credits: 3

Option 6: Community Economic Development

6a: Accounting, Banking, or Finance

- ACCT 200 - Fundamentals of Financial Accounting Credits: 3
- ACCT 201 - Managerial Accounting Credits: 3
- ECON 305 - Money and Banking Credits: 3
- FINA 311 - Financial Management Credits: 3
- FINA 314 - Financial Institutions Credits: 3

6b: Business

- ENTR 110 - Introduction to Entrepreneurship Credits: 3
- ECON 280 - Managerial Economics Credits: 3
- ECON 321 - International Economics Credits: 3
- MGMT 305 - Organizational Behavior Credits: 3
- MGMT 370 - International Business Credits: 3
- MGMT 470 - International Management Credits: 3

6c: International Business

+ = Non-majors taking these courses must declare a Business or Marketing Minor to satisfy the various prerequisites.

- ECON 321 - International Economics Credits: 3
- # FINA 425 - Global Financial Management Credits: 3
- # MGMT 349 - International Human Resource Management Credits: 3
- MGMT 370 - International Business Credits: 3
- MGMT 470 - International Management Credits: 3
- MKTG 205 - Principles of Marketing Credits: 3
- MKTG 360 - International Marketing Credits: 3

6d: Public Service

- ECON 310 - Public Finance Credits: 3
- POLI 271 - Introduction to Public Administration Credits: 3
- POLI 302 - Public Policy Analysis Credits: 3
- POLI 372 - Public Personnel Administration Credits: 3
- POLI 373 - Public Financial Administration Credits: 3

- *Note: Suggested Global Perspectives elective for students in Public Administration field* POLI 356 - Politics of Developing Regions Credits: 3

6e: Mass Communication

- COMM 111 - Media Literacy Credits: 3
- COMM 112 - Media Writing Credits: 3
- COMM 245 - Diversity and the Media Credits: 3

6f: Graphic Design

- ART 217 - Computer Design I Credits: 3
- ART 319 - Computer Design III Credits: 3
- ART 430 - Computer Design V Credits: 3

6g: Computer Science

- CMSC 104 - Programming in Python Credits: 3
- CMSC 110 - Computer Science I Credits: 4
- CMSC 111 - Computer Science II Credits: 4
- SWEN 100 - Intro to Software Engineering Credits: 4
- SWEN 200 - Design Patterns Credits: 4 [(CSC 110 or SWE 100) and (CSC 111) with a grades of C or better]

International Studies Minor

The International Studies minor can be paired with many different majors including those in business, education and science. The minor has required courses (6 crs.) that provide an overview of international studies. Core courses (6 crs.) and elective courses (9 crs.) give students flexibility to pursue their own international interests. Study abroad and foreign language learning are highly encouraged, but not required. Study abroad courses may be applied to a maximum of 15 credit hours of minor requirements. Students must take INTL 200 and INTL 300 at Shippensburg University.

21 crs.

Required (6 crs.)

- INTL 200 - Introduction to International Studies Concepts and Methods Credits: 3
- INTL 300 - International Studies Seminar Credits: 3

Core courses (6 crs.)

- ANTH 111 - Cultural Anthropology Credits: 3
  OR
- HONR 160 - Honors: Cultural Anthropology Credits: 3
- GEOG 101 - World Geography Credits: 3
  OR
- HONR 141 - Honors: World Geography Credits: 3
- HIST 106 - Modern World History Credits: 3
  OR
- HONR 123 - Honors: Modern World History Credits: 3
- MGMT 370 - International Business Credits: 3
- POLI 141 - World Politics Credits: 3

Electives (9 crs.)

The remaining three courses may be selected from a wide range of offerings in many departments. Electives need to be in at least two disciplines. Two of the elective courses must be at the 300-level or higher. Courses used to meet the core course requirement cannot double count as minor electives. A complete list of approved courses is available on the International Studies website www.ship.edu/ism. Study abroad and advanced language study are strongly encouraged and may satisfy elective credit.

Note: Only Global Languages courses above the 103 level that are not used to satisfy the BA language requirement can be counted.

* = Requires an appropriate topic and an Exception Form signed by the Director of International Studies for approval.

- ANTH 105 - Great Discoveries in Archaeology Credits: 3
- ANTH 111 - Cultural Anthropology Credits: 3
- ANTH 211 - Comparative Cultures Credits: 3
- ANTH 310 - Magic, Science and Religion Credits: 3
- ANTH 360 - Aztec and Maya Archaeology Credits: 3
- ART 231 - Art History I Credits: 3
- ART 232 - Art History II Credits: 3
- ART 233 - Art History III Credits: 3
- BIOL 475 - Natural History of Costa Rica Credits: 3
- * COMM 245 - Diversity and the Media Credits: 3
- COMM 401 - Film in the Contemporary World Credits: 3
- CRJU 411 - Terrorism Credits: 3
- ECON 321 - International Economics Credits: 3
- ENGL 342 - Studies in Mythology Credits: 3
- ENGL 348 - Studies in Early British Literature Credits: 3
- * ENGL 359 - Studies in Indigenous Literature Credits: 3
- ENGL 380 - Studies in Later British Literature Credits: 3
- ENGL 385 - Studies in Postcolonial Literature Credits: 3
- FINA 425 - Global Financial Management Credits: 3
- GEOG 101 - World Geography Credits: 3
- GEOG 140 - Human Geography Credits: 3
- GEOG 308 - Geography of Latin America Credits: 3

- GEOG 313 - Geography of South and Southeast Asia Credits: 3
- GEOG 329 - Economic Geography Credits: 3
- GEOG 415 - Geography of Africa Credits: 3
- * GEOG 450 - Geography-Geology Field Studies Credits: 1-3
- COST 270 - Intergroup/Intercultural Communication Credits: 3
- COST 315 - Asian-American Communication Credits: 3
- HIST 106 - Modern World History Credits: 3
- HIST 320 - Europe in the Early and High Middle Ages: 300 to 1270 Credits: 3
- HIST 321 - Late Medieval Europe: 1270 to 1517 Credits: 3
- HIST 325 - History of the Tsarist Russia Credits: 3
- HIST 326 - History of the U.S.S.R. Credits: 3
- HIST 330 - History of Modern Germany: 1919 to Present Credits: 3
- HIST 331 - History of Modern France: 1750 to Present Credits: 3
- HIST 332 - English History: 1066 to Present Credits: 3
- HIST 334 - Europe 1715-1815: The Era of the Industrial and French Revolutions Credits: 3
- HIST 337 - History of the Byzantine Empire Credits: 3
- HIST 339 - The Central Islamic Lands, 500-1700 Credits: 3
- HIST 344 - History of the Modern Middle East Credits: 3
- HIST 345 - Military History of the United States Credits: 3
- HIST 348 - The History of Ancient Rome Credits: 3
- HIST 349 - History of Latin America Credits: 3
- HIST 350 - History of Modern Japan Credits: 3
- HIST 351 - World History since 1945 Credits: 3
- HIST 353 - Modern Southeast Asia Credits: 3
- HIST 354 - Traditional China Credits: 3
- HIST 355 - History of Modern China Credits: 3
- HIST 356 - History of 19th Century Europe Credits: 3
- HIST 357 - History of Holocaust Credits: 3
- HIST 359 - History of Western Political Thought, 1500-1800 Credits: 3
- HIST 360 - History of Mexico Credits: 3
- HIST 361 - History of 20th Century Europe Credits: 3
- HIST 362 - Europe 1450-1715: The Era of the Renaissance and Reformation Credits: 3
- HIST 366 - History of Brazil Credits: 3
- HIST 379 - History of Science Credits: 3
- HIST 407 - Women in Comparative Perspective Credits: 3
- HIST 423 - Issues in 20th-Century Europe Credits: 3
- HIST 444 - History of Women in Latin America Credits: 3
- HIST 445 - History of Saudi Arabia Credits: 3
- HIST 454 - China and the Outside World Credits: 3
- HONR 123 - Honors: Modern World History Credits: 3
- HONR 135 - Honors: Art History III Credits: 3
- HONR 141 - Honors: World Geography Credits: 3
- HONR 160 - Honors: Cultural Anthropology Credits: 3
- HONR 261 - Honors: World Music Credits: 3
- HONR 274 - Honors: Introduction to International Politics Credits: 3
- HONR 388 - Honors Service-Learning Seminar: Reach Out Credits: 3
- INTL 190 - General Education Special Topics Credits: 3

- INTL 252 - Costa Rica: Politics, Economy, & Society Credits: 3
- INTL 280 - Selected Topics in International Studies: Comparative & Global Cultures Credits: 3-6
- INTL 281 - Selected Topics in International Studies: Global Political Relations Credits: 3-6
- INTL 282 - Selected Topics in International Studies Global Business & Economics Credits: 3-6
- INTL 283 - Selected Topics in International Studies Africa & Middle East Studies Credits: 3-6
- INTL 284 - Selected Topics International Studies Asian Studies Credits: 3-6
- INTL 285 - Selected Topics in International Studies European Studies Credits: 3-6
- INTL 286 - Selected Topics in International Studies Latin American & Caribbean Studies Credits: 3-6
- INTL 358 - Global Political Economy & Security Credits: 3
- INTL 380 - Selected Topics in International Studies Comparative & Global Cultures Credits: 3-6
- INTL 381 - Selected Topics in International Studies Global Political Relations Credits: 3-6
- INTL 382 - Selected Topics in International Studies Global Business & Economics Credits: 3-6
- INTL 383 - Selected Topics in International Studies Africa & Middle East Studies Credits: 3-6
- INTL 384 - Selected Topics in International Studies Asian Studies Credits: 3-6
- INTL 385 - Selected Topics in International Studies European Studies Credits: 3-6
- INTL 386 - Selected Topics in International Studies Latin American & Caribbean Studies Credits: 3-6
- INTL 390 - International Studies Internship - Comparative & Global Cultures Credits: 3-6
- INTL 391 - International Studies Internship - Global Political Relations Credits: 3-6
- INTL 392 - International Studies Internship - Global Business & Economics Credits: 3-6
- INTL 393 - International Studies Internship - African & Middle Eastern Studies Credits: 3-6
- INTL 394 - International Studies Internship - Asian Studies Credits: 3-6
- INTL 395 - International Studies Internship - European Studies Credits: 3-6
- INTL 396 - International Studies Internship - Latin American & Caribbean Studies Credits: 3-6
- MGMT 349 - International Human Resource Management Credits: 3
- MGMT 370 - International Business Credits: 3
- MGMT 470 - International Management Credits: 3
- MKTG 360 - International Marketing Credits: 3
- MUSI 261 - World Music Credits: 3
- MUSI 320 - Masterpieces of Music Credits: 3
- PHIL 230 - The Ethics of War and Terrorism Credits: 3
- PHIL 295 - Comparative Religions Credits: 3
- PHIL 336 - Concepts in Buddhism Credits: 3
- POLI 141 - World Politics Credits: 3
- POLI 251 - Introduction to Comparative Politics Credits: 3
- * POLI 326 - Politics and Popular Culture Credits: 3
- POLI 341 - International Law and Organization Credits: 3
- POLI 342 - American Foreign Policy Credits: 3
- POLI 343 - Global Economic and Political Conflict Credits: 3
- POLI 344 - Sport in Comparative Political Perspective Credits: 3
- POLI 347 - Applied Diplomacy Credits: 3
- POLI 348 - Applied Diplomacy Credits: 3
- POLI 351 - European Politics Credits: 3
- POLI 356 - Politics of Developing Regions Credits: 3
- POLI 357 - Comparative Revolutions Credits: 3
- POLI 359 - European Political Culture & Identity Credits: 3
- POLI 394 - Selected Topics in International Politics Credits: 3
- PSYC 365 - Multicultural Psychology Credits: 3

- SCMG 420 - Global Logistics Systems Credits: 3
- SOCI 257 - Family in Modern Society Credits: 3
- SOCI 265 - Global Society Credits: 3
- SOCI 363 - Growth and Change of Human Populations Credits: 3
- SOCI 365 - Globalization and Health Credits: 3
- SOCI 421 - Impact of International Migration Credits: 3
- SOCI 440 - Global Leadership for Global Society Credits: 3

Global Language and Culture - Only courses above the 103 level that are not used to satisfy the BA language requirement may be counted.

- FREN 150 - Modern France and the Francosphere Credits: 3
- FREN 190 - General Education Special Topics Credits: 3
- FREN 204 - Ideas and Cultures from the French-Speaking World Credits: 3
- FREN 320 - French for the Professions Credits: 3
- FREN 330 - Masterpieces of French Literature Credits: 3
- FREN 331 - Masterpieces of Francophone Literature Credits: 3
- FREN 340 - Genres Litteraires Credits: 3
- FREN 380 - Aspects De La Civilisation FranÇaise/Francophone Credits: 3
- FREN 392 - French Cultural Studies Immersion Credits: 3
- FREN 400 - Seminar: Advanced Studies in French Language and Literature Credits: 3
- FREN 490 - Selected Topics in French Credits: 3
- GERM 150 - German Civilization and Culture Credits: 3
- GERM 151 - German Cinema Credits: 3
- GERM 190 - General Education Special Topics Credits: 3
- GERM 204 - Contemporary German Culture Credits: 3
- GERM 221 - German Culture through Music Credits: 3
- GERM 300 - Introduction to German Literature Credits: 3
- GERM 320 - Berlin Credits: 3
- GERM 322 - Readings in German Literature Credits: 3
- GERM 323 - The Holocaust and its German Legacy Credits: 3
- GERM 400 - German Seminar Credits: 3
- SPAN 150 - Hispanic Civilization and Culture Credits: 3
- SPAN 190 - General Education Special Topics Credits: 3
- SPAN 204 - Ideas and Cultures from the Spanish-Speaking World Credits: 3
- SPAN 330 - Spanish for the Professions Credits: 3
- SPAN 343 - Introduction to Literary Studies Credits: 3
- SPAN 360 - Masterpieces of Spanish Literature Credits: 3
- SPAN 361 - Masterpieces of Spanish-American Literature Credits: 3
- SPAN 400 - Seminar: Advanced Studies in Spanish Language and Literature Credits: 3

Mathematics Department

The B.S. in Mathematics program is structured to expose students to a wide variety of mathematical subdisciplines and to guide them on careers in the mathematical sciences.

Concentrations

Optionally, a math major may choose to pursue one of two concentrations:

1. Secondary education certification
2. Dual certification in mathematics and special education

Students completing a concentration will be certified to teach mathematics (or mathematics and special education) at the secondary level. More details on these concentrations are given below.

Mathematics Career Opportunities

Careers in the mathematical sciences, such as actuary, mathematician, statistician, data scientist, or operations researcher are consistently rated among the best in terms of income, job security, and work environment. A spectrum of career opportunities exists in private industry, business, government, science, and education.

Key Features of the Mathematics B.S. program

- In their first year, all incoming students complete a 1-credit course, MATH 185 First Year Seminar in Mathematics. In this course, students engage with faculty and current students, familiarize themselves with the mathematical community, and learn more about career opportunities for mathematicians and statisticians.
- All mathematics majors are advised by professors in the mathematics department, and students pursuing secondary teaching certification have an additional advisor with expertise in mathematics education and Pennsylvania certification processes and policies.
- Neither concentration requires courses that must be taken in the first year; students may elect to pursue a concentration starting in their sophomore year.
- Students are required to complete advanced coursework in a discipline to which mathematics or statistics is applied. Common minors among our students include business, computer science, physics, engineering, and economics.
- The latest technology is brought into the classroom to teach mathematics in a modern fashion.
- Students interested in a career as an actuary typically complete a B.S. in Mathematics with the statistics concentration along with a Business minor. Through coursework in these programs, students are able to prepare for the Financial Mathematics (FM) and Probability (P) exams required by the Society of Actuaries (SOA), as well as complete the SOA's Validation by Educational Experience (VEE) requirements.

Mathematics B.S. Degree Requirements

Every math major must take ten "core courses":

1. MATH 185 First Year Math Seminar
2. MATH 211 Calculus I
3. MATH 212 Calculus II
4. MATH 213 Calculus III
5. MATH 217 Statistics I
6. MATH 225 Discrete Mathematics
7. MATH 318 Elementary Linear Algebra
8. MATH 320 Introduction to Abstract Algebra
9. Either MATH 430 Complex Analysis or MATH 441 Real Analysis
10. Either CMSC 104 Programming in Python, or CMSC 110 Computer Science I, or ENGR 120 Programming for Engineers

Beyond the ten core courses, a student must either (1) complete a concentration, or else (2) complete five *math electives* and three *allied electives*.

- *Math electives*. Students complete at least five MATH courses at the 300 level or above, of which at least two are at the 400 level. Refer to the mathematics Course Descriptions in the catalog for courses that may be taken as math electives. The department maintains a course rotation showing the semesters in which these courses run.
- *Allied electives*. These are courses numbered 300 or above from ACCT, BIOL, CHEM, CMSC, CMEN, ECON, ESSC, FINA, MATH, ITAN, PHYS, SCMG, or SWEN. Also, MATH 219 Data Science I counts as an allied elective. Students must take three allied electives, of which at most two may be MATH courses.
- The allied electives requirement will be waived for students completing a minor or a second major.

Course Sequencing - No Concentration

By the end of sophomore year

- MATH 185 First Year Mathematics Seminar (spring of freshman year)
- MATH 211 Calculus I
- MATH 212 Calculus II
- MATH 213 Calculus III
- MATH 217 Statistics I
- MATH 225 Discrete Mathematics
- CMSC 104 Programming in Python (or other programming course)
- Have a plan for Allied Electives or a minor

By the end of junior year

- MATH 318 Elementary Linear Algebra
- MATH 320 Introduction to Abstract Algebra
- Two or three Math Electives
- One or two Allied Electives, or make progress toward a minor

By the end of senior year

- MATH 430 Complex Analysis or MATH 441 Real Analysis
- Complete the Math Electives
- Complete the Allied Electives or minor

Course Sequencing - Secondary Education Concentration

By the end of sophomore year

- MATH 185 First Year Mathematics Seminar (spring of freshman year)
- MATH 211 Calculus I
- MATH 212 Calculus II
- MATH 213 Calculus III
- MATH 217 Statistics I
- MATH 225 Discrete Mathematics
- MATH 318 Elementary Linear Algebra
- CMSC 104 Programming in Python (or CMSC 110)
- TEED 207 Organizational and Psychological Foundations in Secondary Education
- SPEE 273 Introduction to Exceptionalities: Understanding Diverse Learners

- READ 413 Teaching Reading to English Language Learners

By the end of junior year

- MATH 320 Introduction to Abstract Algebra
- MATH 326 Mathematical Modeling
- MATH 333 Geometry or MATH 400 History of Mathematics
- MATH 400-level elective
- SPEE 423 Effective Instructional Strategies for Students with Exceptionalities
- EDFN 434 Teaching of Mathematics in the Secondary Schools I (spring of junior year)

By the end of senior year

- MATH 400 History of Mathematics or MATH 333 Geometry
- MATH 441 Real Analysis or MATH 430 Complex Analysis
- EDFN 435 Teaching of Mathematics in the Secondary Schools II (fall of senior year)
- SPEE 483 Assessing Children with Exceptionalities for Curricular Decision-Making
- EDFN 495 Student Teaching (spring of senior year)

Concentration: Secondary Certification in Math

The secondary certification concentration is designed to give the student a broad knowledge of mathematics with a special focus on teaching in the high-school classroom. Students take a significant number of upper-level math courses and courses from the College of Education and Human Services. Students in this program also complete a full-semester student-teaching experience, receiving their state teaching certification upon graduation.

As students prepare to become a teacher, they will participate in hands-on learning experiences such as:

- Observation of classes in elementary, middle school, and high school settings
- Opportunities to provide one-on-one tutoring to develop math and communication skills
- Observations of physically challenged and exceptional learners
- Student teaching placements for field experience in a future profession

Mathematics Education 7-12 students seeking Pennsylvania certification should see requirements outlined in the College of Education and Human Services.

Concentration: Dual Certification in Math and Special Education

Students completing this dual certification program will be qualified to teach in both mathematics classrooms (grades 7-12) and special education classrooms (pre-K-12), thereby broadening their job prospects. As a math classroom teacher, a graduate will have the training necessary for effectively managing classes in which a high number of students have Individual Education Plans (IEPs).

Data Science Minor

Every academic discipline and sector of the economy has access to more data today than at any point in our history, and those individuals with appropriate quantitative skills can make unique contributions to any endeavor in research, business, or industry. Data science is an applied field that involves the analysis and synthesis of large, messy, quickly changing data sets to identify trends and create actionable plans in real-world contexts.

The Shippensburg University Data Science minor prepares students for every phase of the data science pipeline: forming mathematical models, collecting and cleaning data, exploring data with visualizations, identifying appropriate statistical techniques, and communicating results. Course requirements strike a balance between statistics, computer programming, and specialized data science training. Students will complete a data science capstone research project in their major. In this way, the Data Science minor is an excellent complement to any major on campus.

Mathematics Minor

Students in many disciplines can supplement their existing mathematics requirements with additional coursework recommended by Shippensburg University faculty to achieve a higher level of quantitative expertise in their major area. The most common majors to add a minor in mathematics are computer science, engineering, physics, chemistry, and economics. The minor can be earned by completing six MATH courses consisting of 18 or more credits at the 200 level or higher; two of these courses must be at the 300 level or higher.

Certificates

Certificates are like concentrations, but they are open to students in any major. There are three certificates that Mathematics majors may find appealing.

- **Applied Math Certificate**. The Applied Mathematics Certificate is designed to give the student a firm grasp on the application of mathematics to other disciplines. The most typical applications include computer science, statistics, actuarial science, and physical and biological sciences.
- **Statistics Certificate**. This certificate gives the student working knowledge in the field of statistics.
- **Actuarial Science Certificate**. Actuaries are professionals working in the business world. They use various problem-solving skills to assess risk, including mathematical and statistical techniques, thereby helping their company to make informed and profitable decisions. This certificate allows students to complete a curriculum that meets the Society of Actuaries (SOA) Universities & Colleges with Actuarial Programs (UCAP) guidelines and the Introductory Curriculum (UCAP-IC) level.

Mathematics, B.S.

The Mathematics B.S. degree is designed to give students a broad knowledge of mathematics as well as a firm grasp on the application of mathematics to other disciplines. The most typical applications include computer science, statistics, actuarial science, physical and biological sciences, and teacher certification at the secondary level. Students take several upper-level courses outside the mathematics department to strengthen their knowledge in one or more application disciplines.

Students interested in teaching mathematics after college should consider either the Mathematics with Secondary Certification program or the Mathematics and Special Education Certification program.

To complete the Mathematics B.S. degree, a student must complete a set of required math and computer science courses and a set of math and upper-level electives. Optionally, math majors may be interested in completing a Data Science Minor, an Actuarial Science Certificate, an Applied Mathematics Certificate, or a Statistics Certificate.

Credit Requirements*

- **General Education:** 47 credits
- **Major Requirements**: 46 - 50 credits
- **Free Electives:** 23 - 27 credits

- *Total Credits to Graduate:* **120 credits**

* All undergraduate degree programs require a minimum of 120 credits. Some courses meet multiple requirements, but are only counted once toward the 120 credit total required to graduate.

Required Mathematics (22 crs.)

- MATH 185 - First Year Mathematics Seminar Credits: 1
- MATH 212 - Calculus II Credits: 4
- MATH 213 - Calculus III Credits: 4
- MATH 217 - Statistics I Credits: 4
- MATH 318 - Elementary Linear Algebra Credits: 3
- MATH 320 - Introduction to Abstract Algebra Credits: 3

- MATH 430 - Complex Analysis Credits: 3 or
- MATH 441 - Real Analysis I Credits: 3

Required Computer Science (3-4 crs.)

- CMSC 104 - Programming in Python Credits: 3 or
- CMSC 110 - Computer Science I Credits: 4
  Note: If selected, CMSC 104 will fulfill a General Education requirement.

Electives (24 crs.)

- MATH 300 or 400 level elective
- MATH 300 or 400 level elective
- MATH 300 or 400 level elective
- MATH 400 level elective
- MATH 400 level elective
- Three-Allied-Electives. Allied electives are courses numbered 300 or above from ACCT, BIOL, CHEM, CMSC, CMPE, ECON, ESSC, FINA, ITAN, MATH, PHYS, SCMG, or SWEN. At most two of the allied electives can be MATH courses, and MATH 219 - Data Science I is allowed as an allied elective.

Three Allied Electives may be replaced by a minor/second major in any discipline.

Refer to the mathematics course descriptions in the catalog for courses that may be taken as math electives. The department maintains a course rotation showing the semesters in which these courses run.

Course Sequencing

Typical student progress may look like the following.

By the end of sophomore year

- MATH 185 - First Year Mathematics Seminar Credits: 1 (spring of freshman year)
- MATH 211 - Calculus I Credits: 4
- MATH 212 - Calculus II Credits: 4
- MATH 213 - Calculus III Credits: 4

- MATH 217 - Statistics I Credits: 4
- MATH 225 - Discrete Mathematics Credits: 4
- CMSC 104 - Programming in Python Credits: 3 or
- CMSC 110 - Computer Science I Credits: 4
- Have a plan for Allied Electives or a minor

By the end of junior year

- MATH 318 - Elementary Linear Algebra Credits: 3
- MATH 320 - Introduction to Abstract Algebra Credits: 3
- Two or three Math Electives
- One or two Allied Electives, or make progress toward a minor

By the end of senior year

- MATH 430 - Complex Analysis Credits: 3 or
- MATH 441 - Real Analysis I Credits: 3
- Complete the Math Electives
- Complete the Allied Electives or minor

General Education

General Education Requirements

- General Education Program (45 crs.)

General Education Requirements Specific for this major

- Quantitative (Q): MATH 211
- Critical Reasoning (R): MATH 225
- Technology (T): CMSC 104 OR Students can take CMSC 110 which will count for the major

Advising Notes:

1. Semester I: MATH 211
2. Semester II: MATH 185, MATH 212, MATH 225
3. Mathematics minor also available - 18-21 cr.

Mathematics, Secondary Education Certification, B.S.

The Mathematics B.S. degree gives students a broad knowledge of mathematics as well as a firm grasp on the application of mathematics to other disciplines. By also completing the requirements for Secondary Education Certification, graduates of this program will be certified to teach mathematics in grades 7-12.

To complete the Mathematics, Secondary Education Certification B.S. program, a student must complete a set of required math and computer science courses (33-34 crs.) and a set of courses specific to Secondary Education Certification (45 crs.).

Credit Requirements*

- **General Education:** 47 credits
- **Major Requirements**: 64 - 68 credits
- **Free Electives:** 5 - 9 credits
- *Total Credits to Graduate:* **120 credits**

* All undergraduate degree programs require a minimum of 120 credits. Some courses meet multiple requirements, but are only counted once toward the 120 credit total required to graduate.

Required Mathematics (22 crs.)

- MATH 185 - First Year Mathematics Seminar Credits: 1
- MATH 212 - Calculus II Credits: 4
- MATH 213 - Calculus III Credits: 4
- MATH 217 - Statistics I Credits: 4
- MATH 318 - Elementary Linear Algebra Credits: 3
- MATH 320 - Introduction to Abstract Algebra Credits: 3

- MATH 430 - Complex Analysis Credits: 3 or
- MATH 441 - Real Analysis I Credits: 3

Required Computer Science (3-4 crs.)

- CMSC 104 - Programming in Python Credits: 3 or
- CMSC 110 - Computer Science I Credits: 4
  Note: If selected, CMSC 104 will fulfill a General Education requirement.

Secondary Education Certification (42 crs.)

- MATH 326 - Mathematical Modeling Credits: 3
- MATH 333 - Geometry Credits: 3
- MATH 400 - History of Mathematics Credits: 3
- Math elective at 400-level
- TEED 207 - Organizational and Psychological Foundations in Secondary Education Credits: 3
- READ 413 - Teaching Reading to English Language Learners Credits: 3
- SPEE 423 - Effective Instructional Strategies for Students with Exceptionalities Credits: 3
- SPEE 483 - Assessing Children with Exceptionalities for Curricular Decision-Making Credits: 3
- EDFN 434 - Teaching of Mathematics in the Secondary Schools I Credits: 3
- EDFN 435 - Teaching of Mathematics in the Secondary Schools II Credits: 3
- EDFN 495 - Student Teaching Credits: 6-15
  (Mathematics Secondary Certification Students will take 12 crs. of EDFN 495*)*

Note:

Note: Students seeking certification in secondary education must complete a literature course from among ENGL 190 , ENGL 243 , ENGL 248 , or ENGL 250. All these will fulfill the General Education L tag.

Course Sequencing

Typical student progress may look something like the following.

By the end of sophomore year

- MATH 185 - First Year Mathematics Seminar Credits: 1 (spring of freshman year)
- MATH 211 - Calculus I Credits: 4
- MATH 212 - Calculus II Credits: 4
- MATH 213 - Calculus III Credits: 4
- MATH 217 - Statistics I Credits: 4
- MATH 225 - Discrete Mathematics Credits: 4
- MATH 318 - Elementary Linear Algebra Credits: 3
- CMSC 104 - Programming in Python Credits: 3 or
- CMSC 110 - Computer Science I Credits: 4
- TEED 207 - Organizational and Psychological Foundations in Secondary Education Credits: 3
- SPEE 273 - Introduction to Exceptionalities: Understanding Diverse Learners Credits: 3
- READ 413 - Teaching Reading to English Language Learners Credits: 3

By the end of junior year

- MATH 320 - Introduction to Abstract Algebra Credits: 3
- MATH 326 - Mathematical Modeling Credits: 3
- MATH 333 - Geometry Credits: 3
- MATH 400 - History of Mathematics Credits: 3
- SPEE 423 - Effective Instructional Strategies for Students with Exceptionalities Credits: 3
- EDFN 434 - Teaching of Mathematics in the Secondary Schools I Credits: 3

By the end of senior year

- MATH 400 - History of Mathematics Credits: 3
- MATH 441 - Real Analysis I Credits: 3
- EDFN 435 - Teaching of Mathematics in the Secondary Schools II Credits: 3
- SPEE 483 - Assessing Children with Exceptionalities for Curricular Decision-Making Credits: 3
- EDFN 495 - Student Teaching Credits: 6-15

General Education

General Education Requirements

- General Education Program (45 crs.)

General Education Requirements Specific for this major

- Quantitative (Q): MATH 211
- Diversity (D): SPEE 273

- Critical Reasoning (R): MATH 225
- Technology (T): CMSC 104 OR Students can take CMSC 110 which will count for the major.
- Literature (L): ENGL 243, ENGL 248, ENGL 250, HONR 224, OR HONR 249

Advising Notes:

1. Semester I: MATH 211
2. Semester II: MATH 185, MATH 212, MATH 225

Mathematics and Special Education Certification, B.S.

Students completing this dual certification program will be qualified to teach in both mathematics classrooms (grades 7-12) and special education classrooms (pre-K-12), thereby broadening their job prospects. As a math classroom teacher, a graduate will have the training necessary for effectively managing classes in which a high number of students have Individual Education Plans (IEPs).

A serious national shortage of mathematics (grades 7-12) and special education (Pre-K-12) teachers exists. Dual certification will cultivate a new creative student audience filling the state-wide deficit of students situated to excel in special education mathematics classrooms further fulfilling the growing workforce needs.

Credit Requirements*

- **General Education:** 47 credits
- **Major Requirements**: 82 - 86 credits
- **Free Electives:** 0 credits
- *Total Credits to Graduate:* **129 - 133 credits**

* All undergraduate degree programs require a minimum of 120 credits. Some courses meet multiple requirements, but are only counted once toward the 120 credit total required to graduate.

Required Mathematics (22 crs.)

- MATH 185 - First Year Mathematics Seminar Credits: 1
- MATH 212 - Calculus II Credits: 4
- MATH 213 - Calculus III Credits: 4
- MATH 217 - Statistics I Credits: 4
- MATH 318 - Elementary Linear Algebra Credits: 3
- MATH 320 - Introduction to Abstract Algebra Credits: 3

- MATH 430 - Complex Analysis Credits: 3
  OR
- MATH 441 - Real Analysis I Credits: 3

Required Computer Science (3-4 crs.)

- CMSC 104 - Programming in Python Credits: 3
- CMSC 110 - Computer Science I Credits: 4

- Note: If selected, CMSC 104 will fulfill a General Education requirement.

Secondary Education Certification (39 crs.)

- MATH 326 - Mathematical Modeling Credits: 3
- MATH 333 - Geometry Credits: 3
- MATH 400 - History of Mathematics Credits: 3
- MAT 400 level Elective
- SPEE 483 - Assessing Children with Exceptionalities for Curricular Decision-Making Credits: 3
- TEED 207 - Organizational and Psychological Foundations in Secondary Education Credits: 3
- READ 413 - Teaching Reading to English Language Learners Credits: 3
- EDFN 434 - Teaching of Mathematics in the Secondary Schools I Credits: 3
- EDFN 435 - Teaching of Mathematics in the Secondary Schools II Credits: 3
- EDFN 495 - Student Teaching Credits: 6-15
  (Mathematics Secondary Certification Students will take 12 crs. of EDFN 495)
  Students will participate in two separate placements - one Math, one Special Education

Note:

Students seeking certification in secondary education must complete a literature course from among ENGL 190 , ENGL 243 , ENGL 248 , or ENGL 250. All these will fulfill the General Education L tag.

Special Education Courses (21 crs.)

- SPEE 280 - Best Practices in Collaboration: Educators, Families, & Related Service Providers Credits: 3
- SPEE 320 - Interventions for Students with Communication Impairments Credits: 3
- SPEE 325 - Interventions for Students with Social/Emotional and Behavioral Impairments Credits: 3
- SPEE 330 - Teaching Students with Exceptionalities in a Standards-Aligned System Credits: 3
- SPEE 335 - Interventions for Students with Cognitive and/or Physical Impairments Credits: 3
- SPEE 447 - Special Education Processes in a Standards Aligned System Credits: 3
- SPEE 446 - Transition to Adult Life for Students with Disabilities Credits: 3

General Education

General Education Requirements

- General Education Program (45 crs.)

General Education Requirements Specific for this major:

- Quantitative (Q): MATH 211
- Diversity (D): SPEE 273
- Critical Reasoning (R): MATH 225
- Technology (T): CMSC 104 OR Students can take CMSC 110 , which will count for the major.

Advising Notes:

1. Semester I: MATH 211
2. Semester II: MATH 185, MATH 212, MATH 225

Actuarial Science Certificate

Actuaries are professionals working in the business world. They use various problem solving skills to assess risk, including mathematical and statistical techniques, thereby helping their company to make informed and profitable decisions. This certificate allows students to complete a curriculum that meets the Society of Actuaries (SOA) Universities & Colleges with Actuarial Programs (UCAP) guidelines and the Introductory Curriculum (UCAP-IC) level. These guidelines call for course coverage for at least two SOA preliminary exams and have approved courses for at least one of the three Validation by Educational Experience (VEE) topic areas. VEE approval is available in Economics, Accounting and Finance, and Mathematical Statistics. VEE credit in the three topic areas, along with preliminary examinations and some professionalism courses, are required to achieve the associate designation for actuaries. Successfully completing the certificate will prepare students for the SOA exam FM, SOA exam P, or both depending on course choice.

Required Courses (24-28 crs.)

Select one of the following two courses:

- MATH 181 - Applied Calculus Credits: 3
- MATH 211 - Calculus I Credits: 4

Select one of the following five courses:

- CMSC 104 - Programming in Python Credits: 3
- CMSC 110 - Computer Science I Credits: 4
- ENGR 110 - Modeling and Simulation Credits: 3
- ENGR 120 - Programming for Engineers Credits: 3
- SWEN 100 - Intro to Software Engineering Credits: 4

Select both ECON 101 and ECON 102 or ECON 113:

- ECON 101 - Principles of Macroeconomics Credits: 3
  AND
- ECON 102 - Principles of Microeconomics Credits: 3
  OR
- ECON 113 - Principles of Economics Credits: 4

Select one of the following four courses:

- MATH 117 - Applied Statistics Credits: 3
- MATH 217 - Statistics I Credits: 4
- MATH 375 - Probability and Statistics for Engineers Credits: 4
- SCMG 200 - Statistical Applications in Business Credits: 3

The following courses are also required:

- ACCT 200 - Fundamentals of Financial Accounting Credits: 3
- FINA 311 - Financial Management Credits: 3
- FINA 313 - Advanced Financial Management Credits: 3
- MATH 476 - Probability Credits: 3
  OR
- MATH 483 - Math Theory of Interest Credits: 3

Electives (12 crs.)

Select four courses, at least two must have the MATH prefix:

- ECON 305 - Money and Banking Credits: 3
- ECON 317 - Health Economics Credits: 3
- FINA 312 - Investments Credits: 3
- FINA 314 - Financial Institutions Credits: 3
- FINA 320 - Risk Management and Insurance Credits: 3
- FINA 324 - Retirement Planning and Employee Benefits Credits: 3
- FINA 442 - Derivatives Markets Credits: 3
- MATH 219 - Data Science I Credits: 3
- MATH 317 - Statistics II Credits: 3
- MATH 319 - Data Science II Credits: 3
- MATH 476 - Probability Credits: 3
- MATH 483 - Math Theory of Interest Credits: 3
- MATH 486 - Mathematical Statistics Credits: 3
- ITAN 300 - Information Technology and Business Operations Credits: 3
- ITAN 355 - Data Management and Analytics Credits: 3

Applied Mathematics Certificate

The Applied Mathematics Certificate is designed to give the student a firm grasp on the application of mathematics to other disciplines. The most typical applications include computer science, statistics, actuarial science, physical and biological sciences, and teacher certification at the secondary level.

Math Courses (12 crs.)

- MATH 322 - Differential Equations Credits: 3
- MATH 326 - Mathematical Modeling Credits: 3
- MATH 410 - Numerical Analysis Credits: 3
  OR
- MATH 422 - Partial Differential Equations Credits: 3
- MATH 491 - Topics in Applied Mathematics Credits: 3
  OR
- MATH 492 - Selected Topics in Statistics Credits: 3

Computer Courses (6 crs.)

Two of the following programming options:

- CMSC 104 - Programming in Python Credits: 3
- CMSC 110 - Computer Science I Credits: 4
- CMSC 111 - Computer Science II Credits: 4
- ENGR 110 - Modeling and Simulation Credits: 3
- ENGR 120 - Programming for Engineers Credits: 3
- SWEN 100 - Intro to Software Engineering Credits: 4

Laboratory Science (4 crs.)

One laboratory science from the following options:

Note: The following lectures should be paired with their accompanying lab CHEM 121 /123 , PHYS 121 /123, and PHYS 205 /124

- BIOL 161 - Principles of Biology: Cell Structure and Function Credits: 4
- BIOL 162 - Principles of Biology: Organismal Diversity Credits: 4
- BIOL 237 - Human Anatomy & Physiology I Credits: 4

- CHEM 121 - Chemical Bonding Credits: 3
  AND
- CHEM 123 - Laboratory IA-Chemical Systems Credits: 1

- ESSC 355 - Meteorology Credits: 3

- PHYS 121 - Introductory Physics I - Lecture Credits: 3
  AND
- PHYS 123 - Physics Ia Laboratory Credits: 1

- PHYS 205 - Intermediate Physics I Credits: 3
  AND
- PHYS 124 - Physics Ib Laboratory Credits: 1

Statistics Certificate

The Statistics Certificate is designed to give the student a firm grasp on the field of statistics.

Required Courses (19 crs.)

- MATH 217 - Statistics I Credits: 4
- MATH 219 - Data Science I Credits: 3
- MATH 317 - Statistics II Credits: 3
- MATH 319 - Data Science II Credits: 3
- MATH 476 - Probability Credits: 3
- MATH 486 - Mathematical Statistics Credits: 3

Data Science Minor

Required Courses (16-17 crs.)

- CMSC 104 - Programming in Python Credits: 3
  OR
- CMSC 110 - Computer Science I Credits: 4
  OR
- ITAN 240 - Python Programming for Business and Analytics Credits: 3

OR

- SWEN 100 - Intro to Software Engineering Credits: 4
  OR
- ENGR 110 - Modeling and Simulation Credits: 3
  OR
- ENGR 120 - Programming for Engineers Credits: 3

- MATH 217 - Statistics I Credits: 4
  OR
- MATH 375 - Probability and Statistics for Engineers Credits: 4
- MATH 219 - Data Science I Credits: 3
- MATH 317 - Statistics II Credits: 3
- MATH 319 - Data Science II Credits: 3

Discipline-Specific Research Course (2-4 crs.)

Complete 1 of the following:

- BIOL 397 - Introduction to Research Credits: 3
- BIOL 398 - Research II Credits: 3
- COMM 432 - Public Relations Research and Campaigns Credits: 3
- CMSC 499 - Senior Research and Development Credits: 3
- ECON 333 - Research and Analysis in Economics Credits: 3
- ENGR 310 - Statistical Process Control Credits: 3
- ENGR 311 - Managing Development Processes Credits: 4
- EXER 453 - Research Design and Statistics Credits: 4
- GEOG 363 - GIS2: Intermediate Geographic Information Systems Credits: 3
- GEOG 440 - Field Techniques Credits: 3
- GEOG 441 - Quantitative Methods Credits: 3
- COST 360 - Research Methods in Communication Credits: 3
- HIST 386 - History Research Seminar Credits: 3
- MATH 326 - Mathematical Modeling Credits: 3
- MKTG 430 - Marketing Research Credits: 3
- POLI 301 - Political Science Research Methods Credits: 3
- PSYC 301 - Experimental Psychology Credits: 3
- SCMG 481 - Decision Models for Supply Chain Management Credits: 3
- SOCI 385 - Elements of Social Research Credits: 3
- SOWK 360 - Research Techniques for Social Workers Credits: 3
- SOWK 462 - Seminar in Social Work Methods Credits: 3

Mathematics Minor

18-21 crs.

The mathematics minor consists of six courses. With two possible exceptions, all six courses must be at or above the 200 level, and at least two of the courses must be at or above the 300 level. The two exceptions are as follows:

1. MATH 181 may be taken in place of (but not in addition to) MATH 211 for credit toward the minor; however, doing so may restrict your access to some upper-level math courses; and
2. MATH 117 may be taken in place of (but not in addition to) MATH 217 for credit toward the minor.

Global Languages and Cultures Department

The study of global languages and cultures at Ship prepares students in interpersonal communication, interpretive listening, interpretive reading, oral and written presentations in French, German or Spanish. Students also study the culture and literature of foreign countries including their products, practices and perspectives. Our world languages curriculum strengthens critical thinking skills and global and intercultural awareness.

Global languages majors or minors complete courses in conversation, writing, grammar, phonetics, culture, and literature in the chosen language. All courses are designed following the American Council on the Teaching of Foreign Languages (ACTFL) National Standards and they are conducted in the target language. The department uses a variety of the latest technologies available to enrich student learning and facilitate communication.

Students have had internships in law offices, medical clinics, social service agencies, museums, businesses, community organizations, and government. Graduates have entered a variety of careers such as teaching, business, government, social service, public health, international relations, translation and interpretation for private and public entities, travel agencies, advertising, and others.

Students who wish to study abroad will find that there are many opportunities available. French and Spanish majors are especially encouraged to study at least one semester in a country of their language. Our majors and minors have studied in a number of foreign countries, chosen according to their own particular interests. Study abroad is highly encouraged but not required for the minor.

Outside the classroom, students can become involved with the French/Francophone, German, and Spanish Clubs, which plan activities such as foreign language films and field trips. All three clubs offer academic support as well as cultural events. The French and Spanish Honorary Societies are organizations that recognize and honor students who have attained outstanding academic achievement.

Department Goals and Learning Outcomes

To assist the University in achieving its educational mission, the Department of Global Languages and Cultures has set out the following general goals:

- Cultivate students' learning of foreign languages (French, German, and Spanish) and their associated cultures by implementing integrative strategies that enable students to use the language as a communicative tool to gain knowledge of the world.
- Promote intellectual development by encouraging students to interpret, analyze, and synthesize works of literature in foreign languages.
- Strengthen students' professional opportunities upon completion of their studies by developing them as bilingual intellectuals ready for success in the global market of the 21st century.

The Global Languages and Cultures Department adheres to the philosophy of the American Council on the Teaching of Foreign Languages (ACTFL). The Foreign Language Education programs in K-12 French and Spanish are accredited and Nationally Recognized by ACTFL/CAEP. French and Spanish Education K-12 students seeking Pennsylvania certification should see requirements outlined in the College of Education and Human Services.

Student Learning Outcomes (SLOs)

1. Communicate thoughts, ideas, and opinions orally in the target language at the Novice-High level minimum (students in foreign language as a graduation requirement), Intermediate-Low level minimum (students in the minor), and Advanced-Low level minimum (students in the major or in the teacher certification program) as described by the American Council on the Teaching of Foreign Languages (ACTFL) Proficiency Guidelines.
2. Communicate thoughts, ideas, and opinions in writing in the target language at the Novice-Low level minimum (students taking a foreign language as a requirement), Intermediate-Low level minimum (students in the minor), and Advanced-Low level minimum (students in the major or in the teacher certification program) as described by the American Council on the Teaching of Foreign Languages (ACTFL).
3. Recognize distinctive products and practices of the target culture and establish relationships between these and the perspectives (attitudes, values and beliefs) of the target culture.

Identify, synthesize, analyze, and present bibliographical information in the form of an original research paper in the target language.

Student Learning Outcomes Pertaining to Foreign Language Education

1. Discuss the teaching/learning process in world language education (PA-SUCOE-CF 5; ACTFL/NCATE 1.a; 3.a).
2. Recognize the main components and teaching principles of seminal language teaching approaches (PA-SUCOE-CF 2.5; ACTFL/NCATE 3.a).
3. Use the National Standards for world language learning, the ACTFL K-12 Standards and the state standards as a framework for foreign language teaching planning and the assessment of learning (PA-SUCOE-CF 2.3; ACTFL/NCATE 4).
4. Design and implement standards-based and communicative-oriented lessons that include the three communicative modes: Interpretive, Interpersonal, and Presentational (PA-SUCOE-CF 2.3; ACTFL/NCATE 4).
5. Develop and implement effective assessment instruments/protocols (including Dynamic Assessment) to evaluate the three communicative modes (PA-SUCOE-CF 4; ACTFL 5).
6. Create and/or modify instructional materials to suit the needs of specific learning populations (PA-SUCOE-CF 1; ACTFL/NCATE 3.b)
7. Report assessment results to the class (PA-SUCOE-CF 2.7; ACTFL/NCATE 5.c).
8. Create and/or modify instructional material to connect other areas of the school curriculum with second language learning (PA-SUCOE-CF 1; ACTFL/NCATE 2.c).
9. Use technology as a tool to enhance the students' learning experience (PA-SUCOE-CF 3; ACTFL/NCATE 1 and 3).

Placement System

The department has a placement plan designed for students who already have some knowledge of Spanish, French or German and want to take upper-level courses or to receive credit by examination for certain courses. Please contact the department chair for placement in these courses.

Students with three or more years of high school language study are advised NOT to take a 101, 102, or 103 course in that same language. These students should take a 200-level course. Contact the department chair to discuss the appropriate placement.

French, B.A.

Credit Requirements*

- **Foreign Language Requirement:** 0 - 3 credits
- **General Education:** 45 credits
- **Major Requirements**: 36 credits
- **Free Electives:** 36 - 39 credits
- *Total Credits to Graduate:* **120 credits**

* All undergraduate degree programs require a minimum of 120 credits. Some courses meet multiple requirements, but are only counted once toward the 120 credit total required to graduate.

Bachelor of Arts Foreign Language Requirement:

All students completing a Bachelor of Arts degree are required to attain proficiency in a foreign language. Proficiency may be satisfied by completing a language class at the 103 (intermediate) level or three years of any one foreign language in high school. Students may also meet this requirement through AP or CLEP testing.

French Major Requirements (36 crs.)

All courses required for the French major are taught in French. Required French courses cannot be used to fulfill General Education requirements. One 100-level French course can count for the major as part of the French electives.

Required French Courses (18 crs.)

- FREN 202 - Intermediate Conversation Through the Media Credits: 3
- FREN 204 - Ideas and Cultures from the French-Speaking World Credits: 3
- FREN 211 - Intermediate French Grammar Credits: 3
- FREN 300 - Advanced French Conversation Credits: 3
- FREN 308 - Diction et Comprehension Credits: 3
- FREN 316 - Composition and Stylistics Credits: 3

French Electives (18 crs.)

Select 18 credits from the following electives. Please note that 3 credits must be at the 100 level or above, 12 credits must be at the 300 level or above, and 3 credits must be at a the 400 level. No more than one 100-level course can count as an elective.

- FREN 101 - Beginning French I Credits: 3
  or
- FREN 102 - Beginning French II Credits: 3
  or
- FREN 103 - Intermediate French Credits: 3
- FREN 309 - French Grammar Credits: 3
- FREN 320 - French for the Professions Credits: 3
- FREN 330 - Masterpieces of French Literature Credits: 3
- FREN 331 - Masterpieces of Francophone Literature Credits: 3
- FREN 340 - Genres Litteraires Credits: 3
- FREN 380 - Aspects De La Civilisation FranÇaise/Francophone Credits: 3
- FREN 388 - Internship French I Credits: 3
- FREN 392 - French Cultural Studies Immersion Credits: 3
- FREN 393 - Selected Topics in French Credits: 3

- FREN 400 - Seminar: Advanced Studies in French Language and Literature Credits: 3
- FREN 411 - Theory and Practice of Translation Credits: 3
- FREN 490 - Selected Topics in French Credits: 3

Free Electives (36 crs.)

Note: French majors and minors are strongly urged to take history, political science, and geography courses that deal with French-speaking countries.

General Education

General Education Requirements

- General Education Program (45 crs.)

Advising Notes:

1. Year I: Any introductory language courses necessary.
2. French Certificate & Translation in French Certificate available.
3. French Cultural Studies Minor & French Minor available.

French with Secondary Certification, B.A.

All courses required for the French major are taught in French. Courses numbered below French 200 do not count for the major. Professional Education courses offered by other departments are taught in English. This program is nationally recognized by ACTFL/NCATE.

Credit Requirements*

- **Foreign Language Requirement:** 0 - 3 credits
- **General Education:** 45 credits
- **Major Requirements**: 66 credits
- **Free Electives:** 6 - 9 credits
- *Total Credits to Graduate:* **120 credits**

* All undergraduate degree programs require a minimum of 120 credits. Some courses meet multiple requirements, but are only counted once toward the 120 credit total required to graduate.

Bachelor of Arts Foreign Language Requirement:

All students completing a Bachelor of Arts degree are required to attain proficiency in a foreign language. Proficiency may be satisfied by completing a language class at the 103 (intermediate) level or three years of any one foreign language in high school. Students may also meet this requirement through AP or CLEP testing.

Required (30 crs.)

Note: Required French courses cannot be used to fulfill General Education requirements.

- FREN 202 - Intermediate Conversation Through the Media Credits: 3
- FREN 204 - Ideas and Cultures from the French-Speaking World Credits: 3
- FREN 211 - Intermediate French Grammar Credits: 3
- FREN 300 - Advanced French Conversation Credits: 3
- FREN 308 - Diction et Comprehension Credits: 3
- FREN 309 - French Grammar Credits: 3
- FREN 316 - Composition and Stylistics Credits: 3
- FREN 330 - Masterpieces of French Literature Credits: 3
- FREN 331 - Masterpieces of Francophone Literature Credits: 3
- FREN 340 - Genres Litteraires Credits: 3

French Electives (6 crs.)

One of the two electives must be a 400 level course.

- FREN 380 - Aspects De La Civilisation FranÇaise/Francophone Credits: 3
- FREN 392 - French Cultural Studies Immersion Credits: 3
- FREN 400 - Seminar: Advanced Studies in French Language and Literature Credits: 3
- FREN 411 - Theory and Practice of Translation Credits: 3
- FREN 490 - Selected Topics in French Credits: 3

Note:

French majors and minors are strongly urged to take history, political science, and geography courses that deal with French-speaking countries.

Required Professional Education Courses (30 crs.)

If planning to teach French

- TEED 207 - Organizational and Psychological Foundations in Secondary Education Credits: 3
- TEED 251 - Elements of Middle Level Instruction Credits: 3
- SPEE 273 - Introduction to Exceptionalities: Understanding Diverse Learners Credits: 3
- SPEE 423 - Effective Instructional Strategies for Students with Exceptionalities Credits: 3
- SPEE 483 - Assessing Children with Exceptionalities for Curricular Decision-Making Credits: 3
- EDFN 426 - Methods of Teaching Foreign Languages Credits: 3
- EDFN 495 - Student Teaching Credits: 6-15
  (French Secondary Certification Students will take 12 crs. of EDFN 495)

Note:

Students seeking certification in secondary education must also complete 1 writing course (ENGL 114 or ENGL 115), 1 literature course (ENGL 190 , ENGL 243 , ENGL 248 , or ENGL 250), and 2 math courses (except MATH 185). If any exceptions are made, they must be approved by the Teacher Education Office. Other requirements for teacher certification are available from the Department of Modern Languages.

Dual Certification French and Another Field

Students planning to teach will find it to their advantage to work for dual certification in two modern languages, a modern language and English, or a modern language and another field. To achieve dual certification a student must have the approval of both departments involved, complete the normal requirements for a major in the primary area of interest and a 30-hour sequence in the secondary area of specialization, plus appropriate courses in the methodology and student teaching in both areas.

Free Electives (6 crs.)

General Education

General Education Requirements

- **General Education Program (45 crs.)**

Advising Notes:

1. Year I: Any introductory language courses necessary.
2. French Certificate & Translation in French Certificate available.
3. French Cultural Studies Minor & French Minor available.

Spanish, B.A.

Credit Requirements*

- **Foreign Language Requirement:** 0 - 3 credits
- **General Education:** 45 credits
- **Major Requirements**: 36 credits
- **Free Electives:** 36 - 39 credits
- *Total Credits to Graduate:* **120 credits**

* All undergraduate degree programs require a minimum of 120 credits. Some courses meet multiple requirements, but are only counted once toward the 120 credit total required to graduate.

Bachelor of Arts Foreign Language Requirement:

All students completing a Bachelor of Arts degree are required to attain proficiency in a foreign language. Proficiency may be satisfied by completing a language class at the 103 (intermediate) level or three years of any one foreign language in high school. Students may also meet this requirement through AP or CLEP testing.

Major Requirements (36 crs.)

All courses required for the Spanish major are taught in Spanish. These courses cannot be counted towards General Education requirements. Courses numbered below Spanish 200 do not count for the major.

Required Spanish (27 crs.)

- SPAN 202 - Intermediate Conversation Credits: 3

OR

- SPAN 215 - Intermediate Spanish For Heritage and Native Speakers Credits: 3

- SPAN 204 - Ideas and Cultures from the Spanish-Speaking World Credits: 3
- SPAN 211 - Intermediate Contextualized Grammar Credits: 3
- SPAN 302 - Advanced Spanish Conversation Credits: 3
- SPAN 309 - Spanish Phonetics Credits: 3
- SPAN 312 - Advanced Contextualized Grammar Credits: 3
- SPAN 313 - Advanced Composition and Stylistics Credits: 3
- SPAN 360 - Masterpieces of Spanish Literature Credits: 3
- SPAN 361 - Masterpieces of Spanish-American Literature Credits: 3

Spanish Electives (9 crs.)

- SPAN 103 or 300-level or above (3 cr)
- SPAN 300-level or above (3 cr)
- SPAN 400-level or above (3 cr)

Free Electives

Spanish majors and minors are strongly urged to take history, political science, and geography courses that deal with Spanish-speaking countries. Students may choose a second major or a minor.

General Education

General Education Requirements

- General Education Program (45 crs.)

Advising Notes:

1. Year I: Any introductory language courses necessary.
2. Spanish Minor available - 18 cr

Spanish with Secondary Certification, B.A.

Credit Requirements*

- **Foreign Language Requirement:** 0 - 3 credits
- **General Education:** 45 credits
- **Major Requirements**: 66 credits
- **Free Electives:** 6 - 9 credits

- *Total Credits to Graduate:* **120 credits**

* All undergraduate degree programs require a minimum of 120 credits. Some courses meet multiple requirements, but are only counted once toward the 120 credit total required to graduate.

Bachelor of Arts Foreign Language Requirement:

All students completing a Bachelor of Arts degree are required to attain proficiency in a foreign language. Proficiency may be satisfied by completing a language class at the 103 (intermediate) level or three years of any one foreign language in high school. Students may also meet this requirement through AP or CLEP testing.

Major Requirements (66 crs.)

All courses required for the Spanish major are taught in Spanish. These courses cannnot be used to fulfill General Education requirements. Courses numbered below Spanish 200 do not count for the major. Professional Education courses offered by other departments are taught in English. This program is nationally recognized by ACTFL/NCATE.

Required Spanish (27 crs.)

- SPAN 202 - Intermediate Conversation Credits: 3
  OR
- SPAN 215 - Intermediate Spanish For Heritage and Native Speakers Credits: 3

- SPAN 204 - Ideas and Cultures from the Spanish-Speaking World Credits: 3
- SPAN 211 - Intermediate Contextualized Grammar Credits: 3
- SPAN 302 - Advanced Spanish Conversation Credits: 3
- SPAN 309 - Spanish Phonetics Credits: 3
- SPAN 312 - Advanced Contextualized Grammar Credits: 3
- SPAN 313 - Advanced Composition and Stylistics Credits: 3
- SPAN 360 - Masterpieces of Spanish Literature Credits: 3
- SPAN 361 - Masterpieces of Spanish-American Literature Credits: 3

Spanish Electives (9 crs.)

- SPAN 103 or 300-level or above (3 cr)

- SPAN 300-level or above (3 cr)

- SPAN 400-level or above (3 cr)

Spanish majors and minors are strongly urged to take history, political science, and geography courses that deal with Spanish-speaking countries.

Professional Education Courses (30 crs.)

- TEED 207 - Organizational and Psychological Foundations in Secondary Education Credits: 3
- TEED 251 - Elements of Middle Level Instruction Credits: 3
- SPEE 273 - Introduction to Exceptionalities: Understanding Diverse Learners Credits: 3
- SPEE 423 - Effective Instructional Strategies for Students with Exceptionalities Credits: 3

- SPEE 483 - Assessing Children with Exceptionalities for Curricular Decision-Making Credits: 3
- EDFN 426 - Methods of Teaching Foreign Languages Credits: 3
- EDFN 495 - Student Teaching Credits: 6-15
  (Spanish Secondary Certification Students will take 12 crs. of EDFN 495*)*

Note:

* Students seeking certification in secondary education must also complete 1 writing course (ENGL 114 or ENGL 115), 1 literature course (ENGL 190 , ENGL 243 , ENGL 248 , or ENGL 250), and 2 math courses (except MATH 185). If any exceptions are made, they must be approved by the Teacher Education Office. Other requirements for teacher certification are available from the Department of Modern Languages.

Dual Certification Spanish and Another Field

Students planning to teach will find it to their advantage to work for dual certification in two modern languages, a modern language and English, or a modern language and another field. To achieve dual certification a student must have the approval of both departments involved, complete the normal requirements for a major in the primary area of interest and a 30-hour sequence in the secondary area of specialization, plus appropriate courses in the methodology and student teaching in both areas.

General Education

General Education Requirements

- General Education Program (45 crs.)

Advising Notes:

1. Year I: Any introductory language courses necessary.
2. Spanish Minor available - 18 cr

French Certificate

12 crs.

Courses selected by advisement. Only one 100-level course can count for the French certificate.

- FREN 100-level or above (3 cr)
- FREN 200-level or above (9 cr)

German Certificate

12 crs.

Select four courses from the minor. Courses selected by advisement.

Spanish Certificate

12 crs.

Any four courses from the following options: SPAN 103, SPAN 200 level or above (all courses are in Spanish).

Translation In French Certificate

In order to be admitted directly to the Translation in French certificate program at Shippensburg University, students need to have reached the Advanced Low proficiency level in French according to ACTFL guidelines. Students who have not scored at that level will need appropriate training in the areas of language, literature and culture and to this effect complete the core courses in French (24 credits). Once admitted in the Translation in French certificate program, students complete 12 credits in French. In parallel, students also need to complete a minimum of 18 credits in a subject area specialty outside of French to demonstrate deeper knowledge of one or more disciplines outside the linguistics area.

Language/Culture Core (24 crs)

These courses provide students with the linguistic and cultural tools to enable them to successfully function as a mediator between two cultures

Required French (24 crs.)

- FREN 202 - Intermediate Conversation Through the Media Credits: 3
- FREN 204 - Ideas and Cultures from the French-Speaking World Credits: 3
- FREN 211 - Intermediate French Grammar Credits: 3
- FREN 300 - Advanced French Conversation Credits: 3
- FREN 308 - Diction et Comprehension Credits: 3
- FREN 309 - French Grammar Credits: 3
- FREN 316 - Composition and Stylistics Credits: 3

- FREN 330 - Masterpieces of French Literature Credits: 3
  OR
- FREN 331 - Masterpieces of Francophone Literature Credits: 3
  OR
- FREN 340 - Genres Litteraires Credits: 3

Translation Specialization Courses: (12 crs.)

- FREN 320 - French for the Professions Credits: 3
- FREN 380 - Aspects De La Civilisation FranÇaise/Francophone Credits: 3
- FREN 411 - Theory and Practice of Translation Credits: 3
- Special Topics/Internship Focused on Translation (300 or 400 level)

Translation in Spanish Certificate

Students must be a Spanish major to pursue this certificate.

Translation Specialization Courses: (9 crs.)

- SPAN 330 - Spanish for the Professions Credits: 3
- SPAN 420 - Theory and Practice of Translation Credits: 3
- SPAN 425 - Advanced Oral Interpreting Credits: 3

Note:

Subject Area Specialty Courses: Because translation today requires that translators specialize in one or more areas, we ask that students in the Translation Specialization Program bring together their linguistic skills in Spanish and the knowledge and skills they developed in the other disciplines taught at Shippensburg University. Students can either select a single subject area (that of their major/minor is acceptable, provided that they are not completing a Spanish major/minor) or a combination of relevant courses approved by the Translation Specialization Coordinator.

Possible specialties include, but are not limited to the following: Accounting, Communication/Journalism, Biology, Business, Chemistry, Computer Science, Criminal Justice, Earth Science, Economics, Finance, Geography, Geology, International Studies, Management Information Systems, Marketing, Mathematics, Physics, Political Science, Public Relations.

German Studies Minor

Not all courses required for the German Studies Minor are taught in German.

18 crs.

Required (9 crs.)

One of the following two courses:

- GERM 203 - Intermediate German Communication Credits: 3
- GERM 204 - Contemporary German Culture Credits: 3

One of the following two courses:

- GERM 309 - German Phonetics Credits: 3
- GERM 320 - Berlin Credits: 3

One of the following two courses:

- GERM 312 - German Grammar Credits: 3
- GERM 313 - Composition and Stylistics Credits: 3

Three additional courses from the below list: (9 crs.)

Two of these additional two courses may be from

the GERM 101, GERM 102, GERM 103 Sequence

One of the following two courses (taught in English)

- GERM 150 - German Civilization and Culture Credits: 3
- GERM 151 - German Cinema Credits: 3

GERM prefix courses at the following levels

200, 300, or 400 level

Courses from the list below of courses offered by other departments taught in English

- HIST 330 - History of Modern Germany: 1919 to Present Credits: 3
- HIST 357 - History of Holocaust Credits: 3
- HONR 105 - Honors: Ethical Theories and Problems Credits: 3
- PHIL 105 - Ethical Theories and Problems Credits: 3

French Minor

All courses required for the French minor are taught in French.

18 crs.

Required Courses (6 crs.)

- FREN 202 - Intermediate Conversation Through the Media Credits: 3
- FREN 204 - Ideas and Cultures from the French-Speaking World Credits: 3

French Electives (12 crs.)

Select 12 credits from the following options. No more than one FREN 100-level course can count for the minor.

- FREN 100-level or above (3 cr)
- FREN 200-level or above (3 cr)
- FREN 300-level or above (6 cr)

French Cultural Studies Minor

This minor is interdisciplinary and has less of a focus on language than the standard French minor and more on the culture, taught in English. The minor is to be capped with a study abroad experience in a French-speaking country for culture and language immersion.

18 crs.

Required (6 crs.)

Students choose 6 credits of core courses in French from the following options. Only one FREN100-level course can count for the Cultural Studies minor.

- FREN 101 - Beginning French I Credits: 3
- FREN 102 - Beginning French II Credits: 3
- FREN 103 - Intermediate French Credits: 3
- FREN 202 - Intermediate Conversation Through the Media Credits: 3
- FREN 204 - Ideas and Cultures from the French-Speaking World Credits: 3
- FREN 211 - Intermediate French Grammar Credits: 3
- FREN 300 - Advanced French Conversation Credits: 3
- FREN 308 - Diction et Comprehension Credits: 3
- FREN 309 - French Grammar Credits: 3
- FREN 316 - Composition and Stylistics Credits: 3
- FREN 320 - French for the Professions Credits: 3
- FREN 330 - Masterpieces of French Literature Credits: 3
- FREN 331 - Masterpieces of Francophone Literature Credits: 3
- FREN 340 - Genres Litteraires Credits: 3
- FREN 380 - Aspects De La Civilisation FranÇaise/Francophone Credits: 3
- FREN 400 - Seminar: Advanced Studies in French Language and Literature Credits: 3
- FREN 411 - Theory and Practice of Translation Credits: 3
- FREN 490 - Selected Topics in French Credits: 3

Study Abroad Electives (6 crs.)

To be taken in a French-speaking country, subject to approval of the department of Global Languages & Cultures.

- FREN 392 - French Cultural Studies Immersion Credits: 3
- FREN 393 - Selected Topics in French Credits: 3

Interdisciplinary Courses in English (6 crs.)

Students select two courses from the list below based on their specific interests.

- ART 233 - Art History III Credits: 3
- COMM 245 - Diversity and the Media Credits: 3
- FREN 150 - Modern France and the Francosphere Credits: 3
- GEOG 103 - Geography of the United States and Canada Credits: 3
- GEOG 140 - Human Geography Credits: 3
- COST 270 - Intergroup/Intercultural Communication Credits: 3
- HIST 320 - Europe in the Early and High Middle Ages: 300 to 1270 Credits: 3
- HIST 321 - Late Medieval Europe: 1270 to 1517 Credits: 3
- HIST 331 - History of Modern France: 1750 to Present Credits: 3
- MUSI 261 - World Music Credits: 3

Hispanic Studies Minor

This Minor prepares students to comprehend Hispanic communities in the United States, and to use that knowledge in their professional lives. The Minor develops their linguistic and cultural proficiency, and it prescribes courses in Spanish and in English from GLC and other departments.

18 crs.

Two of the courses in the minor must be at the 300-400 level.

Required (15 crs.)

- ETHS 102 - Introduction to Latino Studies Credits: 3

  One of these courses:
- SPAN 150 - Hispanic Civilization and Culture Credits: 3
- SPAN 152 - Latino Literature Credits: 3
- SPAN 153 - Latino Pop Culture Credits: 3

  Three (3) required courses in Spanish (9 crs) selected from the list of courses available in the Spanish curriculum in the GLC department.
- SPAN 103 - Intermediate Spanish Credits: 3
- SPAN 202 - Intermediate Conversation Credits: 3
  OR
- SPAN 215 - Intermediate Spanish For Heritage and Native Speakers Credits: 3
- SPAN 204 - Ideas and Cultures from the Spanish-Speaking World Credits: 3
- SPAN 211 - Intermediate Contextualized Grammar Credits: 3
- SPAN 302 - Advanced Spanish Conversation Credits: 3
- SPAN 309 - Spanish Phonetics Credits: 3
- SPAN 312 - Advanced Contextualized Grammar Credits: 3
- SPAN 313 - Advanced Composition and Stylistics Credits: 3
- SPAN 330 - Spanish for the Professions Credits: 3
- SPAN 343 - Introduction to Literary Studies Credits: 3
- SPAN 360 - Masterpieces of Spanish Literature Credits: 3
- SPAN 361 - Masterpieces of Spanish-American Literature Credits: 3
- SPAN 388 - Spanish Internship I Credits: 3
- SPAN 389 - Spanish Internship II Credits: 3
- SPAN 399 - Independent Study in Spanish Credits: 3
- SPAN 400 - Seminar: Advanced Studies in Spanish Language and Literature Credits: 3
- SPAN 401 - Seminar: Advanced Studies in Spanish Language and Literature II Credits: 3
- SPAN 406 - Seminar: Advanced Studies in Spanish Language and Literature Credits: 3
- SPAN 410 - Internship for Students of Spanish Credits: 1
- SPAN 420 - Theory and Practice of Translation Credits: 3
- SPAN 425 - Advanced Oral Interpreting Credits: 3
- Any of the Selected Topics in Spanish courses (SPN 490 to 495).

Electives (3 crs.)

One (1) elective course: the student may take additional 200- to 400-level Spanish courses not already taken as required course OR one course from the list below.

- ANTH 360 - Aztec and Maya Archaeology Credits: 3
- HIST 349 - History of Latin America Credits: 3
- HIST 360 - History of Mexico Credits: 3
- HIST 444 - History of Women in Latin America Credits: 3
- HONR 388 - Honors Service-Learning Seminar: Reach Out Credits: 3
- INTL 286 - Selected Topics in International Studies Latin American & Caribbean Studies Credits: 3-6
  OR
- INTL 386 - Selected Topics in International Studies Latin American & Caribbean Studies Credits: 3-6
- SOCI 243 - Race in America Credits: 3
- SOWK 265 - Understanding Human Diversity for Social Justice Credits: 3

Professional Spanish Minor

The Minor in Professional Spanish is a program of six courses focused on the development of career skills.

18 crs.

Required (12 crs.)

- SPAN 313 - Advanced Composition and Stylistics Credits: 3
- SPAN 330 - Spanish for the Professions Credits: 3
- SPAN 420 - Theory and Practice of Translation Credits: 3
- SPAN 425 - Advanced Oral Interpreting Credits: 3

Electives (6 crs.)

- Two SPAN 200-level or above

Spanish Minor

All courses required for the Spanish minor are taught in Spanish.

18 crs.

Required (12 crs.)

- SPAN 202 - Intermediate Conversation Credits: 3
  OR
- SPAN 215 - Intermediate Spanish For Heritage and Native Speakers Credits: 3

- SPAN 204 - Ideas and Cultures from the Spanish-Speaking World Credits: 3

- SPAN 211 - Intermediate Contextualized Grammar Credits: 3
- SPAN 312 - Advanced Contextualized Grammar Credits: 3

Electives (6 crs.)

- SPAN 103 or 300-level or above (3 cr)
- SPAN 300-level or above (3 cr)

Music/Theatre Arts Department

Since music pervades society, the Music and Theatre Arts Department seeks to increase students' awareness of the musical and theatrical world and influence their cultural lives through critical listening and active participation. The department offers minor programs of study in Music and Theatre. They also offer a full range of courses for all students, including performing ensembles for every interest.

Performing ensembles include: VOCAL - Concert Choir, Madrigal Singers; INSTRUMENTAL - Concert Band, Wind Ensemble, Jazz Ensemble, Marching Band, Brass and Woodwind Chamber ensembles, University-Community Orchestra, and Pep Band(Basketball).

Each year, students perform for audiences locally, regionally, throughout the United States and abroad. Students representing many degree programs take time out of their schedules to participate in music ensembles for the sheer enjoyment of making music. SU students may earn academic credit for each performing ensemble but is not required.

Music Minor

The Music Minor Program is an 18-credit program that enables students to develop and cultivate their musical knowledge. The courses offered encourage each student to study within their interest yet allow them the opportunity to expand their musical knowledge.

18 crs.

Prerequisite

Introduction to Music (MUSI 121) must be taken as a pre-requisite prior to or within the first two semesters of declaring a Music Minor and does not count toward the required 18 credits. MUSI 121 also fulfills the university General Education, Creativity and Expression (A) rubric requirement. Students then proceed through the nine required and nine elective credits to complete the minor.

- MUSI 121 - Introduction to Music Credits: 3

Required Courses (9 crs.)

Required courses should be taken in the order as listed.

- MUSI 140 - Class Piano, Level I Credits: 3
- MUSI 212 - Music Theory I Credits: 3
- MUSI 320 - Masterpieces of Music Credits: 3

Elective Courses (9 crs.)

Courses may be chosen from the remaining curricular choices or in consultation with the Department Chair.

Students must take one 300/400 level course as an elective.

Please choose from the following list:

Theory

- MUSI 312 - Music Theory II Credits: 3

History

- MUSI 129 - American Popular Music Credits: 3
- MUSI 216 - Music & Film Credits: 3
- MUSI 227 - Opera and Music Theatre Credits: 3
- MUSI 261 - World Music Credits: 3
- MUSI 315 - Music in the United States Credits: 3

Performance Courses

- MUSI 150 - Basic Guitar Credits: 3
- MUSI 260 - Voice Class, Level I Credits: 3
- MUSI 270 - Brass Instrument Class Credits: 3
- MUSI 272 - Strings Class Credits: 3
- MUSI 340 - Class Piano, Level II Credits: 3
- MUSI 380 - Basic Conducting Credits: 3
- MUSI 393 - Selected Topics in Music Credits: 1-3
- MUSI 490 - Selected Topics in Music Credits: 1-3

Performance

PERFORMING ENSEMBLES: each ensemble is 1 credit, per semester taken. Students may take/retake ensembles as many times as they choose. However, only a maximum of 3 credits will count as an elective towards the Music Minor and graduation.

- MUSI 101 - Brass Ensemble Credits: 1
- MUSI 103 - Marching Band Credits: 1
- MUSI 104 - Concert Band Credits: 1
- MUSI 105 - Concert Choir Credits: 1
- MUSI 109 - String Ensemble Credits: 1
- MUSI 113 - Jazz Ensemble Credits: 1
- MUSI 117 - Madrigal Singers Credits: 1
- MUSI 132 - University-Community Orchestra Credits: 1
- MUSI 158 - Woodwind Ensemble Credits: 1

Note:

Please contact the Music Department Office for audition/membership information: 717-477-1638

Theatre Minor

The Minor in Theatre enables students to gain a general knowledge of performance and production. Courses provide a grounding in various types and periods of drama, performance skills (acting, scene study), and technical skills (basic drawing, directing, color, and 2D design). The Minor in Theatre is an 18 credit minor. Students proceed through the 15 required and 3 elective credits to complete the minor.

The training available within a theatre curriculum enriches careers in Early Childhood/Elementary Education, Elementary/Middle Level Education, Communication, and English. Students interested in Business, Marketing, or Management may consider the Theatre Minor as an entree to the field of Arts Management

18 crs.

Prerequisite

THAR 121 - Introduction to the Theatre Credits: 3 must be taken as a pre-requisite prior to or within the first two semesters of declaring a Theatre Minor and does not count toward the required 18 credits. THAR 121 also fulfills the university General Education, Creative and Expression Literature (L) rubric requirement.

- THAR 121 - Introduction to the Theatre Credits: 3

Required Courses (15 crs.)

One Theatre course must be taken from each of the four category areas. One additional course in the History, Theory and Literature category is also part of the requirement.

Elective Courses (3 crs.)

Elective courses in the Theatre Minor enable you to customize the curriculum according to your individual interest. The remaining 3 credits should be chosen from the curricular choices in Theatre and other departments. Any department outside of Music and Theatre, should be contacted regarding prerequisites and seats available.

Theatre Praxis

- THAR 323 - Children's Theatre Credits: 3
- THAR 324 - Theatre Practicum Credits: 3
- THAR 395 - Theatre Internship Credits: 3
- THAR 396 - Theater Internship II Credits: 3

History, Theory, And Literature

- THAR 329 - Theatre History Credits: 3
- MUSI 227 - Opera and Music Theatre Credits: 3

Design Management And Technical Theatre

- THAR 327 - Costumes and Make-Up Credits: 3
- THAR 395 - Theatre Internship Credits: 3
- THAR 396 - Theater Internship II Credits: 3
- THAR 490 - Selected Topics in Theatre Credits: 3
- ART 110 - Basic Drawing Credits: 3
- ART 215 - Color and Two-Dimensional Design Credits: 3
- ART 218 - Three-Dimensional Design Credits: 3
- ENTR 433 - Small Business Management Credits: 3
- MKTG 325 - Advertising and Promotional Strategy Credits: 3
- MKTG 370 - Services Marketing Credits: 3

Performance

- THAR 122 - Acting I: Fundamentals of Acting Credits: 3
- THAR 222 - Acting II: Scene Study and Analysis Credits: 3
- THAR 322 - Voice and Movement for the Stage Credits: 3
- THAR 490 - Selected Topics in Theatre Credits: 3
- MUSI 260 - Voice Class, Level I Credits: 3
- MUSI 360 - Voice Class II Credits: 3

Physics Department

Graduates with a B.S. in Physics often go on to graduate schools in physics or engineering. A significant percentage of them, however, use physics as a springboard to careers in other fields like medicine, law, or finance. Indeed, studies show that physics graduates are top scorers in exams like the MCAT or the LSAT and are appreciated everywhere for their problem solving abilities.

The Physics Department offers undergraduate studies leading to two different degrees: a Bachelor of Science in Physics or a Bachelor of Science in Education. In addition, the Physics B.S. offers concentrations in Advanced Physics and Computational Physics, as well as a certificate in nanotechnology. A Physics Minor is also available. Physics Education 7-12 students seeking Pennsylvania certification should see requirements outlined in the College of Education and Human Services.

Physics, B.S.

The Physics B.S. offers the following concentrations:

1. *Advanced Physics:* Designed for students planning to go on to graduate school in physics. The concentration provides a solid and rigorous grounding in physics and will prepare the students well for the advanced physics GRE test, as well as graduate school studies.
2. *Computational:* Offers a solid grounding in physics through the physics core, and develops computational skills applicable to all scientific fields. These skills are developed through a computational physics course and courses in computer science. Students following this concentration can also complete a minor in computer science by taking one extra computer science course after fulfilling the concentration requirements. This concentration prepares students well for the job market by offering applicable skills as well as experience through its project or internship requirement.

Credit Requirements*

- **General Education:** 46 credits
- **Major Requirements**: 73 - 74 credits
- **Free Electives:** 0 - 1 credits
- *Total Credits to Graduate:* **120 credits**

* All undergraduate degree programs require a minimum of 120 credits. Some courses meet multiple requirements, but are only counted once toward the 120 credit total required to graduate.

Physics Core Courses

Physics Core

All degrees require the successful completion of the Physics Core, which consists of the following courses:

Courses in Physics (29 crs.)

- PHYS 124 - Physics Ib Laboratory Credits: 1
- PHYS 206 - Intermediate Physics II Credits: 3
- PHYS 126 - Physics IIb Laboratory Credits: 1
- PHYS 207 - Intermediate Physics III Credits: 3
- PHYS 127 - Physics IIIb Laboratory Credits: 1
- PHYS 301 - Mathematical and Numerical Techniques in the Sciences Credits: 4
- PHYS 311 - Quantum I Credits: 4
- PHYS 321 - Electricity and Magnetism I Credits: 4
- PHYS 331 - Mechanics I Credits: 4
- PHYS 341 - Classical and Statistical Thermodynamics Credits: 4

Courses in allied fields (15-16 hrs.)

- MATH 212 - Calculus II Credits: 4
- MATH 213 - Calculus III Credits: 4
- MATH 322 - Differential Equations Credits: 3
- CHEM 125 - Laboratory IB-Stoichiometry and Reactions Credits: 1

- CMSC 104 - Programming in Python Credits: 3
  OR
- CMSC 110 - Computer Science I Credits: 4
  OR
- ENGR 110 - Modeling and Simulation Credits: 3

Additional Physics Electives (9 crs.)

- Nine credits at the 300-level or above.

General Electives

- 20 credits of general electives including at least 12 hours at the 300 level or higher. A minor in another discipline is strongly encouraged.

General Education

General Education Requirements

- General Education Program (45 crs.)

General Education Requirements Specific for this major

- Quantitative (Q): MATH 211
- Natural World (N): PHYS 205
- Natural World (N): CHEM 121

Advising Notes:

1. Semester I: MATH 211, PHYS 107
2. Semester II: MATH 212, PHYS 221
3. Students are recommended to complete 1 semester of Calculus before starting the intermediate physics sequence.
4. Chemistry should be taken in the junior year. Exceptional students may take it earlier.
5. Computer Science I should be taken early in the program.
6. Physics minor is available - 26 cr.

Physics, Advanced Physics Concentration, B.S.

Credit Requirements*

- **General Education:** 46 credits
- **Major Requirements**: 72 - 73 credits
- **Free Electives:** 1 - 2 credits
- *Total Credits to Graduate:* **120 credits**

* All undergraduate degree programs require a minimum of 120 credits. Some courses meet multiple requirements, but are only counted once toward the 120 credit total required to graduate.

Physics Core Courses

Physics Core

All degrees require the successful completion of the Physics Core, which consists of the following courses:

Courses in Physics (29 crs.)

- PHYS 124 - Physics Ib Laboratory Credits: 1
- PHYS 206 - Intermediate Physics II Credits: 3

- PHYS 126 - Physics IIb Laboratory Credits: 1
- PHYS 207 - Intermediate Physics III Credits: 3
- PHYS 127 - Physics IIIb Laboratory Credits: 1
- PHYS 301 - Mathematical and Numerical Techniques in the Sciences Credits: 4
- PHYS 311 - Quantum I Credits: 4
- PHYS 321 - Electricity and Magnetism I Credits: 4
- PHYS 331 - Mechanics I Credits: 4
- PHYS 341 - Classical and Statistical Thermodynamics Credits: 4

Courses in allied fields (15-16 hrs.)

- MATH 212 - Calculus II Credits: 4
- MATH 213 - Calculus III Credits: 4
- MATH 322 - Differential Equations Credits: 3
- CHEM 125 - Laboratory IB-Stoichiometry and Reactions Credits: 1

- CMSC 104 - Programming in Python Credits: 3
  OR
- CMSC 110 - Computer Science I Credits: 4
  OR
- ENGR 110 - Modeling and Simulation Credits: 3

Chemistry (4 crs.)

- CHEM 122 - Chemical Dynamics Credits: 3
- CHEM 126 - Laboratory IIB-Equilibrium and Instrumentation Credits: 1

Physics (24 crs.)

- PHYS 411 - Quantum II Credits: 3
- PHYS 421 - Electricity and Magnetism II Credits: 3
- PHYS 431 - Mechanics II Credits: 3
- PHYS 397 - Intro to Research Credits: 3
  OR
- PHYS 398 - Research II Credits: 3
- PHYS 3XX/4xx: Four 300- or 400-level Electives

General Education

General Education Requirements

- General Education Program (45 crs.)

General Education Requirements Specific for this major

- Quantitative (Q): MATH 211
- Natural World (N): PHYS 205

- Natural World (N): CHEM 121

Physics, Computational Physics Concentration, B.S.

Credit Requirements*

- **General Education:** 46 credits
- **Major Requirements**: 73 - 74 credits
- **Free Electives:** 0 - 1 credits
- *Total Credits to Graduate:* **120 credits**

* All undergraduate degree programs require a minimum of 120 credits. Some courses meet multiple requirements, but are only counted once toward the 120 credit total required to graduate.

Physics Core Courses

Physics Core

All degrees require the successful completion of the Physics Core, which consists of the following courses:

Courses in Physics (29 crs.)

- PHYS 124 - Physics Ib Laboratory Credits: 1
- PHYS 206 - Intermediate Physics II Credits: 3
- PHYS 126 - Physics IIb Laboratory Credits: 1
- PHYS 207 - Intermediate Physics III Credits: 3
- PHYS 127 - Physics IIIb Laboratory Credits: 1
- PHYS 301 - Mathematical and Numerical Techniques in the Sciences Credits: 4
- PHYS 311 - Quantum I Credits: 4
- PHYS 321 - Electricity and Magnetism I Credits: 4
- PHYS 331 - Mechanics I Credits: 4
- PHYS 341 - Classical and Statistical Thermodynamics Credits: 4

Courses in allied fields (15-16 hrs.)

- MATH 212 - Calculus II Credits: 4
- MATH 213 - Calculus III Credits: 4
- MATH 322 - Differential Equations Credits: 3
- CHEM 125 - Laboratory IB-Stoichiometry and Reactions Credits: 1

- CMSC 104 - Programming in Python Credits: 3
  OR
- CMSC 110 - Computer Science I Credits: 4
  OR
- ENGR 110 - Modeling and Simulation Credits: 3

Additional courses (29 crs.)

Math (6 crs.)

- MATH 318 - Elementary Linear Algebra Credits: 3
- MATH 410 - Numerical Analysis Credits: 3

Computer Science (12 crs.)

- CMSC 111 - Computer Science II Credits: 4

- CMPE 220 - Computer Organization Credits: 4 or
- CMSC 471 - Database Management Systems Credits: 3

- CMPE 322 - Microcontrollers & Interfaces Credits: 4

Physics (11 crs.)

- PHYS 471 - Computational Physics Credits: 4
- PHYS 3XX or 4XX: 300- or 400-level Physics Elective
- PHYS 3XX or 4XX: 300- or 400-level Physics Elective
  Note: Physics electives should total seven credits.

General Education

General Education Requirements

- General Education Program (45 crs.)

General Education Requirements Specific for this major

- Quantitative (Q): MATH 211
- Natural World (N): PHYS 205
- Natural World (N): CHEM 121

Advising Notes:

1. Semester I: MATH 211, PHYS 107
2. Semester II: MATH 212, PHYS 221
3. Students are recommended to complete 1 semester of Calculus before starting the intermediate physics sequence.
4. Chemistry should be taken in the junior year. Exceptional students may take it earlier.
5. Computer Science I should be taken early in the program.

Physics, B.S.Ed.

The Physics B.S.Ed. program leads to a teaching certification in Physics at the secondary education level.

Credit Requirements*

- **General Education:** 47 credits
- **Major Requirements**: 83 - 84 credits
- **Free Electives:** 0 credits
- *Total Credits to Graduate:* **130 - 131 credits**

* All undergraduate degree programs require a minimum of 120 credits. Some courses meet multiple requirements, but are only counted once toward the 120 credit total required to graduate.

Physics Core Courses

Physics Core

All degrees require the successful completion of the Physics Core, which consists of the following courses:

Courses in Physics (29 crs.)

- PHYS 124 - Physics Ib Laboratory Credits: 1
- PHYS 206 - Intermediate Physics II Credits: 3
- PHYS 126 - Physics IIb Laboratory Credits: 1
- PHYS 207 - Intermediate Physics III Credits: 3
- PHYS 127 - Physics IIIb Laboratory Credits: 1
- PHYS 301 - Mathematical and Numerical Techniques in the Sciences Credits: 4
- PHYS 311 - Quantum I Credits: 4
- PHYS 321 - Electricity and Magnetism I Credits: 4
- PHYS 331 - Mechanics I Credits: 4
- PHYS 341 - Classical and Statistical Thermodynamics Credits: 4

Courses in allied fields (15-16 hrs.)

- MATH 212 - Calculus II Credits: 4
- MATH 213 - Calculus III Credits: 4
- MATH 322 - Differential Equations Credits: 3
- CHEM 125 - Laboratory IB-Stoichiometry and Reactions Credits: 1

- CMSC 104 - Programming in Python Credits: 3
  OR
- CMSC 110 - Computer Science I Credits: 4
  OR
- ENGR 110 - Modeling and Simulation Credits: 3

Additional Degree Requirements. (39 crs.)

Earth-Space Sciences (3 crs.)

- ESSC 110 - Introduction to Geology Credits: 3

Physics (3 crs.)

- PHYS 4XX - 400 level Physics elective

Professional Education Requirements (33 crs.)

- TEED 207 - Organizational and Psychological Foundations in Secondary Education Credits: 3
- EDFN 440 - Teaching of Science in Secondary Schools Credits: 3
- EDFN 441 - Curriculum and Evaluation in the Secondary Science Classroom Credits: 3
- SPEE 273 - Introduction to Exceptionalities: Understanding Diverse Learners Credits: 3
- SPEE 423 - Effective Instructional Strategies for Students with Exceptionalities Credits: 3
- SPEE 483 - Assessing Children with Exceptionalities for Curricular Decision-Making Credits: 3
- READ 413 - Teaching Reading to English Language Learners Credits: 3
- EDFN 495 - Student Teaching Credits: 6-15
  (Physics Secondary Certification Students will take 12 crs. of EDFN 495*)*

General Education

General Education Requirements

- General Education Program (45 crs.)

General Education Requirements Specific for this major

- Quantitative (Q): MATH 211
- Natural World (N): BIOL 162
- Natural World (N): CHEM 121
- Natural World (N): PHYS 205

Advising Notes:

1. Semester I: MATH 211, PHYS 107
2. Semester II: MATH 212, PHYS 221
3. Students are recommended to complete 1 semester of Calculus before starting the intermediate physics sequence.
4. Chemistry should be taken in the junior year. Exceptional students may take it earlier.
5. Computer Science I should be taken early in the program.

Nanotechnology Certificate

The nanotechnology certificate offers students the technical expertise and theoretical understanding to manipulate matter at the nanometer length scale. Nanofabrication has applications in many fields including physics, biology, material science and engineering. This certificate is very popular with students in part because of the employment opportunities offered to its graduates.

The certificate requires the completion of one semester at the Penn State Center for Nanotechnology Education and Utilization; since this requirement is satisfied during the summer, enrolling in the concentration should not delay graduation.

Requirements (30 crs.)

Required Courses

- Engineering: Penn State-NSF NMT summer courses (18 crs.)
- PHYS 311 - Quantum I Credits: 4
- PHYS 325 - Semiconductor Devices Credits: 4
- PHYS 450 - Quantum Materials Credits: 4

Physics Minor

26 crs.

Required Courses

- PHYS 221 - Fundamentals of Physics I Credits: 5
- PHYS 222 - Fundamentals of Physics II Credits: 5
- PHYS 301 - Mathematical and Numerical Techniques in the Sciences Credits: 4
- PHYS 311 - Quantum I Credits: 4
- PHYS 321 - Electricity and Magnetism I Credits: 4
- PHYS 331 - Mechanics I Credits: 4

Note:

If the student declaring the minor has already taken either the PHYS 121,PHYS 122 sequence or the PHYS 205,PHYS 206 with their associated labs, the PHYS 221,PHYS 222 requirement is waived for the minor.

Political Science Department

The Department of Political Science offers undergraduate programs leading to the degrees of Bachelor of Arts in Political Science, Bachelor of Science in Public Service, and minors in both fields. Students learn how to think critically, write effectively, and express their opinions with precision and humility. Our students go on to work in and around politics at all levels, though many use their education in fields seemingly disconnected from government since the skills they develop are applicable in a wide variety of areas.

Political Science Features

Political Science students choose between two tracks: general and international. In each track, students take a core group of courses and elective courses in applied competency subfields. The core and subfields are designed to develop skills and expose students to a variety of related topics. The Department emphasizes real world application through experiential learning, guest speakers, and field trips to Harrisburg and DC. All majors are required to complete a capstone project in POLI 399 Senior Seminar that encourages the exploration of research that is interesting and useful for each individual student.

Public Administration Features

The Public Service major provides students with professional skills for careers in government and other public sector organizations. This major is designed to provide students with a strong foundation in public management practices and behaviors; it also exposes students to areas of specialization within the field of public administration. Public Service students take core courses in government, policy analysis, budgeting, financial administration, and personnel administration and then select a group of electives to complete the program.

Internship Policy

Students in both majors have the opportunity to complete an internship with governmental agencies, non-profit organizations, and law firms to complement and supplement their course work. A student can count a maximum of six internship credits toward completion of the electives within the political science or public administration majors.

Career Opportunities

Political Science and Public Service are majors that opens doors to jobs in both the public and private sectors. Our students use their educational foundation, research skills, and solid communication abilities to work in a wide range of areas. Our network of alumni in Harrisburg is notable for its breadth and range, and our pipeline from classroom to internship to career is famous in the state government. Majors are also prepared to pursue graduate study across a mixture of fields, including international relations, public administration, and law.

Pre-Law Program

Students who plan to apply to law schools may select their major from a wide range of fields depending upon their interests. The scope of law is broad and offers room for individuals of varied educational and intellectual backgrounds. The Department of Political Science offers numerous courses for majors and non-majors that will help prepare students for law school.

Political Science, B.A.

The undergraduate political science major provides students with a broad-based understanding of governmental institutions, non-governmental organizations, political behavior, global politics, theory, and law.

Students learn how to analyze situations and events, draw conclusions, and communicate their findings clearly.

Our graduates go on to work in and around politics and in non-political fields, because our program emphasizes transferable skills that are valuable in any profession.

Political Science students think critically, speak clearly, and write effectively, and learn in a friendly, supportive, and nonpartisan atmosphere.

Credit Requirements*

- **Foreign Language Requirement:** 0 - 3 credits
- **General Education:** 45 credits
- **Major Requirements**: 36 credits
- **Free Electives:** 36 - 39 credits
- *Total Credits to Graduate:* **120 credits**

* All undergraduate degree programs require a minimum of 120 credits. Some courses meet multiple requirements, but are only counted once toward the 120 credit total required to graduate.

Note:

All students completing a Bachelor of Arts degree are required to attain proficiency in a foreign language. Proficiency may be satisfied by completing a language class at the 103 (intermediate) level or three years of any one foreign language in high school. Students may also meet this requirement through AP or CLEP testing.

Required Courses (15 crs.)

- POLI 201 - Foundations of Political Science: Concepts and Critical Analysis Credits: 3
- POLI 202 - Applications in Public Affairs Credits: 3
- POLI 271 - Introduction to Public Administration Credits: 3
- POLI 301 - Political Science Research Methods Credits: 3
- POLI 399 - Senior Seminar Credits: 3

Note:

Students must earn a C or better in each required core course.

Experiential Learning (6 crs.)

- POLI 307 - Applied Research in Political Science Credits: 1-3
- POLI 323 - Campaigns, Elections & Political Parties Credits: 3
- POLI 326 - Politics and Popular Culture Credits: 3
- POLI 333 - Applications in State and Local Public Policy Credits: 3
- POLI 347 - Applied Diplomacy Credits: 3
- POLI 348 - Applied Diplomacy Credits: 3
- POLI 356 - Politics of Developing Regions Credits: 3
- POLI 359 - European Political Culture & Identity Credits: 3
- POLI 395 - Internship I Credits: 3
- POLI 396 - Internship II Credits: 3
- INTL 358 - Global Political Economy & Security Credits: 3
- Any Study Abroad course in any discipline.

Course of Study (15 crs.)

Any Political Science course at the 200 level or above.

International/Comparative Electives

- POLI 251 - Introduction to Comparative Politics Credits: 3
- POLI 341 - International Law and Organization Credits: 3
- POLI 342 - American Foreign Policy Credits: 3
- POLI 343 - Global Economic and Political Conflict Credits: 3

- POLI 344 - Sport in Comparative Political Perspective Credits: 3
- POLI 351 - European Politics Credits: 3
- POLI 356 - Politics of Developing Regions Credits: 3

Public Administration

- POLI 204 - Introduction to Public Policy Credits: 3
- POLI 372 - Public Personnel Administration Credits: 3
- POLI 373 - Public Financial Administration Credits: 3
- POLI 374 - Public Service Ethics Credits: 3

Political Behavior

- POLI 321 - Public Opinion and Political Media Credits: 3
- POLI 322 - Interest Groups in American Society Credits: 3

Government

- POLI 231 - State and Local Government Credits: 3
- POLI 300 - Advanced American Government and Public Policy Credits: 3
- POLI 311 - The Legislative Process Credits: 3
- POLI 312 - The American Presidency Credits: 3
- POLI 313 - The Judicial Process Credits: 3

Law and Theory

- POLI 363 - American Political Thought Credits: 3
- POLI 365 - Constitutional Law: The Federal System Credits: 3
- POLI 366 - Constitutional Law: First Amendment Freedoms Credits: 3
- POLI 367 - Constitutional Law: Criminal Law and Equal Protection Credits: 3

General Education

General Education Requirements

- General Education Program (45 crs.)

General Education Requirements Specific for this major

- Citizenship (S): POLI 100
- Global Perspectives (G): POLI 141

Political Science, International Concentration, B.A.

The undergraduate Political Science major (International Concentration) provides students with a broad-based understanding of governmental institutions, non-governmental organizations, political behavior, global politics, theory, and law.

Students learn how to analyze situations and events, draw conclusions, and communicate their findings clearly.

Our graduates go on to work in and around politics and in non-political fields, because our program emphasizes transferable skills that are valuable in any profession.

Political Science students think critically, speak clearly, and write effectively, and learn in a friendly, supportive, and nonpartisan atmosphere.

Credit Requirements*

- **Foreign Language Requirement:** 0 - 3 credits
- **General Education:** 45 credits
- **Major Requirements**: 39 credits
- **Free Electives:** 33 - 36 credits
- *Total Credits to Graduate:* **120 credits**

* All undergraduate degree programs require a minimum of 120 credits. Some courses meet multiple requirements, but are only counted once toward the 120 credit total required to graduate.

Bachelor of Arts Foreign Language Requirement:

All students completing a Bachelor of Arts degree are required to attain proficiency in a foreign language. Proficiency may be satisfied by completing a language class at the 103 (intermediate) level or three years of any one foreign language in high school. Students may also meet this requirement through AP or CLEP testing.

Political Science - International Track (39 crs.)

International Track Required Courses (18 crs.)

- POLI 201 - Foundations of Political Science: Concepts and Critical Analysis Credits: 3
- POLI 202 - Applications in Public Affairs Credits: 3
- POLI 271 - Introduction to Public Administration Credits: 3
- POLI 301 - Political Science Research Methods Credits: 3
- POLI 341 - International Law and Organization Credits: 3
- POLI 399 - Senior Seminar Credits: 3

Note:

Students must earn a C or better in each required core course.

Experiential Learning (6 crs.)

- INTL 358 - Global Political Economy & Security Credits: 3
- POLI 307 - Applied Research in Political Science Credits: 1-3
- POLI 323 - Campaigns, Elections & Political Parties Credits: 3
- POLI 326 - Politics and Popular Culture Credits: 3
- POLI 333 - Applications in State and Local Public Policy Credits: 3

- POLI 347 - Applied Diplomacy Credits: 3
- POLI 348 - Applied Diplomacy Credits: 3
- POLI 356 - Politics of Developing Regions Credits: 3
- POLI 359 - European Political Culture & Identity Credits: 3
- POLI 395 - Internship I Credits: 3
- POLI 396 - Internship II Credits: 3
- Any Study Abroad course in any discipline.

International Track Elective Courses (12 crs.)

(Note: These courses are also used to satisfy the Applied Competencies.)

- INTL 358 - Global Political Economy & Security Credits: 3
- POLI 251 - Introduction to Comparative Politics Credits: 3
- POLI 326 - Politics and Popular Culture Credits: 3
- POLI 342 - American Foreign Policy Credits: 3
- POLI 343 - Global Economic and Political Conflict Credits: 3
- POLI 344 - Sport in Comparative Political Perspective Credits: 3
- POLI 347 - Applied Diplomacy Credits: 3
- POLI 348 - Applied Diplomacy Credits: 3
- POLI 351 - European Politics Credits: 3
- POLI 356 - Politics of Developing Regions Credits: 3
- POLI 359 - European Political Culture & Identity Credits: 3
- POLI 394 - Selected Topics in International Politics Credits: 3
- SOCI 265 - Global Society Credits: 3
- FREN 150 - Modern France and the Francosphere Credits: 3
  OR
- GERM 150 - German Civilization and Culture Credits: 3
  OR
- SPAN 150 - Hispanic Civilization and Culture Credits: 3

Political Science Electives (3-9 crs.)

- Any Political Science course.

Note:

Each international track and departmental required course will emphasize one of the following: oral communication, written communication and problem solving. Students must demonstrate that they have met requirements across the three skillsets before permission will be given to enrol for Senior Seminar (POLI 399). A list of course skill-tags will be made available each semester.

General Education

General Education Requirements

- General Education Program (45 crs.)

General Education Requirements Specific for this major

- Citizenship (S): POLI 100
- Global Perspectives (G): POLI 141

Public Service, B.S.

The undergraduate Public Service major provides students with a broad-based understanding of public management, public policy, government institutions, and applied workforce skills.

Students learn how to analyze situations and events, draw conclusions, and communicate their findings clearly.

Our graduates go on to work in and around public administration, nonprofit management, and politics because our program emphasizes transferable skills that are valuable in any profession.

Public Service students think critically, speak clearly, and write effectively, and learn in a friendly, supportive, and nonpartisan atmosphere.

Credit Requirements*

- **General Education:** 45 credits
- **Major Requirements**: 42 credits
- **Free Electives:** 33 credits
- *Total Credits to Graduate:* **120 credits**

* All undergraduate degree programs require a minimum of 120 credits. Some courses meet multiple requirements, but are only counted once toward the 120 credit total required to graduate.

(42 crs)

Required (18 crs.)

- POLI 201 - Foundations of Political Science: Concepts and Critical Analysis Credits: 3
- POLI 202 - Applications in Public Affairs Credits: 3
- POLI 231 - State and Local Government Credits: 3
- POLI 271 - Introduction to Public Administration Credits: 3
- POLI 301 - Political Science Research Methods Credits: 3
- POLI 399 - Senior Seminar Credits: 3

Note:

Students must earn a C or better in each required core course.

Public Service Electives (18 crs.)

- POLI 204 - Introduction to Public Policy Credits: 3
- POLI 300 - Advanced American Government and Public Policy Credits: 3
- POLI 307 - Applied Research in Political Science Credits: 1-3

- POLI 312 - The American Presidency Credits: 3
- POLI 322 - Interest Groups in American Society Credits: 3
- POLI 333 - Applications in State and Local Public Policy Credits: 3
- POLI 343 - Global Economic and Political Conflict Credits: 3
- POLI 356 - Politics of Developing Regions Credits: 3
- POLI 365 - Constitutional Law: The Federal System Credits: 3
- POLI 372 - Public Personnel Administration Credits: 3
- POLI 373 - Public Financial Administration Credits: 3
- POLI 374 - Public Service Ethics Credits: 3
- POLI 389 - Selected Topics in Public Administration Credits: 3
- POLI 395 - Internship I Credits: 3
- POLI 396 - Internship II Credits: 3
- ITAN 142 - Business Computer Systems Credits: 3
- GEOG 202 - GIS I: Introduction to Geographic Information Systems Credits: 3

Note:

Internship - The department strongly encourages students to complete an internship. To qualify for an internship, a student must have a 2.0 overall QPA and a 2.3 QPA in the public administration major. Students must have completed the following courses to be eligible for an internship: POLI 100, POLI 201, POLI 231, POLI 271, POLI 300, and POLI 301. A student can count a maximum of six internship credits toward the major.

Political Science Electives (6 crs.)

- Select any two Political Science courses, one of which must be at the 300-level or higher.

General Education

General Education Requirements

- General Education Program (45 crs.)

General Education Requirements Specific for this major

- Citizenship (S): POLI 100

Political Science Minor

The undergraduate political science minor provides students with an understanding of governmental institutions, non-governmental organizations, political behavior, global politics, theory, and law.

Students learn how to analyze situations and events, draw conclusions, and communicate their findings clearly.

Our graduates go on to work in and around politics and in non-political fields, because our program emphasizes transferable skills that are valuable in any profession.

Political Science students think critically, speak clearly, and write effectively, and learn in a friendly, supportive, and nonpartisan atmosphere.

18 crs.

Required (9 crs.)

- POLI 100 - U.S. Government and Politics Credits: 3
- POLI 141 - World Politics Credits: 3
- POLI 271 - Introduction to Public Administration Credits: 3

Electives (9 crs.)

Students must take at least two Political Science courses at the 300 level or above.

- PLS 200 Level
- PLS 300 Level
- PLS 300 Level

Public Service Minor

The undergraduate Public Service minor provides students with an understanding of public management, public policy, government institutions, and applied workforce skills.

Students learn how to analyze situations and events, draw conclusions, and communicate their findings clearly.

Our graduates go on to work in and around public administration, nonprofit management, and politics because our program emphasizes transferable skills that are valuable in any profession.

Public Service students think critically, speak clearly, and write effectively, and learn in a friendly, supportive, and nonpartisan atmosphere.

18 crs.

Required (9 crs.)

- POLI 100 - U.S. Government and Politics Credits: 3
- POLI 231 - State and Local Government Credits: 3
- POLI 271 - Introduction to Public Administration Credits: 3

Public Service Electives (6 crs.)

Note: Students must take at least two Political Science courses at the 300 level or above.

- POLI 204 - Introduction to Public Policy Credits: 3
- POLI 333 - Applications in State and Local Public Policy Credits: 3
- POLI 356 - Politics of Developing Regions Credits: 3
- POLI 372 - Public Personnel Administration Credits: 3
- POLI 373 - Public Financial Administration Credits: 3

- POLI 374 - Public Service Ethics Credits: 3
- POLI 389 - Selected Topics in Public Administration Credits: 3

Elective (3 crs.)

- Students must select one public service or political science course at the 300 level to fulfill this requirement.

Note:

Students enrolled in the Political Science major may only count 6 credits from the following courses towards both the Public Service minor and Political Science major: POLI 100, POLI 231 or POLI 271.

Political Science, B.A. or Public Service, B.S. with accelerated 4+1 M.P.A. in Public Administration

The Department of Political Science offers a 4+1 Master of Public Administration (MPA) degree for current Shippensburg University undergraduate students. The 4+1 MPA degree allows students to accelerate their graduate studies by earning graduate credits during their senior year as an undergraduate. Eligible students may take up to 12 graduate MPA credits that count for both their undergraduate and MPA degrees. Students can earn their undergraduate and master's degrees in as little as 5 years with the 4+1 MPA program. Upon successful completion of all the MPA program requirements, students will earn a Master of Public Administration degree.

The 4+1 MPA program is well-suited for students majoring in Public Service or Political Science but is open to **ALL** majors.

Professional Studies Program

The B.S. in Professional Studies with a concentration in Technical Leadership and Administration is a degree completion program designed for working adults who have earned 60 or more college credits. Most courses are offered on the Shippensburg campus although some of the core courses may be available at other locations, such as HACC-Gettysburg, in the evenings; and some courses may be online.

The program's core courses will provide the opportunity to explore how a liberal arts education can enhance career opportunities. These courses will help students understand the structure of organizations, the behavior of individuals within organizations, and how to resolve conflict in order for organizations to function efficiently. The professional courses will allow students to explore communications and management concepts and issues critical to the effective administration of work units and organizations. The electives give students the opportunity to enhance their educational experience, and the internship or research project at the end of the program promotes the integration of theory and practice.

Regularly admitted students with an interest in this major must meet the degree completion admission requirements, which include an Associates' Degree and five years of work experience.

Degree Requirements

- Completion of the 46-credit Professional Studies, Technical Leadership and Administration program with a minimum of a 2.0 cumulative QPA;
- Fulfillment of 48 credits of general education requirements;

- Attainment of a minimum of 120 college/university credits.

Professional Studies, Professional Leadership Studies Concentration, B.S.

The B.S. in Professional Studies with a concentration in Professional Leadership Studies is a degree completion program designed for working adults who have earned 60 or more college credits. Most courses are offered on the Shippensburg campus although some of the core courses may be available at other locations, such as HACC-Gettysburg, in the evenings; and some courses may be online.

Students develop leadership skill across three areas that form the foundation of the coursework: Leadership Communication, Global Leadership, and Workforce Leadership. Six credits of internship(s) are also required for completion of the program.

Regularly admitted students with an interest in this major must meet the degree completion admission requirements, which include an Associates' Degree and five years of work experience.

Credit Requirements*

- **General Education:** 45 credits
- **Major Requirements**: 42 credits
- **Free Electives:** 33 credits
- *Total Credits to Graduate:* **120 credits**
- * All undergraduate degree programs require a minimum of 120 credits. Some courses meet multiple requirements, but are only counted once toward the 120 credit total required to graduate.

* All undergraduate degree programs require a minimum of 120 credits. Some courses meet multiple requirements, but are only counted once toward the 120 credit total required to graduate.

Leadership Communication (12 crs.)

Graduates of the program demonstrate oral, nonverbal, and written competency in leadership communication.

- COST 350 - Theories of Organizational Communication Credits: 3
- COST 372 - Communication for Training and Instruction Credits: 3
- COST 385 - Resolving Conflict through Communication Credits: 3
- ENGL 338 - Technical Writing for Professionals Credits: 3

Global Leadership (12 crs.)

Graduates of the program are equipped to diagnose complex problems, articulate goals, and develop strategies for leadership in a global workplace.

- COST 270 - Intergroup/Intercultural Communication Credits: 3
- SOCI 310 - Leading in Society Credits: 3
- SOCI 440 - Global Leadership for Global Society Credits: 3

- PSYC 361 - Psychology of Group Interaction Credits: 3

Workforce Leadership (15 crs.)

Graduates of the program are prepared to lead in complex industries and work forces.

- MGMT 305 - Organizational Behavior Credits: 3
- MGMT 331 - Principles of Management Credits: 3
- MGMT 394 - Leadership for Business Credits: 3
- MKTG 205 - Principles of Marketing Credits: 3
- PSYC 475 - Industrial and Organizational Psychology Credits: 3

Internship Co-Op (3 crs.)

Professional Studies, Integrative Studies Concentration, B.S.

The B.S. in Professional Studies with a concentration in Integrative Studies offers students the opportunity to work with a faculty advisor to devise an interdisciplinary program tailored to their academic interests and career goals.

Credit Requirements*

- General Education: 45 credits
- Major Requirements: 42 credits
- Free Electives: 30 credits
- Total Credits to Graduate: 120 credits

* All undergraduate degree programs require a minimum of 120 credits. Some courses meet multiple requirements, but are only counted once toward the 120 credit total required to graduate.

Core Requirements

- Students are required to combine either two Minor programs from two different departments or one Minor program and two Certificates from 3 different departments into one unified Concentration within the Professional Studies major.
- Student must successfully complete their declared minors/certificates to graduate from the major.
- Maximum of 12 credits can be double-counted between the programs that comprise the major (no triple-counting)
- No fewer than 75% of courses (32 of 42 credits) that count towards the major must be "advanced coursework" at the 200-level and above. No fewer than 33% (14 of 42 credits) must be at 300-400 level.
- PRST 400 - Professional Studies Internship Credits: 1-12
- PRST 450 - Professional Practices in Integrative Studies Credits: 3

Psychology Department

The Department of Psychology offers an undergraduate program leading to the Bachelor of Arts degree. The psychology program has been designed to comply with the recommendations provided by the American Psychological Association, providing a broad base of knowledge with a focus the multitude of career options available in the

discipline of Psychology. This program will provide you with knowledge of psychology's core areas of knowledge including coursework in developmental psychology, social and personality psychology, learning, psychopathology, behavioral neuroscience, cognition and sensation and perception. Students who are interested in career paths that require advanced degrees will experience coursework in research and statistical methods and students who are interested in career paths that focus on finding full time employment directly after their bachelors have the opportunity to focus on gaining additional applied coursework in areas that align with their career goals.

Psychology Features

All professors in the Department of Psychology have doctoral degrees and are trained researchers. We are a diverse department, and our areas of expertise range from consulting work to research on human memory, the influence of groups, animal learning, behavioral neuroscience, mental disorders, child development, and social justice.

A variety of options encourage you to move beyond the classroom:

- You can do your own research project. To help you, we have research facilities in Wright Hall that will allow you to experience running and participating in experiments, videotape interviews, use computers, and so on.
- You can do an internship by finding a position in a variety of settings relevant to the discipline of Psychology. For example, you could choose to do an internship working children and adolescents in a school setting, or work in organizations who support adults with severe and chronic mental health issues, be a research assistant in a sleep lab or any psychology-related job and by writing a paper on the experience. The department works with students individually to find an internship that supports their interests and career goals.
- You can attend talks by guest speakers, and take trips to conferences, institutions, and research facilities.
- You can choose to participate in service learning projects working with children, the elderly, and adults who have mental health issues in the community.
- If you qualify with an overall QPA of 3.0 or above and a 3.2 or above in psychology, you are invited to apply to *Psi Chi*, a national honor society. You must have completed three psychology courses at Shippensburg University and three semesters at Shippensburg University.

Psychology Career Opportunities

A bachelor's degree in psychology is a popular degree and valued by industry and government. Students graduating with a psychology degree should be proficient in communication (verbal presentations as well as writing), research, and knowledge about human behavior and thought processes. Therefore, graduates often find positions in business, the legal system, the educational system, research companies, and mental health industries.

Many students who wish to work in more specialized areas of psychology go on to master's programs in areas such as counseling, experimental, forensic, and industrial/organizational psychology. Some students pursue doctorates in areas such as clinical, developmental, and social psychology. More than 30 percent of our graduates go on to earn an advanced degree.

A bachelor's in psychology can lead to careers in:

- Clinical psychology
- Cognitive psychology
- Conditioning-learning
- Counseling psychology
- Developmental psychology
- Health psychology
- Forensic psychology

- Industrial/organizational psychology
- Legal psychology
- Behavioral neuroscience
- Physiological psychology
- School psychology
- Social psychology
- Quantitative psychology

Students wishing to change majors to psychology must have a 2.0 quality point average or higher.

Psychology, B.A.

Credit Requirements*

- **Foreign Language Requirement:** 0 - 3 credits
- **General Education:** 45 credits
- **Major Requirements**: 42 credits
- **Free Electives:** 30 - 33 credits
- *Total Credits to Graduate:* **120 credits**

* All undergraduate degree programs require a minimum of 120 credits. Some courses meet multiple requirements, but are only counted once toward the 120 credit total required to graduate.

Bachelor of Arts Foreign Language Requirement:

All students completing a Bachelor of Arts degree are required to attain proficiency in a foreign language. Proficiency may be satisfied by completing a language class at the 103 (intermediate) level or three years of any one foreign language in high school. Students may also meet this requirement through AP or CLEP testing.

Core Courses (21 crs.)

Developmental

Choose 1 from the following:

- PSYC 265 - Childhood and Adolescence Credits: 3
- PSYC 352 - Adulthood and Aging Credits: 3

Social/Personality

Choose from 1 of the following:

- PSYC 240 - Psychology of Personality Credits: 3
- PSYC 270 - Social Psychology Credits: 3

Psychopathology

Choose 1 of the following:

- PSYC 330 - Adult Psychopathology Credits: 3
- PSYC 355 - Child and Adolescent Psychopathology Credits: 3

Neuroscience

Choose 1 of the following:

- PSYC 320 - Behavioral Neuroscience Credits: 3
- PSYC 333 - Psychology of Attention and Consciousness (Effective Fall 2020) Credits: 3

Cognition/S&P

Choose 1 of the following:

- PSYC 323 - Sensation and Perception Credits: 3
- PSYC 325 - Psychology of Human Cognition Credits: 3

Learning/Behavioral

Choose 1 of the following:

- PSYC 235 - Conditioning and Learning Credits: 3
- PSYC 383 - Social Learning in Infants and Children Credits: 3

Research Methods

- PSYC 104 - Research Methods in Psychology Credits: 3

SELECT A PATHWAY

Graduate School/Technical Field Preparation:

- Students who choose this pathway will take two statistics courses (PSYC 105 and PSYC 205) with a minimum grade of C. Additionally, they will take 12 elective credits, of which 6 credits must be from the Ethical & Social Responsibility in a Diverse World category and 6 credits must be from the Professional Development category.

Career Readiness:

- Students who choose this pathway will take 18 elective credits, of which 6 credits must be from the Ethical & Social Responsibility in a Diverse World category and 12 credits must be from the Professional Development category.

Electives

Ethical & Social Responsibility in a Diverse World

- PSYC 315 - Psychology of Prejudice and the Minority Experience Credits: 3

- PSYC 350 - Psychology of Sustainability Credits: 3
- PSYC 365 - Multicultural Psychology Credits: 3
- PSYC 410 - Psychology and Women (Effective Spring 2020: Psychology of Women and Gender) Credits: 3
- PSYC 420 - Health Psychology Credits: 3
- PSYC 470 - Forensic and Legal Psychology Credits: 3

Professional Development

- PSYC 311 - Applied Behavior Analysis Credits: 3
- PSYC 335 - Psychology of Social Influence Credits: 3
- PSYC 340 - Introduction to Clinical Psychology Credits: 3
- PSYC 345 - Psychiatric Rehabilitation Credits: 3
- PSYC 361 - Psychology of Group Interaction Credits: 3
- PSYC 384 - Helping Skills for Human Services Credits: 3
- PSYC 415 - Psychology of Addiction & Recovery Credits: 3
- PSYC 432 - The Psychology of Computers and the Internet Credits: 3
- PSYC 475 - Industrial and Organizational Psychology Credits: 3

Capstone (3 crs.)

Choose 1 of the following:

- PSYC 374 - Advanced Research in Psychology I Credits: 3
- PSYC 375 - Advanced Research in Psychology II Credits: 3
- PSYC 379 - Capstone Seminar in Psychology Credits: 3
- PSYC 385 - Internship in Psychology Credits: 1-4
- PSYC 386 - Internship in Psychology Credits: 3
- PSYC 389 - Internship in Psychology III Credits: 3
- PSYC 440 - History and Systems of Psychology Credits: 3

Other Psychology Courses

As Free Electives; Some selected topics may count for core areas per departmental discretion

- PSYC 393 - Selected Topics in Psychology Credits: 1-3
- PSYC 395 - Seminar in Selected Topics Credits: 3
- PSYC 490 - Selected Topics in Psychology Credits: 1-3

Internship

- PSYC 385 - Internship in Psychology Credits: 1-4
- PSYC 386 - Internship in Psychology Credits: 3
  Note: Students can take PSYC 385 Internship in Psychology, or both PSYC 385 and PSYC 386 Internship in Psychology. Students must apply to earn internship credit. Successful applicants must have completed relevant courses that will prepare them for the internship for which they apply. Final approval is made by the Psychology Department Internship Committee and the Dean of the College of Arts and Sciences.

The remaining credits toward your 120 total should be comprised of a minor (strongly recommended - Minors are 18-21 credits), other courses of interest outside the major to broaden your higher educational experiences, and additional psychology courses.

General Education

General Education Requirements

- General Education Program (45 crs.)

General Education Requirements Specific for this major

- Natural World (N): PSYC 101

Advising Notes:

1. Year I: PSYC 101, PSYC 105,
2. Year II: PSYC 205, Begin Foundation Courses
3. Year III: PSYC 301
4. Psychology minor available - 18 cr

Honors in Psychology Program (48 crs.)

The Honors in Psychology Program is open to psychology majors who have and maintain a 3.0 overall QPA and 3.5 Psychology QPA. Students in their second semester of their first year and beyond (up to and including first semester of year three) who meet this requirement will be invited to participate. Students who fall below a 3.0 and 3.5 will have a semester to increase their QPA before being removed from the program.

Honors students must earn an additional six credits through the following courses in addition to their Psychology major courses (42 credits): Two graduate courses from the Master of Science in Applied Psychology program in their last year of study. Please note that the following courses will not be open to undergraduate enrollment: PSYC 500 Advanced Research and Statistics I, PSYC 502 Program Evaluation, PSYC 503 Survey Research, and PSYC 600 Capstone. Students must also take PSYC 374 or PSYC 375 Advanced Research in Psychology for their Capstone experience. Upon graduation, the successful completion of this Honors program provides students the additional designation of Honors in Psychology on their transcripts.

Psychiatric Rehabilitation Certificate

This 15-credit certificate is open to all Shippensburg University students, including non-degree students. Completion of the certificate will prepare students for careers as frontline workers in psychiatric rehabilitation-related agencies (agencies serving individuals with serious mental illness through programming such as supported housing, supported employment, psychiatric day programming, case management, and peer support).

Required Courses (6 crs.)

- PSYC 101 - General Psychology Credits: 3
- PSYC 345 - Psychiatric Rehabilitation Credits: 3

Course Electives (9 crs.)

Choose one course from each category:

Mental Health Knowledge Base

- PSYC 330 - Adult Psychopathology Credits: 3
  OR
- SOWK 347 - Special Fields of Social Work: Behavioral Health Credits: 3

Helping Skills Development

- PSYC 384 - Helping Skills for Human Services Credits: 3
  OR
- SOWK 270 - Social Work Practice with Individuals Credits: 3

Experience in Psychiatric Rehabilitation Services

- PSYC 385 - Internship in Psychology Credits: 1-4 *****
  OR
- SOWK 460 - Field Work in Social Work I Credits: 6 *****

*** The internship/fieldwork site must offer psychiatric rehabilitation-related services and be approved by the Psychiatric Rehabilitation Certificate coordinator.**

Psychology Minor

18 crs.

Introductory Course (3 credits)

- PSYC 101 - General Psychology Credits: 3

A. Goal: Core Classes (9 credits)

All courses require a grade of C or better.

- PSYC 235 - Conditioning and Learning Credits: 3
- PSYC 240 - Psychology of Personality Credits: 3
- PSYC 265 - Childhood and Adolescence Credits: 3
- PSYC 270 - Social Psychology Credits: 3
- PSYC 320 - Behavioral Neuroscience Credits: 3
- PSYC 323 - Sensation and Perception Credits: 3
- PSYC 333 - Psychology of Attention and Consciousness (Effective Fall 2020) Credits: 3
- PSYC 325 - Psychology of Human Cognition Credits: 3
- PSYC 330 - Adult Psychopathology Credits: 3
- PSYC 352 - Adulthood and Aging Credits: 3
- PSYC 355 - Child and Adolescent Psychopathology Credits: 3

- PSYC 383 - Social Learning in Infants and Children Credits: 3

B. Goal: Professional Development (3-6 credits)

- PSYC 311 - Applied Behavior Analysis Credits: 3
- PSYC 335 - Psychology of Social Influence Credits: 3
- PSYC 345 - Psychiatric Rehabilitation Credits: 3
- PSYC 361 - Psychology of Group Interaction Credits: 3
- PSYC 415 - Psychology of Addiction & Recovery Credits: 3
- PSYC 432 - The Psychology of Computers and the Internet Credits: 3
- PSYC 475 - Industrial and Organizational Psychology Credits: 3

C. Goal: Ethical and Social Responsibility in a Diverse World (3-6 credits)

- PSYC 315 - Psychology of Prejudice and the Minority Experience Credits: 3
- PSYC 350 - Psychology of Sustainability Credits: 3
- PSYC 365 - Multicultural Psychology Credits: 3
- PSYC 410 - Psychology and Women (Effective Spring 2020: Psychology of Women and Gender) Credits: 3
- PSYC 420 - Health Psychology Credits: 3
- PSYC 470 - Forensic and Legal Psychology Credits: 3

Note:

Students must have a total of 9 credits in Goals B & C, with at least one course in each of the areas.

Psychology, B.A. with accelerated M.S. in Applied Psychology

Psychology majors with a 3.2 GPA , at least 75 earned undergraduate credits, and have passed the department's research sequence with a "C" or better will be eligible to apply to take 2 courses (to be determined by and recommended by the program director) for 6 credits in the M.S. in Applied Psychology in their senior year. Those 6 credits will count toward both the B.A. in psychology program and the M.S. in Applied Psychology program. Students enrolled in this accelerated program will be provisionally admitted to the M.S. in Applied Psychology program and can continue in the program after successfully completing the requirements of their undergraduate degree. Students will not be eligible to enroll in the graduate courses until they have earned 90 credits. Students are limited to a maximum of 15 credits/semester while taking graduate courses.

Psychology, B.A. with accelerated M.S. in Counseling

Psychology majors with at least 60 earned undergraduate credits and a 3.0 GPA will be eligible to apply to the B.A. in Psychology to M.S. in Counseling Accelerated program. Those students accepted into the Accelerated Program will, in their senior year, take 2 courses (COUN 559- Intro to Helping Services and COUN 573- Theories of Counseling) for 6 total credits in the Department of Counselor Education. Those 6 credits will count toward both the B.A. in psychology (as general electives) and the M.S. in Counseling.

Sociology/Anthropology Department

Sociology is the scientific study of human behavior in society. Because of its broad-ranging concerns and the wide variety of skills it inculcates, a bachelor's degree in sociology will put you on excellent footing to pursue jobs in many fields. Sociology graduates can be found in business, government and the non-profit sector in jobs ranging from data analyst to manager to advocate for the disadvantaged. Additionally, our internship program will help you build crucial skills and connections for success after graduation.

The Bachelor of Arts degree in sociology is a good choice if you are interested in working with people in counseling, social or public service, personnel, managerial or administrative positions. Careers in sociology, law, counseling, and ministry are possible with graduate training. All of our students participate in our intern program where you may choose from existing positions or create one specific to your interests.

Sociology and Anthropology Features

Majors learn social research skills, including constructing a questionnaire, building a database, and analyzing data, and these skills are widely applicable in the workplace. Students gain knowledge about diversity and social justice, with a selection of courses in race, class, gender, and disability. Due to our wide array of electives, students have the opportunity to fashion their individual programs around special interests which build on a core curriculum. For example, we have multiple classes in social inequality, deviance, culture and social change, health and disability, family and marriage, and social problems.

Minors are offered in anthropology and sociology. For details about the requirements of these programs, contact the sociology and anthropology department.

Anthropology students will emphasize the holistic study of humankind from a cross-cultural perspective. An appreciation of human diversity leads to a greater awareness of the common concerns and interests of people in many different societies. Courses in anthropology provide exposure to the major areas of cultural anthropology, human paleontology, and archaeology.

Sociology and Anthropology Career Opportunities

Because sociology is the scientific study of social relationships, it is ideal preparation for many professions and careers: social service, social research, law, business, government and all its related fields, personnel work, family and marriage counseling, and any career in which human interaction is important.

The anthropology minor combines well with almost any major. It is most commonly paired with History, International Studies, Political Science, and Sociology. Students have found it to be valuable in preparation for careers in international business, counseling, government, and research. Cross-cultural interaction is increasingly common, both within our diverse American population and with people abroad. Anthropology is a field designed to make such human interaction easier and more successful.

Sociology, B.A.

Credit Requirements*

- **Foreign Language Requirement:** 0 - 3 credits
- **General Education:** 45 credits
- **Major Requirements**: 36 credits

- **Free Electives:** 36 - 39 credits
- *Total Credits to Graduate:* **120 credits**

* All undergraduate degree programs require a minimum of 120 credits. Some courses meet multiple requirements, but are only counted once toward the 120 credit total required to graduate.

Bachelor of Arts Foreign Language Requirement:

All students completing a Bachelor of Arts degree are required to attain proficiency in a foreign language. Proficiency may be satisfied by completing a language class at the 103 (intermediate) level or three years of any one foreign language in high school. Students may also meet this requirement through AP or CLEP testing.

(36 crs.)

Required (18 crs.)

- SOCI 101 - Introduction to Sociology: Society and Diversity Credits: 3
- SOCI 220 - Social Inequality Credits: 3
- SOCI 331 - Internship I Credits: 3
- SOCI 380 - Social Theory Credits: 3
- SOCI 385 - Elements of Social Research Credits: 3
- SOCI 415 - Senior Seminar Credits: 3

Note:

Students must earn a C or better in each required core course. Students who receive a D or F in these classes may repeat them in accordance with university policy.

Required Internship

Internships are required for all sociology majors. You must have 60 earned credits before beginning an internship.

To make the process easier for all students, we have three internship categories: criminology; disabilities; and inequality/social justice. Each internship category has three internship placements. Thus, students will select from one of nine available internships. Students with special interests may arrange to intern at a different site with permission from the Department Internship Coordinator.

Sociology Electives - 18 crs.

- Select any 6 Sociology courses. This may include one additional 3-credit internship in sociology, which is highly recommended.

Free Electives

Free electives are to be taken in appropriate fields with advisement. They may be utilized to pursue various special interest areas in sociology (see below) or to develop the equivalent of a minor or a second concentration. Language or research tools may be alternative recommendations.

Sociology courses may be grouped into special interest areas to give students more depth in a particular subfield of sociology. Courses taken as part of the general education and allied fields requirements may also reinforce particular interest groupings within sociology. Possible special interest areas and examples of supporting courses follow:

Cross Cultural Anthropology

- ANTH 111 - Cultural Anthropology Credits: 3
- ANTH 211 - Comparative Cultures Credits: 3

Archaeology

- ANTH 205 - Introduction to Archaeology Credits: 3
- ANTH 330 - Ancient Americans Credits: 3
- ANTH 360 - Aztec and Maya Archaeology Credits: 3

Culture and Social Change

- SOCI 370 - Sociology of Music Credits: 3
- SOCI 375 - Popular Culture Credits: 3
- SOCI 258 - Gender, Culture, and Power Credits: 3
- SOCI 354 - Social Movements and Social Change Credits: 3

Family and Marriage

- SOCI 363 - Growth and Change of Human Populations Credits: 3
- SOCI 257 - Family in Modern Society Credits: 3

Social Problems

- SOCI 244 - Criminology Credits: 3
- SOCI 245 - Juvenile Delinquency Credits: 3
- SOCI 363 - Growth and Change of Human Populations Credits: 3

Gerontology

- SOCI 371 - Sociology of Aging Credits: 3
- SOCI 320 - Sociology of Disability Credits: 3
- SOCI 369 - Medical Sociology Credits: 3

Human Relations

- SOCI 243 - Race in America Credits: 3
- SOCI 258 - Gender, Culture, and Power Credits: 3

Social Institutions/Organizations

- SOCI 220 - Social Inequality Credits: 3
- SOCI 435 - Gender, Organizations, and Leadership Credits: 3

Note:

Students should refer to the sociology Course Descriptions in the catalog for other courses which may apply to their special interest areas.

General Education

General Education Requirements

- General Education Program (45 crs.)

General Education Requirements Specific for this major

- Quantitative (Q): MATH 117
- Global Perspective (G): ANTH 105 or ANTH 111

Advising Notes:

1. Year I: SOCI 101, MATH 117, ANTH 111
2. Year II: SOCI 201, SOCI 220
3. Year III: SOCI 380, SOCI 385
4. Year IV: SOCI 415
5. A sociology minor is available - 18 cr
6. An anthropology minor is available - 18 cr

Anthropology Minor

18 crs.

The anthropology minor consists of 18 credits, nine of which are required, and nine of which are electives. A minimum of 6 credits must be from 300-level or above courses. Three credits of internship may count toward fulfillment of the requirements of the minor.

Core Courses (9 crs.)

- ANTH 105 - Great Discoveries in Archaeology Credits: 3
- ANTH 111 - Cultural Anthropology Credits: 3
- ANTH 121 - Physical Anthropology Credits: 3

Elective Courses (9 crs.)

- 1 ANTH course at the 200- 300-, or 400-level
- 2 ANTH courses at the 300- or 400-level

Sociology Minor

18 crs.

Required (6 crs.)

- SOCI 101 - Introduction to Sociology: Society and Diversity Credits: 3
- SOCI 380 - Social Theory Credits: 3

Sociology Electives (12 crs.)

SOCI courses selected by advisement.

At least 3 credits must be at 300 level or higher.

Public Health Minor

The minor in Public Health at Shippensburg University prepares undergraduate students for a wide range of career opportunities in the field of public health and beyond. Public Health is the science of promoting health through evidence-based social policy, community organization and support, and informed individual choices. This program emphasizes knowledge and skills related to the social organization of health, drawing upon the social sciences and complimenting this approach by building health expertise across fields. This program allows students to develop skills that can be used in the ever-expanding public health field.

18 crs.

Required (9 crs.)

- PBHL 100 - Introduction to Public Health Credits: 3
- PBHL 205 - Health Policy Credits: 3
- PBHL 301 - Fundamentals of Epidemiology Credits: 3

Electives (9 crs.)

Must take 3 of the following but no more than 2 from the same discipline.

6 credits hours must be at the 300 level or higher.

- BIOL 161 - Principles of Biology: Cell Structure and Function Credits: 4
- BIOL 220 - Microbiology Credits: 4
- BIOL 237 - Human Anatomy & Physiology I Credits: 4
- BIOL 238 - Human Anatomy & Physiology II Credits: 4
- BIOL 260 - Genetics Credits: 4
- COST 342 - Health Communication Credits: 3
- COST 356 - Persuasion Credits: 3
- COST 386 - Crisis Communication Credits: 3

- CRJU 381 - Mental Health in the Criminal Justice System Credits: 3
- DISA 100 - Introduction to Disability Studies Credits: 3
- ECON 317 - Health Economics Credits: 3
- EXER 200 - Health & Wellness Credits: 3
- EXER 207 - Stress Management Credits: 3
- EXER 260 - Principles of Nutrition Credits: 3
- EXER 278 - Medical Terminology Credits: 3
- EXER 352 - Psychology of Physical Activity Credits: 3
- EXER 452 - Psychology of Injury & Rehabilitation Credits: 3
- GERT 100 - Introduction to Gerontology Credits: 3
- POLI 251 - Introduction to Comparative Politics Credits: 3
- POLI 271 - Introduction to Public Administration Credits: 3
- POLI 302 - Public Policy Analysis Credits: 3
- PSYC 250 - Psychology of Life Span Development Credits: 3
- SOCI 220 - Social Inequality Credits: 3
- SOCI 346 - City and Community Credits: 3
- SOCI 365 - Globalization and Health Credits: 3
- SOCI 369 - Medical Sociology Credits: 3
- SOCI 371 - Sociology of Aging Credits: 3
- SOCI 380 - Social Theory Credits: 3
- SOWK 102 - Social Work in Social Welfare Credits: 3
- SOWK 250 - Assessing Individuals in the Social Environment Credits: 3
- SOWK 265 - Understanding Human Diversity for Social Justice Credits: 3

Bachelor Degree with accelerated 4+1 M.S. in Organizational Development and Leadership

This is an accelerated program open to any Shippensburg University student pursuing a bachelor's degree with undergraduate requirements including free electives that align with Organizational Development and Leadership course offerings.

Students can choose to pursue the 4 + 1 bachelor degree/M.S. program any time prior to the start of their senior year at the university (two semesters before graduation/ 75 credits completed). For students on a four-year track, they would start the program during the fall of their senior year. All students seeking to enroll in the program must be admitted to the graduate program and have at least a 3.0 grade point average at the time they would begin the accelerated program.

Students will complete one 400-level or 500-level graduate course (recommended by the ODL director) during each of their last two undergraduate semesters. Those courses will be double-counted towards both the bachelors degree and M.S. degree upon successful completion of graduate coursework. Students will then complete two additional semesters of full-time graduate work (9 graduate credits per semester), and a six-credit graduate internship and capstone experience the following summer to complete both degrees.

Technical/Professional Communications Program

Students completing the Technical/Professional Communications Minor will possess a well-rounded education that will help them become lifelong learners, adaptable to and conversant with changing workplace dynamics.

The minor's flexible interdisciplinary design provides students with a combination of the intellectual capabilities and highly marketable professional skills they need to embark on a successful career. Courses offered include two core

courses, in technical writing and computer systems, and a variety of additional courses ranging from computer design to advertising copy writing, from advanced technical writing to web design.

Students completing the Technical/Professional Communications Minor will possess up-to-date knowledge and skills that, combined with their major, can lead to careers as a business analyst, editor, market researcher, technical reporter, web developer, media specialist, ad writer/designer, and publications manager. In addition, these skills are often sought as a technical component in many professional positions that are not primarily technical: grant writer, researcher, and marketing manager, among many others.

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18 crs.

Required (6 crs.)

Students must complete 6 credit hours by taking two of the following core courses, one in writing and one in computer systems:

- ENGL 238 - Technical/Professional Writing Credits: 3

- CMSC 103 - Overview of Computer Science Credits: 3
  OR
- CMSC 110 - Computer Science I Credits: 4
  OR
- ITAN 142 - Business Computer Systems Credits: 3

Note:

CMSC 110 for Computer Science Majors Only

Electives (12 crs.)

The remaining 12 credits may be completed by taking any of the following courses (no more than two courses per department can count for minor credit). 6 of the 12 credits must be at the 300- or 400-level.

- ART 217 - Computer Design I Credits: 3

- ART 306 - Computer Design II Credits: 3
- ART 319 - Computer Design III Credits: 3
- ART 425 - Computer Design IV Credits: 3
- ART 430 - Computer Design V Credits: 3
- ART 435 - Computer Design VI Credits: 3
- COMM 112 - Media Writing Credits: 3
- COMM 224 - Media Scriptwriting Credits: 3
- COMM 285 - Basic News Reporting Credits: 3
- COMM 290 - Advertising Copywriting Credits: 3
- COMM 425 - Feature Writing Credits: 3
- ENGL 323 - Reviewing the Arts for Publication Credits: 3
- ENGL 438 - Advanced Technical/Professional Writing Credits: 3
- COST 260 - Computer-Mediated Communication Credits: 3
- COST 350 - Theories of Organizational Communication Credits: 3
- MGMT 305 - Organizational Behavior Credits: 3
- PHIL 240 - Ethical Issues and the Media Credits: 3

Note:

ART 217 is a pre-requisite to any other courses listed in that department.

Women's and Gender Studies Program

Women's and Gender Studies offers an interdisciplinary program that examines the diverse experiences of women in the U.S. and globally, both past and present. Many courses in the program also critically examine the meanings of gender as a culturally constructed category of identity. The core courses and wide range of electives explore the intersections of gender, race, class, ethnicity, and sexuality, as well as the social and cultural institutions that shape women's and men's lives. Courses in WST investigate previously neglected materials, and apply new methodological, critical, and theoretical approaches in order to analyze and explain the role and status of women in society, and the impact of gendered practices within societies and cultures.

Our undergraduate WST minor is designed to provide you with basic groundwork in the field of Women's and Gender Studies; you will gain a combination of skills that can be used in diverse fields and across disciplines. You will gain an increased understanding of human diversity, especially gender diversity, that will help prepare you for our continuously changing global society. Through required coursework, research, electives in your own area of interest, internships, extracurricular activities, and leadership and service opportunities, you will gain knowledge and experience that will complement and enhance your major field of study.

Students with multicultural Women's and Gender Studies experience will have an advantage as potential employees, since employers will increasingly seek applicants with knowledge of both gender issues and cultural diversity. The Women's and Gender Studies minor will help prepare you to work with a wide variety of people and anticipate their changing needs. Graduates of the Women's and Gender Studies minor find opportunities in business administration and management, advertising, health fields, education, journalism, criminology, social work, counseling, psychology, politics, law, and international affairs.

Women's and Gender Studies Certificate

Students can earn a Certificate in Women's and Gender Studies by completing the two core courses (WMST 100 and WMST 300) and two of the approved electives, which must come from two different disciplines. One course may be

double-counted toward the student's major and the WMST Certificate. Verification of the WMST Certificate will appear on the student's transcript. Three courses must be taken at Shippensburg University.

Women's and Gender Studies Minor

Women's and Gender Studies offers an interdisciplinary program that examines the diverse experiences of women in the U.S. and globally, both past and present. Many courses in the program also critically examine the meanings of gender as a culturally constructed category of identity. The core courses and wide range of electives explore the intersections of gender, race, class, ethnicity, and sexuality, as well as the social and cultural institutions that shape women's and men's lives. Courses in WST investigate previously neglected materials, and apply new methodological, critical, and theoretical approaches in order to analyze and explain the role and status of women in society, and the impact of gendered practices within societies and cultures.

Our undergraduate WST minor is designed to provide you with basic groundwork in the field of Women's and Gender Studies; you will gain a combination of skills that can be used in diverse fields and across disciplines. You will gain an increased understanding of human diversity, especially gender diversity, that will help prepare you for our continuously changing global society. Through required coursework, research, electives in your own area of interest, internships, extracurricular activities, and leadership and service opportunities, you will gain knowledge and experience that will complement and enhance your major field of study.

Students with multicultural Women's and Gender Studies experience will have an advantage as potential employees, since employers will increasingly seek applicants with knowledge of both gender issues and cultural diversity. The Women's and Gender Studies minor will help prepare you to work with a wide variety of people and anticipate their changing needs. Graduates of the Women's and Gender Studies minor find opportunities in business administration and management, advertising, health fields, education, journalism, criminology, social work, counseling, psychology, politics, law, and international affairs.

18 crs.

Core Requirements (6 crs.)

- WMST 100 - Introduction to Women's and Gender Studies Credits: 3
- WMST 300 - Seminar in Women's and Gender Studies Credits: 3

Approved Electives (12 crs.)

- COMM 245 - Diversity and the Media Credits: 3
- COMM 410 - Women and the Media Credits: 3
- CRJU 326 - Victimology: The Victim and the Law Credits: 3
- CRJU 363 - Intimate Partner Violence Credits: 3
- ECON 303 - Labor Economics: Theory and Policy Credits: 3
- ENGL 345 - Women's Literature Credits: 3
- ENGL 370 - Studies in Queer Literature Credits: 3
- COST 335 - Popular Culture and Gender Construction Credits: 3
- COST 340 - Gender and Communication Credits: 3
- COST 410 - Feminist Perspectives on Communication Theory and Research Methods Credits: 3
- HIST 318 - History of U.S. Women Credits: 3
- HIST 407 - Women in Comparative Perspective Credits: 3
- MATH 400 - History of Mathematics Credits: 3

- POLI 324 - Women in American Politics Credits: 3
- PSYC 410 - Psychology and Women (Effective Spring 2020: Psychology of Women and Gender) Credits: 3
- SOCI 257 - Family in Modern Society Credits: 3
- SOCI 258 - Gender, Culture, and Power Credits: 3
- SOCI 320 - Sociology of Disability Credits: 3
- SOCI 435 - Gender, Organizations, and Leadership Credits: 3
- SOWK 265 - Understanding Human Diversity for Social Justice Credits: 3
- SOWK 359 - Social Work Elective: Violence in Interpersonal Relationships Credits: 3
- SOWK 420 - Gender Issues for Helping Professionals Credits: 3
- WMST 200 - Independent Study in Women's and Gender Studies Credits: 3
- WMST 390 - Internship in Women's and Gender Studies Credits: 3-6

Note:

To complete the Women's and Gender Studies minor, students will take the two core courses (WMST 100 and WMST 300) and four of the approved electives. These four electives must come from at least two different disciplines. Two courses may be double-counted toward the student's major and the Women's and Gender Studies minor. Two elective courses must be at the 300 or 400 level. Five courses must be taken at Shippensburg University.

Additional electives and special topics courses continue to be developed by affiliated Women's and Gender Studies faculty.

School of Engineering

The School of Engineering operates under the College of Arts & Sciences and offers an undergraduate program leading to a Bachelor of Science degree in computer science, Bachelor of Science degree in civil engineering, Bachelor of Science degree in computer engineering, Bachelor of Science degree in electric engineering, Bachelor of Science degree in mechanical engineering, and a Bachelor of Science degree in software engineering.

Languages

At Shippensburg University, the study of computer science, computer engineering, and software engineering as intellectual disciplines does not occur in a vacuum. Rather, study is oriented toward practical applications of computer science theory and methodology. As a result, the department feels part of its responsibility is to assist students in the concrete task of learning programming languages suitable for a variety of tasks.

Our introductory courses develop mastery in both Java and C so that our students are well-versed in both object-oriented and structured design. These languages are used in many courses throughout the remainder of the curriculum. In addition, all students will gain some knowledge of a variety of other languages (e.g., SQL in Database Management Systems).

Computer Science and Engineering Career Opportunities

Career opportunities in hardware and software development as a programmer, engineer or systems analyst have been and are predicted to be very favorable. The work environment and income potential are highly attractive. Opportunities exist among all employers, especially business and industry, government, science, and education.

Internships and co-ops are available for students to gain practical experience, and students are highly encouraged to participate in them.

Civil Engineering, B.S.

Credit Requirements*

- **General Education:** 46 credits
- **Major Requirements**: 82 credits
- **Free Electives:** 0 credits
- *Total Credits to Graduate:* **128 credits**

* All undergraduate degree programs require a minimum of 120 credits. Some courses meet multiple requirements, but are only counted once toward the 120 credit total required to graduate.

Engineering Core Requirements (6 crs.)

- ENGR 100 - Engineering Seminar I Credits: 1
- ENGR 120 - Programming for Engineers Credits: 3
- ENGR 200 - Engineering Seminar II Credits: 1
- ENGR 300 - Engineering Seminar III Credits: 1

Mathematics Requirements (15 crs)

- MATH 212 - Calculus II Credits: 4
- MATH 213 - Calculus III Credits: 4
- MATH 322 - Differential Equations Credits: 3
- MATH 375 - Probability and Statistics for Engineers Credits: 4

Physical Science Requirements (6 crs)

- PHYS 124 - Physics Ib Laboratory Credits: 1
- PHYS 206 - Intermediate Physics II Credits: 3
- PHYS 126 - Physics IIb Laboratory Credits: 1
- CHEM 125 - Laboratory IB-Stoichiometry and Reactions Credits: 1

Civil & Mechanical Engineering Requirements (43 crs.)

- MCAE 200 - Statics Credits: 3
- MCAE 210 - Dynamics Credits: 4
- MCAE 220 - Fluids Credits: 4
- MCAE 230 - Mechanics of Materials Credits: 4
- CIVE 110 - Introduction to Surveying Credits: 3
- CIVE 300 - Structural Analysis Credits: 3
- CIVE 320 - Construction Methods and Materials Credits: 3
- CIVE 330 - Environmental Engineering Credits: 3
- CIVE 340 - Reinforced Concrete Structures Credits: 3
- CIVE 350 - Soil Mechanics Credits: 4
- CIVE 420 - Transportation Engineering Credits: 3

- CIVE 499 - Civil Engineering Capstone Credits: 3
- Technical Elective CIVE 300 or 400 level course or Internship

Civil Engineering - No Concentration Requirements (12 crs.)

- CIVE 310 - Design of Steel Structures Credits: 3
- CIVE 400 - Construction Project Management Credits: 3
- CIVE 410 - Foundation Engineering Credits: 3
- CIVE 460 - Highway Engineering and Design Credits: 3

General Education

General Education Requirements

- General Education Program (45 crs.)

General Education Requirements Specific for this major

- Quantitative (Q): MATH 211
- Global Perspectives (G): ECON 101
- Critical Reasoning (R): ENGR 110
- Natural World (N): ESSC 110
- Natural World (N): CHEM 121
- Natural World (N): PHYS 205
- Creative (C): MCAE 100

Advising Notes:

1. Semester I: MATH 211, PHYS 205/124, ENGR 100, ENGR 110
2. Semester II: MATH 212, PHYS 206/126, ENGR 120

Civil Engineering, Environmental Engineering Concentration, B.S.

Credit Requirements*

- **General Education:** 46 credits
- **Major Requirements**: 82 credits
- **Free Electives:** 0 credits
- *Total Credits to Graduate:* **128 credits**

* All undergraduate degree programs require a minimum of 120 credits. Some courses meet multiple requirements, but are only counted once toward the 120 credit total required to graduate.

Engineering Core (6 crs.)

- ENGR 100 - Engineering Seminar I Credits: 1

- ENGR 120 - Programming for Engineers Credits: 3
- ENGR 200 - Engineering Seminar II Credits: 1
- ENGR 300 - Engineering Seminar III Credits: 1

Math Requirements (15 crs.)

- MATH 212 - Calculus II Credits: 4
- MATH 213 - Calculus III Credits: 4
- MATH 322 - Differential Equations Credits: 3
- MATH 375 - Probability and Statistics for Engineers Credits: 4

Physical Science Requirements (6 crs)

- PHYS 124 - Physics Ib Laboratory Credits: 1
- PHYS 126 - Physics IIb Laboratory Credits: 1
- PHYS 206 - Intermediate Physics II Credits: 3
- CHEM 125 - Laboratory IB-Stoichiometry and Reactions Credits: 1

Civil & Mechanical Engineering Requirements (43 crs.)

- MCAE 200 - Statics Credits: 3
- MCAE 210 - Dynamics Credits: 4
- MCAE 220 - Fluids Credits: 4
- MCAE 230 - Mechanics of Materials Credits: 4
- CIVE 110 - Introduction to Surveying Credits: 3
- CIVE 300 - Structural Analysis Credits: 3
- CIVE 320 - Construction Methods and Materials Credits: 3
- CIVE 330 - Environmental Engineering Credits: 3
- CIVE 340 - Reinforced Concrete Structures Credits: 3
- CIVE 350 - Soil Mechanics Credits: 4
- CIVE 420 - Transportation Engineering Credits: 3
- CIVE 499 - Civil Engineering Capstone Credits: 3
- Civil Engineering, Geography, or Earth Science Elective (3 crs.)

Environmental Engineering Concentration Requirements (12 crs.)

- CIVE 331 - Hydraulic Engineering Credits: 3
- CIVE 436 - Engineering Hydrology Credits: 3
- CIVE 440 - Water and Wastewater Treatment Credits: 3
- CIVE 450 - Waste Management Credits: 3

General Education

General Education Requirements

- General Education Program (45 crs.)

General Education Requirements Specific for this major

- Quantitative (Q): MATH 211
- Global Perspectives (G): ECON 101
- Critical Reasoning (R): ENGR 110
- Natural World (N): ESSC 110
- Natural World (N): CHEM 121
- Natural World (N): PHYS 205
- Creative (C): MCAE 100

Advising Notes:

1. Semester I: ENGR 110, ENGR 110 Engineering Seminar, MATH 211, PHYS 205, PHY 123
2. Semester II: ENGR 210, MATH 212, PHYS 206, PHYS 125

Computer Engineering, B.S.

Computer Engineering is a branch of engineering that combines software and electrical engineering to develop computer systems. Computer engineers are involved in the hardware development process, designing and building hardware systems; and they are involved in the software process, designing and building the operating systems and applications programs for those systems. These skills are vital for today's pervasive computing environment, where we are surrounded by systems built from discrete components, microcontrollers, embedded Systems-On-a-Chip, and reconfigurable logic devices.

Credit Requirements*

- **General Education:** 47 credits
- **Major Requirements**: 73 credits
- **Free Electives:** 0 credits
- *Total Credits to Graduate:* **120 credits**

* All undergraduate degree programs require a minimum of 120 credits. Some courses meet multiple requirements, but are only counted once toward the 120 credit total required to graduate.

Engineering Core (13 Crs)

- ENGR 100 - Engineering Seminar I Credits: 1
- ENGR 110 - Modeling and Simulation Credits: 3
- ENGR 200 - Engineering Seminar II Credits: 1
- ENGR 300 - Engineering Seminar III Credits: 1
- ENGR 310 - Statistical Process Control Credits: 3
- MATH 375 - Probability and Statistics for Engineers Credits: 4

Physics (5 crs.)

- PHYS 124 - Physics Ib Laboratory Credits: 1

- PHYS 126 - Physics IIb Laboratory Credits: 1
- PHYS 206 - Intermediate Physics II Credits: 3

Mathematics (10-11 crs.)

- MATH 212 - Calculus II Credits: 4
- MATH 322 - Differential Equations Credits: 3

Math Elective - choose one of the following:

- MATH 213 - Calculus III Credits: 4
- MATH 219 - Data Science I Credits: 3
- MATH 318 - Elementary Linear Algebra Credits: 3
- MATH 326 - Mathematical Modeling Credits: 3
- MATH 410 - Numerical Analysis Credits: 3
- MATH 421 - Number Theory and Cryptography Credits: 3

Computer Engineering Core (42 crs.)

- CMPE 220 - Computer Organization Credits: 4
- CMPE 240 - Digital Logic Design Credits: 4
- CMPE 320 - Operating Systems Credits: 4
- CMPE 322 - Microcontrollers & Interfaces Credits: 4
- CMPE 330 - Advanced Computer Architecture Credits: 3
- CMPE 412 - Networks and Computer Security Credits: 4
- CMPE 420 - Digital and Reconfigurable Computing Credits: 4
- CMPE 499 - Engineering Design & Development Credits: 2
- ELEN 220 - Linear Circuit Analysis Credits: 4
- ELEN 300 - Foundations of Electronic Systems Credits: 4
- SWEN 101 - Introduction to Java Credits: 1
- SWEN 300 - Crafting Quality Code Credits: 4

Engineering Electives (3 crs.)

- 3 credits of CMPE, ELEN, ENGR, or SWEN courses at 300 level or higher

General Education

General Education Requirements

- General Education Program (45 crs.)

General Education Requirements Specific for this major

- Quantitative (Q): MATH 211
- Critical Reasoning (R): MATH 225
- Natural World (N): PHYS 205

- Technology (T): ENGR 120
- Creative (C): MCAE 100

Advising Notes:

1. Semester I: ENGR 110, ENGR 110 (Engineering Seminar 1), MATH 211, PHYS 205, PHYS 123
2. Semester II: ENGR 210, MATH 212, PHYS 206, PHYS 125

Computer Science, Computer Science Applications Concentration, B.S.

The computer science program is designed to enable the student to gain knowledge of computer science and to apply this knowledge to an application area. Students will be proficient in developing computer software to solve problems in a number of contexts.

The computer science B.S. degree program and its concentrations are accredited by the Computing Accreditation Commission of ABET, http://www.abet.org, meaning our program meets nationally determined standards.

In addition to the core courses, students must complete the requirements of a concentration. Students may choose from pre-approved concentrations or seek department approval for a concentration of their own design. The decision to pursue a concentration is typically made during the sophomore year.

The Computer Science Applications concentration for a broad background in computer science. This represents a general computer science degree with no specific area of concentration.

Credit Requirements*

- **General Education:** 47-49 credits
- **Major Requirements**: 57-66 credits
- **Free Electives:** 7-14 credits
- *Total Credits to Graduate:* **120 credits**

* All undergraduate degree programs require a minimum of 120 credits. Some courses meet multiple requirements, but are only counted once toward the 120 credit total required to graduate.

Core Requirements (43-51 crs.)

Mathematics (7 crs.)

- MATH 318 - Elementary Linear Algebra Credits: 3

- MATH 217 - Statistics I Credits: 4
  OR
- MATH 375 - Probability and Statistics for Engineers Credits: 4

Science (Choose any Two) (7-8 Crs.)

Note: BIOL 161 , BIOL 162 , CHEM 121 , ESSC 110 , and PHYS 205 are options to fulfill General Education requirements.
Note: The following lectures should be paired with their accompanying lab CHEM 121 /125, CHEM 122/126, PHYS 205 /124 and PHYS 206/126.

- BIOL 161 - Principles of Biology: Cell Structure and Function Credits: 4
- BIOL 162 - Principles of Biology: Organismal Diversity Credits: 4
- ESSC 110 - Introduction to Geology Credits: 3

- CHEM 121 - Chemical Bonding Credits: 3
  AND
- CHEM 125 - Laboratory IB-Stoichiometry and Reactions Credits: 1

- CHEM 122 - Chemical Dynamics Credits: 3
  AND
- CHEM 126 - Laboratory IIB-Equilibrium and Instrumentation Credits: 1

- PHYS 205 - Intermediate Physics I Credits: 3
  AND
- PHYS 124 - Physics Ib Laboratory Credits: 1

- PHYS 206 - Intermediate Physics II Credits: 3
  AND
- PHYS 126 - Physics IIb Laboratory Credits: 1

Computer Science (36 crs.)

- CMSC 110 - Computer Science I Credits: 4
- CMSC 111 - Computer Science II Credits: 4
- SWEN 200 - Design Patterns Credits: 4
- CMPE 220 - Computer Organization Credits: 4
- CMSC 310 - Design and Analysis of Algorithms Credits: 4
- CMPE 320 - Operating Systems Credits: 4
- CMSC 410 - Theoretical Foundations of Computer Science Credits: 3
- CMSC 471 - Database Management Systems Credits: 3
- CMSC 498 - Senior Research Methods Credits: 3
- CMSC 499 - Senior Research and Development Credits: 3

Concentrations

In addition to the core courses, students must complete the requirements of a concentration. Students may choose from pre-approved concentrations or seek department approval for a concentration of their own design. The decision to pursue a concentration is typically made during the sophomore year. Students desiring a broad background in computer science should select the *Computer Science Application Concentration*.

The pre-approved concentrations include:

- *Computer Science Application Concentration, allows a student to focus on a specific area of study within computer science or a broad area of topics within computer science.*

- *Computer Science with Secondary Field, for those students who would like to combine computer science with another discipline such as business, science, etc.*

The pre-approved certificates include:

- *Artificial Intelligence, for the development of software for intelligent agents;*
- *Computer Graphics and Gaming, for the development of graphics-intensive software;*

Computer Science Applications Concentration (14-15 crs.)

Upper division courses that range from 14-15 total credit hours depending on which courses are selected.

Computer Science Electives:

- CMSC 300+ CSC Elective 1 (4 crs.)
- CMSC 300+ CSC Elective 2 (4 crs.)

School of Engineering Elective:

- CMSC/SWEN/CMPE/ELEN 300+ Electives

Interdisciplinary Elective (Choose One)

- ECON 333 - Research and Analysis in Economics Credits: 3
- ENGL 308 - Fiction Writing Credits: 3
- ENGL 335 - Creative Nonfiction Writing Credits: 3
- GEOG 202 - GIS I: Introduction to Geographic Information Systems Credits: 3
- GEOG 339 - Remote Sensing Credits: 3
- ITAN 344 - Business Systems Analysis and Design Credits: 3
- ITAN 399 - Information Security Credits: 3
- MATH 219 - Data Science I Credits: 3
- MATH 326 - Mathematical Modeling Credits: 3
- PSYC 325 - Psychology of Human Cognition Credits: 3

General Education

General Education Requirements

- General Education Program (45 crs.)

General Education Requirements Specific for this major

- Quantitative (Q): MATH 211
- Critical Reasoning (R): MATH 225
- Ethical Reasoning (E): PHIL 105
- Natural World (N): 2 Courses in BIOL 161, BIOL 162, CHEM 121, ESSC 110 OR PHYS 205
-

Course Sequencing

A typical first year sequence for all computer science majors is given below:

Semester I

- CMSC 110 - Computer Science I Credits: 4
- MATH 211 - Calculus I Credits: 4 *
- Two general education courses Credits: 6

Semester II

- CMSC 111 - Computer Science II Credits: 4
- MATH 225 - Discrete Mathematics Credits: 4
- Two general education courses Credits: 6

Note:

*Students unable to begin with MATH 211 - Calculus I may be required to take MATH 175 - Precalculus Credits: 3.

Students who wish to design a personalized concentration may do so with the help of their advisor. The advisor will then submit the request to the department for approval. The student's course of study must be approved by the department in writing.

The department maintains a suggested sequence for scheduling the courses required in the core and by the various pre-approved concentrations. To ensure graduating in four years, each student should take the courses in the semesters indicated on the departmental list. The list will be available to students during scheduling.

Advising Notes:

1. Semester I: CMSC 110; MATH 211
2. Semester II: CMSC 111; MATH 225
3. Semester III: SWEN 200; CMPE 220; BIOL 161, CHEM 121/123, ESSC 110, or PHYS 205/123
4. Semester IV CMSC 310; CMPE 320; BIOL 162, CHEM 122/124, ESSC 110 or PHYS 206/125
5. A computer science minor is available - 20-21 cr

Computer Science, Computer Science with Secondary Field Concentration, B.S.

The computer science program is designed to enable the student to gain knowledge of computer science and to apply this knowledge to an application area. Students will be proficient in developing computer software to solve problems in a number of contexts.

The computer science B.S. degree program and its concentrations are accredited by the Computing Accreditation Commission of ABET, *http://www.abet.org*, meaning our program meets nationally determined standards.

In addition to the core courses, students must complete the requirements of a concentration. Students may choose from pre-approved concentrations or seek department approval for a concentration of their own design. The decision to pursue a concentration is typically made during the sophomore year.

The Computer Science with Secondary Field Concentration is for those students who would like to combine computer science with another discipline such as business, German, biology, etc. The student is expected to complete a major or minor (usually a minor) in another discipline as well as their courses for the computer science major.

Credit Requirements*

- **General Education:** 47-49 credits
- **Major Requirements**: 49-59 credits
- **Free Electives:** 14-22 credits
- *Total Credits to Graduate:* **120 credits**

* All undergraduate degree programs require a minimum of 120 credits. Some courses meet multiple requirements, but are only counted once toward the 120 credit total required to graduate.

Core Requirements (43-51 crs.)

Mathematics (7 crs.)

- MATH 318 - Elementary Linear Algebra Credits: 3

- MATH 217 - Statistics I Credits: 4
  OR
- MATH 375 - Probability and Statistics for Engineers Credits: 4

Science (Choose any Two) (7-8 Crs.)

Note: BIOL 161 , BIOL 162 , CHEM 121 , ESSC 110 , and PHYS 205 are options to fulfill General Education requirements.
Note: The following lectures should be paired with their accompanying lab CHEM 121 /125, CHEM 122/126, PHYS 205 /124 and PHYS 206/126.

- BIOL 161 - Principles of Biology: Cell Structure and Function Credits: 4
- BIOL 162 - Principles of Biology: Organismal Diversity Credits: 4
- ESSC 110 - Introduction to Geology Credits: 3

- CHEM 121 - Chemical Bonding Credits: 3
  AND
- CHEM 125 - Laboratory IB-Stoichiometry and Reactions Credits: 1

- CHEM 122 - Chemical Dynamics Credits: 3
  AND
- CHEM 126 - Laboratory IIB-Equilibrium and Instrumentation Credits: 1

- PHYS 205 - Intermediate Physics I Credits: 3
  AND
- PHYS 124 - Physics Ib Laboratory Credits: 1

- PHYS 206 - Intermediate Physics II Credits: 3
  AND

- PHYS 126 - Physics IIb Laboratory Credits: 1

Computer Science (36 crs.)

- CMSC 110 - Computer Science I Credits: 4
- CMSC 111 - Computer Science II Credits: 4
- SWEN 200 - Design Patterns Credits: 4
- CMPE 220 - Computer Organization Credits: 4
- CMSC 310 - Design and Analysis of Algorithms Credits: 4
- CMPE 320 - Operating Systems Credits: 4
- CMSC 410 - Theoretical Foundations of Computer Science Credits: 3
- CMSC 471 - Database Management Systems Credits: 3
- CMSC 498 - Senior Research Methods Credits: 3
- CMSC 499 - Senior Research and Development Credits: 3

Concentrations

In addition to the core courses, students must complete the requirements of a concentration. Students may choose from pre-approved concentrations or seek department approval for a concentration of their own design. The decision to pursue a concentration is typically made during the sophomore year. Students desiring a broad background in computer science should select the *Computer Science Application Concentration*.

The pre-approved concentrations include:

- *Computer Science Application Concentration, allows a student to focus on a specific area of study within computer science or a broad area of topics within computer science.*
- *Computer Science with Secondary Field, for those students who would like to combine computer science with another discipline such as business, science, etc.*

The pre-approved certificates include:

- *Artificial Intelligence, for the development of software for intelligent agents;*
- *Computer Graphics and Gaming, for the development of graphics-intensive software;*

Secondary Field Concentration* (6-4 crs.)+

- **Computer Science Electives:**
  - CMSC 300+ Elective
- **School of Engineering Elective:**
  - CMSC/SWEN/CMPE/ELEN 300+ Electives
- Major/Minor in other discipline
- *None of the CMSC/SWEN/CMPE/ELEN 300+ electives can overlap with your other major/minor

General Education

General Education Requirements

- General Education Program (45 crs.)

General Education Requirements Specific for this major

- Quantitative (Q): MATH 211
- Critical Reasoning (R): MATH 225
- Ethical Reasoning (E): PHIL 105
- Natural World (N): 2 Courses in BIOL 161, BIOL 162, CHEM 121, ESSC 110 OR PHYS 205
-

Course Sequencing

A typical first year sequence for all computer science majors is given below:

Semester I

- CMSC 110 - Computer Science I Credits: 4
- MATH 211 - Calculus I Credits: 4 *
- Two general education courses Credits: 6

Semester II

- CMSC 111 - Computer Science II Credits: 4
- MATH 225 - Discrete Mathematics Credits: 4
- Two general education courses Credits: 6

Note:

*Students unable to begin with MATH 211 - Calculus I may be required to take MATH 175 - Precalculus Credits: 3.

Students who wish to design a personalized concentration may do so with the help of their advisor. The advisor will then submit the request to the department for approval. The student's course of study must be approved by the department in writing.

The department maintains a suggested sequence for scheduling the courses required in the core and by the various pre-approved concentrations. To ensure graduating in four years, each student should take the courses in the semesters indicated on the departmental list. The list will be available to students during scheduling.

Advising Notes:

1. Semester I: CMSC 110; MATH 211
2. Semester II: CMSC 111; MATH 225
3. Semester III: SWEN 200; CMPE 220; BIOL 161, CHEM 121/123, ESSC 110, or PHYS 205/123
4. Semester IV CMSC 310; CMPE 320; BIOL 162, CHEM 122/124, ESSC 110 or PHYS 206/125
5. A computer science minor is available - 20-21 cr

Electrical Engineering, B.S.

The Bachelor of Science in Electrical Engineering (EE) program provides a balance between theory and practice, and is designed to meet national accreditation requirements. Ship's EE program prepares students for careers in a broad array of electrical engineering fields including:

- Semiconductor and circuit design
- Mixed-signal embedded systems
- Industrial controls
- Communications system engineering

Students will learn about the impact of engineering solutions in a global, economic, environmental, and social context. Graduates will have an ability to use techniques, skills, and modern engineering tools necessary for engineering practice, and will engage in life-long learning to continue developing their skills and knowledge of the practice.

Credit Requirements*

- **General Education:** 47 credits
- **Major Requirements**: 74 credits
- **Free Electives:** 0 credits
- *Total Credits to Graduate:* **121 credits**

* All undergraduate degree programs require a minimum of 120 credits. Some courses meet multiple requirements, but are only counted once toward the 120 credit total required to graduate.

Degree Requirements

Engineering Core (16 Credits)

- ENGR 100 - Engineering Seminar I Credits: 1
- ENGR 200 - Engineering Seminar II Credits: 1
- ENGR 300 - Engineering Seminar III Credits: 1
- ENGR 110 - Modeling and Simulation Credits: 3
- ENGR 120 - Programming for Engineers Credits: 3
- ENGR 310 - Statistical Process Control Credits: 3
- MATH 375 - Probability and Statistics for Engineers Credits: 4

Math Cognate Courses (11 crs.)

- MATH 212 - Calculus II Credits: 4
- MATH 213 - Calculus III Credits: 4
- MATH 322 - Differential Equations Credits: 3

Physics Courses (13 crs.)

- PHYS 123 - Physics Ia Laboratory Credits: 1
- PHYS 125 - Physics IIa Laboratory Credits: 1
  and
- PHYS 206 - Intermediate Physics II Credits: 3

- PHYS 311 - Quantum I Credits: 4

- PHYS 321 - Electricity and Magnetism I Credits: 4

Computer Engineering Courses (14 crs.)

- CMPE 220 - Computer Organization Credits: 4
- CMPE 322 - Microcontrollers & Interfaces Credits: 4
- CMPE 420 - Digital and Reconfigurable Computing Credits: 4
- CMPE 499 - Engineering Design & Development Credits: 2

Electrical Engineering Courses (16 crs.)

- ELEN 310 - Signals and Systems Credits: 4
- ELEN 220 - Linear Circuit Analysis Credits: 4
- ELEN 300 - Foundations of Electronic Systems Credits: 4
- ELEN 360 - Communications Systems Credits: 4

Electives (4 crs.)

- 4 credits of 300-level or above from ENGR, CMPE, ELEN, SWEN, or MCAE with permission

General Education

General Education Requirements

- General Education Program (45 crs.)

General Education Requirements Specific for this major

- Quantitative (Q): MATH 211
- Critical Reasoning (R): MATH 225
- Natural World (N): PHYS 205

Advising Notes:

1. Semester I: ENGR 110, ELEN 100 Engineering Seminar I, MATH 211, PHYS 123, PHYS 205
2. Semester I: ENGR 210, MATH 212, PHYS 125, PHYS 206

Software Engineering, B.S.

Software engineers develop really big software applications. When an application is too big for a few people to build, two things become critical. First, code that works is no longer good enough. Since a lot a people are going to have to work on the software, the quality of the internal design of the software matters. We need good ways to divide the system into pieces so different people can work on it and so that functionality can continue to be added to it. Second, there are specialized tools and team management processes that we use to ensure that the pieces we are building will fit together without losing any functionality. In addition, we need to be able to predict when we will be able to make a quality deliverable to our customer. Students studying software engineering complete a core of computer science

courses and specialized courses in project management, software design patterns, large scale architectures, and team product development

Software engineering graduates are sought by organizations that have rigorous demands on their software. This includes military applications, fault tolerant applications like airplane control systems, and applications that are too large to fit on one machine. Also, large software development organizations employ software engineers to coordinate the activities of many software developers. This means that software engineers can work on anything from PC-based applications to real-time embedded control systems to enterprise-wide systems. Since they are well-versed in computer science techniques, software engineers can work in any software development activity.

Credit Requirements*

- **General Education:** 47 - 48 credits
- **Major Requirements**: 67 credits
- **Free Electives:** 5 - 6 credits
- *Total Credits to Graduate:* **120 credits**

* All undergraduate degree programs require a minimum of 120 credits. Some courses meet multiple requirements, but are only counted once toward the 120 credit total required to graduate.

Engineering (6 crs.)

- ENGR 200 - Engineering Seminar II Credits: 1
- ENGR 300 - Engineering Seminar III Credits: 1
- ENGR 311 - Managing Development Processes Credits: 4

Software Engineering (28 crs.)

- SWEN 100 - Intro to Software Engineering Credits: 4
- SWEN 200 - Design Patterns Credits: 4
- SWEN 300 - Crafting Quality Code Credits: 4
- SWEN 305 - Functional Data Structures Credits: 4
- SWEN 400 - Large Scale Architectures Credits: 4
- SWEN 415 - Interdisciplinary Development Credits: 4
- SWEN 420 - Extreme Programming Credits: 4

Computer Science (7 crs.)

- CMSC 310 - Design and Analysis of Algorithms Credits: 4
- CMSC 471 - Database Management Systems Credits: 3

Computer Engineering (8 crs.)

- CMPE 220 - Computer Organization Credits: 4
- CMPE 320 - Operating Systems Credits: 4

Mathematics (4 crs.)

- MATH 375 - Probability and Statistics for Engineers Credits: 4

Additional Mathematics and Science (10 crs.)

A total of ten credits beyond general education requirements from these courses. (Note: BIOL 161, CHEM 121, and PHYS 205 all count towards General Education requirements)

- BIOL 161 - Principles of Biology: Cell Structure and Function Credits: 4
- BIOL 162 - Principles of Biology: Organismal Diversity Credits: 4
- CHEM 121 - Chemical Bonding Credits: 3
- CHEM 122 - Chemical Dynamics Credits: 3
- CHEM 123 - Laboratory IA-Chemical Systems Credits: 1
- CHEM 124 - Laboratory IIA-Experimental Quantitative Analysis Credits: 3
- MATH 219 - Data Science I Credits: 3
- MATH 317 - Statistics II Credits: 3
- MATH 318 - Elementary Linear Algebra Credits: 3
- MATH 319 - Data Science II Credits: 3
- MATH 320 - Introduction to Abstract Algebra Credits: 3
- MATH 326 - Mathematical Modeling Credits: 3
- MATH 410 - Numerical Analysis Credits: 3
- MATH 421 - Number Theory and Cryptography Credits: 3
- MATH 450 - Combinatorics Credits: 3
- PHYS 124 - Physics Ib Laboratory Credits: 1
- PHYS 126 - Physics IIb Laboratory Credits: 1
- PHYS 205 - Intermediate Physics I Credits: 3
- PHYS 206 - Intermediate Physics II Credits: 3

Electives (4 crs.)

- 4 credits from CMPE 210 , CMPE 230 or 300/400 Level CMSC/CMPE or SWEN Electives

General Education

General Education Requirements

- General Education Program (45 crs.)

General Education Requirements Specific for this major

- Quantitative (Q): MATH 211
- Critical Reasoning (R): MATH 225
- Natural World (N): 2 Classes in BIOL 161 OR CHEM 121 OR PHYS 205
- Technology (T): ENGR 120

Advising Notes:

1. Semester 1: SWEN 100, MATH 211
2. Semester II: ENGR 120, MATH 225

Mechanical Engineering, B.S.

The Bachelor of Science in mechanical engieneering program prepares students for a wide variety of careers including the design and manufacturing of mechanical and, increasingly, electromechanical components and systems. Advances in technology continue to transform mechanical engineering, and we are using this new program as an opportunity to offer a program that prepares students for the modern workforce. The curriculum includes a focus on professional engineering practice, access to the latest Computer Assisted Design (CAD) and Computer Assisted Manufacturing (CAM) tools, with an emphasis on design for manufacturability, materials, modeling, simulation, process control, and rapid prototyping. One important aspect of this program will be a balance between theory and hands-on practice that will prepare students to be effective and practical engineers when they graduate.

Credit Requirements*

- **General Education:** 46 credits
- **Major Requirements**: 78 credits
- **Free Electives:** 0 credits
- *Total Credits to Graduate:* **124 credits**

* All undergraduate degree programs require a minimum of 120 credits. Some courses meet multiple requirements, but are only counted once toward the 120 credit total required to graduate.

Engineering Core (6 crs.)

- ENGR 100 - Engineering Seminar I Credits: 1
- ENGR 200 - Engineering Seminar II Credits: 1
- ENGR 300 - Engineering Seminar III Credits: 1
- ENGR 310 - Statistical Process Control Credits: 3

Mechanical Engineering Requirements (42 crs.)

- CMPE 499 - Engineering Design & Development Credits: 2
- ELEN 220 - Linear Circuit Analysis Credits: 4
- MCAE 200 - Statics Credits: 3
- MCAE 210 - Dynamics Credits: 4
- MCAE 220 - Fluids Credits: 4
- MCAE 230 - Mechanics of Materials Credits: 4
- MCAE 300 - Engineering Materials Credits: 3
- MCAE 310 - Manufacturing Processes Credits: 4
- MCAE 320 - Machine Dynamics Credits: 4
- MCAE 410 - Thermodynamics and Heat Transfer Credits: 4
- MCAE 420 - Machine Design Credits: 3
- MCAE 450 - Thermal System Design Credits: 3

Math Requirements (11 crs.)

- MATH 212 - Calculus II Credits: 4
- MATH 322 - Differential Equations Credits: 3
- MATH 375 - Probability and Statistics for Engineers Credits: 4

Science Requirements (10 crs.)

- CHEM 122 - Chemical Dynamics Credits: 3
- CHEM 125 - Laboratory IB-Stoichiometry and Reactions Credits: 1
- CHEM 126 - Laboratory IIB-Equilibrium and Instrumentation Credits: 1
- PHYS 124 - Physics Ib Laboratory Credits: 1
- PHYS 126 - Physics IIb Laboratory Credits: 1
- PHYS 206 - Intermediate Physics II Credits: 3

Mechanical Elective (3 crs.)

- MCAE course at the 200, 300 or 400 level

Engineering Electives (6 crs.)

- Any two CIVE, CMPE, ELEN, ENGR, or MCAE 200, 300, or 400 level course or MATH 213 or MATH 410

General Education

General Education Requirements

- General Education Program (45 crs.)

General Education Requirements Specific for this major

- Quantitative (Q): MATH 211
- Critical Reasoning (R): ENGR 110
- Natural World (N): PHYS 205
- Natural World (N): CHEM 121
- Technology (T): ENGR 120
- Creative (C): MCAE 100
- Global Perspectives (G): ECON 101

Advising Notes:

1. Semester I: MATH 211, PHYS 205/123 (Physics I lecture and lab), ENGR 100 (Seminar I), ENGR 110
2. Semester II: MATH 212, PHYS 206/125 (Physics II lecture and lab), ENGR 120

Computer Science, Artificial Intelligence Certificate

The study of Artificial Intelligence pulls in a range of different studies: Machine Learning, Large Data Processing, Databases, and Machine Reasoning. This certificate shows students have completed enough course work to develop well thought out applications in this area. This also gives them exposure to working in different development frameworks, different languages, teams skills, and software engineering skills.

Artificial Intelligence Certificate (17 - 18 crs.)

Choose 3 courses:

- MATH 319 - Data Science II Credits: 3
- CMSC 571 Data Mining
- At least 1 from:
- CMSC 402 - Big Data Analytics Credits: 4
- CMSC 471 - Database Management Systems Credits: 3
- At least 1 from:
- CMSC 403 - Machine Learning Credits: 4
- CMSC 462 - Artificial Intelligence Credits: 4

Interdisciplinary Courses:

- PSYC 101 - General Psychology Credits: 3 *Can be counted as a General Education course under Natural World & Technology.
- PSYC 325 - Psychology of Human Cognition Credits: 3

Computer Science, Video Game Programming Certificate

The Video Game Programming certificate builds skills related to video game programming. Depending on the courses selected to complete the certificate it gives students experience working in 2D environments, 3D environments, artificial intelligence, and network programming.

Core Requirements (14-15 crs.)

Required (11-12 crs.)

- CMSC 361 - Video Game Programming Credits: 4

Select Any 2 Courses:

- CMSC 431 - Computer Networks Credits: 4
- CMSC 471 - Database Management Systems Credits: 3
- CMSC 403 - Machine Learning Credits: 4

or

- CMSC 462 - Artificial Intelligence Credits: 4

Interdisciplinary Courses: Choose One (3 crs.)

- ENGL 308 - Fiction Writing Credits: 3
- ENGL 335 - Creative Nonfiction Writing Credits: 3
- GEOG 202 - GIS I: Introduction to Geographic Information Systems Credits: 3

- GEOG 339 - Remote Sensing Credits: 3

Cybersecurity Certificate

In today's digital age, cybersecurity is more critical than ever. This certificate provides an introduction to the fundamental concepts and principles of cybersecurity. Students will explore the landscape of cyber threats, including malware, ransomware, phishing, and other forms of cyber attacks. The certificate covers essential topics such as network security and cryptography. Through a combination of theoretical knowledge and hands-on labs, students will study many aspects of cyber security. By the end of the certificate, participants will have a solid foundation in cybersecurity and be prepared to take further specialized courses or pursue entry-level roles in the cybersecurity field.

Certificate Requirements (13 crs.)

- CMPE 412 - Networks and Computer Security Credits: 4
- ITAN 399 - Information Security Credits: 3
- MATH 421 - Number Theory and Cryptography Credits: 3
- CMSC 534 - Computer Security: 3

Computer Science Minor

The Computer Science Minor covers some of the key core classes found in Computer Science. It takes at least two years to complete the minor.

Core Courses (23-24 crs.)

- MATH 225 - Discrete Mathematics Credits: 4
- CMSC 110 - Computer Science I Credits: 4
  OR
- SWEN 100 - Intro to Software Engineering Credits: 4

- CMSC 111 - Computer Science II Credits: 4
  OR
- ENGR 120 - Programming for Engineers Credits: 3

- CMSC 310 - Design and Analysis of Algorithms Credits: 4
- CMPE 220 - Computer Organization Credits: 4
- 1 elective from CMSC, CMPE or SWEN at 300 level or higher.

Engineering B.S. with accelerated 4+1 M.B.A. in Business Administration

Well-qualified engineering students have the opportunity to complete a Master's in Business Administration in two additional semesters and one or two summers of enrollment beyond their B.S. program. Interested students apply to the program during their junior year. Students seeking to enroll in the program must also be admitted to the graduate program and maintain a 3.0 grade point average at the time they begin their final undergraduate semester.

Computer Science, B.S. with accelerated 4+1 M.S. in Computer Science

Shippensburg University undergraduates may obtain an advanced degree through a 4+1 B.S./M.S. option. For 4+1 students, the two 500-level courses taken in the spring of their senior year will count as electives in their B.S. program and cannot be substituted for any course in their concentration and these courses cannot replace core courses in the B.S.

Wood Honors College

Wood Honors College

The Wood Honors College is dedicated to providing talented and motivated students with a transformative undergraduate experience and a supportive academic community. Through innovative Honors classes and enriching experiential learning programs, the Wood Honors College prepares students to become leaders in their professions and communities.

Advantages of membership in the Wood Honors College include dynamic Honors classes with the university's top professors, specialized Honors advising, Honors scholarships that support students' participation in undergraduate research, service-learning, and study away programs in the United States and around the world, leadership and service opportunities in the Honors Student Organization, valuable connections to our Honors alumni network, and Honors recognition on your transcript and at graduation. The Wood Honors College is an active member of the National Collegiate Honors Council (NCHC), the national professional organization for Honors Programs and Colleges, and Wood Honors College students regularly attend and make presentations at the annual NCHC conferences.

To earn the Wood Honors College designation, students complete Honors general education courses, Honors upper-division seminars and experiences, and an Honors capstone project. The curricular requirements for students who enter the Wood Honors College after the first semester of their freshman year are prorated based on consultation with the Honors director. Students must earn a 3.25 QPA overall and in their Honors courses and fulfill the college's participation requirement to maintain good standing in the Wood Honors College.

More information about the Wood Honors College is available at https://www.ship.edu/academics/colleges/honors/.

Honors Program

Introduction to Honors (1-3 crs.)

- HONR 113 - Honors: Shippensburg University First Year Seminar Credits: 3
  OR
- HONR 114 - Introduction to Honors Credits: 1

Honors General Education Courses (18 crs.)

- 6 HON General Education courses

Note: Honors general education credit requirements are pro-rated for students who enter the Woods Honors College with more than 12 earned credits, in consultation with the Honors director.

Two Honors Experience (3-6 crs.)

Select One:

- HONR 388 - Honors Service-Learning Seminar: Reach Out Credits: 3
- HONR 393 - Honors Seminar Credits: 3
- HONR 394 - Honors: Selected Topics Credits: 3
- HONR 395 - Honors: Selected Topics Credits: 3
- HONR 397 - Honors: Selected Topics Credits: 3

Note:

Students may fullfill the other Honors Experience with the credit and non-credit options. Credit options include, Honors interdisplinary seminars, Honors sections of the upper-division major courses, undergraduate research courses, internships taken for credit, and study abroad courses. Non-credit options include participation in grant-funded research, study away, internships, or service-learning programs.

Honors Capstone Project Preparation (0-1 crs)

- HONR 389 - Honors Capstone Project Proposal Preparation Credits: 1
  (Waived for students with embedded capstone preparation in major or minor)

Honors Capstone (3 crs)

Select One:

- HONR 396 - University Honors Colloquium Credits: 3
- HONR 399 - Honors: Independent Study Credits: 3
- Other capstone research, creative, internship, or service-learning experience approved by Honors director.

John L. Grove College of Business

The John L. Grove College of Business offers programs leading to the Bachelor of Science in Business Administration (B.S.B.A.), which are accredited by AACSB International. In order to maintain the high quality of our AACSB-accredited program, students will be required to participate in student outcomes assessment efforts that are designed to continuously improve the quality of our programs and services.

Mission of the John L. Grove College of Business

The John L. Grove College of Business of Shippensburg University provides a high-quality and a high-value comprehensive educational experience that prepares students to excel as principled leaders in today's global business community.

Business Internship Program

Juniors and seniors in the John L. Grove College of Business, who are in good academic standing and sophomores with at least a 3.00 cumulative quality point average or higher are eligible to participate in the Business Internship Program. Interns do major-related work in business or the professions for free elective credit during the academic year or during

the summer. Internships must be approved by the department chair and internship director. Attendance at an internship workshop is required before students may apply or register for a college-sponsored internship. Credit earned through the internship program may only be used as a free elective credit (a maximum of nine credit hours) and may not be used as a substitute for major course requirements.

Benefits of an internship include applying academic knowledge and skills to on-the-job experiences, communicating and interacting with professionals in the world of work, developing professional self-confidence, clarifying career goals through exposure to a variety of career opportunities, earning money for university and personal expenses, building a network of professional contacts, completing free elective credits for graduation and returning to the university with renewed interest and a new perspective on learning.

Transfer Requirements

All transfer students seeking admission into the B.S.B.A. degree program in the John L. Grove College of Business must meet the university's minimum transfer quality point average requirements.

Students are permitted to transfer any required 100- or 200-level business course from a community college or from an accredited four-year institution provided the course content is equivalent and a grade of C or better is earned. Courses in business at the 300- or 400-level will be considered for transfer credit only if they were earned at a four-year institution whose business programs are accredited by the AACSB International, if the transfer student passes a standard examination prepared by the department offering the course, or if a grade of C or higher is earned in a validating course approved by the department. This last validation method is limited to one course in any one discipline and a total of six credits. Arrangements for validating a course should be made through the dean's office and the department that offers the course.

Refer to the Admission Policies chapter for further requirements for transfer students.

Changing Majors

Admission to a specific major, at any given time, may be limited.

Refer to the Academic Policies chapter under Changing Majors for further information.

Business Administration B.S.

The business administration curriculum at Shippensburg University is designed to prepare students for management careers in business and the professions. The curriculum also provides the basis for graduate study in business, public administration, and law.

Because effective managers must be cognizant of the societal and environmental contexts of their decisions, the study of business administration requires a thorough grounding in the humanities, social sciences, and natural sciences. Therefore, a significant portion of a student's program is devoted to general education. Students are encouraged to seek advisement in developing a general education program which is suited to their individual needs and interests. Each student in the John L. Grove College of Business is assigned a faculty member through his or her departmental office for advisement purposes.

The completion of a minimum of 120 credit hours is required for graduation in the B.S.B.A. major degree programs. The specific course requirements for each B.S.B.A. degree program of study are outlined under the following sections titled *B.S.B.A. Core Requirements and Major Course Requirements.*

The first phase of business administration curriculum is a required common core and the second phase is completing the common core and the course requirements for one of the majors in the John L. Grove College of Business. The

curriculum seeks to avoid narrow technical instruction; rather, the goal is to develop the analytical and conceptual skills necessary for successful management in a variety of situations. The core represents a consensus of what academicians and practitioners consider to be a common body of knowledge for managers of all types, while specialization majors permit the acquisition of more advanced knowledge in a selected area.

Quality Point Average Requirements

Students in the B.S.B.A. program are required to meet the following academic standards in order to be in good academic standing and to graduate. Refer to the Academic Policies chapter under Grading and Graduation Requirements for further information.

1. Maintain a 2.0 or better cumulative quality point average in all courses taken.
2. Maintain a 2.0 or better cumulative business quality point average which includes all the business core courses.
3. Maintain a 2.0 or better cumulative major quality point average which includes all major course work and any business core courses within the major discipline.

English Requirements

All John L. Grove College of Business majors, including B.S.B.A., candidates, must complete ENGL 114 Academic Writing or ENGL 115 Advanced Academic Writing, with a C grade or better in order to graduate and before scheduling upper-division business courses.

Curriculum Requirements

Due to the communication and quantitative skills required in the business curriculum, it is recommended students complete at least three years of college preparatory writing and mathematics in high school. Students seeking admission into the John L. Grove College of Business who lack these skills may find it necessary to take some remedial course work in writing and/or mathematics before enrolling in either ENGL 114 Academic Writing /MATH 140 College Algebra.

All B.S.B.A. students are required to complete the general education requirements, the B.S.B.A. Core Requirements, and at least one of the sequences listed under Major Course Requirements.

Course Sequencing

The subject matter of the business administration degree program is largely cumulative, i.e., a significant proportion of advanced course content presupposes reasonable mastery of more elementary concepts. (This is especially true in the areas which rely heavily on applied mathematics and the behavioral sciences.) As a result, many advanced courses have prerequisites which are indicated in the course descriptions. Early in their careers within the Foundations of Business Administration course, students should develop, with the aid of their faculty advisor, a four-year course plan which ensures the appropriate prerequisites will be met and all graduation requirements will be satisfied.

For a variety of reasons, these plans will vary considerably from student to student. Nevertheless, there are some general rules which should be adhered to in developing the course plan:

1. BUSN 101 - Foundations of Business Administration Credits: 2 should be taken in the first year.
2. MATH 140 College Algebra , if required, MATH 181 - Applied Calculus Credits: 3 and SCMG 200 - Statistical Applications in Business Credits: 3, should be completed by the end of the sophomore year.
3. ITAN 142 - Business Computer Systems Credits: 3 should be completed the first year and BLAW 261 - American Legal Environment Credits: 3 should be completed by the end of the sophomore year.

4. The ACCT 200 - Fundamentals of Financial Accounting Credits: 3, ACCT 201 - Managerial Accounting Credits: 3, and ECON 113 - Principles of Economics Credits: 4, should be taken by the end of the sophomore year.
5. Any 300-/400-level B.S.B.A. core and major course work should primarily be taken during the junior and senior years.

Business Administration-Major Undecided Option

The Business Administration-Major Undecided option is designed for students entering the John L. Grove College of Business who are undecided about the selection of a specific B.S.B.A. major. Since the course work in the B.S.B.A. degree program is basically the same for all majors through the sophomore year of study, the Business Administration-Major Undecided option provides students with an opportunity to take up to two years or 60 credits before officially declaring a specific B.S.B.A. major in the John L. Grove College of Business. Students are encouraged to select a specific B.S.B.A. major prior to beginning their junior year of study. Admission to a specific business major, at any given time, may be limited.

A student electing the Business Administration-Major Undecided option is assigned a full-time faculty member in the John L. Grove College of Business to assist with selecting a major, scheduling, and addressing other academic concerns. In the required Foundations of Business Administration course, students are also encouraged to utilize other services at the university to assist them in selecting a major, such as the Career Center's Career Education program, the Alumni Career Services program, and involvement in academic student professional organizations in the John L. Grove College of Business.

Accounting/Information Systems and Analytics Department

The department offers B.S.B.A. degrees in Accounting and Information Systems and Analytics.

Accounting, B.S.B.A.

The goal of the accounting program is to provide students with a broad knowledge and skill set which will allow them to pursue a successful and rewarding accounting and business career. In addition to a strong technical background in accounting, our program develops a student's ability to think critically and problem solve. This training provides our graduates with the capability to embark on a lifetime of learning and the ability to meet the challenges of today's quickly evolving business world. It also provides a strong foundation for professional licensure/certification exams upon graduation.

The undergraduate program for a B.S.B.A. degree in accounting requires the completion of a minimum of 120 semester hours, which includes the satisfactory completion of the following six required courses and two accounting electives:

Credit Requirements*

- **General Education:** 46 credits
- **Business Core:** 38-41 credits
- **Major Requirements**: 24 credits
- **Free Electives:** 9-12 credits
- *Total Credits to Graduate:* **120 credits**

* All undergraduate degree programs require a minimum of 120 credits. Some courses meet multiple requirements, but are only counted once toward the 120 credit total required to graduate.

B.S.B.A. Core Requirements

All B.S.B.A. majors in the John L. Grove College of Business should satisfactorily complete the 100-/200-level business core courses during their freshman and sophomore years and the 300-400-level business core courses during their junior and senior years, as listed below.

Required Courses in Related Fields

- MATH 140 - College Algebra Credits: 3

Required Courses in the John L. Grove College of Business

- BUSN 101 - Foundations of Business Administration Credits: 2
- ITAN 142 - Business Computer Systems Credits: 3
- SCMG 200 - Statistical Applications in Business Credits: 3
  Digital Marketing & Analytics concentration must earn a C or better in this course.
- ACCT 200 - Fundamentals of Financial Accounting Credits: 3
  Accounting majors must earn a C or better in this course.
- ACCT 201 - Managerial Accounting Credits: 3
  Accounting majors must earn a C or better in this course.
- MKTG 205 - Principles of Marketing Credits: 3
  Marketing Management and Digital Marketing & Analytics concentrations must earn a C or better in this course.
- BLAW 261 - American Legal Environment Credits: 3
- ECON 280 - Managerial Economics Credits: 3
- MGMT 305 - Organizational Behavior Credits: 3
- FINA 311 - Financial Management Credits: 3
- SCMG 330 - Supply Chain and Operations Management Credits: 3
- MGMT 447 - Business and Society Credits: 3
- MGMT 497 - Strategic Management Credits: 3

Note:

- Students who place at the advanced level in the mathematics placement/competency test are not required to take MATH 140. In lieu of MATH 140, students are required to take an additional free elective.
- Completion of ECON 101 and ECON 102 will satisfy the requirement for ECON 113.

Major Course Requirements

Students should meet with their faculty advisor to plan the sequencing of their major program of study. Students interested in a double major and/or minor shall be required to take the prescribed courses in each respective major and/or minor. Students can double count one course between business majors with the permission of the respective department chair(s). Refer to the index under Double Majors and Minors for further information.

Required (18 crs.)

- ACCT 306 - Tax Accounting Credits: 3

- ACCT 310 - Intermediate Accounting I Credits: 3
- ACCT 311 - Intermediate Accounting II Credits: 3
- ACCT 312 - Cost Determination and Analysis Credits: 3
- ACCT 404 - Auditing Credits: 3
- ACCT 418 - Accounting Information and Control Systems Credits: 3

Accounting Electives (6 crs.)

(Two course from the following 3-credit courses)

- ACCT 401 - Advanced Financial Accounting Credits: 3
- ACCT 406 - Advanced Tax Accounting Credits: 3
- ACCT 412 - Advanced Cost Analysis and Control Credits: 3
- ACCT 420 - Fraud Examination Credits: 3
- ACCT 490 - Selected Topics in Accounting Credits: 3

General Education

General Education Requirements

- General Education Program (45 crs.)

General Education Requirements Specific for this major

- Quantitative (Q): MATH 181
- Criticial Reasoning (R): ECON 113
- Technology (T): ITAN 300

Accounting Career Opportunities

The accounting program is designed to give students a broad exposure to the various fields of business and accounting. Shippensburg's B.S.B.A. in Accounting prepares students for wide ranging careers in business, industry, government and public accounting, as well as a foundation for the successful completion of professional licensure/certification examinations, such as the CPA, CMA and/or CFE upon graduation.

Accounting B.S.B.A./M.B.A. Five-Year Program

An accelerated B.S.B.A./M.B.A. program is proposed for students who are qualified on the basis of scholastic aptitude, academic performance, and accounting-related work experience. Students who qualify for the program may earn both the bachelor's and Master's of Business Administration (MBA) within a total period of ten semesters and two summer sessions. Students would be admitted provisionally at beginning of their fourth year upon meeting the admission requirements.

Out-of-State Licensure and Certification

Professional licensure and certification laws and regulations vary from state to state and are subject to change without notice. If you plan to pursue a professional certification or credential **in a state other than Pennsylvania** it is recommended that you contact the appropriate state licensing agency to obtain guidance and verify requirements prior to starting a program. Shippensburg University's program leads to state licensure and/or certification in the

Commonwealth of Pennsylvania and may or may not meet requirements in another state. Please see www.**nasba.org/stateboards** for more information.

Advising Notes:

1. Semester I: BUSN 101, MATH 140, ITAN 142
2. Semester II: MATH 181, ECON 113
3. Semester III: ACCT 200, BLAW 261, MKGT 205
4. Semester IV: ACCT 201, ECON 280, SCMG 200
5. MATH 140 is recommended before taking ECON 113
6. MATH 140 and ITAN 142 are prerequisites for SCMG 200
7. All B.S.B.A. majors in the John L. Grove College of Business should satisfactorily complete the 100-/200-level business core courses during their freshman and sophomore years and the 300-400-level business core courses during their junior and senior years.

Information Systems and Analytics, B.S.B.A.

Information Systems and Analytics (ISA) focuses on the development, management, and use of information systems, technology, and data to enable organizational operation and decision making. Effective information systems and analytics capabilities are integral to successful organizations in today's economy. ISA professionals play an important role in helping organizations to successfully develop and manage information systems and business analytics. In order to succeed, ISA professionals are expected to have competency in technological skills, business knowledge, analytics and security. Such competencies enable our graduates to work in collaboration with many functional areas across an organization to analyze information needs, analyze data, and implement systems solutions and information-driven business initiatives that enable organizations to succeed.

ISA professionals are in high demand as businesses increasingly use more sophisticated information systems and technology continues to advance. The Federal Bureau of Labor Statistics reports that positions in the computer information systems and analytics are among the fastest growing occupations. Employment of ISA-related occupations is projected to grow 13 percent by 2030, much faster than the average for all occupations.

Credit Requirements*

- **General Education:** 46 credits
- **Business Core:** 38-41 credits
- **Major Requirements**: 21 credits
- **Free Electives:** 12-15 credits
- *Total Credits to Graduate:* **120 credits**

* All undergraduate degree programs require a minimum of 120 credits. Some courses meet multiple requirements, but are only counted once toward the 120 credit total required to graduate.

B.S.B.A. Core Requirements

All B.S.B.A. majors in the John L. Grove College of Business should satisfactorily complete the 100-/200-level business core courses during their freshman and sophomore years and the 300-400-level business core courses during their junior and senior years, as listed below.

Required Courses in Related Fields

- MATH 140 - College Algebra Credits: 3

Required Courses in the John L. Grove College of Business

- BUSN 101 - Foundations of Business Administration Credits: 2
- ITAN 142 - Business Computer Systems Credits: 3
- SCMG 200 - Statistical Applications in Business Credits: 3
  Digital Marketing & Analytics concentration must earn a C or better in this course.
- ACCT 200 - Fundamentals of Financial Accounting Credits: 3
  Accounting majors must earn a C or better in this course.
- ACCT 201 - Managerial Accounting Credits: 3
  Accounting majors must earn a C or better in this course.
- MKTG 205 - Principles of Marketing Credits: 3
  Marketing Management and Digital Marketing & Analytics concentrations must earn a C or better in this course.
- BLAW 261 - American Legal Environment Credits: 3
- ECON 280 - Managerial Economics Credits: 3
- MGMT 305 - Organizational Behavior Credits: 3
- FINA 311 - Financial Management Credits: 3
- SCMG 330 - Supply Chain and Operations Management Credits: 3
- MGMT 447 - Business and Society Credits: 3
- MGMT 497 - Strategic Management Credits: 3

Note:

- Students who place at the advanced level in the mathematics placement/competency test are not required to take MATH 140. In lieu of MATH 140, students are required to take an additional free elective.
- Completion of ECON 101 and ECON 102 will satisfy the requirement for ECON 113.

Major Course Requirements

Students should meet with their faculty advisor to plan the sequencing of their major program of study. Students interested in a double major and/or minor shall be required to take the prescribed courses in each respective major and/or minor. Students can double count one course between business majors with the permission of the respective department chair(s). Refer to the index under Double Majors and Minors for further information.

Required (21 crs.)

- ITAN 240 - Python Programming for Business and Analytics Credits: 3
- ITAN 340 - Business Programming for Analytics Credits: 3
- ITAN 344 - Business Systems Analysis and Design Credits: 3
- ITAN 355 - Data Management and Analytics Credits: 3
- ITAN 399 - Information Security Credits: 3
- ITAN 425 - Analytics and Technology Integration Credits: 3
- ITAN 446 - Applied Project Management Credits: 3

General Education

General Education Requirements

- General Education Program (45 crs.)

General Education Requirements Specific for this major

- Quantitative (Q) MATH 181
- Critical Reasoning (R) ECON 113

ISA Career Opportunities

Careers positions for ISA graduates include business analyst, systems analyst, cyber security analyst, application and web developer, data analyst, database administrator, IT consultant. Successful ISA professionals can advance to senior management and executive-level positions such as project manager, information systems manager, chief information officer, and chief executive officer. Those with work experience and considerable expertise may find lucrative opportunities as independent consultants or may choose to start their own firms.

Recent Shippensburg ISA graduates have acquired jobs with companies in various industries and state and federal agencies. Our ISA graduates have also succeeded as entrepreneurs, utilizing their ISA skills and knowledge to found and run their own businesses. Many ISA majors complete career-related internships, and a large number continue with part-time employment until graduation.

Advising Notes:

1. Semester I: BUSN 101, MATH 140, ITAN 142
2. Semester II: MATH 181, ECON 113
3. Semester III: ACCT 200, BLAW 261, SCMG 200
4. Semester IV: ACCT 201, ECON 280, MKTG 205
5. MATH 140 is recommended before taking ECON 113.
6. MATH 140 and ITAN 142 are prerequisites for SCMG 200.
7. All B.S.B.A. majors in the John L. Grove College of Business should satisfactorily complete the 100-/200-level business core courses during their freshman and sophomore years and the 300-400-level business core courses during their junior and senior years.

Information Systems and Analytics Minor

The Information Systems and Analytics minor is only available to students not enrolled as a major in a business discipline seeking a BSBA.

18 crs.

Required Courses (12 crs.)

- ITAN 142 - Business Computer Systems Credits: 3
- ITAN 240 - Python Programming for Business and Analytics Credits: 3
- ITAN 300 - Information Technology and Business Operations Credits: 3
- SCMG 200 - Statistical Applications in Business Credits: 3

Elective Courses (6 crs.)

(Recommended Courses)

- ITAN 342 - 9:00 to 9:30 AM on August 12 Credits: 3
- ITAN 399 - Information Security Credits: 3
  Or choose two from the below listed courses (talk to ISA faculty for advice on further classes)
- ITAN 340 - Business Programming for Analytics Credits: 3
- ITAN 344 - Business Systems Analysis and Design Credits: 3
- ITAN 355 - Data Management and Analytics Credits: 3
- ITAN 425 - Analytics and Technology Integration Credits: 3
- ITAN 446 - Applied Project Management Credits: 3

Finance/Supply Chain Management Department

Finance, B.S.B.A.

Finance is the study and practice of making money-denominated decisions. Individuals, business corporations, and government agencies located worldwide are all concerned with securing, managing, and investing funds efficiently; i.e., they must practice sound financial decision making. As a discipline, finance can be classified into six areas: corporate financial management, investments, financial institutions and markets, banking and insurance, personal financial planning, and real estate investment and valuation. The finance program at Shippensburg University offers a full range of courses in these areas. Our program is unique in the emphasis placed on the application of finance concepts. In addition to two applied courses in market, company, and security analysis, the finance major can apply for admission to the Investment Management Program class. In this class students utilize their accumulated knowledge and skills in the management of a real-money investment portfolio.

By the beginning of the sophomore year, a student majoring in finance will be expected to have access to a personal computer which is compatible with the hardware and software used in the finance program. Our computer labs, though well-equipped, are utilized by a large percentage of students from the college of business. Due to this high demand, a personal computer is invaluable to fulfilling the major finance course requirements.

Credit Requirements*

- **General Education:** 46 credits
- **Business Core:** 38-41 credits
- **Major Requirements**: 21 credits
- **Free Electives:** 12-15 credits
- *Total Credits to Graduate:* **120 credits**

* All undergraduate degree programs require a minimum of 120 credits. Some courses meet multiple requirements, but are only counted once toward the 120 credit total required to graduate.

B.S.B.A. Core Requirements

All B.S.B.A. majors in the John L. Grove College of Business should satisfactorily complete the 100-/200-level business core courses during their freshman and sophomore years and the 300-400-level business core courses during their junior and senior years, as listed below.

Required Courses in Related Fields

- MATH 140 - College Algebra Credits: 3

Required Courses in the John L. Grove College of Business

- BUSN 101 - Foundations of Business Administration Credits: 2
- ITAN 142 - Business Computer Systems Credits: 3
- SCMG 200 - Statistical Applications in Business Credits: 3
  Digital Marketing & Analytics concentration must earn a C or better in this course.
- ACCT 200 - Fundamentals of Financial Accounting Credits: 3
  Accounting majors must earn a C or better in this course.
- ACCT 201 - Managerial Accounting Credits: 3
  Accounting majors must earn a C or better in this course.
- MKTG 205 - Principles of Marketing Credits: 3
  Marketing Management and Digital Marketing & Analytics concentrations must earn a C or better in this course.
- BLAW 261 - American Legal Environment Credits: 3
- ECON 280 - Managerial Economics Credits: 3
- MGMT 305 - Organizational Behavior Credits: 3
- FINA 311 - Financial Management Credits: 3
- SCMG 330 - Supply Chain and Operations Management Credits: 3
- MGMT 447 - Business and Society Credits: 3
- MGMT 497 - Strategic Management Credits: 3

Note:

- Students who place at the advanced level in the mathematics placement/competency test are not required to take MATH 140. In lieu of MATH 140, students are required to take an additional free elective.
- Completion of ECON 101 and ECON 102 will satisfy the requirement for ECON 113.

Major Course Requirements

Students should meet with their faculty advisor to plan the sequencing of their major program of study. Students interested in a double major and/or minor shall be required to take the prescribed courses in each respective major and/or minor. Students can double count one course between business majors with the permission of the respective department chair(s). Refer to the index under Double Majors and Minors for further information.

Required (12 crs.)

- FINA 312 - Investments Credits: 3
- FINA 313 - Advanced Financial Management Credits: 3
- FINA 314 - Financial Institutions Credits: 3
- FINA 333 - Applied Company and Security Analysis Credits: 3

Finance Electives (9 crs.)

(Three courses from the following 3-credit courses)

- FINA 320 - Risk Management and Insurance Credits: 3
- FINA 322 - Estate Planning Credits: 3
- FINA 324 - Retirement Planning and Employee Benefits Credits: 3
- FINA 340 - Principles of Real Estate Credits: 3
- FINA 393 - Selected Topics in Finance Credits: 1-3
- FINA 405 - Real Estate Finance, Investments, & Appraisal Analysis Credits: 3
- FINA 414 - Bank Management Credits: 3
- FINA 421 - Personal Financial Planning Capstone Credits: 3
- FINA 425 - Global Financial Management Credits: 3
- FINA 434 - Investment Management Program I Credits: 1-3
- FINA 435 - Investment Management Program II Credits: 1-3
- FINA 442 - Derivatives Markets Credits: 3
- FINA 490 - Selected Topics in Finance Credits: 1-3

Free Electives (12-15 crs.)

General Education

General Education Requirements

- General Education Program (45 crs.)

General Education Requirements Specific for this major

- Quantitative (Q) MATH 181
- Critical Reasoning (R) ECON 113

Finance Career Opportunities

Students develop a wide range of analytical skills with both theoretical and real problems and can, therefore, choose a career within a full spectrum of jobs: corporate financial analyst (revenue and capital budget), financial planner, security analyst, portfolio manager or analyst, pension fund manager, security broker or dealer, banking industry analyst, mortgage analyst, corporate risk manager, or consultant on mergers and acquisitions.

Shippensburg University graduates who majored in finance have obtained responsible positions in major corporations, profit and non-profit, and positions in a variety of major and regional banks and other financial institutions.

For those students with a concentration in real estate, career opportunities are available in a wide array of firms. For example, a graduate may take a position with a real estate development firm, a financial institution or real estate investment firm, a real estate brokerage firm, a real estate management firm, or an appraisal firm. There are also a wide variety of job opportunities in the non-profit or governmental sector for a student with an expertise in real estate.

Advising Notes:

1. Semester I: BUSN 101, MATH 140, ITAN 142
2. Semester II: MATH 181, ECON 113
3. Semester III: ACCT 200, BLAW 261, SCMG 200
4. Semester IV: ACCT 201, ECON 280, MKTG 205
5. MATH 140 is recommended before taking ECON 113.
6. MATH 140 and ITAN 142 are prerequisites for SCMG 200.

7. All B.S.B.A. majors in the John L. Grove College of Business should satisfactorily complete the 100-/200-level business core courses during their freshman and sophomore years and the 300-400-level business core courses during their junior and senior years.

Finance, Personal Financial Planning Concentration, B.S.B.A.

Personal financial planning is the process of managing financial resources to achieve individual goals. It is a six-step process-determine current financial conditions, develop financial goals, identify alternative courses of action, evaluate alternatives, create and implement a financial plan, and evaluate and revise the plan. The basic elements of personal financial plan include cash flow/budgeting analysis, insurance needs, employee benefits, education funding requirements, investment decision, analysis of debt, portfolio analysis, retirement planning, forecasting retirement benefits and costs, income tax planning, and estate planning.

Credit Requirements*

- **General Education:** 46 credits
- **Business Core:** 38-41 credits
- **Major Requirements**: 21 credits
- **Free Electives:** 12-15 credits
- *Total Credits to Graduate:* **120 credits**

* All undergraduate degree programs require a minimum of 120 credits. Some courses meet multiple requirements, but are only counted once toward the 120 credit total required to graduate.

B.S.B.A. Core Requirements

All B.S.B.A. majors in the John L. Grove College of Business should satisfactorily complete the 100-/200-level business core courses during their freshman and sophomore years and the 300-400-level business core courses during their junior and senior years, as listed below.

Required Courses in Related Fields

- MATH 140 - College Algebra Credits: 3

Required Courses in the John L. Grove College of Business

- BUSN 101 - Foundations of Business Administration Credits: 2
- ITAN 142 - Business Computer Systems Credits: 3
- SCMG 200 - Statistical Applications in Business Credits: 3
  Digital Marketing & Analytics concentration must earn a C or better in this course.
- ACCT 200 - Fundamentals of Financial Accounting Credits: 3
  Accounting majors must earn a C or better in this course.
- ACCT 201 - Managerial Accounting Credits: 3
  Accounting majors must earn a C or better in this course.
- MKTG 205 - Principles of Marketing Credits: 3
  Marketing Management and Digital Marketing & Analytics concentrations must earn a C or better in this course.
- BLAW 261 - American Legal Environment Credits: 3
- ECON 280 - Managerial Economics Credits: 3

- MGMT 305 - Organizational Behavior Credits: 3
- FINA 311 - Financial Management Credits: 3
- SCMG 330 - Supply Chain and Operations Management Credits: 3
- MGMT 447 - Business and Society Credits: 3
- MGMT 497 - Strategic Management Credits: 3

Note:

- Students who place at the advanced level in the mathematics placement/competency test are not required to take MATH 140. In lieu of MATH 140, students are required to take an additional free elective.
- Completion of ECON 101 and ECON 102 will satisfy the requirement for ECON 113.

Major Course Requirements

Students should meet with their faculty advisor to plan the sequencing of their major program of study. Students interested in a double major and/or minor shall be required to take the prescribed courses in each respective major and/or minor. Students can double count one course between business majors with the permission of the respective department chair(s). Refer to the index under Double Majors and Minors for further information.

Personal Financial Planning Concentration

Required (21 crs.)

- FINA 312 - Investments Credits: 3
- FINA 320 - Risk Management and Insurance Credits: 3
- FINA 322 - Estate Planning Credits: 3
- FINA 324 - Retirement Planning and Employee Benefits Credits: 3
- FINA 333 - Applied Company and Security Analysis Credits: 3
- FINA 421 - Personal Financial Planning Capstone Credits: 3
- ACCT 306 - Tax Accounting Credits: 3

General Education

General Education Requirements

- General Education Program (45 crs.)

General Education Requirements Specific for this major

- Quantitative (Q) MATH 181
- Critical Reasoning (R) ECON 113

Personal Financial Planning Career Opportunities

The field of financial planning is experiencing substantial growth. The public's need for professional financial advice has been increasing drastically due to the changes in demographics and financial regulation. U.S.News and World Report lists personal financial planning as one of the 20 hot jobs for the 21st century. With a specialty in personal financial planning, you can choose a career within a full array of jobs. Typically, you can be a self-employed financial

advisor or work for depository and non-depository financial institutions such as banks, saving institutions, credit unions, brokerage firms, investment companies, and insurance agencies. Alternative options include accounting firms, law offices, and human resource and employee benefit departments, among others. Current salaries are highly competitive and the current average income for experienced financial planners depends upon the specific career option selected and the geographic region.

Advising Notes:

1. Semester I: BUSN 101, MATH 140, ITAN 142
2. Semester II: MATH 181, ECON 113
3. Semester III: ACCT 200, BLAW 261, SCMG 200
4. Semester IV: ACCT 201, ECON 280, MKTG 205
5. MATH 140 is recommended before taking ECON 113.
6. MATH 140 and ITAN 142 are prerequisites for SCMG 200.
7. All B.S.B.A. majors in the John L. Grove College of Business should satisfactorily complete the 100-/200-level business core courses during their freshman and sophomore years and the 300-400-level business core courses during their junior and senior years.

Supply Chain Management, B.S.B.A.

Supply Chain Management involves the strategic integration of diverse business facilities, functions, and activities throughout the supply chain for the purpose of providing goods and services to customers as efficiently as possible. Achieving efficiency in the supply chain is accomplished by developing knowledge of transportation, inventory control, warehousing, material handling, purchasing, production control, and the tools necessary to analyze and coordinate these activities. The concept of total cost analysis (taking all costs into account before making decisions), and cost trade-offs (letting one or more costs rise to take advantage of greater savings in other costs) is also central to supply chain management. These concepts, once honed, apply to many facets of business and personal decision making.

Credit Requirements*

- **General Education:** 46 credits
- **Business Core:** 38-41 credits
- **Major Requirements**: 18 credits
- **Free Electives:** 15-18 credits
- *Total Credits to Graduate:* **120 credits**

* All undergraduate degree programs require a minimum of 120 credits. Some courses meet multiple requirements, but are only counted once toward the 120 credit total required to graduate.

B.S.B.A. Core Requirements

All B.S.B.A. majors in the John L. Grove College of Business should satisfactorily complete the 100-/200-level business core courses during their freshman and sophomore years and the 300-400-level business core courses during their junior and senior years, as listed below.

Required Courses in Related Fields

- MATH 140 - College Algebra Credits: 3

Required Courses in the John L. Grove College of Business

- BUSN 101 - Foundations of Business Administration Credits: 2
- ITAN 142 - Business Computer Systems Credits: 3
- SCMG 200 - Statistical Applications in Business Credits: 3
  Digital Marketing & Analytics concentration must earn a C or better in this course.
- ACCT 200 - Fundamentals of Financial Accounting Credits: 3
  Accounting majors must earn a C or better in this course.
- ACCT 201 - Managerial Accounting Credits: 3
  Accounting majors must earn a C or better in this course.
- MKTG 205 - Principles of Marketing Credits: 3
  Marketing Management and Digital Marketing & Analytics concentrations must earn a C or better in this course.
- BLAW 261 - American Legal Environment Credits: 3
- ECON 280 - Managerial Economics Credits: 3
- MGMT 305 - Organizational Behavior Credits: 3
- FINA 311 - Financial Management Credits: 3
- SCMG 330 - Supply Chain and Operations Management Credits: 3
- MGMT 447 - Business and Society Credits: 3
- MGMT 497 - Strategic Management Credits: 3

Note:

- Students who place at the advanced level in the mathematics placement/competency test are not required to take MATH 140. In lieu of MATH 140, students are required to take an additional free elective.
- Completion of ECON 101 and ECON 102 will satisfy the requirement for ECON 113.

Major Course Requirements

Students should meet with their faculty advisor to plan the sequencing of their major program of study. Students interested in a double major and/or minor shall be required to take the prescribed courses in each respective major and/or minor. Students can double count one course between business majors with the permission of the respective department chair(s). Refer to the index under Double Majors and Minors for further information.

Required (15 crs.)

- SCMG 315 - Strategic Procurement Credits: 3
- SCMG 355 - Managing Quality and Continuous Improvement Credits: 3
- SCMG 370 - Integrated Supply Chain Systems Credits: 3
- SCMG 380 - Data Mining for Supply Chain Management Credits: 3
- SCMG 420 - Global Logistics Systems Credits: 3

Electives (3 crs.)

(One course from the following 3-credit courses)

- ACCT 312 - Cost Determination and Analysis Credits: 3

- ECON 355 - Environmental Economics Credits: 3
- FINA 320 - Risk Management and Insurance Credits: 3
- FINA 340 - Principles of Real Estate Credits: 3
- FINA 405 - Real Estate Finance, Investments, & Appraisal Analysis Credits: 3
- GEOG 202 - GIS I: Introduction to Geographic Information Systems Credits: 3
- MGMT 340 - Human Resource Management Credits: 3
- MGMT 342 - Labor Relations and Collective Bargaining Credits: 3
- MGMT 370 - International Business Credits: 3
- MGMT 394 - Leadership for Business Credits: 3
- MGMT 450 - Negotiation Credits: 3
- ITAN 240 - Python Programming for Business and Analytics Credits: 3
- ITAN 342 - 9:00 to 9:30 AM on August 12 Credits: 3
- ITAN 300 - Information Technology and Business Operations Credits: 3
- ITAN 446 - Applied Project Management Credits: 3
- MKTG 310 - Personal Selling Credits: 3
- MKTG 365 - Relationship Marketing Credits: 3
- MKTG 370 - Services Marketing Credits: 3
- SCMG 390 - Strategic Warehouse Management Credits: 3
- SCMG 410 - Distribution Systems in Supply Chains Credits: 3

General Education

General Education Requirements

- General Education Program (45 crs.)

General Education Requirements Specific for this major

- Quantitative (Q) MATH 181
- Critical Reasoning (R) ECON 113

Supply Chain Management Career Opportunities

Graduates with a Supply Chain Management background can find employment in a wide range of occupational specialties including logistics, warehousing management, transportation management, operations and production management, purchasing, inventory control, and customer service to name but a few. Salaries for recent graduates in supply chain programs, according to several surveys, rank near the top among the various business majors. Supply Chain Management also plays a central role in the global economy. Many job opportunities are available which involve developing and maintaining the international supply chain.

Advising Notes:

1. MATH 140 is recommended before taking ECON 113.
2. MATH 140 and ITAN 142 are prerequisites for SCMG 200.
3. All B.S.B.A. majors in the John L. Grove College of Business should satisfactorily complete the 100-/200-level business core courses during their freshman and sophomore years and the 300-400-level business core courses during their junior and senior years.

Supply Chain Management, Logistics Management Concentration, B.S.B.A.

Logistics is that part of Supply Chain Management that plans, implements, and controls the efficient, effective forward and reverse flow and storage of goods, services and related information between the point of origin and the point of consumption in order to meet customers' requirements. Logistics activities typically include inbound and outbound transportation management, fleet management, warehousing, materials handling, order fulfillment, logistics network design, inventory management, supply/demand planning, and management of third party logistics services providers. To varying degrees, the logistics function also includes sourcing and procurement, production planning and scheduling, packaging and assembly, and customer service. It is involved in all levels of planning and execution-strategic, operational and tactical. Logistics is an integrating function, which coordinates and optimizes all logistics activities, as well as integrates logistics activities with other functions including marketing, sales manufacturing, finance, and information technology.

Credit Requirements*

- **General Education:** 46 credits
- **Business Core:** 38-41 credits
- **Major Requirements**: 18 credits
- **Free Electives:** 15-18 credits
- *Total Credits to Graduate:* **120 credits**

* All undergraduate degree programs require a minimum of 120 credits. Some courses meet multiple requirements, but are only counted once toward the 120 credit total required to graduate.

B.S.B.A. Core Requirements

All B.S.B.A. majors in the John L. Grove College of Business should satisfactorily complete the 100-/200-level business core courses during their freshman and sophomore years and the 300-400-level business core courses during their junior and senior years, as listed below.

Required Courses in Related Fields

- MATH 140 - College Algebra Credits: 3

Required Courses in the John L. Grove College of Business

- BUSN 101 - Foundations of Business Administration Credits: 2
- ITAN 142 - Business Computer Systems Credits: 3
- SCMG 200 - Statistical Applications in Business Credits: 3
  Digital Marketing & Analytics concentration must earn a C or better in this course.
- ACCT 200 - Fundamentals of Financial Accounting Credits: 3
  Accounting majors must earn a C or better in this course.
- ACCT 201 - Managerial Accounting Credits: 3
  Accounting majors must earn a C or better in this course.
- MKTG 205 - Principles of Marketing Credits: 3
  Marketing Management and Digital Marketing & Analytics concentrations must earn a C or better in this course.

- BLAW 261 - American Legal Environment Credits: 3
- ECON 280 - Managerial Economics Credits: 3
- MGMT 305 - Organizational Behavior Credits: 3
- FINA 311 - Financial Management Credits: 3
- SCMG 330 - Supply Chain and Operations Management Credits: 3
- MGMT 447 - Business and Society Credits: 3
- MGMT 497 - Strategic Management Credits: 3

Note:

- Students who place at the advanced level in the mathematics placement/competency test are not required to take MATH 140. In lieu of MATH 140, students are required to take an additional free elective.
- Completion of ECON 101 and ECON 102 will satisfy the requirement for ECON 113.

Major Course Requirements

Students should meet with their faculty advisor to plan the sequencing of their major program of study. Students interested in a double major and/or minor shall be required to take the prescribed courses in each respective major and/or minor. Students can double count one course between business majors with the permission of the respective department chair(s). Refer to the index under Double Majors and Minors for further information.

Logistics Management Concentration

Required (12 crs.)

- SCMG 370 - Integrated Supply Chain Systems Credits: 3
- SCMG 390 - Strategic Warehouse Management Credits: 3
- SCMG 410 - Distribution Systems in Supply Chains Credits: 3
- SCMG 420 - Global Logistics Systems Credits: 3

Electives (6 crs.)

(Two courses from the following 3-credit courses)

- ACCT 312 - Cost Determination and Analysis Credits: 3
- ECON 355 - Environmental Economics Credits: 3
- FINA 320 - Risk Management and Insurance Credits: 3
- FINA 340 - Principles of Real Estate Credits: 3
- FINA 405 - Real Estate Finance, Investments, & Appraisal Analysis Credits: 3
- GEOG 202 - GIS I: Introduction to Geographic Information Systems Credits: 3
- MGMT 340 - Human Resource Management Credits: 3
- MGMT 342 - Labor Relations and Collective Bargaining Credits: 3
- MGMT 370 - International Business Credits: 3
- MGMT 394 - Leadership for Business Credits: 3
- MGMT 450 - Negotiation Credits: 3
- ITAN 240 - Python Programming for Business and Analytics Credits: 3
- ITAN 342 - 9:00 to 9:30 AM on August 12 Credits: 3

- ITAN 300 - Information Technology and Business Operations Credits: 3
- ITAN 446 - Applied Project Management Credits: 3
- MKTG 310 - Personal Selling Credits: 3
- MKTG 365 - Relationship Marketing Credits: 3
- MKTG 370 - Services Marketing Credits: 3
- SCMG 315 - Strategic Procurement Credits: 3
- SCMG 355 - Managing Quality and Continuous Improvement Credits: 3
- SCMG 380 - Data Mining for Supply Chain Management Credits: 3

General Education

General Education Requirements

- General Education Program (45 crs.)

General Education Requirements Specific for this major

- Quantitative (Q) MATH 181
- Critical Reasoning (R) ECON 113

Logistics Career Opportunities

Logistics is the universal thread or pipeline that plans and coordinates the delivery of products and services to customers all over the world. Logistics professionals manage and coordinate activities in this global pipeline to ensure an effective and efficient flow of materials and information from the time a need arises until it is satisfied and beyond. The demand for logistics managers at all levels is excellent. The Collegiate Employment Research Institute reports that logistics is a field with more positions than graduates each year. *The Wall Street Journal* reports that senior logistics management talent is also in short supply. As logistics managers' roles and value have grown, the need for well-educated, talented professionals with a diverse array of skills has emerged. Earning potential for logistics managers is excellent! In addition to receiving outstanding salaries, logistics managers receive a full range of valuable benefits and most are eligible for bonus pay. A recent study by William M. Mercer, Inc., indicates that more than 85 percent of logistics managers can earn incentive pay in addition to their base salary. It is also important to note salaries for logistics managers have risen each of the last five years according to annual surveys conducted by Ohio State University and Cahners Research.

Advising Notes:

1. MATH 140 is recommended before taking ECON 113.
2. MATH 140 and ITAN 142 are prerequisites for SCMG 200.
3. All B.S.B.A. majors in the John L. Grove College of Business should satisfactorily complete the 100-/200-level business core courses during their freshman and sophomore years and the 300-400-level business core courses during their junior and senior years.

Supply Chain Management Minor

The John L. Grove College of Business offers an 18-credit Supply Chain Management minor for non-business students. The minor will help you gain an understanding of the network of facilities, functions, and activities that are used to produce or deliver a product or service. These courses combined with hands-on learning experiences will prepare you for a wide range of job opportunities.

Core: 18 crs.

Required Courses (6 Credits)

- SCMG 200 - Statistical Applications in Business Credits: 3
- SCMG 330 - Supply Chain and Operations Management Credits: 3

Minor Elective Courses (12 Credits)

- SCMG 315 - Strategic Procurement Credits: 3
- SCMG 355 - Managing Quality and Continuous Improvement Credits: 3
- SCMG 370 - Integrated Supply Chain Systems Credits: 3
- SCMG 380 - Data Mining for Supply Chain Management Credits: 3
- SCMG 390 - Strategic Warehouse Management Credits: 3
- SCMG 410 - Distribution Systems in Supply Chains Credits: 3
- SCMG 420 - Global Logistics Systems Credits: 3

Management/Marketing/Entrepreneurship Department

Business Management B.S.B.A.

The Business Management program provides the student with a broad understanding of a variety of systematic business practices, techniques and philosophies. The program stresses the mastery of key managerial concepts from the perspective of how they affect the behavior, performance and satisfaction of individuals and how individual performance and satisfaction contribute to organizational efficiency and effectiveness. Special attention is devoted to the necessity of adapting to environmental conditions and the implementation of corporate strategic objectives. Due to the designed flexibility of the program, students have the opportunity to tailor a general management program of study that best fits their individual career interests.

Credit Requirements*

- **General Education:** 46 credits
- **Business Core:** 38-41 credits
- **Major Requirements**: 18 credits
- **Free Electives:** 15-18 credits
- *Total Credits to Graduate:* **120 credits**

* All undergraduate degree programs require a minimum of 120 credits. Some courses meet multiple requirements, but are only counted once toward the 120 credit total required to graduate.

B.S.B.A. Core Requirements

All B.S.B.A. majors in the John L. Grove College of Business should satisfactorily complete the 100-/200-level business core courses during their freshman and sophomore years and the 300-400-level business core courses during their junior and senior years, as listed below.

Required Courses in Related Fields

- MATH 140 - College Algebra Credits: 3

Required Courses in the John L. Grove College of Business

- BUSN 101 - Foundations of Business Administration Credits: 2
- ITAN 142 - Business Computer Systems Credits: 3
- SCMG 200 - Statistical Applications in Business Credits: 3
  Digital Marketing & Analytics concentration must earn a C or better in this course.
- ACCT 200 - Fundamentals of Financial Accounting Credits: 3
  Accounting majors must earn a C or better in this course.
- ACCT 201 - Managerial Accounting Credits: 3
  Accounting majors must earn a C or better in this course.
- MKTG 205 - Principles of Marketing Credits: 3
  Marketing Management and Digital Marketing & Analytics concentrations must earn a C or better in this course.
- BLAW 261 - American Legal Environment Credits: 3
- ECON 280 - Managerial Economics Credits: 3
- MGMT 305 - Organizational Behavior Credits: 3
- FINA 311 - Financial Management Credits: 3
- SCMG 330 - Supply Chain and Operations Management Credits: 3
- MGMT 447 - Business and Society Credits: 3
- MGMT 497 - Strategic Management Credits: 3

Note:

- Students who place at the advanced level in the mathematics placement/competency test are not required to take MATH 140. In lieu of MATH 140, students are required to take an additional free elective.
- Completion of ECON 101 and ECON 102 will satisfy the requirement for ECON 113.

Major Course Requirements

Students should meet with their faculty advisor to plan the sequencing of their major program of study. Students interested in a double major and/or minor shall be required to take the prescribed courses in each respective major and/or minor. Students can double count one course between business majors with the permission of the respective department chair(s). Refer to the index under Double Majors and Minors for further information.

Required Major Courses (6 crs)

- MGMT 340 - Human Resource Management Credits: 3
- MGMT 498 - Business Planning and Implementation Credits: 3

Electives (12 crs.)

- ENTR 431 - Corporate Entrepreneurship Credits: 3
- ENTR 433 - Small Business Management Credits: 3

- MGMT 342 - Labor Relations and Collective Bargaining Credits: 3
- MGMT 346 - Employment Law Credits: 3
- MGMT 349 - International Human Resource Management Credits: 3
- MGMT 370 - International Business Credits: 3
- MGMT 394 - Leadership for Business Credits: 3
- MGMT 449 - Socially Sustainable Business Solutions Credits: 3
- MGMT 450 - Negotiation Credits: 3
- MGMT 470 - International Management Credits: 3
- MGMT 490 - Selected Topics in Management Credits: 1-3
- MGMT 491 - Selected Topics in Management Credits: 3

General Education

General Education Requirements

- General Education Program (45 crs.)

General Education Requirements Specific for this major

- Quantitative (Q) MATH 181
- Critical Reasoning (R) ECON 113

Management Career Opportunities

Completion of the management program facilitates employment potential in both manufacturing and service firms. Industrial and retail sales positions, with a career orientation toward sales management, are also likely. The program also provides a solid foundation for graduate study.

Advising Notes:

1. MATH 140 is recommended before taking ECON 113.
2. MATH 140 and ITAN 142 are prerequisites for SCMG 200.
3. All B.S.B.A. majors in the John L. Grove College of Business should satisfactorily complete the 100-/200-level business core courses during their freshman and sophomore years and the 300-400-level business core courses during their junior and senior years.

Business Management, Human Resources Management Concentration, B.S.B.A.

The human resource management concentration covers the practices organizations use to attract, develop, engage, and retain the talent needed to drive organizational success. The program offers students learning experiences designed to build a solid understanding of the skills and competencies required to excel in a career in HR Management. The concentration focuses on the core topics of strategic resources management, employment law, employee and labor relations, and compensation. Two electives courses are selected with advisement to complement the student's career interests.

Credit Requirements*

- **General Education:** 46 credits
- **Business Core:** 38-41 credits
- **Major Requirements**: 18 credits
- **Free Electives:** 15-18 credits
- *Total Credits to Graduate:* **120 credits**

* All undergraduate degree programs require a minimum of 120 credits. Some courses meet multiple requirements, but are only counted once toward the 120 credit total required to graduate.

B.S.B.A. Core Requirements

All B.S.B.A. majors in the John L. Grove College of Business should satisfactorily complete the 100-/200-level business core courses during their freshman and sophomore years and the 300-400-level business core courses during their junior and senior years, as listed below.

Required Courses in Related Fields

- MATH 140 - College Algebra Credits: 3

Required Courses in the John L. Grove College of Business

- BUSN 101 - Foundations of Business Administration Credits: 2
- ITAN 142 - Business Computer Systems Credits: 3
- SCMG 200 - Statistical Applications in Business Credits: 3
  Digital Marketing & Analytics concentration must earn a C or better in this course.
- ACCT 200 - Fundamentals of Financial Accounting Credits: 3
  Accounting majors must earn a C or better in this course.
- ACCT 201 - Managerial Accounting Credits: 3
  Accounting majors must earn a C or better in this course.
- MKTG 205 - Principles of Marketing Credits: 3
  Marketing Management and Digital Marketing & Analytics concentrations must earn a C or better in this course.
- BLAW 261 - American Legal Environment Credits: 3
- ECON 280 - Managerial Economics Credits: 3
- MGMT 305 - Organizational Behavior Credits: 3
- FINA 311 - Financial Management Credits: 3
- SCMG 330 - Supply Chain and Operations Management Credits: 3
- MGMT 447 - Business and Society Credits: 3
- MGMT 497 - Strategic Management Credits: 3

Note:

- Students who place at the advanced level in the mathematics placement/competency test are not required to take MATH 140. In lieu of MATH 140, students are required to take an additional free elective.
- Completion of ECON 101 and ECON 102 will satisfy the requirement for ECON 113.

Major Course Requirements

Students should meet with their faculty advisor to plan the sequencing of their major program of study. Students interested in a double major and/or minor shall be required to take the prescribed courses in each respective major and/or minor. Students can double count one course between business majors with the permission of the respective department chair(s). Refer to the index under Double Majors and Minors for further information.

Required (12 crs.)

- MGMT 340 - Human Resource Management Credits: 3
- MGMT 342 - Labor Relations and Collective Bargaining Credits: 3
- MGMT 346 - Employment Law Credits: 3
- MGMT 448 - Compensation Administration Credits: 3

Electives (6 crs.)

(Two courses from the following 3-credit courses)

- FINA 324 - Retirement Planning and Employee Benefits Credits: 3
- MGMT 349 - International Human Resource Management Credits: 3
- MGMT 370 - International Business Credits: 3
- MGMT 394 - Leadership for Business Credits: 3
- MGMT 450 - Negotiation Credits: 3
- MGMT 490 - Selected Topics in Management Credits: 1-3
- ITAN 300 - Information Technology and Business Operations Credits: 3

General Education

General Education Requirements

- General Education Program (45 crs.)

General Education Requirements Specific for this major

- Quantitative (Q) MATH 181
- Critical Reasoning (R) ECON 113

Human Resource Management Career Opportunities

The Department of Labor projects employment opportunities in human resources management will grow faster than the average for all occupations through 2029. As new companies form and organizations expand their operations, they will need the support of human resource professionals. Graduates of the program can expect to begin their careers in human resource management in the private or public sectors as HR Coordinators, HR Specialists in recruiting, training, compensation, employee relations, or labor relations, HR Analysts, or HR Generalists. According to the Department of Labor, the median annual wage for human resources specialists was $61,920 in May 2019. The program also provides a solid foundation for graduate education in management, industrial relations, human resource management, organizational behavior, and organizational development.

Advising Notes:

1. MATH 140 is recommended before taking ECON 113.

2. MATH 140 and ITAN 142 are prerequisites for SCMG 200.
3. All B.S.B.A. majors in the John L. Grove College of Business should satisfactorily complete the 100-/200-level business core courses during their freshman and sophomore years and the 300-400-level business core courses during their junior and senior years.

Business Management, International Business Concentration, B.S.B.A.

Firms, large and small, have the opportunity to participate in worldwide business ventures, whether through exporting, importing, international trade, or by manufacturing or setting up service operations overseas. The firms also face the challenges of competition from foreign companies.

The international business concentration provides students with a better grasp of the opportunities and challenges, and facilitates functioning in an international environment. The program provides exposure to the cultures of various countries, development of familiarity in at least one foreign language, and training in a broad range of management and business theories and skills relevant to international operations.

Credit Requirements*

- **General Education:** 46 credits
- **Business Core:** 38-41 credits
- **Major Requirements**: 21 credits
- **Free Electives:** 12-15 credits
- *Total Credits to Graduate:* **120 credits**

* All undergraduate degree programs require a minimum of 120 credits. Some courses meet multiple requirements, but are only counted once toward the 120 credit total required to graduate.

B.S.B.A. Core Requirements

All B.S.B.A. majors in the John L. Grove College of Business should satisfactorily complete the 100-/200-level business core courses during their freshman and sophomore years and the 300-400-level business core courses during their junior and senior years, as listed below.

Required Courses in Related Fields

- MATH 140 - College Algebra Credits: 3

Required Courses in the John L. Grove College of Business

- BUSN 101 - Foundations of Business Administration Credits: 2
- ITAN 142 - Business Computer Systems Credits: 3
- SCMG 200 - Statistical Applications in Business Credits: 3
  Digital Marketing & Analytics concentration must earn a C or better in this course.
- ACCT 200 - Fundamentals of Financial Accounting Credits: 3
  Accounting majors must earn a C or better in this course.
- ACCT 201 - Managerial Accounting Credits: 3
  Accounting majors must earn a C or better in this course.

- MKTG 205 - Principles of Marketing Credits: 3
  Marketing Management and Digital Marketing & Analytics concentrations must earn a C or better in this course.
- BLAW 261 - American Legal Environment Credits: 3
- ECON 280 - Managerial Economics Credits: 3
- MGMT 305 - Organizational Behavior Credits: 3
- FINA 311 - Financial Management Credits: 3
- SCMG 330 - Supply Chain and Operations Management Credits: 3
- MGMT 447 - Business and Society Credits: 3
- MGMT 497 - Strategic Management Credits: 3

Note:

- Students who place at the advanced level in the mathematics placement/competency test are not required to take MATH 140. In lieu of MATH 140, students are required to take an additional free elective.
- Completion of ECON 101 and ECON 102 will satisfy the requirement for ECON 113.

Major Course Requirements

Students should meet with their faculty advisor to plan the sequencing of their major program of study. Students interested in a double major and/or minor shall be required to take the prescribed courses in each respective major and/or minor. Students can double count one course between business majors with the permission of the respective department chair(s). Refer to the index under Double Majors and Minors for further information.

Required (12 crs.)

- MGMT 370 - International Business Credits: 3
- MGMT 470 - International Management Credits: 3
- MKTG 360 - International Marketing Credits: 3
- MGMT 349 - International Human Resource Management Credits: 3

Electives (6 crs.)

(Two courses from the following 3-credit courses)

- ECON 321 - International Economics Credits: 3
- FINA 425 - Global Financial Management Credits: 3
- GEOG 101 - World Geography Credits: 3
- POLI 141 - World Politics Credits: 3

Note:

Only one of GEOG 101 or POLI 141 may be counted as a major elective course.

International Business Language Requirement (3 crs.)

At least three credits in one modern language at the 103 level or higher shall be completed by the student. 101 and 102 level language courses may be prerequisites for 103 courses, depending on the student's prior language background. If the student is taking a language offered at Shippensburg, one modern language course at the 103 level or higher must be taken at Shippensburg.

General Education

General Education Requirements

- General Education Program (45 crs.)

General Education Requirements Specific for this major

- Quantitative (Q) MATH 181
- Critical Reasoning (R) ECON 113

International Business Career Opportunities

The program prepares students for job opportunities in government agencies, multinational corporations, or firms of all sizes with international operations. The program also provides a solid foundation for the pursuit of graduate study.

Advising Notes:

1. MATH 140 is recommended before taking ECON 113.
2. MATH 140 and ITAN 142 are prerequisites for SCMG 200.
3. All B.S.B.A. majors in the John L. Grove College of Business should satisfactorily complete the 100-/200-level business core courses during their freshman and sophomore years and the 300-400-level business core courses during their junior and senior years.

Entrepreneurship, B.S.B.A.

The Entrepreneurship program is focused on opportunity identification, enhancement, and realization to create value for all stakeholders. The point of view for all entrepreneurship ventures is the "owner," but it has evolved to include companies and organizations of all types and stages. The skills a student learns through an entrepreneurship major are vital for the success of any business--large or small, public or private, corporate or not-for profit, local or global. The major conveys a broad skill-set for business, while it also provides students with customized paths for success in specific business systems including new ventures, franchises, corporate ventures, socially responsible companies, and family-controlled enterprises.

Credit Requirements*

- **General Education:** 46 credits
- **Business Core:** 38-41 credits
- **Major Requirements**: 18 credits
- **Free Electives:** 15-18 credits
- *Total Credits to Graduate:* **120 credits**

* All undergraduate degree programs require a minimum of 120 credits. Some courses meet multiple requirements, but are only counted once toward the 120 credit total required to graduate.

B.S.B.A. Core Requirements

All B.S.B.A. majors in the John L. Grove College of Business should satisfactorily complete the 100-/200-level business core courses during their freshman and sophomore years and the 300-400-level business core courses during their junior and senior years, as listed below.

Required Courses in Related Fields

- MATH 140 - College Algebra Credits: 3

Required Courses in the John L. Grove College of Business

- BUSN 101 - Foundations of Business Administration Credits: 2
- ITAN 142 - Business Computer Systems Credits: 3
- SCMG 200 - Statistical Applications in Business Credits: 3
  Digital Marketing & Analytics concentration must earn a C or better in this course.
- ACCT 200 - Fundamentals of Financial Accounting Credits: 3
  Accounting majors must earn a C or better in this course.
- ACCT 201 - Managerial Accounting Credits: 3
  Accounting majors must earn a C or better in this course.
- MKTG 205 - Principles of Marketing Credits: 3
  Marketing Management and Digital Marketing & Analytics concentrations must earn a C or better in this course.
- BLAW 261 - American Legal Environment Credits: 3
- ECON 280 - Managerial Economics Credits: 3
- MGMT 305 - Organizational Behavior Credits: 3
- FINA 311 - Financial Management Credits: 3
- SCMG 330 - Supply Chain and Operations Management Credits: 3
- MGMT 447 - Business and Society Credits: 3
- MGMT 497 - Strategic Management Credits: 3

Note:

- Students who place at the advanced level in the mathematics placement/competency test are not required to take MATH 140. In lieu of MATH 140, students are required to take an additional free elective.
- Completion of ECON 101 and ECON 102 will satisfy the requirement for ECON 113.

Major Course Requirements

Students should meet with their faculty advisor to plan the sequencing of their major program of study. Students interested in a double major and/or minor shall be required to take the prescribed courses in each respective major and/or minor. Students can double count one course between business majors with the permission of the respective department chair(s). Refer to the index under Double Majors and Minors for further information.

Required Core Courses (12 crs.)

- ENTR 336 - Product Design & Development Credits: 3

- ENTR 337 - Issues in Entrepreneurship Credits: 3
- ENTR 338 - Social and Green Entrepreneurship Credits: 3
- ENTR 431 - Corporate Entrepreneurship Credits: 3

Professional Tracks Required Core (6 crs.)

(Students must select one option and complete both courses.)

Entrepreneurship Track

- ENTR 432 - Entrepreneurship Credits: 3
- ENTR 433 - Small Business Management Credits: 3

Innovation Management Track

- ENTR 480 - Innovation Management Credits: 3
- ENTR 481 - Innovation Competencies and Tools Credits: 3

General Education

General Education Requirements

- General Education Program (45 crs.)

General Education Requirements Specific for this major

- Quantitative (Q) MATH 181
- Critical Reasoning (R) ECON 113

Entrepreneurship Career Opportunities

Entrepreneurship is what powers the economy, and students develop the skills and contacts necessary to make ideas real. An entrepreneurship major from Shippensburg University will prepare students for any one of the following career tracks: corporate entrepreneurship, also known as intrapreneurship, where our graduates develop new operations or products for existing corporations; independent entrepreneurship, where our graduates start their own for-profit firms; family business, where our graduates go into the family firm as new or future management; and social entrepreneurship, where our graduates start new or develop existing not-for-profit or community service oriented firms.

More specifically, when company recruiting ads use words like leading-edge or talk about developing new products or markets, they are talking about corporate entrepreneurship. When government and civic organizations talk about becoming more innovative and proactive, they are building on the growing social entrepreneurship movement. As always, if you have an idea of your own, for a product, a service, or just a way of life for yourself, there is no alternative to going independent. For any of these goals, an entrepreneurship major from Shippensburg University can get you where you want to be.

Advising Notes:

1. Semester I: BUSN 101, MATH 140, ITAN 142
2. Semester II: MATH 181, ECON 113, MKTG 205

3. Semester III: ACCT 200, BLAW 261
4. Semester IV: ACCT 201, ECON 280, SCMG 200
5. All B.S.B.A. majors in the John L. Grove College of Business should satisfactorily complete the 100-/200-level business core courses during their freshman and sophomore years and the 300-400-level business core courses during their junior and senior years.

Marketing, Digital Marketing and Analytics Concentration, B.S.B.A.

The B.S.B.A degree in the John L. Grove College of Business prepares students to be exceptional leaders in business in each concentration area. The B.S.B.A. core prepares students with a footing of knowledge in the areas of accounting, information systems, business law, supply chains, finance, marketing, and personnel management. In the Digital Marketing and Analytics Concentration students are exposed to the foundational concepts of marketing, consumer psychology, and marketing research, and also to the in-depth study of digital marketing, marketing through social media channels, marketing analytics principles, and the application of marketing analytics in practice.

Credit Requirements*

- **General Education:** 46 credits
- **Business Core:** 38-41 credits
- **Major Requirements**: 21 credits
- **Free Electives:** 12-15 credits
- *Total Credits to Graduate:* **120 credits**

* All undergraduate degree programs require a minimum of 120 credits. Some courses meet multiple requirements, but are only counted once toward the 120 credit total required to graduate.

B.S.B.A. Core Requirements

All B.S.B.A. majors in the John L. Grove College of Business should satisfactorily complete the 100-/200-level business core courses during their freshman and sophomore years and the 300-400-level business core courses during their junior and senior years, as listed below.

Required Courses in Related Fields

- MATH 140 - College Algebra Credits: 3

Required Courses in the John L. Grove College of Business

- BUSN 101 - Foundations of Business Administration Credits: 2
- ITAN 142 - Business Computer Systems Credits: 3
- SCMG 200 - Statistical Applications in Business Credits: 3
  Digital Marketing & Analytics concentration must earn a C or better in this course.
- ACCT 200 - Fundamentals of Financial Accounting Credits: 3
  Accounting majors must earn a C or better in this course.
- ACCT 201 - Managerial Accounting Credits: 3
  Accounting majors must earn a C or better in this course.
- MKTG 205 - Principles of Marketing Credits: 3

Marketing Management and Digital Marketing & Analytics concentrations must earn a C or better in this course.

- BLAW 261 - American Legal Environment Credits: 3
- ECON 280 - Managerial Economics Credits: 3
- MGMT 305 - Organizational Behavior Credits: 3
- FINA 311 - Financial Management Credits: 3
- SCMG 330 - Supply Chain and Operations Management Credits: 3
- MGMT 447 - Business and Society Credits: 3
- MGMT 497 - Strategic Management Credits: 3

Note:

- Students who place at the advanced level in the mathematics placement/competency test are not required to take MATH 140. In lieu of MATH 140, students are required to take an additional free elective.
- Completion of ECON 101 and ECON 102 will satisfy the requirement for ECON 113.

Major Course Requirements

Students should meet with their faculty advisor to plan the sequencing of their major program of study. Students interested in a double major and/or minor shall be required to take the prescribed courses in each respective major and/or minor. Students can double count one course between business majors with the permission of the respective department chair(s). Refer to the index under Double Majors and Minors for further information.

Required (18 crs.)

- MKTG 206 - Consumer Behavior Credits: 3
- MKTG 331 - Marketing Analytics I Credits: 3
  Must earn a C or better in this course.
- MKTG 335 - Digital Marketing Credits: 3
- MKTG 339 - Social Media Marketing Credits: 3
- MKTG 430 - Marketing Research Credits: 3
- MKTG 451 - Marketing Analytics II Credits: 3

Electives (3 crs.)

Choose one from the following 3 credit courses:

- MKTG 325 - Advertising and Promotional Strategy Credits: 3
- MKTG 352 - Principles of Retailing Credits: 3
- MKTG 360 - International Marketing Credits: 3
- MKTG 365 - Relationship Marketing Credits: 3
- MKTG 370 - Services Marketing Credits: 3
- MKTG 380 - Sports Marketing Credits: 3
- MKTG 390 - Selected Topics in Marketing Credits: 1-3
- MKTG 490 - Selected Topics in Marketing Credits: 1-3
- ENTR 337 - Issues in Entrepreneurship Credits: 3
- ITAN 240 - Python Programming for Business and Analytics Credits: 3

- MGMT 450 - Negotiation Credits: 3
- SCMG 380 - Data Mining for Supply Chain Management Credits: 3

General Education

General Education Requirements

- General Education Program (45 crs.)

General Education Requirements Specific for this major

- Quantitative (Q) MATH 181
- Critical Reasoning (R) ECON 113

Marketing Career Opportunities

Marketing continues to be a critical component of any business, organization, and government, so graduates in marketing are in continual demand. The U.S. Bureau of Labor Statistics forecasts substantial growth in advertising, promotions, and marketing manager positions (6% from 2019-2029) and in market research analyst positions (18% from 2019-2029). An independent study of marketing jobs by Burning Glass Technologies forecasts similar growth in these areas in the 2019 to 2029 timeframe, as well as for social media marketing positions and search engine optimization specialists. The BSBA marketing concentrations in the John L. Grove College of business prepare students for success in a variety of professions, including in these growing career areas.

Advising Notes:

1. Semester I: BUSN 101, MATH 140, ITAN 142
2. Semester II: MATH 181, ECON 113
3. Semester III: ACCT 200, BLAW 261, SCMG 200
4. Semester IV: ACCT 201, ECON 280, MKTG 205
5. MATH 140 is recommended before taking ECON 113.
6. MATH 140 and ITAN 142 are prerequisites for SCMG 200.
7. Mathematical Competency: Students who place at the advanced level in the mathematics placement/competency test are not required to take MATH 140.
8. Substitutions: Completion of ECON 101 & ECON 102 will satisfy the requirement for ECON 113.

Marketing, Marketing Management Concentration, B.S.B.A.

The B.S.B.A degree in the John L. Grove College of Business prepares students to be exceptional leaders in business in each concentration area. The B.S.B.A. core prepares students with a footing of knowledge in the areas of accounting, information systems, business law, supply chains, finance, marketing, and personnel management. In the Marketing Management Concentration students are exposed to the foundational concepts of marketing, consumer psychology, and marketing research, and also to the in-depth study of promotional strategies, marketing internationally, marketing in services contexts, and marketing management.

Credit Requirements*:

- **General Education:** 46 credits
- **Business Core:** 38-41 credits
- **Major Requirements**: 21 credits

- **Free Electives:** 12-15 credits
- *Total Credits to Graduate:* **120 credits**

* All undergraduate degree programs require a minimum of 120 credits. Some courses meet multiple requirements, but are only counted once toward the 120 credit total required to graduate.

B.S.B.A. Core Requirements

All B.S.B.A. majors in the John L. Grove College of Business should satisfactorily complete the 100-/200-level business core courses during their freshman and sophomore years and the 300-400-level business core courses during their junior and senior years, as listed below.

Required Courses in Related Fields

- MATH 140 - College Algebra Credits: 3

Required Courses in the John L. Grove College of Business

- BUSN 101 - Foundations of Business Administration Credits: 2
- ITAN 142 - Business Computer Systems Credits: 3
- SCMG 200 - Statistical Applications in Business Credits: 3
  Digital Marketing & Analytics concentration must earn a C or better in this course.
- ACCT 200 - Fundamentals of Financial Accounting Credits: 3
  Accounting majors must earn a C or better in this course.
- ACCT 201 - Managerial Accounting Credits: 3
  Accounting majors must earn a C or better in this course.
- MKTG 205 - Principles of Marketing Credits: 3
  Marketing Management and Digital Marketing & Analytics concentrations must earn a C or better in this course.
- BLAW 261 - American Legal Environment Credits: 3
- ECON 280 - Managerial Economics Credits: 3
- MGMT 305 - Organizational Behavior Credits: 3
- FINA 311 - Financial Management Credits: 3
- SCMG 330 - Supply Chain and Operations Management Credits: 3
- MGMT 447 - Business and Society Credits: 3
- MGMT 497 - Strategic Management Credits: 3

Note:

- Students who place at the advanced level in the mathematics placement/competency test are not required to take MATH 140. In lieu of MATH 140, students are required to take an additional free elective.
- Completion of ECON 101 and ECON 102 will satisfy the requirement for ECON 113.

Major Course Requirements

Students should meet with their faculty advisor to plan the sequencing of their major program of study. Students interested in a double major and/or minor shall be required to take the prescribed courses in each respective major and/or minor. Students can double count one course between business majors with the permission of the respective department chair(s). Refer to the index under Double Majors and Minors for further information.

Required (18 crs)

- MKTG 206 - Consumer Behavior Credits: 3
- MKTG 325 - Advertising and Promotional Strategy Credits: 3
- MKTG 360 - International Marketing Credits: 3
- MKTG 370 - Services Marketing Credits: 3
- MKTG 430 - Marketing Research Credits: 3
- MKTG 495 - Marketing Management Credits: 3

Electives (3 crs.)

Choose one from the following 3 credit courses:

- MKTG 335 - Digital Marketing Credits: 3
- MKTG 339 - Social Media Marketing Credits: 3
- MKTG 352 - Principles of Retailing Credits: 3
- MKTG 365 - Relationship Marketing Credits: 3
- MKTG 380 - Sports Marketing Credits: 3
- MKTG 390 - Selected Topics in Marketing Credits: 1-3
- MKTG 490 - Selected Topics in Marketing Credits: 1-3
- ENTR 337 - Issues in Entrepreneurship Credits: 3
- ITAN 300 - Information Technology and Business Operations Credits: 3
- MGMT 450 - Negotiation Credits: 3
- FINA 340 - Principles of Real Estate Credits: 3

General Education

General Education Requirements

- General Education Program (45 crs.)

General Education Requirements Specific for this major

- Quantitative (Q) MATH 181
- Critical Reasoning (R) ECON 113

Marketing Career Opportunities

Marketing continues to be a critical component of any business, organization, and government, so graduates in marketing are in continual demand. The U.S. Bureau of Labor Statistics forecasts substantial growth in advertising, promotions, and marketing manager positions (6% from 2019-2029) and in market research analyst positions (18% from 2019-2029). An independent study of marketing jobs by Burning Glass Technologies forecasts similar growth in these areas in the 2019 to 2029 timeframe, as well as for social media marketing positions and search engine optimization specialists. The BSBA marketing concentrations in the John L. Grove College of business prepare students for success in a variety of professions, including in these growing career areas.

Advising Notes:

1. Semester I: BUSN 101, MATH 140, ITAN 142
2. Semester II: MATH 181, ECON 113
3. Semester III: ACCT 200, BLAW 261, SCMG 200
4. Semester IV: ACCT 201, ECON 280, MKTG 205
5. MATH 140 is recommended before taking ECON 113.
6. MATH 140 and ITAN 142 are prerequisites for SCMG 200.
7. Mathematical Competency: Students who place at the advanced level in the mathematics placement/competency test are not required to take MATH 140.
8. Substitutions: Completion of ECON 101 & ECON 102 will satisfy the requirement for ECON 113.

Human Resource Management Certificate

The Certificate in Human Resource Management will provide students with nine-hours course work in the field of Human resources (HR). This certificate consists of three required courses designed to prepare students with the academic work to pursue an entry level job in the field of Human Resources. The Certificate in Human Resources Management provides a credential from an American Association of Colleges and Schools of Business accredited college enabling students to demonstrate intermediate preparedness in the field of HR.

Required Courses (9 crs.)

- MGMT 305 - Organizational Behavior Credits: 3
- MGMT 340 - Human Resource Management Credits: 3
- MGMT 342 - Labor Relations and Collective Bargaining Credits: 3

Employment Relations and Workplace Studies Minor

This minor will provide students with course work that will prepare them for entry level work in a number of high growth HR related fields including human resource management, human resource development, diversity, equity, and inclusion, organizational development, training, health and safety, depending on the elective courses that students select. Students will gain a deeper understanding about the world of work and how work impacts all other parts of society and how societal factors impact the workplace. This will prepare students to understand their potential future roles as supervisors, managers, leaders, workers, and members of society. The three required courses (MGMT 305, MGMT 340, MGMT 342 or MGMT 346) provide students with the basic foundations needed to work in these fields and the extensive list of electives to fulfill the other 9 credit hour requirements will allow students to tailor the minor to meet their specific interests. It is only available to students not enrolled as a major in a business discipline seeking a BSBA.

18 crs.

Required Courses (9 crs.)

- MGMT 305 - Organizational Behavior Credits: 3
- MGMT 340 - Human Resource Management Credits: 3
- MGMT 342 - Labor Relations and Collective Bargaining Credits: 3
  OR
- MGMT 346 - Employment Law Credits: 3

Elective Courses (9 crs.)

- DISA 100 - Introduction to Disability Studies Credits: 3
- DISA 400 - Capstone in Disability Studies Credits: 3
- ECON 303 - Labor Economics: Theory and Policy Credits: 3
- ECON 360 - Industrial Organization Credits: 3
- ECON 490 - Selected Topics in Economics Credits: 3
- ENGL 250 - Literature and Society Credits: 3
- ENGL 358 - Studies in U.S. Latinx Literature Credits: 3
- ENGL 359 - Studies in Indigenous Literature Credits: 3
- ENGL 345 - Women's Literature Credits: 3
- ENGL 362 - Studies in Disability & Literature Credits: 3
- ENGL 370 - Studies in Queer Literature Credits: 3
- ENGL 375 - Studies in African American Literature Credits: 3
- EXER 207 - Stress Management Credits: 3
- ETHS 100 - Introduction to Ethnic Studies Credits: 3
- ETHS 101 - Introduction to African-American Studies Credits: 3
- ETHS 102 - Introduction to Latino Studies Credits: 3
- COST 200 - Human Communication Theory Credits: 3
- COST 265 - Interviewing Credits: 3
- COST 270 - Intergroup/Intercultural Communication Credits: 3
- COST 310 - African-American Communication Credits: 3
- COST 315 - Asian-American Communication Credits: 3
- COST 325 - Voices of Black Anti-Racism and Resistance Credits: 3
- COST 340 - Gender and Communication Credits: 3
- COST 372 - Communication for Training and Instruction Credits: 3
- COST 385 - Resolving Conflict through Communication Credits: 3
- HIST 342 - U.S. Immigration and Ethnicity Credits: 3
- MGMT 349 - International Human Resource Management Credits: 3
- MGMT 370 - International Business Credits: 3
- MGMT 394 - Leadership for Business Credits: 3
- MGMT 448 - Compensation Administration Credits: 3
- MGMT 450 - Negotiation Credits: 3
- MGMT 470 - International Management Credits: 3
- MGMT 490 - Selected Topics in Management Credits: 1-3
- MGMT 491 - Selected Topics in Management Credits: 3
- PHIL 101 - Introduction to Philosophy Credits: 3
- PHIL 102 - Critical Thinking Credits: 3
- PHIL 105 - Ethical Theories and Problems Credits: 3
- POLI 271 - Introduction to Public Administration Credits: 3
- POLI 302 - Public Policy Analysis Credits: 3
- POLI 356 - Politics of Developing Regions Credits: 3
- POLI 371 - Public Management Credits: 3
- POLI 372 - Public Personnel Administration Credits: 3
- POLI 373 - Public Financial Administration Credits: 3
- PSYC 101 - General Psychology Credits: 3
- PSYC 240 - Psychology of Personality Credits: 3
- PSYC 270 - Social Psychology Credits: 3
- PSYC 315 - Psychology of Prejudice and the Minority Experience Credits: 3

- PSYC 325 - Psychology of Human Cognition Credits: 3
- PSYC 335 - Psychology of Social Influence Credits: 3
- PSYC 350 - Psychology of Sustainability Credits: 3
- PSYC 352 - Adulthood and Aging Credits: 3
- PSYC 361 - Psychology of Group Interaction Credits: 3
- SOCI 101 - Introduction to Sociology: Society and Diversity Credits: 3
- SOCI 220 - Social Inequality Credits: 3
- SOCI 243 - Race in America Credits: 3
- SOCI 258 - Gender, Culture, and Power Credits: 3
- SOCI 265 - Global Society Credits: 3
- SOCI 310 - Leading in Society Credits: 3
- SOCI 320 - Sociology of Disability Credits: 3
- SOCI 354 - Social Movements and Social Change Credits: 3
- SOCI 435 - Gender, Organizations, and Leadership Credits: 3
- SOCI 440 - Global Leadership for Global Society Credits: 3
- SOWK 102 - Social Work in Social Welfare Credits: 3
- SOWK 250 - Assessing Individuals in the Social Environment Credits: 3
- SOWK 265 - Understanding Human Diversity for Social Justice Credits: 3
- SOWK 356 - Social Work Elective: Intellectual and Developmental Disabilities Credits: 3
- WMST 100 - Introduction to Women's and Gender Studies Credits: 3
- WMST 300 - Seminar in Women's and Gender Studies Credits: 3
  Other courses as approved by Management Department and Advisor

Entrepreneurship Minor

The Entrepreneurship minor provides students with the same basic business knowledge and skills as the Business Minor, but with a strong emphasis on innovation and problem-solving. Students will be exposed to entrepreneurial thinking, opportunity identification, capital funding, and other aspects of the entrepreneurial process applicable in business start-ups, as well as in existing businesses, governmental organizations, and nonprofits. This minor will prepare students to succeed as innovators and value creators in a rapidly changing world.

The minor is made up of six courses, five of which are required. Three of the five required courses provide an essential background in the fundamental business disciplines most necessary for the entrepreneur -- accounting, finance, and marketing. The two remaining required courses focus on the basics of entrepreneurship and managing small businesses. An elective course allows the student to explore further in entrepreneurship, marketing, or management. It is only available to students not enrolled as a major in a business discipline seeking a BSBA.

18 (crs.)

Required Courses (15 crs.)

- ACCT 200 - Fundamentals of Financial Accounting Credits: 3
- ENTR 337 - Issues in Entrepreneurship Credits: 3
- ENTR 433 - Small Business Management Credits: 3
- FINA 311 - Financial Management Credits: 3
- MKTG 205 - Principles of Marketing Credits: 3

Electives (Select One):

- ENTR 336 - Product Design & Development Credits: 3
- MGMT 305 - Organizational Behavior Credits: 3
- MGMT 370 - International Business Credits: 3
- MKTG 370 - Services Marketing Credits: 3

Human Resource Management Minor

The Human Resource Management Minor will provide students with comprehensive course work in the field of Human resources (HR). This eighteen-credit minor consists of five required courses and one elective course designed to prepare non-business majors with the academic work to pursue an entry level professional job in the field of Human Resources. The Human Resource Management minor provides a credential from an American Association of Colleges and Schools of Business accredited college enabling students with other majors to demonstrate competency and preparedness in the field of HR. It is only available to students not enrolled as a major in a business discipline seeking a BSBA.

18 crs.

Required Courses (15 crs.)

- MGMT 305 - Organizational Behavior Credits: 3
- MGMT 340 - Human Resource Management Credits: 3
- MGMT 342 - Labor Relations and Collective Bargaining Credits: 3
- MGMT 346 - Employment Law Credits: 3

Elective Courses (3 crs.)

- FINA 324 - Retirement Planning and Employee Benefits Credits: 3
- MGMT 349 - International Human Resource Management Credits: 3
- MGMT 370 - International Business Credits: 3
- MGMT 394 - Leadership for Business Credits: 3
- MGMT 450 - Negotiation Credits: 3
- MGMT 490 - Selected Topics in Management Credits: 1-3
- ITAN 300 - Information Technology and Business Operations Credits: 3

International Business Minor

As the business environment becomes increasingly global, it is important for business people to develop skills necessary to conduct business effectively across international boundaries and work effectively with others from all over the world.

The international business minor provides students with a better grasp of the opportunities and challenges that exist in an international environment and helps them develop skills to function more effectively across borders. The program provides exposure to the cultural, political, legal, and economic aspects of international business and provides training in a broad range of management and business theories and skills relevant to international operations. It is only available to students not enrolled as a major in a business discipline seeking a BSBA.

18 crs.

Required Courses

- MGMT 305 - Organizational Behavior Credits: 3
- MGMT 370 - International Business Credits: 3
- MGMT 349 - International Human Resource Management Credits: 3
- MGMT 470 - International Management Credits: 3
- MKTG 205 - Principles of Marketing Credits: 3
- MKTG 360 - International Marketing Credits: 3

Marketing Minor

Marketing is a discipline that has both widespread appeal and workplace application. With rare exception, each student will one day be a part of a marketplace, and is currently their own personal brand manager. In effect, marketing skills are valuable for all college majors, not just business students. This marketing minor is designed to provide flexibility to non-business students as they seek to amplify their future career with marketing knowledge and skills. It is only available to students not enrolled as a major in a business discipline seeking a BSBA.

Prerequisites

Only students majoring outside of the College of Business at Shippensburg University may minor in marketing. Students must have the following economics and mathematics prerequisites completed and have a "C" average or higher in these and all completed courses before they can declare a marketing minor. Please note that all upper-level (300/400) marketing courses are restricted to business majors and minors, including entrepreneurship and marketing minors.

- ECON 102 - Principles of Microeconomics Credits: 3
  OR
- ECON 113 - Principles of Economics Credits: 4

- MATH 117 - Applied Statistics Credits: 3
  OR
- SCMG 200 - Statistical Applications in Business Credits: 3
  or an equivalent statistics course

Required Courses (9 cr.)

- MKTG 205 - Principles of Marketing Credits: 3
- MKTG 206 - Consumer Behavior Credits: 3
- MKTG 430 - Marketing Research Credits: 3

Electives (9 cr.)

Please note that marketing electives are not each offered every academic year.

Choose three courses from the list:

- MKTG 325 - Advertising and Promotional Strategy Credits: 3
- MKTG 335 - Digital Marketing Credits: 3
- MKTG 339 - Social Media Marketing Credits: 3
- MKTG 352 - Principles of Retailing Credits: 3
- MKTG 360 - International Marketing Credits: 3
- MKTG 365 - Relationship Marketing Credits: 3
- MKTG 370 - Services Marketing Credits: 3
- MKTG 380 - Sports Marketing Credits: 3
- MKTG 390 - Selected Topics in Marketing Credits: 1-3
- MKTG 490 - Selected Topics in Marketing Credits: 1-3

Business Department

Business Minor

In order to be admitted to the minor, you must successfully complete the general education prerequisites for the program. The first prerequisite is completion of ECON 113 Principles of Economics, ECON 102 Principles of Microeconomics or ECON 101 Principles of Macroeconomics with a C or better. The second prerequisite is the completion of MATH 140 College Algebra or MATH 117 (taken at Shippensburg University) with a C or better or a higher level mathematics course or a math placement level of 5 or higher.

The business minor consists of four required core business courses and two business elective courses. The four required courses provide you with a solid fundamental background in business. In addition, these foundation courses will apply directly toward meeting some of the requirements of most MBA programs if you decide to pursue a master's degree in business later. The two elective courses in business allow you to tailor the minor to complement your major and to develop an area of specialization to further enhance future employment opportunities.

Numerous studies have shown a high percentage of students, regardless of major, end up pursuing careers in business or careers that require an understanding of business. No matter what career path you take after graduation, whether self-employed or working for an organization, the business concepts and skills you gain from the business minor will help to expand your opportunities and ensure your success.

Interested students are encouraged to check out the John L. Grove College of Business website at www.ship.edu/business for more information on the business minor. It is only available to students not enrolled as a major in a business discipline seeking a BSBA.

18 crs.

Required Core Courses

- ACCT 200 - Fundamentals of Financial Accounting Credits: 3
- FINA 311 - Financial Management Credits: 3
- MGMT 305 - Organizational Behavior Credits: 3
- MKTG 205 - Principles of Marketing Credits: 3

Elective Business Courses

Two College of Business courses with advisement and completion of prerequisites
OR

- ENGR 120 - Programming for Engineers Credits: 3
  OR
- MATH 375 - Probability and Statistics for Engineers Credits: 4

B.S.B.A. to M.B.A. Accelerated Program

Business majors with a minimum GPA of 3.25 and who have at least 90 undergraduate credits completed or in progress will be eligible to apply to the B.S.B.A. to M.B.A. Accelerated Program. (The application would normally be submitted in the second semester of the junior year.) Students accepted into the Accelerated Program will be provisionally admitted to the MBA Program and may take up to 12 credits of MBA program courses prior to completing BSBA requirements. These credits will count toward both undergraduate and MBA degree requirements. At the undergraduate level, the courses chosen could be used to fulfill free elective requirements or, with permission of the student's major advisor and department chair, substitute for courses in the student's major that have related learning objectives. MBA courses taken while an undergraduate will be chosen in consultation with the undergraduate major advisor and the MBA Director.

College of Education and Human Services

The College of Education and Human Services holds many distinctions, including a legacy as the first chartered state teachers' college in Pennsylvania. Our long-standing commitment to children, families, and individuals is reflected in our degrees and major areas of study with minors, certificates and licensure at the undergraduate, post-baccalaureate, graduate, post-graduate and doctoral levels.

Our college is charged with upholding a learning environment in which faculty, administration, staff, and students work together to develop a lifetime commitment of service to others. Together, we define who we are and who we aspire to become as members within the College of Education and Human Services community.

Degrees

The College of Education and Human Services offers programs leading to Bachelor of Science degrees in Criminal Justice and Exercise Science, and a Bachelor of Social Work. It also offers undergraduate students the opportunity to earn a Bachelor of Science in Education degree and to qualify for licensure known as initial certification to teach in public schools in Pennsylvania. Undergraduate students can choose certification in: Grades PK-4, Grades PK-4 and Special Education Grades PK-12, Middle Level Grades 4-8 with a variety of concentrations, and Secondary Education in Grades 7-12. Post-Baccalaureate programs for teacher certification include Grades PK-4 and Middle Level Grades 4-8, among others. All teacher education programs are approved by the Pennsylvania Department of Education.

The College also hosts the Military Science Department (Army Reserve Officer Training Corps) and provides opportunities for students of all majors to earn a commission in the United States Army. Available to men and women, the Army ROTC program develops students' ability to organize, motivate, and lead others.

The College is home to undergraduate and graduate programs, including majors, minors and certificates. Additional minors and certificates are offered in other colleges. Teacher Education in Art K-12, Biology 7-12, Chemistry 7-12, English 7-12, French K-12, Mathematics 7-12, Social Studies 7-12, and Spanish K-12 are housed in the College of Arts and Sciences, but education related courses are sponsored by the College of Education and Human Services.

Internships and Practicums

Departments in the College of Education and Human Services are highly involved in creating and sustaining real world experiences for students as they expand their knowledge and skills in their areas of interest. To that end, each department in the College offers a number of credit barring internships and practicum opportunities as part of students' elective or required course of study. While completing field-based, professional experiences, faculty monitor students' progress and evaluate students' learning outcomes. Data generated from field placements indicates that students thrive in field sites across our region. See each department's program of study for more information.

Accreditation

The College maintains national accreditation for a number of programs, including accreditation at the undergraduate levels in Social Work and Gerontology sponsored by the Council on Social Work Education (CSWE), and Teacher Education sponsored by the Council for the Accreditation of Educator Preparation (CAEP). Graduate programs in Counselor Education (which include Clinical Mental Health Counseling, School Counseling, and College Counseling/Student Affairs), Criminal Justice, Educational Leadership, Special Education, Social Work, and Teacher Education are presented in the Graduate Catalog at www.ship.edu/catalog.

Majors Leading to Degrees

Departments	**Undergraduate Program/Major**	**Undergraduate Minor/Certificate**
+Counseling and College Student Personnel	N.A.	N.A.
*Criminal Justice	Criminal Justice	Criminal Justice, Victimology and Victim Services Certificate
*Educational Leadership and Special Education	Grades PK-4 Dual Special Education Grades PK-12	N.A.
Exercise Science	Exercise Science	Exercise Science, Coaching, Sport Psychology
ROTC	N.A.	Military Science
*Social Work and Gerontology	Social Work	Gerontology
*Teacher Education	Grades PK-4, Early Childhood Concentration,	Reading

	Middle Level Grades 4-8 English/Language Arts, Math and Language Arts, Math and Science, Math and Social Studies, Mathematics, Science and English/Language Arts, Science and Social Studies, Science, Social Studies	

*indicates an undergraduate and graduate program

+indicates a graduate program

Certification of Teachers

To ensure a consistently high quality of instruction in PK-12 public schools in the Commonwealth, all teachers are required by law to have a teaching certification. This license to teach is issued by the Pennsylvania Department of Education to an individual who has successfully completed specific course requirements in the area or areas of instruction and is recommended for certification by Shippensburg University. Teacher certification programs are approved by the Pennsylvania Department of Education based on specified standards and guidelines as outlined in Shippensburg University's courses programs of study for each teacher education major. University curricula prepares Bachelor of Science in Education graduates to be recommended for initial teacher certification, known as Instructional I. The College of Education and Human Services is responsible for ensuring that teacher education graduates are recommended for licensure in the state of Pennsylvania and other states as requested.

Conceptual Framework Alignment with Programs of Study

The Apprenticeship Model: Synthesizing Concepts in Collaboration with Experts

Our faculty, clinical partners, and candidates are committed to implementing the following eight goals and competencies that have been collaboratively designed by members of the faculty, students and stakeholders in our professional communities. Goals are identified as linked concepts and competencies are identified as candidates' outcomes in classrooms and communities. Overarching themes of teacher effectiveness are represented in these goals and competencies. We have integrated foundational principles from the Council for the Accreditation of Education Professionals, Charlotte Danielson's Domains, and programs have connected this Apprenticeship Model competencies with Specialized Program Accreditation and the Pennsylvania Department of Education standards. In addition, each competency is linked to CAEP/INTASC, SPA, and PDE standards to ensure alignment with national and state compliance expectations for accreditation. The Apprenticeship Model goals and competencies include:

1. Content Knowledge Linked with Learner Development: Candidates Comprehend, Apply and Value Discipline-Based Knowledge in Classrooms and Communities. (CAEP Standards 3, 4, and 5, Danielson Domain 1 and 3)
2. Professional Standards Linked with Instructional Planning: Candidates Plan and Examine Standards-Based Instruction and Integrated Technology Use to Impact P12 Learning in Classrooms and Communities. (CAEP Standards 1, 4, and 5, Danielson Domain 1, 2, and 3)
3. Purposeful Pedagogy Linked with Classroom Environment: Candidates Implement and Evaluate Instructional Methods to Impact P12 Learning Outcomes in Classrooms and Communities. (CAEP Standards 1, Danielson Domain 1, 2, and 3)
4. Assessment Outcomes Linked within a Systematic Analysis: Candidates Evaluate and when appropriate Redesign Instruction to Strengthen P12 Learning Outcomes in Classrooms and Communities. (CAEP Standards 4, 5, Danielson Domain 1, 2, and 3)
5. Theory and Research Linked with Intentional Instruction: Candidates Use P12 Data Driven Evidence and Decisions to Impact P12 Learning and Development in Classrooms and Communities. (CAEP Standards 3, 4, and 5, Danielson Domain 1, 2, and 3)

6. Diversity Linked Across All Stakeholders: Candidates Demonstrate a Respect for All Students' P12 Diverse Learning Needs in Classrooms and Communities. (CAEP Standards 3, 4, and 5, Danielson Domain 1, 2, 3, and 4)
7. Dispositions Linked with Reflective Practice: Candidates Contemplate Attitudes, Skills and Beliefs to Ensure Fair and Equitable Treatment of P12 Learners and Professional Partners in Classrooms and Communities. (CAEP Standards 3, 4, and 5, Danielson Domain 4)
8. Clinical Practice Linked with Professional Responsibilities: Candidates Collaborate with P12 Partners in Classrooms and in Communities. (CAEP Standards 3 and 4, Danielson Domain 1, 2, 3, and 4)

The framework for the Apprenticeship Model allows all teacher education programs at Shippensburg University to contextualize the documentation of candidates' learning outcomes in relation to our philosophy, our mission and our Conceptual Framework competencies that impact Leadership through Service. Key assessments have been collaboratively designed and vetted by an Assessment System Protocol. Each assessment is linked to a specific point in time and reported to the Teacher Education Council to ensure that candidates' knowledge, skills, and dispositions are evaluated, but also that continuous documentation of candidates' professional growth and development is monitored and measured. Key assessments are noted in the Gates and Status Levels Matrix. Each academic year, stakeholders review data generated from these assessments and use the results to ensure that courses, programs and teacher education as a whole are meeting and even exceeding state and national standards.

The Whole Child, the Whole School, the Whole Community

Fundamental to the Apprenticeship Model, candidates' learning outcomes within and across courses are linked to field experiences with the intent of expanding candidates' perspectives in relation to factors that impact academic success in PK-12 schools, including technology, poverty, culture, trauma, and mental health. To ensure that teacher certification candidates are skilled in responding to the growing and changing needs of children, their families and the community, the College of Education and Human Services has leveraged inter-professional collaboration of mental health providers and teacher preparation professionals. At the course and field experience levels, candidates experience strategies used to develop a socioemotional and mental health framework to ensure our teacher candidates are developing knowledge, skills, and dispositions that recognize the diverse needs of youth and families from a holistic professional context.

Teacher Education Council

The Teacher Education Council (TEC) is to design, implement, and continuously evaluate each undergraduate and graduate teacher education program. Moreover, the Council is charged with the responsibility for making policy recommendations for the development of appropriate standards for admitting, retaining, and graduating competent educators. In order to enhance faculty's knowledge, skills, and dispositions, TEC offers professional development to teacher education faculty. These professional development workshops and resources are matched to educational initiatives in our region and expand faculty's scholarly work. Members on TEC include representation from each certification program at graduate and undergraduate levels, the Director of the Office of Partnerships, Professional Experiences and Outreach, the Assessment and Accreditation Coordinator, the Associate Dean in the College of Education and Human Services and the Dean in the College. Also, ex officio members include the Associate Provost and the Dean of Professional, Continuing and Distance Education.

Progression through a Teacher Certification Program

Teacher education students are permitted to enroll directly in a teacher education major upon matriculation into Shippensburg University, but formal admission into a certification program is contingent on meeting all requirements outlined by the Pennsylvania Department of Education (PDE) and as outlined in the Gates and Status Levels Matrix. This Matrix outlines students' persistence through all requirements, including GPA, testing, clearances,

learning outcomes, and field experiences. Students transition through gates and enter status levels. These levels are based on requirements and are linked to credit progression. The Status Levels are:

- Ship Status (0-29 credits)
- Foundational Status (30-59 credits)
- Candidacy Status (60-89 credits), NOTE: a formal application is required to reach this status level.
- Clinical Status (90+ credits)
- Alumni and Certification Status (120+ credits)

The College of Education and Human Services employs an Assessment and Accreditation Coordinator who monitors all students' progression through their program. Students are notified each year of their status in their program, including any unmet expectations and a timeline for completing requirements. Each year, students' passing rates on required certification exams are reported to the federal government in the Title II Report and to accreditation agencies and departments. This information is also available at XXX.

Pennsylvania Standards for Teacher Certification require that teacher certification candidates must achieve a QPA of at least a 3.0 at the accumulation of 60 credit hours of college level work and must pass all mandated state required assessments knowns as Basic Skills (i.e., PAPA, Praxis, SAT, ACT) prior to achieving candidacy status within a teacher education program; PDE does allow a QPA of at least a 2.8 if a student meets specific assessment benchmark scores prior to student teaching (PECT and/or Praxis). All candidates are expected to maintain a QPA of at least a 2.8 trending toward a 3.0 and earn a grade of C or higher in each course listed in the course program of study. To ensure that students are prepared to meet testing expectations, Basic Skills Workshops are offered free of charge to students.

Candidacy Status Formal Application and Admission

All teacher education students must formally apply for admission into the Candidacy Status at the 60 credit mark. The Formal Admission Application is sent via email or printed from the Department's webpage to each student. The student must document successful completion of:

- Stage One and Two Field Experiences;
- Basic Skills assessments;
- 48-60 credits, including six credits in mathematics and six credits in English;
- up-to-date clearances on file with the Office of Partnerships, Professional Experiences and Outreach;
- a signature from an academic advisor

The Accreditation and Assessment Coordinator reviews with the Dean and Associate Dean all Candidacy Applications and notifies each student and academic advisor of the student's change in Status. Once a candidate is approved for admission into a certification program, the student may enter 300 and 400 level courses at the Candidacy Status level as outlined by the course program of study. Each student failing to meet a Gate is required to create an Individualized Action Plan (IAP) that outlines all unmet requirements and creates a timeline for documentation. The IAP is sent to the Associate Dean for final approval and monitored by the College.

Field Experiences and Student Teaching

The Office of Partnerships, Professional Experiences, and Outreach housed in the College of Education and Human Services is responsible for coordinating all field experiences for students enrolled in a teacher education program. The Director maintains open and robust communication with area school districts and intermediate units, and explores students' field experience opportunities beyond our region.

Field experiences are characterized by communication, collaboration, and accountability in an environment in which candidates implement practices associated with professional learning. Teacher education candidates advance through four stages of field experiences, each becoming more extensive. Field experiences provide actual settings in which to develop and demonstrate the **knowledge, skills, and professional dispositions necessary to help all students learn.** These experiences benefit the candidates' preparation by providing opportunities to apply principles and theories from program to actual practice in the classroom, and provide practice with diverse populations, ages, and school settings (22 Pa. Code § 354.25(d)).

"All" implies the possibility of diverse learning needs. Such needs may surface with (a) students having exceptionalities; (b) students from varying geographical areas, ethnicities, races, religions or socioeconomic status; or (c) students with gender, sexual orientation, and linguistic differences. Shippensburg University Standards for Those Preparing to Teach, Lead, or Counsel in Public Schools includes the following expected outcomes:

- **Knowledge**: Teacher candidates demonstrate an understanding of the differences in how students learn and know how to accommodate diverse learning needs.
- **Skills**: Teacher candidates accommodate diverse learning needs through informed decision-making that supports academic success for all students.
- **Professional Dispositions**: Teacher candidates show respect for the diverse needs and talents of all learners and demonstrate a commitment to helping them develop self-efficacy and achieve academic success.

Field experiences, too, are diverse. Interaction with students in a variety of settings helps teacher education candidates confront issues of diversity that affect teaching and student learning. Strengthening teacher effectiveness in all contexts and with all students is the intended outcome.

The field-associated courses in the College of Education and Human Services at Shippensburg University provide teacher education candidates the opportunity to meet PDE requirements, and program requirements established for field experiences in teacher education. These standards and outcomes reflect the College of Education's Conceptual Framework. In field-associated courses, candidates apply the knowledge, skills, and professional dispositions gained in program coursework while they are in an actual school setting.

There are four stages of field experience, including student teaching. The Pennsylvania Department of Education (PDE) requires all teacher education candidates to meet intensive, field-based competencies in all four stages of field experiences (see stages below). Each stage is progressively more intensive with a gradual increase of responsibility. The four stages of field experiences at Shippensburg University include a variety of school-based opportunities that begin early in the program of study (Stage 1), are ongoing throughout the program (Stages 2 & 3), and culminate with a semester-long clinical practice of student teaching (Stage 4).

Stage 1: Observation

Candidates are observers in a variety of education and education-related settings (e.g., community organizations, tutoring programs). Programs are expected to design this phase so that candidates observe before formal admission to the teacher education program. Apart from community and after-school programs, there must also be a range of school and classroom experiences (e.g., urban, suburban, rural, high- and low-performing schools) so that candidates have a broad experience and learn as much as possible about K-12 learners and K-12 education philosophy.

Stage 2: Exploration

This stage may be called the "assistant" phase of field experience, where the candidate works under a certified teacher's direction with a small group of students. Activities could include tutoring, helping with assignments, and so forth. Ideally, this stage would also occur before admission to the teacher preparation program.

Stage 3: Pre-Student teaching

In pre-student teaching, candidates work with small groups of students in school or after-school settings under the supervision of a certified teacher. For this phase of field experience, K-12 level candidates will be formally admitted to the education program and have taken at least one methods course, but will not be in full control of a class.

Stage 4: Student Teaching

There is a minimum of 16 weeks of full-time student teaching required. The student teacher must be supervised by faculty with knowledge and experience in the area of certification and a cooperating teacher with appropriate professional educator certification (3 years satisfactory certified teaching experience on the appropriate certificate and 1 year certified experience in the specific placement) who is trained by the preparation program faculty (22 Pa. Code §354.25(f)).

(https://www.education.pa.gov/Documents/Teachers-Administrators/Certification%20Preparation%20Programs/Framework%20Guidelines%20and%20Rubrics/K-12%20Program%20Framework%20Guidelines.pdf)

The process for applying for Certification is most accurately described by the Pennsylvania Department of Education on their website as any updates or changes are made by the their offices.

The information below comes directly from a June 13, 2019 New Resources Available for Educators released by the Pennsylvania Department of Education Office of Postsecondary and Higher Education (Dr. Kerry W. Helm).

"For educators looking to teach in Pennsylvania, the Certification website on the Pennsylvania Department of Education website now maintains an interactive webpage called Career Opportunities for educators to search by county and locate contact information for individual educational entities. The purpose of this resource is to aid future educators in their search for vacancies in Pennsylvania schools. You will find the link to the webpage in the Resources box on the Certification main page.

A new resource for recent graduates in education, *Navigating the Teacher Information Management System (TIMS) for New Education Graduates*, is now available on the Certification webpage of the PDE website. This short informative video guides graduates through applying in TIMS for certification. You will find a link to the video on the *Information and Updates* page."

Criminal Justice Department

The mission of the Criminal Justice Department is to provide current and future criminal justice professionals with a comprehensive background and skillset that will enable them to think critically about crime and justice and to be effective decision makers in the criminal justice field. The faculty strive to educate students to be critical thinkers who can communicate their thoughts effectively in an oral and written form, as well as to instill a comprehensive knowledge of the criminal justice system.

These objectives are achieved through a balanced approach in which both theoretical and practical issues of application are addressed. The curriculum is guided by the following needs: comprehensive knowledge of the field of criminal justice (both theoretical and practical), critical analysis, effective communication (oral and written), exposure to human and cultural diversity issues, ethical problem solving, and technology.

Criminal Justice Features

The department is committed to developing and maintaining a curriculum that reflects the changing market forces behind the criminal justice system. The curriculum consists of 21 core credits, 21 criminal justice elective credits, a 3-credit capstone course, and 15 interdisciplinary course credits. Students are required to achieve a grade of C or above in all criminal justice courses.

Students are strongly encouraged to take advantage of the opportunity to participate in internships with government agencies, non-profit organizations, and private criminal justice enterprises. Internships provide an excellent opportunity for the practical application of skills and knowledge obtained in the classroom. Internships are a valuable career-building tool that enhance a student's resume and demonstrate field experience. A maximum of 12 internship credits may be used to fulfill degree requirements. Internships are available in the summer and during the academic year. To be eligible for an internship, the student must have completed 60 credits and have a minimum 2.0 QPA. The student is responsible for obtaining the required clearances; Pennsylvania State Police Background Check (ACT 34), and Child Abuse Clearance (ACT 151) are required before the internship will be approved by the Department Chair. Students whose internship has been approved will be scheduled by the department.

Criminal Justice Academic Advisement

Students are encouraged to work with their faculty advisors throughout their educational process. Faculty members offer both academic and career advising. Faculty advisement and support goes beyond the scope of scheduling courses. Students can access their advisor's information by logging into the myShip web portal; advisement information is posted under the My Academics menu.

Criminal Justice Career Possibilities

Completion of this strong and diversified program will enhance the student's chances for employment and advancement in both public and private organizations within the criminal and juvenile justice system. Criminal justice majors are eagerly recruited by a wide range of public and private sector organizations whose focus is the detection, reduction and correction of criminal behavior. These agencies exist at the local, state, and federal level and are constantly searching for individuals with the communication and analytical skills developed by this comprehensive criminal justice curriculum. Students frequently begin their criminal justice careers with local police departments, courts, or correctional institutions and advance to the state or federal level as they gain experience. For further information, contact the department at crimjust@ship.edu or visit www.ship.edu/Criminal_Justice.

Criminal Justice, B.S.

Students are required to achieve a grade of C or above in all criminal justice courses.

Credit Requirements*

- **General Education:** 45 credits
- **Major Requirements**: 45-60 credits
- **Free Electives:** 15-30 credits
- *Total Credits to Graduate:* **120 credits**

* All undergraduate degree programs require a minimum of 120 credits. Some courses meet multiple requirements, but are only counted once toward the 120 credit total required to graduate.

(60 crs.)

Required Core (21 crs.)

- CRJU 100 - Introduction to Criminal Justice Credits: 3
- CRJU 221 - Policing a Democracy Credits: 3
- CRJU 241 - Survey of Corrections Credits: 3
- CRJU 261 - Criminal Law and Procedure Credits: 3
- CRJU 309 - Theories of Crime and Crime Control Credits: 3
- CRJU 310 - Research Methods Credits: 3
- CRJU 452 - Race, Ethnicity, and Crime Credits: 3

Capstone Course (3 crs.)

- CRJU 454 - Policy, Professionalism, and Ethics Credits: 3

Criminal Justice Electives (21 crs.)

Students must complete Prerequiste courses (CRJU 100 ,CRJU 241 ,CRJU 261 & CRJU 309) before taking CRJU Electives

- CRJU 321 - Criminal Investigation Credits: 3
- CRJU 324 - Sexual Offenses and Offenders Credits: 3
- CRJU 326 - Victimology: The Victim and the Law Credits: 3
- CRJU 336 - Introduction to Forensic Science Credits: 3
- CRJU 342 - Crime Prevention Credits: 3
- CRJU 345 - Organization & Management of CRJ Agencies Credits: 3
- CRJU 351 - Juvenile Justice Credits: 3
- CRJU 356 - Organized Crime Credits: 3
- CRJU 363 - Intimate Partner Violence Credits: 3
- CRJU 365 - White Collar Crime Credits: 3
- CRJU 370 - Mock Trial Credits: 3
- CRJU 377 - Hate Crime Credits: 3
- CRJU 381 - Mental Health in the Criminal Justice System Credits: 3
- CRJU 383 - Immigration and Criminal Justice Credits: 3
- CRJU 396 - Selected Topics in Criminal Justice Credits: 3
- CRJU 397 - Selected Topics in Criminal Justice Credits: 3

- CRJU 398 - Selected Topics in Victimology Credits: 3
- CRJU 411 - Terrorism Credits: 3
- CRJU 433 - Evidence Law Credits: 3
- CRJU 440 - Community Corrections Credits: 3
- CRJU 456 - Forensic Science: Evidence Analysis Credits: 3
- CRJU 461 - Social Construction of Homicide Credits: 3
- CRJU 464 - Popular Culture, Crime and Justice Credits: 3
- CRJU 469 - Victim Treatment and Services Credits: 3
- CRJU 471 - Internship in Criminal Justice I Credits: 3-12
- CRJU 472 - Internship in Criminal Justice II Credits: 3-12

Interdisciplinary Courses (15 crs.)

- Students must complete five courses, 200-level or above, or those for another major/minor. Criminal Justice courses will not fulfill this requirement.

Free Electives (15 crs.)

Students must complete five courses, 100-level or above. Criminal Justice courses will not fulfill this requirement. NOTE: only three credits of performance credits can be utilized (e.g. marching band, choir, etc.)

General Education

General Education Requirements

- General Education Program (45 crs.)

General Education Requirements Specific for this major

- Diversity (D): SOCI 101
- Citizenship (S): POLI 100
- Natural World (N): PSYC 101

Advising Notes:

1. Criminal Justice majors are limited to 45 credits of CRJU courses.
2. CRJU courses cannot be used for Free Electives or for Interdisciplinary Courses.
3. A Criminal Justice minor is available - 18 cr
4. A certificate in Victimology and Victim Services is available - 12 cr

Victimology and Victim Services Certificate

Students must have completed at least 60 credit hours prior to applying for this program.

12 (crs.)

Required Courses (6 crs.)

- CRJU 326 - Victimology: The Victim and the Law Credits: 3
- CRJU 469 - Victim Treatment and Services Credits: 3

Electives at 300 or 400 level (Select Two) (6 crs.)

Please note these courses have the following 'required core' prerequisite: CRJU 309 .

- CRJU 324 - Sexual Offenses and Offenders Credits: 3
- CRJU 342 - Crime Prevention Credits: 3
- CRJU 363 - Intimate Partner Violence Credits: 3
- CRJU 377 - Hate Crime Credits: 3
- CRJU 381 - Mental Health in the Criminal Justice System Credits: 3
- CRJU 398 - Selected Topics in Victimology Credits: 3 *
- CRJU 461 - Social Construction of Homicide Credits: 3
- CRJU 476 - Internship in CRJ - Victimology Credits: 3 *

Note:

* Courses require departmental approval.

Criminal Justice Minor

A minor in Criminal Justice provides the fundamental exposure necessary to understand the increasing complexity of the criminal justice system. To gain admittance into the Criminal Justice minor, the student must have 2.5 QPA or greater. All Criminal Justice courses must be passed with a grade of C or better. At least one Criminal Justice course must be taken in a face-to-face format: NO EXCEPTIONS. Non-majors are required to choose from the following courses:

18 crs.

Required

- CRJU 100 - Introduction to Criminal Justice Credits: 3

Complete two of the following courses at the 200 level:

- CRJU 221 - Policing a Democracy Credits: 3
- CRJU 241 - Survey of Corrections Credits: 3
- CRJU 261 - Criminal Law and Procedure Credits: 3

Required 300 level course:

- CRJU 309 - Theories of Crime and Crime Control Credits: 3

Complete two additional CRJU elective courses at the 300-400 level (excludes Internships)

Note:

CRJU 100, CRJU 221, CRJU 241 and CRJU 261 may be offered as summer online course.

Criminal Justice, B.S. with accelerated 4+1 M.S. in Criminal Justice

Well-qualified criminal justice students have the opportunity to complete a Master's in Criminal Justice in two additional semesters and one summer of enrollment beyond their B.S. program. Interested students apply to the program during their junior year, after accumulating 75 credits, and admission to the program would require an Shippensburg University grade point average of 3.2 overall. Students seeking to enroll in the program must also formally commit to completing at least three credits of a criminal justice internship prior to their fourth year.

Educational Leadership and Special Education Department

The Department of Educational Leadership and Special Education promotes an education system that prepares professionals to meet the needs of students in a rapidly changing and diverse society. By maintaining close contact with constituents, alliances are constantly expanding with local school districts and other community agencies that seek to meet the education needs of individuals with disabilities. It is through many of these efforts, as well as collaborative training programs that the programs seek to improve educational services for all students by providing information dissemination, technical assistance, and professional services to local school districts and community agencies.

The special education programs at Shippensburg University are continually being evaluated to insure the education of professionals using a "best practices" model. The programs in special education are committed to preparing skilled and knowledgeable professionals to work in a variety of settings that serve the needs of students with disabilities in the least restrictive educational and societal environment.

The Special Education Program offers three options for Teacher Certification:

1. Undergraduate Special Education/PreK-4 Major. This option provides the opportunity to qualify for teacher certification in two areas - PreK-4 Early Childhood and PreK-12 Special Education.
2. Undergraduate Secondary Math Education/Special Education Major. This option provides the opportunity for teacher certification in two areas - Secondary Math and PreK-12 Special Education.
3. Graduate MEd in Special Education Comprehensive Concentration. This option provides the opportunity for students to earn the MEd and PA Certification in Pk-12 Special Education.

Special Education K-12 students seeking Pennsylvania certification should see requirements outlined in the College of Education and Human Services.

Special Education K-12 Minor

18 crs.

Required Courses

- SPEE 273 - Introduction to Exceptionalities: Understanding Diverse Learners Credits: 3
- SPEE 325 - Interventions for Students with Social/Emotional and Behavioral Impairments Credits: 3
- SPEE 330 - Teaching Students with Exceptionalities in a Standards-Aligned System Credits: 3
- SPEE 423 - Effective Instructional Strategies for Students with Exceptionalities Credits: 3
- SPEE 447 - Special Education Processes in a Standards Aligned System Credits: 3
- SPEE 483 - Assessing Children with Exceptionalities for Curricular Decision-Making Credits: 3

Exercise Science Department

The Exercise Science Department at Shippensburg University develops students into the next generation of exercise scientists who understand how and why exercise is used for the prevention, management, and treatment of health problems. Exercise Science students also master strategies for improving physical fitness and maximizing performance. Our students have high acceptance rates into master's and doctoral degree programs, including for physical therapy, occupational therapy, physician assistant, and athletic training. Exercise Science is also the ideal choice for anyone interested in careers in fitness and performance enhancement, including strength and conditioning, personal training, and group exercise.

Our department offers one major, the Bachelor of Science in Exercise Science. Students must choose one of three concentrations within the major to specialize in: Allied Health Pre-Professional, Human Performance & Fitness, and 3+2 Pre-Athletic Training. We also offer three minors: Exercise Science Minor, Coaching Minor, and Sport Psychology Minor. Read on for more information about common career pathways, admission criteria into our programs, and coursework.

Exercise Science Career Possibilities

Traditionally, Exercise Science focused on enhancing athletic performance. The focus of Exercise Science today, however, is on improving the health, fitness, and quality of life of the general population in clinical, commercial, and workplace settings. Clinically, our students go on to work in a variety of rehabilitation or medical settings, usually after completing graduate school. Commercially, exercise scientists work to enhance fitness and performance in settings such as in gyms, community centers, schools, or sports teams. Exercise scientists are also in the workplace, coordinating employee health and wellness programs.

Employment opportunities immediately after graduating with a B.S. in Exercise Science include: personal trainer, strength and conditioning coach, group exercise instructor, recreational and corporate fitness coordinator, wellness coach, sport coach, cardiac rehabilitation specialist, fitness or wellness director, and exercise physiologist.

Many students seek further education after graduating with a B.S. in Exercise Science for the following career paths: athletic trainer, biomechanist, occupational therapist, physical therapist, physician assistant, nurse, researcher, academician, orthotist and prosthetist, and chiropractor.

Exercise Science Admission Requirements

High school students interested in entering Exercise Science upon acceptance into Shippensburg University must meet the following criteria:

- AHPP and Pre-AT Concentrations: Overall high school GPA of 3.40 or better and Top 50% of graduating class
- HPF Concentration: University Admission Standards

Current Shippensburg University students interested in transferring from another major (including Exploratory Studies) must meet all of the following criteria:

- Completion of at least 15 credits with a GPA of 2.00 or above (HPF Concentration) or 2.50 or above (AHPP and Pre-AT Concentrations)
- Completion of EXER 150: Introduction to Exercise Science, with a grade of C or higher
- Completion of one of the following courses with a grade of C or higher: BIOL 237 (recommended), BIOL 150, BIOL 161, or BIOL 162
- Meeting with Department Chair

Current non-Ship college students interested in transferring from another university must meet all of the following criteria:

- Completion of at least 15 credits with a GPA of 2.00 or above (HPF Concentration) or 2.50 or above (AHPP and Pre-AT Concentrations)
- Completion of one of the following courses with a grade of C or higher: Human Anatomy & Physiology I w/Lab (recommended), Biology I, or Biology II
- Meeting with Department Chair (completed after confirmation of attendance)

Note for All Transfer Students

It is strongly recommended that students complete (or are scheduled to complete) BIOL 237: Human Anatomy & Physiology I and BIOL 238: Human Anatomy & Physiology II (or their equivalents at other institutions) with a grade of C or higher before transferring to Exercise Science. Both courses are necessary to progress through the major, and not having these courses already completed may delay your progress and/or your graduation semester. Please contact the Exercise Science Department with questions and to schedule a meeting with the Department Chair to discuss your options.

Exercise Science, Allied Health Pre-Professional Concentration, B.S.

Exercise Science is the scientific study of human movement and the changes caused by physical activity in the body with the goal of understanding how to maintain or improve health and fitness. A Bachelor of Science in Exercise Science with an Allied Health Pre-Professional Concentration prepares students for further study in an allied health field (such as physical therapy, occupational therapy, athletic training, chiropractic medicine, nursing, and more) by integrating applied, hands-on learning experiences with a firm understanding of basic facts, theory, and research about health and physical activity.

Credit Requirements*

- **General Education:** 46 - 47 credits
- **Major Requirements**: 54 credits
- **Free Electives:** 19 - 20 credits
- *Total Credits to Graduate:* **120 credits**

* All undergraduate degree programs require a minimum of 120 credits. Some courses meet multiple requirements, but are only counted once toward the 120 credit total required to graduate.

Exercise Science Requirements (54 cr.)

All core and Human Performance and Fitness concentration courses must be completed with a C or higher

Core Courses (29 cr.)

- BIOL 238 - Human Anatomy & Physiology II Credits: 4
- EXER 150 - Introduction to Exercise Science Credits: 3
- EXER 244 - Movement Science & Skill Analysis Credits: 3
- EXER 260 - Principles of Nutrition Credits: 3
- EXER 336 - Motor Behavior Credits: 3
- EXER 340 - Prevention and Care of Athletic Injuries Credits: 3
- EXER 352 - Psychology of Physical Activity Credits: 3
- EXER 375 - Exercise Testing and Programming Credits: 3
- EXER 453 - Research Design and Statistics Credits: 4

Allied Health Pre-Professional Concentration Courses (25 cr.)

Required Concentration Courses

- EXER 278 - Medical Terminology Credits: 3
- EXER 321 - Exercise Physiology I Credits: 4
- EXER 333 - Biomechanics Credits: 4
- EXER 420 - Clinical Exercise Physiology Credits: 4
- EXER 421 - Exercise Physiology II Credits: 4
- EXER 395 - Internship in Allied Health Setting Credits: 1-12
- One EXER Elective course

Elective Course Options

- EXER 213 - Organization and Administration for Fitness and Sport Facilities Credits: 3
- EXER 325 - Sport Psychology Credits: 3
- EXER 348 - Group Exercise Techniques & Leadership Credits: 3
- EXER 350 - Nutrition for Sport & Fitness Credits: 3
- EXER 360 - Sports Medicine Credits: 3
- EXER 387 - Theory and Practice of Power and Agility Training Credits: 3
- EXER 395 - Internship in Allied Health Setting Credits: 1-12
- EXER 425 - Exercise Science & Weight Control Credits: 3
- EXER 452 - Psychology of Injury & Rehabilitation Credits: 3
- EXER 475 - Exercise Prescription for Special and Athletic Populations Credits: 3

General Education

General Education Requirements

- General Education Program (45 crs.)

General Education Requirements Specific for this major

- Quantitative (Q): MATH 117 OR MATH 217
- Natural World (N): BIOL 237
- Natural World (N): PHYS 110 OR PHYS 121
- Natural World (N): PSYC 101

Free Elective Courses (19-20 cr.)

ESC courses may be taken as free electives

Exercise Science, Human Performance and Fitness Concentration, B.S.

Exercise Science is the scientific study of human movement and the changes caused by physical activity in the body with the goal of understanding how to maintain or improve health and fitness. A Bachelor of Science in Exercise Science with a Human Performance & Fitness Concentration prepares students for employment in the health and fitness industry (such as personal training, strength and conditioning, group exercise, wellness coaching, and more) by integrating applied, hands-on learning experiences with a firm understanding of basic facts, theory, and research about health and physical activity.

Credit Requirements*

- **General Education:** 46 - 47 credits
- **Major Requirements**: 54 credits
- **Free Electives:** 19 - 20 credits
- *Total Credits to Graduate:* **120 credits**

* All undergraduate degree programs require a minimum of 120 credits. Some courses meet multiple requirements, but are only counted once toward the 120 credit total required to graduate.

Exercise Science Requirements (54 cr.)

All core and Human Performance and Fitness concentration courses must be completed with a C or higher

Core Courses (29 cr.)

- BIOL 238 - Human Anatomy & Physiology II Credits: 4
- EXER 150 - Introduction to Exercise Science Credits: 3
- EXER 244 - Movement Science & Skill Analysis Credits: 3
- EXER 260 - Principles of Nutrition Credits: 3
- EXER 336 - Motor Behavior Credits: 3

- EXER 340 - Prevention and Care of Athletic Injuries Credits: 3
- EXER 352 - Psychology of Physical Activity Credits: 3
- EXER 375 - Exercise Testing and Programming Credits: 3
- EXER 453 - Research Design and Statistics Credits: 4

Human Performance and Fitness Concentration Courses (25 cr.)

- EXER 343 - Foundations of Exercise Physiology Credits: 4
- EXER 348 - Group Exercise Techniques & Leadership Credits: 3
- EXER 350 - Nutrition for Sport & Fitness Credits: 3
- EXER 387 - Theory and Practice of Power and Agility Training Credits: 3
- EXER 475 - Exercise Prescription for Special and Athletic Populations Credits: 3
- EXER 495 - Internship in Fitness & Performance Setting Credits: 3-12
- Two EXER Elective Course

Elective Course Options

- EXER 213 - Organization and Administration for Fitness and Sport Facilities Credits: 3
- EXER 278 - Medical Terminology Credits: 3
- EXER 325 - Sport Psychology Credits: 3
- EXER 333 - Biomechanics Credits: 4
- EXER 360 - Sports Medicine Credits: 3
- EXER 425 - Exercise Science & Weight Control Credits: 3
- EXER 452 - Psychology of Injury & Rehabilitation Credits: 3
- EXER 495 - Internship in Fitness & Performance Setting Credits: 3-12

Free Elective Courses (19-20 cr.)

EXER courses may be taken as free electives

General Education

General Education Requirements

- General Education Program (45 crs.)

General Education Requirements Specific for this major

- Quantitative (Q): MATH 117 OR MATH 217
- Natural World (N): BIOL 237
- Natural World (N): PHYS 110 OR PHYS 121
- Natural World (N): PSYC 101

Exercise Science, Pre-Athletic Training Concentration, B.S.

Athletic Trainers primarily work with sports teams and athletes on injury prevention and recovery, although opportunities for work outside of the sports world are growing. Students interested in enhancing the physical fitness of athletes (e.g., strength and conditioning) should consider our Human Performance & Fitness Concentration instead.

The 3+2 Athletic Training Program allows students to complete a Master's degree in Athletic Training in combination with a Bachelor of Science in Exercise Science in only 5 years. The first three years are completed at Shippensburg University and the two additional years are completed at an affiliated University. Currently, we have agreements with Commonwealth University (Lock Haven campus), Jefferson University, and Messiah University.

Students choose a graduate program during their first year of study and will be guaranteed admission to that program if they meet their admissions requirements. This concentration prepares students to meet those requirements, along with all General Education and Exercise Science coursework (at least 96 credits during their first 3 years). The remaining 24 credits will be completed at the selected athletic training graduate program and transferred back to Shippensburg. In the spring of their fourth year, students will graduate from Shippensburg University with a Bachelor of Science in Exercise Science with a Concentration in Pre-Athletic Training, and in their fifth year will graduate from their chosen graduate program.

Credit Requirements*

- **General Education:** 46 - 47 credits
- **Major Requirements**: 50 credits
- **Free Electives:** The remaining 24 credits will be completed at the selected athletic training graduate program and transferred back to Shippensburg.
- *Total Credits to Graduate:* **120 credits**

* All undergraduate degree programs require a minimum of 120 credits. Some courses meet multiple requirements, but are only counted once toward the 120 credit total required to graduate.

Exercise Science Core Requirements

All Exercise Science core courses must be completed with a C or higher.

- BIOL 238 - Human Anatomy & Physiology II Credits: 4
- EXER 150 - Introduction to Exercise Science Credits: 3
- EXER 244 - Movement Science & Skill Analysis Credits: 3
- EXER 260 - Principles of Nutrition Credits: 3
- EXER 336 - Motor Behavior Credits: 3
- EXER 340 - Prevention and Care of Athletic Injuries Credits: 3
- EXER 352 - Psychology of Physical Activity Credits: 3
- EXER 375 - Exercise Testing and Programming Credits: 3
- EXER 453 - Research Design and Statistics Credits: 4

Pre-Athletic Training Concentration Courses

All concentration courses must be completed with a C or higher.

- EXER 278 - Medical Terminology Credits: 3
- EXER 333 - Biomechanics Credits: 4
- EXER 343 - Foundations of Exercise Physiology Credits: 4

- Electives (10 crs.)

Elective Course Options

- BIOL 161 - Principles of Biology: Cell Structure and Function Credits: 4
- BIOL 162 - Principles of Biology: Organismal Diversity Credits: 4
- CHEM 105 - An Observational Approach Credits: 3
- CHEM 121 - Chemical Bonding Credits: 3
- CHEM 125 - Laboratory IB-Stoichiometry and Reactions Credits: 1
- COST 225 - Communication and Sport Credits: 3
- EXER 200 - Health & Wellness Credits: 3
- EXER 325 - Sport Psychology Credits: 3
- EXER 348 - Group Exercise Techniques & Leadership Credits: 3
- EXER 350 - Nutrition for Sport & Fitness Credits: 3
- EXER 360 - Sports Medicine Credits: 3
- EXER 387 - Theory and Practice of Power and Agility Training Credits: 3
- EXER 395 - Internship in Allied Health Setting Credits: 1-12
- EXER 420 - Clinical Exercise Physiology Credits: 4
- EXER 425 - Exercise Science & Weight Control Credits: 3
- EXER 452 - Psychology of Injury & Rehabilitation Credits: 3
- EXER 475 - Exercise Prescription for Special and Athletic Populations Credits: 3
- MATH 175 - Precalculus Credits: 3
- PHYS 123 - Physics Ia Laboratory Credits: 1

General Education

General Education Requirements

- General Education Program (45 crs.)

General Education Requirements Specific for this major

- Quantitative (Q): MATH 117 OR MATH 217
- Natural World (N): BIOL 237
- Natural World (N): PSYC 101
- Natural World (N): PHYS 121

Coaching Minor

Coaching Minor

Athletics hold a prominent position in society, with millions of children, adults, and older adults participating in sports every year. Participation in recreational or organized sports can influence a person's physical, social, emotional, and intellectual development, especially for children and adolescents. The types of experiences people have while playing sports are strongly impacted by the competencies and qualifications of their coaches. Therefore, coaches must be trained to work with athletes in an effective, ethical, and safe manner. Informed by research and best practices, the

Coaching Minor provides students with the latest knowledge and hands-on experiences for developing their coaching style.

Admission Requirements

Students interested in declaring the Coaching Minor must meet the following criteria:

- Undergraduate Student
- Overall GPA of 2.00 or higher

Note: It is strongly recommended that students complete BIOL 150 - Human Biology as one of their Natural World & Technology General Education courses because it is a prerequisite for EXER 340 and EXER 343, both of which are required for the minor. Completion of Human Anatomy & Physiology I and Human Anatomy & Physiology II (BIOL 237 and BIOL 238) or BIOL 350 - Human Physiology is also acceptable. Other biology courses are not adequate substitutes. Additionally, it is strongly recommended that students complete PSYC 101 - General Psychology as one of their General Education courses because it is a prerequisite for EXER 325, which is required for the minor. While these are not requirements for declaring the minor, they are necessary to progress through it

Coaching Requirements - (19 crs.)

Required Courses

- EXER 220 - Fundamentals of Coaching Credits: 3
- EXER 244 - Movement Science & Skill Analysis Credits: 3
- EXER 325 - Sport Psychology Credits: 3
- EXER 340 - Prevention and Care of Athletic Injuries Credits: 3
- EXER 343 - Foundations of Exercise Physiology Credits: 4

Electives (Select One): (3 crs.)

- DISA 100 - Introduction to Disability Studies Credits: 3
- EXER 213 - Organization and Administration for Fitness and Sport Facilities Credits: 3
- EXER 260 - Principles of Nutrition Credits: 3
- EXER 387 - Theory and Practice of Power and Agility Training Credits: 3
- EXER 445 - Coaching Internship Credits: 3
- COST 225 - Communication and Sport Credits: 3
- PSYC 361 - Psychology of Group Interaction Credits: 3
- SOCI 275 - Sociology of Sport and Leisure Credits: 3

Exercise Science Minor

The Exercise Science Minor is for students interested in learning about human movement, how the body responds to exercise, and the benefits of an active lifestyle. The minor offers students many choices for which classes to take, allowing you to tailor the minor to your specific interests and career plans. Regardless of which courses you select, the Minor gives students content and hands-on experiences from a variety of disciplines within Exercise Science.

Admission Requirements

Students interested in declaring the Exercise Science Minor must meet the following criteria:

- Undergraduate Student
- Overall GPA of 2.00 or higher

Note: It is strongly recommended that students complete BIOL 150 - Human Biology as one of their Natural World & Technology General Education courses because it is a prerequisite for EXER 343, which is required for the minor. Completion of Human Anatomy & Physiology I and Human Anatomy & Physiology II (BIOL 237 and BIOL 238) or BIOL 350 - Human Physiology is also acceptable. Other biology courses are not adequate substitutes. While this is not a requirement for declaring the minor, it is necessary to progress through it.

Course Requirements (19 crs.)

Prerequisites

- BIOL 150 - Human Biology Credits: 3
  OR
- BIOL 238 - Human Anatomy & Physiology II Credits: 4
  OR
- BIOL 350 - Human Physiology Credits: 4
- PSYC 101 - General Psychology Credits: 3

Required

- EXER 150 - Introduction to Exercise Science Credits: 3
- EXER 343 - Foundations of Exercise Physiology Credits: 4
  And two of the following:
- EXER 244 - Movement Science & Skill Analysis Credits: 3
- EXER 260 - Principles of Nutrition Credits: 3
- EXER 278 - Medical Terminology Credits: 3
- EXER 336 - Motor Behavior Credits: 3
- EXER 340 - Prevention and Care of Athletic Injuries Credits: 3
- EXER 348 - Group Exercise Techniques & Leadership Credits: 3
- EXER 350 - Nutrition for Sport & Fitness Credits: 3
- EXER 352 - Psychology of Physical Activity Credits: 3
- EXER 375 - Exercise Testing and Programming Credits: 3
- EXER 425 - Exercise Science & Weight Control Credits: 3

Sport Psychology Minor

The Sport Psychology Minor will introduce students to the discipline of sport psychology through relevant coursework in the Exercise Science and Psychology Departments. This breadth of content will allow students to develop knowledge of both the physical and mental aspects of sports performance. Coursework from the Sport Psychology Minor can also be used towards requirements to become a Certified Mental Performance Consultant (CMPC) through the Association for Applied Sport Psychology. While becoming a CMPC does require a graduate degree, undergraduate courses can count towards three of the eight required knowledge areas.

Course Requirements (18 crs.)

Sport Psychology (3crs,)

- EXER 325 - Sport Psychology Credits: 3

Sport Science (6 crs.)

- EXER 220 - Fundamentals of Coaching Credits: 3
- EXER 244 - Movement Science & Skill Analysis Credits: 3
- EXER 336 - Motor Behavior Credits: 3
- EXER 352 - Psychology of Physical Activity Credits: 3
- EXER 452 - Psychology of Injury & Rehabilitation Credits: 3

Psychopathology (3 crs.)

- PSYC 330 - Adult Psychopathology Credits: 3
- PSYC 355 - Child and Adolescent Psychopathology Credits: 3

Psychological Foundations (6 crs.)

- PSYC 240 - Psychology of Personality Credits: 3
- PSYC 250 - Psychology of Life Span Development Credits: 3
- PSYC 270 - Social Psychology Credits: 3
- PSYC 320 - Behavioral Neuroscience Credits: 3
- PSYC 323 - Sensation and Perception Credits: 3
- PSYC 325 - Psychology of Human Cognition Credits: 3

Military Science Department

Army Reserve Officers Training Corps (ROTC)

Army ROTC is a leadership development program, which combines courses in military science with summer training opportunities to transform students into U.S. Army officers. Upon successful completion of the program and graduation, Cadets are awarded a commission as a Second Lieutenant in either the U.S. Army, the Army National Guard, or the U.S. Army Reserve.

Scholarships

Army ROTC scholarships are offered for two, three, and four years. The four-year scholarships are awarded on a worldwide competitive basis to U.S. citizens who will enter an institution as a freshman. While on campus, military science students may compete for three-year (starts in sophomore year) and two-year (starts in junior year) scholarships. Recipients receive full tuition, academic fees, book and supply expenses (not including housing and food), and a monthly stipend. Scholarship recipients incur a service commitment for active or reserve forces duty following graduation.

Financial Assistance

Books and equipment for military science courses and the ROTC program are provided free of charge to all students. All juniors and seniors in the ROTC program (advanced course) and scholarship Cadets are paid a tax-free stipend and receive other benefits.

Academic Advisement

Students are encouraged to contact the Department of Military Science for information concerning the ROTC program. The Department of Military Science is available to discuss the program with interested students at 717-477-1896 or rotc@ship.edu.

The Four-Year Program

The Four-Year Army ROTC Program is divided into two parts called the basic course and the advanced course.

The basic course (MLSC 131/ MLSC 132 and MLSC 231/ MLSC 232) is usually taken during the first two years of college and covers such subjects as Army customs and traditions; military organizations and structure; team-building; and leadership development. In addition, a variety of outside social and professional enrichment activities are available. ROTC textbooks, uniforms, and other essential materials for the basic course are furnished to students at no cost. After they have completed the basic course, students who have demonstrated the potential to become an officer and who have met physical and scholastic standards are eligible to enroll in the advanced course. There is no military obligation incurred by students completing the basic course.

The advanced course (MLSC 331/ MLSC 332 and MLSC 431/ MLSC 432) is usually taken during the final two years of college. It includes instruction in national defense, management, tactics, ethics, professionalism, and further leadership development. Textbooks and uniforms in the advanced course are also furnished to students at no cost. In addition to the core requirements, Cadets must complete physical fitness courses (MIL 115) and a course in military history.

During the summer between their junior and senior years of college, advanced course Cadets attend a paid four-week training session called Advanced Camp at Fort Knox, Kentucky. Advanced Camp provides Cadets the chance to practice what they have learned in the classroom and introduces them to Army life in a field environment.

Students may utilize Military Science (ROTC) classes as free electives, which are credited toward graduation (up to the maximum number of credits in the core curriculum). All credits are computed into QPA and overall credits completed.

The Two-Year Program

The Two-Year Program is designed for students at four-year colleges who did not take ROTC during their first two years, junior and community college graduates, and students entering a two-year postgraduate course of study.

To enter the Two-Year Program, students must first attend the paid four-week Basic Camp, held at Fort Knox, Kentucky. At Basic Camp, students learn to challenge themselves physically and mentally and to build their confidence and self-respect.

After they have successfully completed Basic Camp, students who meet all necessary enrollment requirements are enrolled in the advanced course.

Basic Course Practicum

The Basic Course Practicum (also known as Basic Camp) is a paid, four-week course conducted at Fort Knox, Kentucky, during the summer. Participants receive room, board, travel expenses, medical care, and are paid approximately $1,100 for the four-week period.

This practicum is designed to provide students with the hands-on military experience and knowledge taught within the on-campus basic course, allowing students to enter directly into the advanced course. Students typically attend the practicum either during the summer between their sophomore and junior years of college, prior to transferring in to Shippensburg University from a junior or community college, or prior to starting a two-year postgraduate course of study.

Exceptional performance during this program may qualify the student for a scholarship. The practicum prepares students for 300-level military science courses, and students who successfully complete the basic course practicum may enroll in the ROTC advanced course curriculum. However, there is no obligation to continue in Army ROTC after attending the practicum.

Advanced Course Practicum

The Advanced Course Practicum (also known as Advanced Camp) is a four-week summer training program, conducted at Fort Knox, Kentucky, typically during the summer between the junior and senior years of college. This practicum stresses the application of military skills to rapidly changing situations. Participants are evaluated on their ability to make sound decisions, to direct team efforts toward the accomplishment of common goals, and to meet mental and physical challenges. Completion of this practicum is required prior to commissioning. Participants receive room, board, travel expenses, medical care, and are paid approximately $1,100 for the four-week period.

Military Science Career Possibilities

Individuals who complete the ROTC program earn a commission as a Second Lieutenant upon graduation and serve in the Active Duty U.S. Army, the Army National Guard, or the U.S. Army Reserve.

Military Science Minor

The Military Science Minor enhances students' individual leadership skills and prepares them for future leadership opportunities across a broad range of disciplines. All students at the University can complete this minor, whether they choose to serve in the military or not. The minor's outcomes and objectives center around leadership, the Army Profession, professional competence, adaptability, teamwork, lifelong learning, and comprehensive fitness.

For students who take four years of Military Science, the minor codifies the coursework they are already completing. For students who do not desire to serve in the Army, the minor is flexible enough to allow them to choose interdisciplinary coursework while still achieving the minor's outcomes and objectives. This path allows the student to pursue a diverse program that incorporates military history, ethics, public administration, and the use of the military as an instrument of national power. While the Military Science classes are taught through a military lens, the components of adaptability, teamwork, comprehensive fitness, leadership, and critical thinking are interdisciplinary and applicable regardless of a student's chosen future career path.

All students who graduate the four-year ROTC program will receive commissions into the United States Army as Second Lieutenants. Clearly, the program benefits these students throughout their military career. Students who choose to take the minor but not the commission into the Army not only learn similar skills, but also codify for future employers their academic endeavors that relate to a plethora of state and federal agencies.

20 (crs.)

Required Courses (8 crs.)

- MLSC 131 - Introduction to Leadership and ROTC Credits: 2 *
- MLSC 132 - Leadership and Squad Tactics Credits: 2 *
- MLSC 231 - Introduction to Army Leadership and Ethics Credits: 2
- MLSC 232 - Fundamentals of Small Unit Tactics Credits: 2

Electives (Select One) (3 crs.)

- MLSC 331 - Introduction to Collective Training Credits: 3 **
- MLSC 332 - Military Organizational Leadership Credits: 3 **
- POLI 271 - Introduction to Public Administration Credits: 3
- POLI 342 - American Foreign Policy Credits: 3

Electives (Select One): (3 crs.)

- HIST 345 - Military History of the United States Credits: 3
- HIST 352 - The US and Vietnam Credits: 3
- INTL 358 - Global Political Economy & Security Credits: 3
- MLSC 431 - The Army Officer Credits: 3 **
- MLSC 432 - Company Grade Leadership Credits: 3 **
- PHIL 230 - The Ethics of War and Terrorism Credits: 3
- POLI 251 - Introduction to Comparative Politics Credits: 3

Electives (Select Two) (6 crs.)

Remaining credits can be selected from any of the above-required courses not fulfilling a prior area.

- HIST 345 - Military History of the United States Credits: 3
- HIST 352 - The US and Vietnam Credits: 3
- INTL 358 - Global Political Economy & Security Credits: 3
- MLSC 331 - Introduction to Collective Training Credits: 3 **
- MLSC 332 - Military Organizational Leadership Credits: 3 **
- MLSC 398 - Selected Topics in Military Science Credits: 3 **
- MLSC 399 - Selected Topics in Military Science Credits: 3 **
- MLSC 431 - The Army Officer Credits: 3 **
- MLSC 432 - Company Grade Leadership Credits: 3 **
- PHIL 230 - The Ethics of War and Terrorism Credits: 3
- POLI 251 - Introduction to Comparative Politics Credits: 3
- POLI 271 - Introduction to Public Administration Credits: 3
- POLI 342 - American Foreign Policy Credits: 3

Note:

* Students can fulfill the requirements for these classes through completion of Army Basic Training, Army ROTC Basic Camp, or previous enrollment in a sister service (Marine, Air Force, or Navy) ROTC Program. This does not circumvent the 20 credit hour requirement for the Military Science Minor. See the Military Science Department to ensure you are placed in the correct MLSC class.

** Students who do not intend to contract with the U.S. Army may only take these courses with Departmental Approval.

Two elective courses, for a total of 6 credits, must be at the 300 or 400 level.

ROTC Program

Program Requirements

Basic Course

- MLSC 131 - Introduction to Leadership and ROTC Credits: 2
- MLSC 132 - Leadership and Squad Tactics Credits: 2
- MLSC 231 - Introduction to Army Leadership and Ethics Credits: 2
- MLSC 232 - Fundamentals of Small Unit Tactics Credits: 2
  or
- Prior Military Service up to 4 or more crs
  or
- Basic Camp

Advanced Course

- MLSC 331 - Introduction to Collective Training Credits: 3
- MLSC 332 - Military Organizational Leadership Credits: 3
- Leadership Development and Assessment Course
- MLSC 431 - The Army Officer Credits: 3
- MLSC 432 - Company Grade Leadership Credits: 3

Additional Advanced Course Requirements

In addition to the core requirements, Cadets must complete a course in military history. Contracted ROTC students must also take MLSC 115 - Army Physical Fitness Training. This course is repeatable. However, the credits cannot be used to fulfill the Military Science minor requirements.

Students are also encouraged to better enhance their education in courses such as anthropology, written communication, human behavior, management, and international studies.

Social Work/Gerontology Department

The social work program prepares students for professional entry-level social work practice. Accredited by the Council on Social Work Education (CSWE), the curriculum builds on a firm liberal arts foundation to develop a broad-based approach for understanding and working with people in a variety of ways.

Social work is a dynamic profession that strives to respond to human needs in an ever-changing world. The profession can be characterized by its diversity-diversity of clientele, diversity of knowledge and skill base, diversity of career opportunities, and diversity as a value base for respect of people's differences. The professional value base of empowerment, access to opportunity, and social justice is evident throughout the program objectives.

Students interested in pursuing a social work major should consult with the BSW Program Director and declare the major as soon as possible.

The program is organized by competencies that are integrated throughout the curriculum. Whereas the liberal arts foundation sets the stage for critical thinking and the abilities to draw knowledge about the human condition from a wide variety of disciplines, the social work-specific curriculum builds upon the foundation in a sequence of courses designed to prepare the entry-level social worker for practice. Social work courses blend theoretical and practical components throughout the plan of study. In the senior year, students have a field practicum (agency-based) which is coordinated by a faculty person. This capstone experience is designed to integrate theory and practice with agency-based instruction and a concurrent seminar course.

During the educational experience as a social work major, a student can expect to develop a professional identity based on the values and ethics of the profession. Themes of development throughout the program are: self-awareness, interactional skill competencies, critical thinking abilities using problem-solving theory, understanding of human behavior from a system/ecological framework, appreciation of diversity, commitment to social justice, and the generalist competencies to work across systems, i.e., individuals, families, groups, organizations, and communities.

Social Work, B.S.W.

The baccalaureate social work degree is the first level of professional education for entry into the social work profession. Thus, the goal of our social work program is to build on the liberal arts perspective and integrate the knowledge, values, and skills for competent generalist entry-level practice. The program curriculum is designed around core competencies and practice behaviors.

The program operates as a community. We have student organizations and several events and projects that provide a wide variety of extracurricular opportunities. For example: volunteer work, programs about practice opportunities, social activities, trips to state and national conferences, and networking.

Academic Advisement

Students are encouraged to work with their advisors throughout their educational process. The faculty offer extended advising and support. Regular review of students' progress is completed by the faculty during the professional development review which is conducted each semester.

Career Opportunities

Upon graduation, an entry-level generalist social worker will possess the professional judgment and proficiency to apply differentially, with supervision, the common professional foundation to serve people in systems of various sizes and types. Social work offers many career opportunities in diverse fields such as health, child welfare and domestic violence, aging, developmental disabilities, substance abuse, and behavioral health to name a few. A graduate will have special skills for delivering services to clients, which include the development and provision of resources on client's behalf through organizational and community work. The graduate will be prepared with a breadth and depth of

analytical and interactional skills for beginning work with individuals, families, groups, organizations, and communities. The program's objective is to prepare students in these learning areas at a level that maintains accreditation by the Council on Social Work Education (CSWE) and is evaluated by employers and graduate programs as an excellent foundation for both entry-level practice and future career development. This task requires a program and curriculum designed to enable each student to develop the values, knowledge and self-awareness skills as reflected in our stated educational competencies.

Credit Requirements*

- **General Education:** 45 credits
- **Major Requirements**: 55 credits
- **Free Electives:** 20 credits
- *Total Credits to Graduate:* **120 credits**

* All undergraduate degree programs require a minimum of 120 credits. Some courses meet multiple requirements, but are only counted once toward the 120 credit total required to graduate.

Required Courses (52 crs.)

** Students must earn a C or higher in Social Work courses in order for them to count as prerequisites and towards program completion.*

- SOWK 102 - Social Work in Social Welfare Credits: 3
- SOWK 150 - Human Relations Lab Credits: 3
- SOWK 250 - Assessing Individuals in the Social Environment Credits: 3
- SOWK 265 - Understanding Human Diversity for Social Justice Credits: 3
- SOWK 270 - Social Work Practice with Individuals Credits: 3
- SOWK 375 - Social Work Skills for Working with Groups Credits: 3
- SOWK 327 - Social Work Practice with Families Credits: 3
- SOWK 340 - Assessing Organizations and Communities in Society Credits: 3
- SOWK 360 - Research Techniques for Social Workers Credits: 3
- SOWK 370 - Social Work Practice with Organizations and Communities Credits: 3
- SOWK 420 - Gender Issues for Helping Professionals Credits: 3
- SOWK 450 - Social Welfare Policies and Services Credits: 3
- SOWK 388 - Preparation for Practicum Credits: 1
- SOWK 462 - Seminar in Social Work Methods Credits: 3 **
- SOWK 460 - Field Work in Social Work I Credits: 6 **
- SOWK 461 - Field Work in Social Work II Credits: 6 **

Note:

**Note: Field work in social work and the Seminar in Social Work Methods are taken for 15 credit hours with no additional course work during the last semester in the senior year. Students must have earned a C or better in all required social work courses and full faculty approval before they are eligible for field work and Seminar in Social Work Methods.*

Social Work Electives (3 crs.)

One of the following courses is required:

- SOWK 262 - Social Work Elective: Introduction to Child Welfare Practice Credits: 3
- SOWK 347 - Special Fields of Social Work: Behavioral Health Credits: 3
- SOWK 348 - Special Fields of Social Work: Substance Abuse Credits: 3
- SOWK 351 - Social Work Elective: Aging Credits: 3
- SOWK 356 - Social Work Elective: Intellectual and Developmental Disabilities Credits: 3
- SOWK 357 - Special Fields of Social Work: Health Care Credits: 3
- SOWK 359 - Social Work Elective: Violence in Interpersonal Relationships Credits: 3
- SOWK 383 - Selected Topics in Social Welfare Credits: 1-3
- SOWK 490 - Selected Topics in Social Welfare Credits: 1-3

General Education

General Education Requirements

- **General Education Program (45 crs.)**

General Education Requirements Specific for this Major

- Quantitative (Q): MATH 117
- Diversity (D): SOCI 101
- Citizenship (S): POLI 100
- Critical Reasoning (R): SOCI 101
- Natural World (N): BIOL 100 or BIOL 150
- Natural World (T): PSYC 101

Advising Notes:

1. Semester I: SOWK 102, BIOL 150/100, SOCI 101, HIST 105, ENGL 114
2. Semester II: SOWK 150, PSYC 101, COST 100
3. Semester III: SOWK 250, SOWK 265, POLI 100, MATH 117
4. Semester IV: SOWK 270, SOWK 360
5. A minor in Gerontology - 18 credits - is also available.

Gerontology Minor

Gerontology is the interdisciplinary study of the aging process, older adults, and issues important to those in later life. Our undergraduate gerontology minor is designed to provide you with the necessary knowledge, skills, and abilities to better serve our rapidly growing older population. Through required course work, electives in your personal area of interest, applied experiences, research opportunities and volunteer activities, you will gain a firm understanding of aging-related issues that can be applied to your major field of study.

Because our older adult population is growing at an astounding rate, it is highly likely you will encounter older people, regardless of your chosen profession. For example, those interested in working with older adults (e.g., psychologists, social workers, physicians, health services professionals), those who want to design products that can be useful to older people (e.g., financial planners, computer software/hardware engineers) or those who are concerned about issues that impact later adulthood (e.g., lawyers, political scientists, sociologists) should all consider enrolling in the gerontology minor. Knowledge about aging can make you a better professional and will signal employers you have what it takes to better serve the needs and interests of this group.

18 crs.

Core Requirements (6 crs.)

To gain a foundation in aging knowledge and service, all students are required to complete the following courses:

- GERT 100 - Introduction to Gerontology Credits: 3
- GERT 301 - Gerontology Internship Credits: 3
  OR
- GERT 303 - Gerontology Internship II Credits: 3

Approved Electives (12 crs.)

To fulfill the remainder of the minor requirements, students are encouraged to take elective courses that match their personal and professional areas of interest. At least one course must be at least level 300. These include:

- COMM 245 - Diversity and the Media Credits: 3
- DISA 100 - Introduction to Disability Studies Credits: 3
- ECON 317 - Health Economics Credits: 3
- EXER 150 - Introduction to Exercise Science Credits: 3
- EXER 200 - Health & Wellness Credits: 3
- EXER 207 - Stress Management Credits: 3
- EXER 260 - Principles of Nutrition Credits: 3
- EXER 278 - Medical Terminology Credits: 3
- EXER 352 - Psychology of Physical Activity Credits: 3
- FINA 101 - Personal Finance Credits: 3
- GERT 301 - Gerontology Internship Credits: 3
- GERT 303 - Gerontology Internship II Credits: 3
- GERT 391 - Selected Topics in Gerontology Credits: 1-3
- GERT 491 - Advanced Selected Topics in Gerontology Credits: 1-3
- PSYC 315 - Psychology of Prejudice and the Minority Experience Credits: 3
- PSYC 352 - Adulthood and Aging Credits: 3
- PSYC 420 - Health Psychology Credits: 3
- SOCI 320 - Sociology of Disability Credits: 3
- SOCI 369 - Medical Sociology Credits: 3
- SOCI 371 - Sociology of Aging Credits: 3
- SOWK 102 - Social Work in Social Welfare Credits: 3
- SOWK 265 - Understanding Human Diversity for Social Justice Credits: 3
- SOWK 351 - Social Work Elective: Aging Credits: 3
- SOWK 356 - Social Work Elective: Intellectual and Developmental Disabilities Credits: 3
- SOWK 357 - Special Fields of Social Work: Health Care Credits: 3
- SOWK 383 - Selected Topics in Social Welfare Credits: 1-3
- SOWK 420 - Gender Issues for Helping Professionals Credits: 3
- SOWK 450 - Social Welfare Policies and Services Credits: 3
- WMST 100 - Introduction to Women's and Gender Studies Credits: 3

Note:

Selected Topics with an aging theme or significant aging content from any department may count towards the gerontology minor. Contact the director for approval.

EXER 352 has a prerequisite of PSYC 101 and EXER 150

GERT 391 may be repeated.

Teacher Education Department

The Teacher Education Department at Shippensburg University offers three teacher education curricula. The present programs offered are: Early Childhood/Elementary Education/PreK-4, Elementary/Middle Level Education: Grades 4-8 and Special Education PreK-4 Dual. The Early Childhood/Elementary Education/PreK-4 program and Mid-Level (9 different options) programs require 120 credit hours leading to the degree of Bachelor of Science in Education. On the other hand, the Special Education/Dual program requires 135 hours of coursework and experiences. Teacher Education K-12 students seeking Pennsylvania certification should see requirements outlined in the College of Education and Human Services.

Note that some courses/programs required prerequisite courses that are may require candidates complete more than the minimum number of credits identified.

Students experience a standards-based curriculum that provides them with knowledge, skills and experiences needed to become highly effective educators. The following student outcomes guide the development and delivery of the departments' programs.

- Content Knowledge Linked with Learner Development
- Professional Standards Linked with Instructional Planning
- Purposeful Pedagogy Linked with Classroom Environment
- Assessment Outcomes Linked with a Systematic Analysis
- Theory and Research Linked with Intentional Instruction
- Diversity Linked Across All Stakeholders
- Professional Dispositions Linked with Reflective Practice
- Clinical Practice Linked with Professional Responsibilities

Admission Requirements

Students admitted to the Early/Childhood/Elementary Education: PreK-4, Elementary/Middle Level Education: Grades 4 to 8 or Special Education PreK-4 Dual are expected to maintain a quality point average of at least a 3.0 and earn a grade of C or higher in each course listed on the program planning sheet.

Faculty periodically review students' social and academic progress and make recommendations for appropriate supportive actions if needed.

Teacher Education Program Gates

As candidates move through their identified program of study, there are a variety of 'gates' that guide candidate's progress. Detailed information on the "Gates and Status Levels" can be found at https://www.ship.edu/contentassets/b0e8a0b6c64e4f78839627330dd818b3/gates_and_status_levels_matrix.pdf

Early Childhood/Elementary Education: PK-4, B.S.Ed.

Credit Requirements*

- **General Education:** 45 credits
- **Major Requirements**: 75 credits
- **Free Electives:** 0 credits
- *Total Credits to Graduate:* **120 credits**

* All undergraduate degree programs require a minimum of 120 credits. Some courses meet multiple requirements, but are only counted once toward the 120 credit total required to graduate.

Major Requirements

Professional Core (75 crs.)

Select One Course:

- MATH 105 - Mathematics for Liberal Studies Credits: 3
- MATH 110 - Fundamentals of Mathematics I Credits: 3
- MATH 111 - Fundamentals of Mathematics II Credits: 3
- MATH 117 - Applied Statistics Credits: 3
- MATH 140 - College Algebra Credits: 3

- ECED 210 - The Early Childhood Profession Credits: 3
- ECED 220 - Developmental Science: Physical, Motor, & Health Credits: 3
- ECED 280 - Physical, Language and Cognitive Development Credits: 3
- ECED 320 - Developmental Science: Social & Emotional Basis for Guiding Children's Behavior Credits: 3
- ECED 333 - Social Studies Methods for PK-4th Grade Credits: 3
- ECED 343 - Mathematics Methods I for PreKindergarten & Kindergarten Credits: 3
- ECED 370 - Assessing Young Children Credits: 3
- ECED 373 - Science and Technology Methods in PK-4 Credits: 3
- ECED 393 - Mathematics Methods II, Grades 2-4 Credits: 2
- ECED 394 - Technology Instruction for Early Childhood Classrooms Credits: 1
- ECED 415 - Professional Practicum in PK-4 Credits: 3
- ECED 440 - Building Family and Community Partnerships Credits: 3
- ECED 453 - Integrated Curriculum Pre K-4 Credits: 3
- READ 323 - Processes of Word/Text/Comprehension in Grades 1-4 Credits: 3
- READ 363 - Reading and Writing in PK-4 Credits: 3
- READ 383 - English Language Learners in PK-4 Credits: 2
- READ 443 - Reading Measures and Interventions in PK-4 Credits: 4
- SPEE 423 - Effective Instructional Strategies for Students with Exceptionalities Credits: 3
- SPEE 483 - Assessing Children with Exceptionalities for Curricular Decision-Making Credits: 3

Student Teaching Semester (15 crs.)

- ECED 480 - Early Childhood Professional Seminar Credits: 3
- ECED 489 - Early Childhood Student Teaching Credits: 1-12

Teacher Education Elective (3 crs.)

Select One:

- ECED 300 or 400 Level Course
- EDFN 400 Level Course

General Education

Foundation Courses (15 crs.)

First Year Seminar (Select One)

- UNIV 101 - Shippensburg University First Year Seminar Credits: 3
- HONR 113 - Honors: Shippensburg University First Year Seminar Credits: 3

Written Communication (Select One)

- ENGL 114 - Academic Writing Credits: 3
- ENGL 115 - Advanced Academic Writing Credits: 3
- HONR 106 - Honors: Academic Writing Credits: 3

Oral Communication (Select One)

- COST 100 - Introduction to Human Communication Credits: 3
- HONR 100 - Honors: Introduction to Human Communication Credits: 3

Historical Themes (Select One)

- HIST 105 - Historical Foundations of Global Cultures Credits: 3
- HONR 122 - Honors: Historical Foundations of Global Cultures Credits: 3

Quantitative Reasoning (Select One)

- MATH 105 - Mathematics for Liberal Studies Credits: 3
- MATH 111 - Fundamentals of Mathematics II Credits: 3
- MATH 117 - Applied Statistics Credits: 3
- MATH 140 - College Algebra Credits: 3

Interconnections: Diversity (3 crs.)

Select One

- SPEE 273 - Introduction to Exceptionalities: Understanding Diverse Learners Credits: 3
- HONR 411 - Honors: Introduction to Exceptionalities: Understanding Diverse Learners Credits: 3

Interconnections: Global Perspectives (6 crs.)

Select Two:

- ANTH 105 - Great Discoveries in Archaeology Credits: 3
- ANTH 111 - Cultural Anthropology Credits: 3
- ECON 101 - Principles of Macroeconomics Credits: 3
- FREN 204 - Ideas and Cultures from the French-Speaking World Credits: 3
- GEOG 101 - World Geography Credits: 3
- GERM 150 - German Civilization and Culture Credits: 3
- GERM 204 - Contemporary German Culture Credits: 3
- HIST 106 - Modern World History Credits: 3
- HONR 123 - Honors: Modern World History Credits: 3
- HONR 141 - Honors: World Geography Credits: 3

- HONR 160 - Honors: Cultural Anthropology Credits: 3
- HONR 165 - Honors: Principles of Macroeconomics Credits: 3
- POLI 141 - World Politics Credits: 3
- SPAN 153 - Latino Pop Culture Credits: 3
- SPAN 204 - Ideas and Cultures from the Spanish-Speaking World Credits: 3

Citizenship & Responsibility (6 crs.)

Select two (2) courses, with no more than one (1) course being attributed with the same program goal.

Citizenship Program Goal

- COMM 111 - Media Literacy Credits: 3
- ESSC 108 - Introduction to Environmental Sustainability Credits: 3
- HIST 201 - Early History of the United States Credits: 3
- HIST 202 - Recent History of the United States Credits: 3
- HONR 279 - Honors: U.S. Government and Politics Credits: 3
- POLI 100 - U.S. Government and Politics Credits: 3

Ethical Reasoning Program Goal

- HONR 105 - Honors: Ethical Theories and Problems Credits: 3
- PHIL 105 - Ethical Theories and Problems Credits: 3

Critical Analysis & Reasoning Program Goal

- ACEX 120 - Academic Literacies for the 21st Century Credits: 3
- ACEX 210 - Writing Tutoring Theory & Praxis Credits: 3
- COST 125 - Survey of Communication Studies Credits: 3
- ECON 113 - Principles of Economics Credits: 4
- EXER 207 - Stress Management Credits: 3
- FINA 101 - Personal Finance Credits: 3
- GEOG 103 - Geography of the United States and Canada Credits: 3
- GEOG 140 - Human Geography Credits: 3
- GERT 100 - Introduction to Gerontology Credits: 3
- HONR 130 - Honors: Introduction to Philosophy Credits: 3
- HONR 140 - Honors: Geography of the United States and Canada Credits: 3
- PHIL 101 - Introduction to Philosophy Credits: 3
- PHIL 102 - Critical Thinking Credits: 3

Natural World & Technology (9 crs.)

Select Three:

Natural World Courses

- ANTH 121 - Physical Anthropology Credits: 3
- BIOL 100 - Basic Biology Credits: 3
- BIOL 145 - Environmental Biology Credits: 3
- BIOL 150 - Human Biology Credits: 3
- CHEM 103 - A Cultural Approach Credits: 3
- CHEM 105 - An Observational Approach Credits: 3
- ESSC 110 - Introduction to Geology Credits: 3
- ESSC 111 - Introduction to Weather and Climate Credits: 3

- ESSC 115 - Coastal Hazards and Sustainability Credits: 3
- GEOG 105 - Physical Geography Credits: 3
- HONR 108 - Honors: Astronomy Credits: 3
- HONR 142 - Honors: Introduction to Weather and Climate Credits: 3
- HONR 145 - Honors: Environmental Biology Credits: 3
- HONR 151 - Honors: General Psychology Credits: 3
- HONR 159 - Honors: Physical Anthropology Credits: 3
- HONR 180 - Honors: Physics for Society Credits: 3
- HONR 186 - Honors: Human Biology Credits: 3
- HONR 196 - Honors: A Cultural Approach Credits: 3
- HONR 244 - Honors: Introduction to Geology Credits: 3
- PHYS 108 - Astronomy Credits: 3
- PHYS 110 - Physics for Society Credits: 3
- PSYC 101 - General Psychology Credits: 3

Creativity & Expression (6 crs.)

Literature: Select One

- ENGL 243 - The Art of the Film Credits: 3
- ENGL 248 - Introduction to Culturally Diverse Literature of the U.S. Credits: 3
- ENGL 250 - Literature and Society Credits: 3
- HONR 224 - Honors: The Art of the Film Credits: 3
- HONR 249 - Honors: Literature and Society Credits: 3

Arts: Select One

- ART 101 - Art Appreciation Credits: 3
- ENGL 224 - Introduction to Creative Writing Credits: 3
- HONR 111 - Honors: Introduction to Interdisciplinary Arts Credits: 3
- HONR 210 - Honors: Introduction to Music Credits: 3
- HONR 261 - Honors: World Music Credits: 3
- INST 111 - Introduction to Interdisciplinary Arts Credits: 3
- MUSI 121 - Introduction to Music Credits: 3
- MUSI 129 - American Popular Music Credits: 3
- MUSI 216 - Music & Film Credits: 3
- MUSI 261 - World Music Credits: 3

Advising Notes:

1. Semester I & II: General Education Courses

Early Childhood/Elementary Education: PK-4, Early Childhood Concentration, B.S.Ed.

Credit Requirements*

- **General Education:** 45 credits
- **Major Requirements**: 75 credits

- **Free Electives:** 0 credits
- *Total Credits to Graduate:* **120 credits**

* All undergraduate degree programs require a minimum of 120 credits. Some courses meet multiple requirements, but are only counted once toward the 120 credit total required to graduate.

Professional Core (60 crs.)

Select One Course:

- MATH 105 - Mathematics for Liberal Studies Credits: 3
- MATH 110 - Fundamentals of Mathematics I Credits: 3
- MATH 111 - Fundamentals of Mathematics II Credits: 3
- MATH 117 - Applied Statistics Credits: 3
- MATH 140 - College Algebra Credits: 3

- ECED 210 - The Early Childhood Profession Credits: 3
- ECED 220 - Developmental Science: Physical, Motor, & Health Credits: 3
- ECED 280 - Physical, Language and Cognitive Development Credits: 3
- ECED 320 - Developmental Science: Social & Emotional Basis for Guiding Children's Behavior Credits: 3
- ECED 333 - Social Studies Methods for PK-4th Grade Credits: 3
- ECED 343 - Mathematics Methods I for PreKindergarten & Kindergarten Credits: 3
- ECED 370 - Assessing Young Children Credits: 3
- ECED 373 - Science and Technology Methods in PK-4 Credits: 3
- ECED 393 - Mathematics Methods II, Grades 2-4 Credits: 2
- ECED 394 - Technology Instruction for Early Childhood Classrooms Credits: 1
- ECED 415 - Professional Practicum in PK-4 Credits: 3
- ECED 440 - Building Family and Community Partnerships Credits: 3
- ECED 453 - Integrated Curriculum Pre K-4 Credits: 3
- READ 323 - Processes of Word/Text/Comprehension in Grades 1-4 Credits: 3
- READ 363 - Reading and Writing in PK-4 Credits: 3
- READ 383 - English Language Learners in PK-4 Credits: 2
- READ 443 - Reading Measures and Interventions in PK-4 Credits: 4
- SPEE 423 - Effective Instructional Strategies for Students with Exceptionalities Credits: 3
- SPEE 483 - Assessing Children with Exceptionalities for Curricular Decision-Making Credits: 3

Early Childhood Concentration Requirements (15 crs.)

Additional electives may be approved with advisor recommendation. General Education courses may not double count as electives.

Electives - Select Five:

- DISA 100 - Introduction to Disability Studies Credits: 3
- ETHS 100 - Introduction to Ethnic Studies Credits: 3
- PSYC 265 - Childhood and Adolescence Credits: 3
- PSYC 355 - Child and Adolescent Psychopathology Credits: 3
- READ 232 - Reading in the Elementary School Credits: 3
- READ 334 - Classroom Based Literacy Assessment Credits: 3
- READ 405 - Teaching Writing in 4-8 Classrooms Credits: 3
- SOCI 257 - Family in Modern Society Credits: 3

- SOCI 258 - Gender, Culture, and Power Credits: 3
- SOCI 320 - Sociology of Disability Credits: 3
- SOWK 265 - Understanding Human Diversity for Social Justice Credits: 3
- SOWK 420 - Gender Issues for Helping Professionals Credits: 3
- TEED 345 - Assessment and Evaluation Strategies Credits: 3
- WMST 100 - Introduction to Women's and Gender Studies Credits: 3

Teacher Education Elective (3 crs.)

Select One:

- ECED 300 or 400 Level Course
- EDFN 400 Level Course

General Education

Foundation Courses (15 crs.)

First Year Seminar (Select One)

- UNIV 101 - Shippensburg University First Year Seminar Credits: 3
- HONR 113 - Honors: Shippensburg University First Year Seminar Credits: 3

Written Communication (Select One)

- ENGL 114 - Academic Writing Credits: 3
- ENGL 115 - Advanced Academic Writing Credits: 3
- HONR 106 - Honors: Academic Writing Credits: 3

Oral Communication (Select One)

- COST 100 - Introduction to Human Communication Credits: 3
- HONR 100 - Honors: Introduction to Human Communication Credits: 3

Historical Themes (Select One)

- HIST 105 - Historical Foundations of Global Cultures Credits: 3
- HONR 122 - Honors: Historical Foundations of Global Cultures Credits: 3

Quantitative Reasoning (Select One)

- MATH 105 - Mathematics for Liberal Studies Credits: 3
- MATH 111 - Fundamentals of Mathematics II Credits: 3
- MATH 117 - Applied Statistics Credits: 3
- MATH 140 - College Algebra Credits: 3

Interconnections: Diversity (3 crs.)

Select One:

- SPEE 273 - Introduction to Exceptionalities: Understanding Diverse Learners Credits: 3
- HONR 411 - Honors: Introduction to Exceptionalities: Understanding Diverse Learners Credits: 3

Interconnections: Global Perspectives (6 crs.)

Select Two Courses:

- ANTH 105 - Great Discoveries in Archaeology Credits: 3

- ANTH 111 - Cultural Anthropology Credits: 3
- ECON 101 - Principles of Macroeconomics Credits: 3
- FREN 204 - Ideas and Cultures from the French-Speaking World Credits: 3
- GEOG 101 - World Geography Credits: 3
- GERM 150 - German Civilization and Culture Credits: 3
- GERM 204 - Contemporary German Culture Credits: 3
- HIST 106 - Modern World History Credits: 3
- HONR 123 - Honors: Modern World History Credits: 3
- HONR 141 - Honors: World Geography Credits: 3
- HONR 160 - Honors: Cultural Anthropology Credits: 3
- HONR 165 - Honors: Principles of Macroeconomics Credits: 3
- POLI 141 - World Politics Credits: 3
- SPAN 153 - Latino Pop Culture Credits: 3
- SPAN 204 - Ideas and Cultures from the Spanish-Speaking World Credits: 3

Citizenship & Responsibility (6 crs.)

Select two (2) courses, with no more than one (1) course being attributed with the same program goal: Citizenship, Ethical Reasoning or Critical Reasoning.

Citizenship Program Goal

- COMM 111 - Media Literacy Credits: 3
- ESSC 108 - Introduction to Environmental Sustainability Credits: 3
- HIST 201 - Early History of the United States Credits: 3
- HIST 202 - Recent History of the United States Credits: 3
- HONR 279 - Honors: U.S. Government and Politics Credits: 3
- POLI 100 - U.S. Government and Politics Credits: 3

Ethical Reasoning Program Goal

- HONR 105 - Honors: Ethical Theories and Problems Credits: 3
- PHIL 105 - Ethical Theories and Problems Credits: 3

Critical Analysis & Reasoning Program Goal

- ACEX 120 - Academic Literacies for the 21st Century Credits: 3
- ACEX 210 - Writing Tutoring Theory & Praxis Credits: 3
- COST 125 - Survey of Communication Studies Credits: 3
- ECON 113 - Principles of Economics Credits: 4
- EXER 207 - Stress Management Credits: 3
- FINA 101 - Personal Finance Credits: 3
- GEOG 103 - Geography of the United States and Canada Credits: 3
- GEOG 140 - Human Geography Credits: 3
- GERT 100 - Introduction to Gerontology Credits: 3
- HONR 130 - Honors: Introduction to Philosophy Credits: 3
- HONR 140 - Honors: Geography of the United States and Canada Credits: 3
- PHIL 101 - Introduction to Philosophy Credits: 3
- PHIL 102 - Critical Thinking Credits: 3

Natural World & Technology (9 crs.)

Select Three:

Natural World Courses

- ANTH 121 - Physical Anthropology Credits: 3
- BIOL 100 - Basic Biology Credits: 3
- BIOL 145 - Environmental Biology Credits: 3
- BIOL 150 - Human Biology Credits: 3
- CHEM 103 - A Cultural Approach Credits: 3
- CHEM 105 - An Observational Approach Credits: 3
- ESSC 110 - Introduction to Geology Credits: 3
- ESSC 111 - Introduction to Weather and Climate Credits: 3
- ESSC 115 - Coastal Hazards and Sustainability Credits: 3
- GEOG 105 - Physical Geography Credits: 3
- HONR 108 - Honors: Astronomy Credits: 3
- HONR 142 - Honors: Introduction to Weather and Climate Credits: 3
- HONR 145 - Honors: Environmental Biology Credits: 3
- HONR 151 - Honors: General Psychology Credits: 3
- HONR 159 - Honors: Physical Anthropology Credits: 3
- HONR 180 - Honors: Physics for Society Credits: 3
- HONR 186 - Honors: Human Biology Credits: 3
- HONR 196 - Honors: A Cultural Approach Credits: 3
- HONR 244 - Honors: Introduction to Geology Credits: 3
- PHYS 108 - Astronomy Credits: 3
- PHYS 110 - Physics for Society Credits: 3
- PSYC 101 - General Psychology Credits: 3

Creativity & Expression (6 crs.)

Literature: Select One

- ENGL 243 - The Art of the Film Credits: 3
- ENGL 248 - Introduction to Culturally Diverse Literature of the U.S. Credits: 3
- ENGL 250 - Literature and Society Credits: 3
- HONR 224 - Honors: The Art of the Film Credits: 3
- HONR 249 - Honors: Literature and Society Credits: 3

Arts: Select One

- ART 101 - Art Appreciation Credits: 3
- ENGL 224 - Introduction to Creative Writing Credits: 3
- HONR 111 - Honors: Introduction to Interdisciplinary Arts Credits: 3
- HONR 210 - Honors: Introduction to Music Credits: 3
- HONR 261 - Honors: World Music Credits: 3
- INST 111 - Introduction to Interdisciplinary Arts Credits: 3
- MUSI 121 - Introduction to Music Credits: 3
- MUSI 129 - American Popular Music Credits: 3
- MUSI 216 - Music & Film Credits: 3
- MUSI 261 - World Music Credits: 3

Advising Notes:

1. Semester I & II: General Education Courses

Elementary/Middle Level Education: Grades 4-8, Language Arts Concentration, B.S.Ed.

Option 1: Single Certification

Students choose one area in which they will be certified to teach. Options include:

- Science
- Mathematics
- Social Studies
- Language Arts.

Option 2: Double Certifications

Students choose two areas in which they will be certified to teach. One area must be math or science. Options include:

- Science and Mathematics;
- Science and Social Studies;
- Science and Language Arts;
- Mathematics and Social Studies; and
- Mathematics and Language Arts.

Credit Requirements*

- **General Education:** 45 credits
- **Major Requirements**: 72 credits
- **Free Electives:** 3 credits
- *Total Credits to Graduate:* **120 credits**

* All undergraduate degree programs require a minimum of 120 credits. Some courses meet multiple requirements, but are only counted once toward the 120 credit total required to graduate.

Concentration Area

Language Arts (15 crs.)

- ENGL 224 - Introduction to Creative Writing Credits: 3
- ENGL 366 - History and Structure of the English Language Credits: 3
- ENGL 426 - Teaching Adolescent Literature Credits: 3

Choose One of the Following:

- ENGL 342 - Studies in Mythology Credits: 3
- ENGL 345 - Women's Literature Credits: 3
- ENGL 358 - Studies in U.S. Latinx Literature Credits: 3
- ENGL 359 - Studies in Indigenous Literature Credits: 3

- ENGL 362 - Studies in Disability & Literature Credits: 3
- ENGL 375 - Studies in African American Literature Credits: 3
- ENGL 385 - Studies in Postcolonial Literature Credits: 3

Choose One of the Following

- ECED 415 - Professional Practicum in PK-4 Credits: 3
- ECSP 415 - Professional Practicum: Pre K-4/Dual Credits: 3

Mathematics (6 crs.)

- MATH 111 - Fundamentals of Mathematics II Credits: 3
- MATH 140 - College Algebra Credits: 3

Professional Core (33 crs.)

- READ 232 - Reading in the Elementary School Credits: 3
- READ 329 - Reading in the Content Areas Credits: 3
- READ 363 - Reading and Writing in PK-4 Credits: 3
- SPEE 423 - Effective Instructional Strategies for Students with Exceptionalities Credits: 3
- SPEE 483 - Assessing Children with Exceptionalities for Curricular Decision-Making Credits: 3
- TEED 206 - Social Foundations of Middle Level Education Credits: 3
- TEED 251 - Elements of Middle Level Instruction Credits: 3
- TEED 261 - Adolescent Development and Adolescent Learning Theory Credits: 3
- TEED 322 - Teaching Middle Level Language Arts Credits: 3
- TEED 345 - Assessment and Evaluation Strategies Credits: 3

Choose One of the Following:

- ESL 450 - Foundations of English Language Learner Instruction a Credits: 3
- READ 413 - Teaching Reading to English Language Learners Credits: 3

Student Teaching (15 crs.)

- ECED 480 - Early Childhood Professional Seminar Credits: 3
- EDFN 495 - Student Teaching Credits: 6-15

Teacher Education Elective (3 crs.)

Choose One of the Following:

- ECED 415 - Professional Practicum in PK-4 Credits: 3
- ECSP 415 - Professional Practicum: Pre K-4/Dual Credits: 3
- Any ECED 300 or 400 Level Course
- Any EDFN 400 Level Course

General Education

Foundation Courses (15 crs.)

First Year Seminar (Select One)

- UNIV 101 - Shippensburg University First Year Seminar Credits: 3
- HONR 113 - Honors: Shippensburg University First Year Seminar Credits: 3

Written Communication (Select One)

- ENGL 114 - Academic Writing Credits: 3
- ENGL 115 - Advanced Academic Writing Credits: 3
- HONR 106 - Honors: Academic Writing Credits: 3

Oral Communication (Select One)

- COST 100 - Introduction to Human Communication Credits: 3
- HONR 100 - Honors: Introduction to Human Communication Credits: 3

Historical Themes (Select One)

- HIST 105 - Historical Foundations of Global Cultures Credits: 3
- HONR 122 - Honors: Historical Foundations of Global Cultures Credits: 3

Quantitative Reasoning (Select One)

- MATH 117 - Applied Statistics Credits: 3
- MATH 217 - Statistics I Credits: 4

Interconnections: Diversity (3 crs.)

Select One:

- HONR 411 - Honors: Introduction to Exceptionalities: Understanding Diverse Learners Credits: 3
- SPEE 273 - Introduction to Exceptionalities: Understanding Diverse Learners Credits: 3

Interconnections (6 crs.)

Select at least one Global Perspectives Course:

Global Perspectives Courses:

- ANTH 105 - Great Discoveries in Archaeology Credits: 3
- ECON 101 - Principles of Macroeconomics Credits: 3
- GEOG 101 - World Geography Credits: 3
- HIST 106 - Modern World History Credits: 3
- HONR 123 - Honors: Modern World History Credits: 3
- HONR 141 - Honors: World Geography Credits: 3
- HONR 165 - Honors: Principles of Macroeconomics Credits: 3
- POLI 141 - World Politics Credits: 3

Foreign Language Courses:

- FREN 101 - Beginning French I Credits: 3
- FREN 102 - Beginning French II Credits: 3
- FREN 103 - Intermediate French Credits: 3
- FREN 202 - Intermediate Conversation Through the Media Credits: 3
- GERM 101 - Beginning German I Credits: 3
- GERM 102 - Beginning German II Credits: 3
- GERM 103 - Intermediate German Credits: 3
- GERM 203 - Intermediate German Communication Credits: 3

- SPAN 101 - Beginning Spanish I Credits: 3
- SPAN 102 - Beginning Spanish II Credits: 3
- SPAN 103 - Intermediate Spanish Credits: 3
- SPAN 202 - Intermediate Conversation Credits: 3

Citizenship & Responsibility (6 crs.)

Select two (2) courses, with no more than one (1) course being attributed with the same program goal: Citizenship, Ethical Reasoning or Critical Analysis & Reasoning.

Citizenship

Options include:

- COMM 111 - Media Literacy Credits: 3
- ESSC 108 - Introduction to Environmental Sustainability Credits: 3
- HIST 201 - Early History of the United States Credits: 3
- HIST 202 - Recent History of the United States Credits: 3
- HONR 279 - Honors: U.S. Government and Politics Credits: 3
- POLI 100 - U.S. Government and Politics Credits: 3

Ethical Reasoning

Options include:

- PHIL 105 - Ethical Theories and Problems Credits: 3
- HONR 105 - Honors: Ethical Theories and Problems Credits: 3

Critical Analysis & Reasoning

Options include:

- ACEX 102 - Leadership and Community Credits: 3
- ACEX 210 - Writing Tutoring Theory & Praxis Credits: 3
- COST 125 - Survey of Communication Studies Credits: 3
- ECON 113 - Principles of Economics Credits: 4
- EXER 207 - Stress Management Credits: 3
- FINA 101 - Personal Finance Credits: 3
- GEOG 103 - Geography of the United States and Canada Credits: 3
- GEOG 140 - Human Geography Credits: 3
- GERT 100 - Introduction to Gerontology Credits: 3
- HONR 130 - Honors: Introduction to Philosophy Credits: 3
- HONR 140 - Honors: Geography of the United States and Canada Credits: 3
- PHIL 101 - Introduction to Philosophy Credits: 3
- PHIL 102 - Critical Thinking Credits: 3

Natural World & Technology (9 crs.)

Select 3 Natural World Courses:

Required, Select One:

- PSYC 101 - General Psychology Credits: 3
- HONR 151 - Honors: General Psychology Credits: 3

Select Two of the Following Courses:

- ANTH 121 - Physical Anthropology Credits: 3
- BIOL 100 - Basic Biology Credits: 3
- BIOL 145 - Environmental Biology Credits: 3
- BIOL 150 - Human Biology Credits: 3
- CHEM 103 - A Cultural Approach Credits: 3
- CHEM 105 - An Observational Approach Credits: 3
- ECON 102 - Principles of Microeconomics Credits: 3
- ESSC 110 - Introduction to Geology Credits: 3
- ESSC 111 - Introduction to Weather and Climate Credits: 3
- ESSC 115 - Coastal Hazards and Sustainability Credits: 3
- GEOG 105 - Physical Geography Credits: 3
- HONR 108 - Honors: Astronomy Credits: 3
- HONR 142 - Honors: Introduction to Weather and Climate Credits: 3
- HONR 145 - Honors: Environmental Biology Credits: 3
- HONR 159 - Honors: Physical Anthropology Credits: 3
- HONR 180 - Honors: Physics for Society Credits: 3
- HONR 186 - Honors: Human Biology Credits: 3
- HONR 196 - Honors: A Cultural Approach Credits: 3
- HONR 244 - Honors: Introduction to Geology Credits: 3
- PHYS 108 - Astronomy Credits: 3
- PHYS 110 - Physics for Society Credits: 3

Creativity & Expression (6 crs.)

Literature

Select One:

- ENGL 243 - The Art of the Film Credits: 3
- ENGL 248 - Introduction to Culturally Diverse Literature of the U.S. Credits: 3
- ENGL 250 - Literature and Society Credits: 3
- HONR 249 - Honors: Literature and Society Credits: 3

Arts

Select One:

- ART 101 - Art Appreciation Credits: 3
- HONR 111 - Honors: Introduction to Interdisciplinary Arts Credits: 3
- HONR 135 - Honors: Art History III Credits: 3
- HONR 210 - Honors: Introduction to Music Credits: 3

- HONR 261 - Honors: World Music Credits: 3
- INST 111 - Introduction to Interdisciplinary Arts Credits: 3
- MUSI 121 - Introduction to Music Credits: 3
- MUSI 129 - American Popular Music Credits: 3
- MUSI 216 - Music & Film Credits: 3
- MUSI 261 - World Music Credits: 3

Advising Notes:

1. Semester I & II: General Education

Elementary/Middle Level Education: Grades 4-8, Mathematics Concentration, B.S.Ed.

Option 1: Single Certification

Students choose one area in which they will be certified to teach. Options include:

- Science
- Mathematics
- Social Studies
- Language Arts.

Option 2: Double Certifications

Students choose two areas in which they will be certified to teach. One area must be math or science. Options include:

- Science and Mathematics;
- Science and Social Studies;
- Science and Language Arts;
- Mathematics and Social Studies; and
- Mathematics and Language Arts.

Credit Requirements*

- **General Education:** 46 credits
- **Major Requirements**: 66 - 68 credits
- **Free Electives:** 6 - 8 credits
- *Total Credits to Graduate:* **120 credits**

* All undergraduate degree programs require a minimum of 120 credits. Some courses meet multiple requirements, but are only counted once toward the 120 credit total required to graduate.

Concentration Area

Mathematics (15-17 crs.)

Following Two Courses are Required:

- MATH 105 - Mathematics for Liberal Studies Credits: 3
- MATH 111 - Fundamentals of Mathematics II Credits: 3

Choose One of the Following Options:
Option One:

- MATH 175 - Precalculus Credits: 3
- MATH 211 - Calculus I Credits: 4

Option Two:

- MATH 181 - Applied Calculus Credits: 3
- MATH 318 - Elementary Linear Algebra Credits: 3

Option Three:

- MATH 211
- MATH 212 or MATH 318

Math Elective

- 1 Math Course at the 200 level or higher

Professional Core and Student Teaching (48 crs.)

- ECED 480 - Early Childhood Professional Seminar Credits: 3
- EDFN 495 - Student Teaching Credits: 6-15
- READ 232 - Reading in the Elementary School Credits: 3
- READ 329 - Reading in the Content Areas Credits: 3
- READ 363 - Reading and Writing in PK-4 Credits: 3
- SPEE 423 - Effective Instructional Strategies for Students with Exceptionalities Credits: 3
- SPEE 483 - Assessing Children with Exceptionalities for Curricular Decision-Making Credits: 3
- TEED 206 - Social Foundations of Middle Level Education Credits: 3
- TEED 251 - Elements of Middle Level Instruction Credits: 3
- TEED 261 - Adolescent Development and Adolescent Learning Theory Credits: 3
- TEED 342 - Teaching Middle Level Mathematics Credits: 3
- TEED 345 - Assessment and Evaluation Strategies Credits: 3

Choose One of the Following:

- ESL 450 - Foundations of English Language Learner Instruction a Credits: 3
- READ 413 - Teaching Reading to English Language Learners Credits: 3

Teacher Education Elective (3 crs.)

Choose One of the Following:

- ECED 415 - Professional Practicum in PK-4 Credits: 3
- ECSP 415 - Professional Practicum: Pre K-4/Dual Credits: 3
- Any ECED 300 or 400 Level Course
- Any EDFN 400 Level Course

General Education

Foundation Courses (15 crs.)

First Year Seminar (Select One)

- UNIV 101 - Shippensburg University First Year Seminar Credits: 3
- HONR 113 - Honors: Shippensburg University First Year Seminar Credits: 3

Written Communication (Select One)

- ENGL 114 - Academic Writing Credits: 3
- ENGL 115 - Advanced Academic Writing Credits: 3
- HONR 106 - Honors: Academic Writing Credits: 3

Oral Communication (Select One)

- COST 100 - Introduction to Human Communication Credits: 3
- HONR 100 - Honors: Introduction to Human Communication Credits: 3

Historical Themes (Select One)

- HIST 105 - Historical Foundations of Global Cultures Credits: 3
- HONR 122 - Honors: Historical Foundations of Global Cultures Credits: 3

Quantitative Reasoning (Select One)

- MATH 117 - Applied Statistics Credits: 3
- MATH 217 - Statistics I Credits: 4

Interconnections: Diversity (3 crs.)

Select One:

- HONR 411 - Honors: Introduction to Exceptionalities: Understanding Diverse Learners Credits: 3
- SPEE 273 - Introduction to Exceptionalities: Understanding Diverse Learners Credits: 3

Interconnections (6 crs.)

Select at lease one Global Perspectives Course.

Global Perspectives Courses:

- ANTH 105 - Great Discoveries in Archaeology Credits: 3
- ANTH 111 - Cultural Anthropology Credits: 3
- ECON 101 - Principles of Macroeconomics Credits: 3
- FREN 204 - Ideas and Cultures from the French-Speaking World Credits: 3
- GEOG 101 - World Geography Credits: 3
- GERM 150 - German Civilization and Culture Credits: 3
- GERM 204 - Contemporary German Culture Credits: 3
- HIST 106 - Modern World History Credits: 3
- INTL 358 - Global Political Economy & Security Credits: 3
- HONR 123 - Honors: Modern World History Credits: 3
- HONR 141 - Honors: World Geography Credits: 3
- HONR 160 - Honors: Cultural Anthropology Credits: 3
- HONR 165 - Honors: Principles of Macroeconomics Credits: 3
- POLI 141 - World Politics Credits: 3

- SOCI 265 - Global Society Credits: 3
- SPAN 153 - Latino Pop Culture Credits: 3
- SPAN 204 - Ideas and Cultures from the Spanish-Speaking World Credits: 3

Foreign Language Courses:

- FREN 101 - Beginning French I Credits: 3
- FREN 102 - Beginning French II Credits: 3
- FREN 103 - Intermediate French Credits: 3
- FREN 202 - Intermediate Conversation Through the Media Credits: 3
- GERM 101 - Beginning German I Credits: 3
- GERM 102 - Beginning German II Credits: 3
- GERM 103 - Intermediate German Credits: 3
- GERM 203 - Intermediate German Communication Credits: 3
- SPAN 101 - Beginning Spanish I Credits: 3
- SPAN 102 - Beginning Spanish II Credits: 3
- SPAN 103 - Intermediate Spanish Credits: 3
- SPAN 202 - Intermediate Conversation Credits: 3

Citizenship & Responsibility (7 crs.)

In addition to the required Critical Analysis & Reasoning math course, select one (1) course from the following program goals: Citizenship or Ethical Reasoning.

- MATH 225 - Discrete Mathematics Credits: 4

Citizenship

Options include

- COMM 111 - Media Literacy Credits: 3
- ESSC 108 - Introduction to Environmental Sustainability Credits: 3
- HIST 201 - Early History of the United States Credits: 3
- HIST 202 - Recent History of the United States Credits: 3
- HONR 279 - Honors: U.S. Government and Politics Credits: 3
- POLI 100 - U.S. Government and Politics Credits: 3

Ethical Reasoning

Options include:

- PHIL 105 - Ethical Theories and Problems Credits: 3
- HONR 105 - Honors: Ethical Theories and Problems Credits: 3

Natural World & Technology (9 crs.)

Select 3 Natural World Courses:

Required, Select One:

- PSYC 101 - General Psychology Credits: 3

- HONR 151 - Honors: General Psychology Credits: 3

- ANTH 121 - Physical Anthropology Credits: 3
- BIOL 100 - Basic Biology Credits: 3
- BIOL 145 - Environmental Biology Credits: 3
- BIOL 150 - Human Biology Credits: 3
- CHEM 103 - A Cultural Approach Credits: 3
- CHEM 105 - An Observational Approach Credits: 3
- ESSC 110 - Introduction to Geology Credits: 3
- ESSC 111 - Introduction to Weather and Climate Credits: 3
- HONR 108 - Honors: Astronomy Credits: 3
- HONR 142 - Honors: Introduction to Weather and Climate Credits: 3
- HONR 145 - Honors: Environmental Biology Credits: 3
- HONR 159 - Honors: Physical Anthropology Credits: 3
- HONR 180 - Honors: Physics for Society Credits: 3
- HONR 186 - Honors: Human Biology Credits: 3
- HONR 196 - Honors: A Cultural Approach Credits: 3
- HONR 244 - Honors: Introduction to Geology Credits: 3
- PHYS 108 - Astronomy Credits: 3
- PHYS 110 - Physics for Society Credits: 3

Creativity & Expression (6 crs.)

Literature

Select One:

- ENGL 243 - The Art of the Film Credits: 3
- ENGL 248 - Introduction to Culturally Diverse Literature of the U.S. Credits: 3
- ENGL 250 - Literature and Society Credits: 3
- HONR 249 - Honors: Literature and Society Credits: 3

Arts

- ART 101 - Art Appreciation Credits: 3
- HONR 111 - Honors: Introduction to Interdisciplinary Arts Credits: 3
- HONR 210 - Honors: Introduction to Music Credits: 3
- HONR 135 - Honors: Art History III Credits: 3
- HONR 261 - Honors: World Music Credits: 3
- INST 111 - Introduction to Interdisciplinary Arts Credits: 3
- MUSI 121 - Introduction to Music Credits: 3
- MUSI 129 - American Popular Music Credits: 3
- MUSI 216 - Music & Film Credits: 3
- MUSI 261 - World Music Credits: 3

Advising Notes:

1. Semester I & II: General Education & Concentration

Elementary/Middle Level Education: Grades 4-8, Math and Language Arts Concentration, B.S.Ed.

Option 1: Single Certification

Students choose one area in which they will be certified to teach. Options include:

- Science
- Mathematics
- Social Studies
- Language Arts.

Option 2: Double Certifications

Students choose two areas in which they will be certified to teach. One area must be math or science. Options include:

- Science and Mathematics;
- Science and Social Studies;
- Science and Language Arts;
- Mathematics and Social Studies; and
- Mathematics and Language Arts.

Credit Requirements*

- **General Education:** 46 credits
- **Major Requirements**: 75 - 77 credits
- **Free Electives:** 0 credits
- *Total Credits to Graduate:* **121 - 123 credits**

* All undergraduate degree programs require a minimum of 120 credits. Some courses meet multiple requirements, but are only counted once toward the 120 credit total required to graduate.

Concentration Areas

Mathematics (12-14 crs.)

Following Two Courses are Required:

- MATH 105 - Mathematics for Liberal Studies Credits: 3
- MATH 111 - Fundamentals of Mathematics II Credits: 3

Choose One of the Following Options:
Option One:

- MATH 175 - Precalculus Credits: 3
- MATH 211 - Calculus I Credits: 4

Option Two:

- MATH 181 - Applied Calculus Credits: 3
- MATH 318 - Elementary Linear Algebra Credits: 3

Option Three:

- MATH 211
- MATH 212 or MATH 318

Language Arts (9 crs.)

- ENGL 366 - History and Structure of the English Language Credits: 3
- ENGL 426 - Teaching Adolescent Literature Credits: 3

Choose One of the Following

- ECED 415 - Professional Practicum in PK-4 Credits: 3
- ECSP 415 - Professional Practicum: Pre K-4/Dual Credits: 3

Professional Core (36 crs.)

- READ 232 - Reading in the Elementary School Credits: 3
- READ 329 - Reading in the Content Areas Credits: 3
- READ 363 - Reading and Writing in PK-4 Credits: 3
- TEED 206 - Social Foundations of Middle Level Education Credits: 3
- TEED 251 - Elements of Middle Level Instruction Credits: 3
- TEED 261 - Adolescent Development and Adolescent Learning Theory Credits: 3
- TEED 322 - Teaching Middle Level Language Arts Credits: 3
- TEED 342 - Teaching Middle Level Mathematics Credits: 3
- TEED 345 - Assessment and Evaluation Strategies Credits: 3
- SPEE 423 - Effective Instructional Strategies for Students with Exceptionalities Credits: 3
- SPEE 483 - Assessing Children with Exceptionalities for Curricular Decision-Making Credits: 3

Choose One of the Following:

- ESL 450 - Foundations of English Language Learner Instruction a Credits: 3
- READ 413 - Teaching Reading to English Language Learners Credits: 3

Student Teaching (15 crs.)

- ECED 480 - Early Childhood Professional Seminar Credits: 3
- EDFN 495 - Student Teaching Credits: 6-15

Teacher Education Elective (3 crs.)

Choose One of the Following:

- ECED 415 - Professional Practicum in PK-4 Credits: 3
- ECSP 415 - Professional Practicum: Pre K-4/Dual Credits: 3
- Any ECED 300 or 400 Level Course

- Any EDFN 400 Level Course

General Education

Foundation Courses (15 crs.)

First Year Seminar (Select One)

- UNIV 101 - Shippensburg University First Year Seminar Credits: 3
- HONR 113 - Honors: Shippensburg University First Year Seminar Credits: 3

Written Communication (Select One)

- ENGL 114 - Academic Writing Credits: 3
- ENGL 115 - Advanced Academic Writing Credits: 3
- HONR 106 - Honors: Academic Writing Credits: 3

Oral Communication (Select One)

- COST 100 - Introduction to Human Communication Credits: 3
- HONR 100 - Honors: Introduction to Human Communication Credits: 3

Historical Themes (Select One)

- HIST 105 - Historical Foundations of Global Cultures Credits: 3
- HONR 122 - Honors: Historical Foundations of Global Cultures Credits: 3

Quantitative Reasoning (Select One)

- MATH 117 - Applied Statistics Credits: 3
- MATH 217 - Statistics I Credits: 4

Interconnections: Diversity (3 crs.)

Select One:

- HONR 411 - Honors: Introduction to Exceptionalities: Understanding Diverse Learners Credits: 3
- SPEE 273 - Introduction to Exceptionalities: Understanding Diverse Learners Credits: 3

Interconnections (6 crs.)

Select at least one Global Perspectives Course.

Global Perspectives Courses:

- ANTH 105 - Great Discoveries in Archaeology Credits: 3
- ANTH 111 - Cultural Anthropology Credits: 3
- ECON 101 - Principles of Macroeconomics Credits: 3
- FREN 204 - Ideas and Cultures from the French-Speaking World Credits: 3
- GEOG 101 - World Geography Credits: 3
- GERM 150 - German Civilization and Culture Credits: 3
- GERM 204 - Contemporary German Culture Credits: 3
- HIST 106 - Modern World History Credits: 3
- HONR 123 - Honors: Modern World History Credits: 3
- HONR 141 - Honors: World Geography Credits: 3
- HONR 165 - Honors: Principles of Macroeconomics Credits: 3
- INTL 358 - Global Political Economy & Security Credits: 3

- POLI 141 - World Politics Credits: 3
- SPAN 153 - Latino Pop Culture Credits: 3
- SPAN 204 - Ideas and Cultures from the Spanish-Speaking World Credits: 3

Foreign Language Courses:

- FREN 101 - Beginning French I Credits: 3
- FREN 102 - Beginning French II Credits: 3
- FREN 103 - Intermediate French Credits: 3
- FREN 202 - Intermediate Conversation Through the Media Credits: 3
- GERM 101 - Beginning German I Credits: 3
- GERM 102 - Beginning German II Credits: 3
- GERM 103 - Intermediate German Credits: 3
- GERM 203 - Intermediate German Communication Credits: 3
- SPAN 101 - Beginning Spanish I Credits: 3
- SPAN 102 - Beginning Spanish II Credits: 3
- SPAN 103 - Intermediate Spanish Credits: 3
- SPAN 202 - Intermediate Conversation Credits: 3

Citizenship & Responsibility (7 crs.)

In addition to the required Critical Analysis & Reasoning math course, select one (1) course from the following program goals: Citizenship or Ethical Reasoning.

- MATH 225 - Discrete Mathematics Credits: 4

Citizenship

Options include:

- COMM 111 - Media Literacy Credits: 3
- ESSC 108 - Introduction to Environmental Sustainability Credits: 3
- HIST 201 - Early History of the United States Credits: 3
- HIST 202 - Recent History of the United States Credits: 3
- HONR 279 - Honors: U.S. Government and Politics Credits: 3
- POLI 100 - U.S. Government and Politics Credits: 3

Ethical Reasoning

Options include:

- PHIL 105 - Ethical Theories and Problems Credits: 3
- HONR 105 - Honors: Ethical Theories and Problems Credits: 3

Natural World & Technology (9 crs.)

Select 3 Natural World Courses:

Required, Select One:

- PSYC 101 - General Psychology Credits: 3

- HONR 151 - Honors: General Psychology Credits: 3

Select Two of the Following Courses:

- ANTH 121 - Physical Anthropology Credits: 3
- BIOL 100 - Basic Biology Credits: 3
- BIOL 145 - Environmental Biology Credits: 3
- BIOL 150 - Human Biology Credits: 3
- CHEM 103 - A Cultural Approach Credits: 3
- CHEM 105 - An Observational Approach Credits: 3
- ECON 102 - Principles of Microeconomics Credits: 3
- ESSC 110 - Introduction to Geology Credits: 3
- ESSC 111 - Introduction to Weather and Climate Credits: 3
- ESSC 115 - Coastal Hazards and Sustainability Credits: 3
- GEOG 105 - Physical Geography Credits: 3
- HONR 108 - Honors: Astronomy Credits: 3
- HONR 142 - Honors: Introduction to Weather and Climate Credits: 3
- HONR 145 - Honors: Environmental Biology Credits: 3
- HONR 159 - Honors: Physical Anthropology Credits: 3
- HONR 180 - Honors: Physics for Society Credits: 3
- HONR 186 - Honors: Human Biology Credits: 3
- HONR 196 - Honors: A Cultural Approach Credits: 3
- HONR 244 - Honors: Introduction to Geology Credits: 3
- PHYS 108 - Astronomy Credits: 3
- PHYS 110 - Physics for Society Credits: 3

Creativity & Expression (6 crs.)

Literature

Select One:

- ENGL 243 - The Art of the Film Credits: 3
- ENGL 248 - Introduction to Culturally Diverse Literature of the U.S. Credits: 3
- ENGL 250 - Literature and Society Credits: 3
- HONR 249 - Honors: Literature and Society Credits: 3

Arts

Select One:

- ART 101 - Art Appreciation Credits: 3
- HONR 111 - Honors: Introduction to Interdisciplinary Arts Credits: 3
- HONR 135 - Honors: Art History III Credits: 3
- HONR 210 - Honors: Introduction to Music Credits: 3
- HONR 261 - Honors: World Music Credits: 3
- INST 111 - Introduction to Interdisciplinary Arts Credits: 3
- MUSI 121 - Introduction to Music Credits: 3

- MUSI 129 - American Popular Music Credits: 3
- MUSI 216 - Music & Film Credits: 3
- MUSI 261 - World Music Credits: 3

Advising Notes:

1. Semester I & II: General Education & Concentration

Elementary/Middle Level Education: Grades 4-8, Math and Science Concentration, B.S.Ed.

Option 1: Single Certification

Students choose one area in which they will be certified to teach. Options include:

- Science
- Mathematics
- Social Studies
- Language Arts.

Option 2: Double Certifications

Students choose two areas in which they will be certified to teach. One area must be math or science. Options include:

- Science and Mathematics;
- Science and Social Studies;
- Science and Language Arts;
- Mathematics and Social Studies; and
- Mathematics and Language Arts.

Credit Requirements*

- **General Education:** 47 - 48 credits
- **Major Requirements**: 75 - 77 credits
- **Free Electives:** 0 credits
- *Total Credits to Graduate:* **122 - 125 credits**

* All undergraduate degree programs require a minimum of 120 credits. Some courses meet multiple requirements, but are only counted once toward the 120 credit total required to graduate.

Concentration Areas

Mathematics (12-14 crs.)

Following Two Courses are Required:

- MATH 105 - Mathematics for Liberal Studies Credits: 3

- MATH 111 - Fundamentals of Mathematics II Credits: 3

Choose One of the Following Options:
Option One:
- MATH 175 - Precalculus Credits: 3
- MATH 211 - Calculus I Credits: 4

Option Two:
- MATH 181 - Applied Calculus Credits: 3
- MATH 318 - Elementary Linear Algebra Credits: 3

Option Three:
- MATH 211
- MATH 212 or MATH 318

Science (9 crs.)

- CHEM 105 - An Observational Approach Credits: 3
- ESSC 110 - Introduction to Geology Credits: 3

One of the following:
- BIOL 100 - Basic Biology Credits: 3
- BIOL 145 - Environmental Biology Credits: 3

Professional Core and Student Teaching (51 crs.)

- ECED 480 - Early Childhood Professional Seminar Credits: 3
- EDFN 495 - Student Teaching Credits: 6-15
- READ 232 - Reading in the Elementary School Credits: 3
- READ 329 - Reading in the Content Areas Credits: 3
- READ 363 - Reading and Writing in PK-4 Credits: 3
- SPEE 423 - Effective Instructional Strategies for Students with Exceptionalities Credits: 3
- SPEE 483 - Assessing Children with Exceptionalities for Curricular Decision-Making Credits: 3
- TEED 206 - Social Foundations of Middle Level Education Credits: 3
- TEED 251 - Elements of Middle Level Instruction Credits: 3
- TEED 261 - Adolescent Development and Adolescent Learning Theory Credits: 3
- TEED 342 - Teaching Middle Level Mathematics Credits: 3
- TEED 345 - Assessment and Evaluation Strategies Credits: 3
- TEED 366 - Teaching Science at the Middle Level Credits: 3

Choose One of the Following:
- ESL 450 - Foundations of English Language Learner Instruction a Credits: 3
- READ 413 - Teaching Reading to English Language Learners Credits: 3

Teacher Education Elective (3 crs.)

Choose One of the Following:

- ECED 415 - Professional Practicum in PK-4 Credits: 3
- ECSP 415 - Professional Practicum: Pre K-4/Dual Credits: 3
- Any ECED 300 or 400 Level Course
- Any EDFN 400 Level Course

General Education

Foundation Courses (15 crs.)

First Year Seminar (Select One)

- UNIV 101 - Shippensburg University First Year Seminar Credits: 3
- HONR 113 - Honors: Shippensburg University First Year Seminar Credits: 3

Written Communication (Select One)

- ENGL 114 - Academic Writing Credits: 3
- ENGL 115 - Advanced Academic Writing Credits: 3
- HONR 106 - Honors: Academic Writing Credits: 3

Oral Communication (Select One)

- COST 100 - Introduction to Human Communication Credits: 3
- HONR 100 - Honors: Introduction to Human Communication Credits: 3

Historical Themes (Select One)

- HIST 105 - Historical Foundations of Global Cultures Credits: 3
- HONR 122 - Honors: Historical Foundations of Global Cultures Credits: 3

Quantitative Reasoning (Select One)

- MATH 117 - Applied Statistics Credits: 3
- MATH 217 - Statistics I Credits: 4

Interconnections: Diversity (3 crs.)

Select One:

- HONR 411 - Honors: Introduction to Exceptionalities: Understanding Diverse Learners Credits: 3
- SPEE 273 - Introduction to Exceptionalities: Understanding Diverse Learners Credits: 3

Interconnections (6 crs.)

Select at least one Global Perspectives Course.

Global Perspectives Courses:

- ANTH 105 - Great Discoveries in Archaeology Credits: 3
- ANTH 111 - Cultural Anthropology Credits: 3
- ECON 101 - Principles of Macroeconomics Credits: 3
- FREN 204 - Ideas and Cultures from the French-Speaking World Credits: 3
- GEOG 101 - World Geography Credits: 3
- GERM 150 - German Civilization and Culture Credits: 3
- GERM 204 - Contemporary German Culture Credits: 3
- HIST 106 - Modern World History Credits: 3
- HONR 123 - Honors: Modern World History Credits: 3

- HONR 141 - Honors: World Geography Credits: 3
- HONR 165 - Honors: Principles of Macroeconomics Credits: 3
- INTL 358 - Global Political Economy & Security Credits: 3
- POLI 141 - World Politics Credits: 3
- SOCI 265 - Global Society Credits: 3
- SPAN 153 - Latino Pop Culture Credits: 3
- SPAN 204 - Ideas and Cultures from the Spanish-Speaking World Credits: 3

Foreign Language Courses:

- FREN 101 - Beginning French I Credits: 3
- FREN 102 - Beginning French II Credits: 3
- FREN 103 - Intermediate French Credits: 3
- FREN 202 - Intermediate Conversation Through the Media Credits: 3
- GERM 101 - Beginning German I Credits: 3
- GERM 102 - Beginning German II Credits: 3
- GERM 103 - Intermediate German Credits: 3
- GERM 203 - Intermediate German Communication Credits: 3
- SPAN 101 - Beginning Spanish I Credits: 3
- SPAN 102 - Beginning Spanish II Credits: 3
- SPAN 103 - Intermediate Spanish Credits: 3
- SPAN 202 - Intermediate Conversation Credits: 3

Citizenship & Responsibility (7 crs.)

In addition to the required Critical Analysis & Reasoning math course, select one (1) course from the following program goals: Citizenship or Ethical Reasoning.

- MATH 225 - Discrete Mathematics Credits: 4

Citizenship

Options include:

- COMM 111 - Media Literacy Credits: 3
- ESSC 108 - Introduction to Environmental Sustainability Credits: 3
- HIST 201 - Early History of the United States Credits: 3
- HIST 202 - Recent History of the United States Credits: 3
- HONR 279 - Honors: U.S. Government and Politics Credits: 3
- POLI 100 - U.S. Government and Politics Credits: 3

Ethical Reasoning

Options include:

- PHIL 105 - Ethical Theories and Problems Credits: 3
- HONR 105 - Honors: Ethical Theories and Problems Credits: 3

Natural World & Technology (10-11 crs.)

Choose From 3 of the Following:

- BIOL 162 - Principles of Biology: Organismal Diversity Credits: 4
- ESSC 111 - Introduction to Weather and Climate Credits: 3
- PSYC 101 - General Psychology Credits: 3
- PHYS 121 - Introductory Physics I - Lecture Credits: 3
  And
- PHYS 123 - Physics Ia Laboratory Credits: 1

Creativity & Expression (6 crs.)

Literature

Select One:

- ENGL 243 - The Art of the Film Credits: 3
- ENGL 248 - Introduction to Culturally Diverse Literature of the U.S. Credits: 3
- ENGL 250 - Literature and Society Credits: 3
- HONR 249 - Honors: Literature and Society Credits: 3

Arts

Select One:

- ART 101 - Art Appreciation Credits: 3
- HONR 111 - Honors: Introduction to Interdisciplinary Arts Credits: 3
- HONR 135 - Honors: Art History III Credits: 3
- HONR 210 - Honors: Introduction to Music Credits: 3
- HONR 261 - Honors: World Music Credits: 3
- INST 111 - Introduction to Interdisciplinary Arts Credits: 3
- MUSI 121 - Introduction to Music Credits: 3
- MUSI 129 - American Popular Music Credits: 3
- MUSI 216 - Music & Film Credits: 3
- MUSI 261 - World Music Credits: 3

Advising Notes:

1. Semester I & II: General Education Courses

Elementary/Middle Level Education: Grades 4-8, Math and Social Studies Concentration, B.S.Ed.

Option 1: Single Certification

Students choose one area in which they will be certified to teach. Options include:

- Science
- Mathematics
- Social Studies
- English/Language Arts.

Option 2: Double Certifications

Students choose two areas in which they will be certified to teach. One area must be math or science. Options include:

- Science and Mathematics;
- Science and Social Studies;
- Science and English/Language Arts;
- Mathematics and Social Studies; and
- Mathematics and English/Language Arts.

Credit Requirements*

- **General Education:** 46 - 47 credits
- **Major Requirements**: 75 - 77 credits
- **Free Electives:** 0 credits
- *Total Credits to Graduate:* **121 - 124 credits**

* All undergraduate degree programs require a minimum of 120 credits. Some courses meet multiple requirements, but are only counted once toward the 120 credit total required to graduate.

Concentration Areas

Mathematics (12-14 crs.)

- MATH 105 - Mathematics for Liberal Studies Credits: 3
- MATH 111 - Fundamentals of Mathematics II Credits: 3

Select One:

- MATH 175 - Precalculus Credits: 3
- MATH 181 - Applied Calculus Credits: 3
- MATH 211 - Calculus I Credits: 4

Select one:

- MATH 211 - Calculus I Credits: 4
- MATH 212 - Calculus II Credits: 4
- MATH 318 - Elementary Linear Algebra Credits: 3

*Note: Must take MATH 318 if MATH 181 was selected in a previous semester.

Social Studies (9 crs.)

- GEOG 140 - Human Geography Credits: 3
- HIST 106 - Modern World History Credits: 3

Select One:

- HIST 201 - Early History of the United States Credits: 3

- HIST 202 - Recent History of the United States Credits: 3
- HIST 301 - The West in American History Credits: 3
- HIST 305 - The Civil War Era Credits: 3
- HIST 309 - History of the American Worker Credits: 3
- HIST 314 - History of Jacksonian America Credits: 3
- HIST 318 - History of U.S. Women Credits: 3
- HIST 338 - Colonial America Credits: 3
- HIST 341 - African-American History Credits: 3
- HIST 342 - U.S. Immigration and Ethnicity Credits: 3
- HIST 345 - Military History of the United States Credits: 3
- HIST 402 - Revolutionary America Credits: 3
- HIST 413 - Pennsylvania History Credits: 3
- POLI 311 - The Legislative Process Credits: 3
- POLI 312 - The American Presidency Credits: 3
- POLI 313 - The Judicial Process Credits: 3
- POLI 342 - American Foreign Policy Credits: 3
- POLI 356 - Politics of Developing Regions Credits: 3

Professional Core and Student Teaching (39 crs.)

Middle Level Cognitive Development

- TEED 206 - Social Foundations of Middle Level Education Credits: 3

Early Adolescent and Adolescent Learning Theory

- TEED 261 - Adolescent Development and Adolescent Learning Theory Credits: 3

Assessments and Interventions

- SPEE 483 - Assessing Children with Exceptionalities for Curricular Decision-Making Credits: 3

Adaptations and Accommodations for Diverse Learners

- SPEE 273 - Introduction to Exceptionalities: Understanding Diverse Learners Credits: 3
- SPEE 423 - Effective Instructional Strategies for Students with Exceptionalities Credits: 3

Middle Level Teaching Methods

- READ 232 - Reading in the Elementary School Credits: 3
- READ 329 - Reading in the Content Areas Credits: 3
- READ 405 - Teaching Writing in 4-8 Classrooms Credits: 3
- TEED 251 - Elements of Middle Level Instruction Credits: 3
- TEED 342 - Teaching Middle Level Mathematics Credits: 3
- TEED 345 - Assessment and Evaluation Strategies Credits: 3

- TEED 348 - Teaching Middle Level Social Studies Credits: 3

English Language Learners (ELL)

- READ 413 - Teaching Reading to English Language Learners Credits: 3

Student Teaching (15 crs.)

- EDFN 409 - Seminar in Middle Level Learning Credits: 3
- EDFN 495 - Student Teaching Credits: 6-15

General Education

Foundation Courses (15 crs.)

First Year Seminar (Select One)

- UNIV 101 - Shippensburg University First Year Seminar Credits: 3
- HONR 113 - Honors: Shippensburg University First Year Seminar Credits: 3

Written Communication (Select One)

- ENGL 114 - Academic Writing Credits: 3
- ENGL 115 - Advanced Academic Writing Credits: 3
- HONR 106 - Honors: Academic Writing Credits: 3

Oral Communication (Select One)

- COST 100 - Introduction to Human Communication Credits: 3
- HONR 100 - Honors: Introduction to Human Communication Credits: 3

Historical Themes (Select One)

- HIST 105 - Historical Foundations of Global Cultures Credits: 3
- HONR 122 - Honors: Historical Foundations of Global Cultures Credits: 3

Quantitative Reasoning (Select One)

- MATH 117 - Applied Statistics Credits: 3
- MATH 217 - Statistics I Credits: 4

Interconnections: Diversity (3 crs.)

Select One:

- HONR 411 - Honors: Introduction to Exceptionalities: Understanding Diverse Learners Credits: 3
- SPEE 273 - Introduction to Exceptionalities: Understanding Diverse Learners Credits: 3

Interconnections (6 crs.)

Select one:

- GEOG 101 - World Geography Credits: 3
- HONR 141 - Honors: World Geography Credits: 3

Select One:

- ECON 101 - Principles of Macroeconomics Credits: 3

- HONR 165 - Honors: Principles of Macroeconomics Credits: 3

Citizenship & Responsibility (7 crs.)

- MATH 225 - Discrete Mathematics Credits: 4
  Select One:
- POLI 100 - U.S. Government and Politics Credits: 3
- HONR 279 - Honors: U.S. Government and Politics Credits: 3

Natural World & Technology (9 crs.)

Select 3 Natural World Courses:

Natural World

- ANTH 121 - Physical Anthropology Credits: 3
- BIOL 100 - Basic Biology Credits: 3
- BIOL 145 - Environmental Biology Credits: 3
- BIOL 150 - Human Biology Credits: 3
- BIOL 161 - Principles of Biology: Cell Structure and Function Credits: 4
- BIOL 162 - Principles of Biology: Organismal Diversity Credits: 4
- BIOL 208 - Field Biology Credits: 3
- BIOL 237 - Human Anatomy & Physiology I Credits: 4
- CHEM 103 - A Cultural Approach Credits: 3
- CHEM 105 - An Observational Approach Credits: 3
- CHEM 121 - Chemical Bonding Credits: 3
- ESSC 110 - Introduction to Geology Credits: 3
- ESSC 111 - Introduction to Weather and Climate Credits: 3
- HONR 108 - Honors: Astronomy Credits: 3
- HONR 142 - Honors: Introduction to Weather and Climate Credits: 3
- HONR 145 - Honors: Environmental Biology Credits: 3
- HONR 159 - Honors: Physical Anthropology Credits: 3
- HONR 180 - Honors: Physics for Society Credits: 3
- HONR 186 - Honors: Human Biology Credits: 3
- HONR 196 - Honors: A Cultural Approach Credits: 3
- HONR 244 - Honors: Introduction to Geology Credits: 3
- PHYS 108 - Astronomy Credits: 3
- PHYS 110 - Physics for Society Credits: 3
- PHYS 121 - Introductory Physics I - Lecture Credits: 3
- PHYS 122 - Introductory Physics II - Lecture Credits: 3
- PHYS 205 - Intermediate Physics I Credits: 3

Creativity & Expression (6 crs.)

Literature

Select One:

- ENGL 243 - The Art of the Film Credits: 3
- ENGL 248 - Introduction to Culturally Diverse Literature of the U.S. Credits: 3
- ENGL 250 - Literature and Society Credits: 3
- HONR 249 - Honors: Literature and Society Credits: 3

Arts

Select One:

- ART 101 - Art Appreciation Credits: 3
- HONR 111 - Honors: Introduction to Interdisciplinary Arts Credits: 3
- HONR 135 - Honors: Art History III Credits: 3
- HONR 210 - Honors: Introduction to Music Credits: 3
- HONR 261 - Honors: World Music Credits: 3
- INST 111 - Introduction to Interdisciplinary Arts Credits: 3
- MUSI 121 - Introduction to Music Credits: 3
- MUSI 129 - American Popular Music Credits: 3
- MUSI 216 - Music & Film Credits: 3
- MUSI 261 - World Music Credits: 3

Advising Notes:

1. Semester I & II: General Education

Elementary/Middle Level Education: Grades 4-8, Science Concentration, B.S.Ed.

Option 1: Single Certification

Students choose one area in which they will be certified to teach. Options include:

- Science
- Mathematics
- Social Studies
- Language Arts.

Option 2: Double Certifications

Students choose two areas in which they will be certified to teach. One area must be math or science. Options include:

- Science and Mathematics;
- Science and Social Studies;
- Science and Language Arts;
- Mathematics and Social Studies; and

- Mathematics and Language Arts.

Credit Requirements*

- **General Education:** 48 credits
- **Major Requirements**: 72credits
- **Free Electives:** 0 credits
- *Total Credits to Graduate:* **120 credits**

* All undergraduate degree programs require a minimum of 120 credits. Some courses meet multiple requirements, but are only counted once toward the 120 credit total required to graduate.

Science (11 crs.)

- BIOL 161 - Principles of Biology: Cell Structure and Function Credits: 4
- CHEM 105 - An Observational Approach Credits: 3
- PHYS 121 - Introductory Physics I - Lecture Credits: 3
- PHYS 123 - Physics Ia Laboratory Credits: 1

Take One Sequence (4 Credits)

- CHEM 121 - Chemical Bonding Credits: 3
  AND
- CHEM 125 - Laboratory IB-Stoichiometry and Reactions Credits: 1
  OR
- PHYS 122 - Introductory Physics II - Lecture Credits: 3
  AND
- PHYS 125 - Physics IIa Laboratory Credits: 1

Take One (3 Credits)

- ESSC 220 - Oceanography Credits: 3
- ESSC 355 - Meteorology Credits: 3
- ESSC 404 - Applied Weather and Climate Credits: 3

Math Requirement (3 crs.)

- MATH 111 - Fundamentals of Mathematics II Credits: 3

Professional Core and Student Teaching (51 crs.)

- ECED 480 - Early Childhood Professional Seminar Credits: 3
- EDFN 495 - Student Teaching Credits: 6-15
- READ 232 - Reading in the Elementary School Credits: 3
- READ 329 - Reading in the Content Areas Credits: 3
- READ 363 - Reading and Writing in PK-4 Credits: 3
- SPEE 423 - Effective Instructional Strategies for Students with Exceptionalities Credits: 3

- SPEE 483 - Assessing Children with Exceptionalities for Curricular Decision-Making Credits: 3
- TEED 206 - Social Foundations of Middle Level Education Credits: 3
- TEED 251 - Elements of Middle Level Instruction Credits: 3
- TEED 261 - Adolescent Development and Adolescent Learning Theory Credits: 3
- TEED 345 - Assessment and Evaluation Strategies Credits: 3
- TEED 366 - Teaching Science at the Middle Level Credits: 3

Choose One of the Following:

- ESL 450 - Foundations of English Language Learner Instruction a Credits: 3
- READ 413 - Teaching Reading to English Language Learners Credits: 3

Teacher Education Elective (3 crs.)

Choose One of the Following

- ECED 415 - Professional Practicum in PK-4 Credits: 3
- ECSP 415 - Professional Practicum: Pre K-4/Dual Credits: 3
- Any ECED 300 or 400 Level Course
- Any EDFN 400 Level Course

General Education

Foundation Courses (15 crs.)

First Year Seminar (Select One)

- UNIV 101 - Shippensburg University First Year Seminar Credits: 3
- HONR 113 - Honors: Shippensburg University First Year Seminar Credits: 3

Written Communication (Select One)

- ENGL 114 - Academic Writing Credits: 3
- ENGL 115 - Advanced Academic Writing Credits: 3
- HONR 106 - Honors: Academic Writing Credits: 3

Oral Communication (Select One)

- COST 100 - Introduction to Human Communication Credits: 3
- HONR 100 - Honors: Introduction to Human Communication Credits: 3

Historical Themes (Select One)

- HIST 105 - Historical Foundations of Global Cultures Credits: 3
- HONR 122 - Honors: Historical Foundations of Global Cultures Credits: 3

Quantitative Reasoning (Select One)

- MATH 117 - Applied Statistics Credits: 3
- MATH 217 - Statistics I Credits: 4

Interconnections: Diversity (3 crs.)

Select One:

- HONR 411 - Honors: Introduction to Exceptionalities: Understanding Diverse Learners Credits: 3
- SPEE 273 - Introduction to Exceptionalities: Understanding Diverse Learners Credits: 3

Interconnections (6 crs.)

Select at lease one Global Prespectives Course.

- ANTH 105 - Great Discoveries in Archaeology Credits: 3
- ANTH 111 - Cultural Anthropology Credits: 3
- ECON 101 - Principles of Macroeconomics Credits: 3
- FREN 204 - Ideas and Cultures from the French-Speaking World Credits: 3
- GEOG 101 - World Geography Credits: 3
- GERM 150 - German Civilization and Culture Credits: 3
- GERM 204 - Contemporary German Culture Credits: 3
- HIST 106 - Modern World History Credits: 3
- HONR 123 - Honors: Modern World History Credits: 3
- HONR 141 - Honors: World Geography Credits: 3
- HONR 165 - Honors: Principles of Macroeconomics Credits: 3
- POLI 141 - World Politics Credits: 3
- SOCI 265 - Global Society Credits: 3
- SPAN 153 - Latino Pop Culture Credits: 3
- SPAN 204 - Ideas and Cultures from the Spanish-Speaking World Credits: 3
  Foreign Language Courses:
- FREN 101 - Beginning French I Credits: 3
- FREN 102 - Beginning French II Credits: 3
- FREN 103 - Intermediate French Credits: 3
- FREN 202 - Intermediate Conversation Through the Media Credits: 3
- GERM 101 - Beginning German I Credits: 3
- GERM 102 - Beginning German II Credits: 3
- GERM 103 - Intermediate German Credits: 3
- GERM 203 - Intermediate German Communication Credits: 3
- SPAN 101 - Beginning Spanish I Credits: 3
- SPAN 102 - Beginning Spanish II Credits: 3
- SPAN 103 - Intermediate Spanish Credits: 3
- SPAN 202 - Intermediate Conversation Credits: 3

Citizenship & Responsibility (7 crs.)

In addition to the required Critical Analysis & Reasoning math course, select one (1) course from the following program goals: Citizenship or Ethical Reasoning.

- MATH 225 - Discrete Mathematics Credits: 4

Citizenship

Options include:

- COMM 111 - Media Literacy Credits: 3
- ESSC 108 - Introduction to Environmental Sustainability Credits: 3
- HIST 201 - Early History of the United States Credits: 3
- HIST 202 - Recent History of the United States Credits: 3

- HONR 279 - Honors: U.S. Government and Politics Credits: 3
- POLI 100 - U.S. Government and Politics Credits: 3

Ethical Reasoning

Options include:

- PHIL 105 - Ethical Theories and Problems Credits: 3
- HONR 105 - Honors: Ethical Theories and Problems Credits: 3

Natural World & Technology (10 crs.)

- ESSC 110 - Introduction to Geology Credits: 3
- ESSC 111 - Introduction to Weather and Climate Credits: 3
- BIOL 162 - Principles of Biology: Organismal Diversity Credits: 4

Creativity & Expression (6 crs.)

Literature

Select One:

- ENGL 243 - The Art of the Film Credits: 3
- ENGL 248 - Introduction to Culturally Diverse Literature of the U.S. Credits: 3
- ENGL 250 - Literature and Society Credits: 3
- HONR 249 - Honors: Literature and Society Credits: 3

Arts

Select One:

- ART 101 - Art Appreciation Credits: 3
- HONR 111 - Honors: Introduction to Interdisciplinary Arts Credits: 3
- HONR 135 - Honors: Art History III Credits: 3
- HONR 210 - Honors: Introduction to Music Credits: 3
- HONR 261 - Honors: World Music Credits: 3
- INST 111 - Introduction to Interdisciplinary Arts Credits: 3
- MUSI 121 - Introduction to Music Credits: 3
- MUSI 129 - American Popular Music Credits: 3
- MUSI 216 - Music & Film Credits: 3
- MUSI 261 - World Music Credits: 3

Advising Notes:

1. Semester I & II: General Education & Concentration

Elementary/Middle Level Education: Grades 4-8, Science and Language Arts Concentration, B.S.Ed.

Option 1: Single Certification

Students choose one area in which they will be certified to teach. Options include:

- Science
- Mathematics
- Social Studies
- Language Arts.

Option 2: Double Certifications

Students choose two areas in which they will be certified to teach. One area must be math or science. Options include:

- Science and Mathematics;
- Science and Social Studies;
- Science and Language Arts;
- Mathematics and Social Studies; and
- Mathematics and Language Arts.

Credit Requirements*

- **General Education:** 46 credits
- **Major Requirements**: 75 credits
- **Free Electives:** 0 credits
- *Total Credits to Graduate:* **121 credits**

* All undergraduate degree programs require a minimum of 120 credits. Some courses meet multiple requirements, but are only counted once toward the 120 credit total required to graduate.

Concentration Areas

Science (9 crs.)

- CHEM 105 - An Observational Approach Credits: 3
- ESSC 110 - Introduction to Geology Credits: 3
  Choose One of the Following
- BIOL 100 - Basic Biology Credits: 3
- BIOL 145 - Environmental Biology Credits: 3

Language Arts (9 crs.)

- ENGL 366 - History and Structure of the English Language Credits: 3
- ENGL 426 - Teaching Adolescent Literature Credits: 3

Choose One of the Following

- ECED 415 - Professional Practicum in PK-4 Credits: 3
- ECSP 415 - Professional Practicum: Pre K-4/Dual Credits: 3

Math Course Requirements (3 crs.)

- MATH 111 - Fundamentals of Mathematics II Credits: 3

Professional Core and Student Teaching (51 crs.)

- ECED 480 - Early Childhood Professional Seminar Credits: 3
- EDFN 495 - Student Teaching Credits: 6-15
- READ 232 - Reading in the Elementary School Credits: 3
- READ 329 - Reading in the Content Areas Credits: 3
- READ 363 - Reading and Writing in PK-4 Credits: 3
- SPEE 423 - Effective Instructional Strategies for Students with Exceptionalities Credits: 3
- SPEE 483 - Assessing Children with Exceptionalities for Curricular Decision-Making Credits: 3
- TEED 206 - Social Foundations of Middle Level Education Credits: 3
- TEED 251 - Elements of Middle Level Instruction Credits: 3
- TEED 261 - Adolescent Development and Adolescent Learning Theory Credits: 3
- TEED 322 - Teaching Middle Level Language Arts Credits: 3
- TEED 345 - Assessment and Evaluation Strategies Credits: 3
- TEED 366 - Teaching Science at the Middle Level Credits: 3

Choose One of the Following:

- ESL 450 - Foundations of English Language Learner Instruction a Credits: 3
- READ 413 - Teaching Reading to English Language Learners Credits: 3

Teacher Education Elective (3 crs.)

Choose One of the Following

- ECED 415 - Professional Practicum in PK-4 Credits: 3
- ECSP 415 - Professional Practicum: Pre K-4/Dual Credits: 3
- Any ECED 300 or 400 Level Course
- Any EDFN 400 Level Course

Basic Skills

Students must complete Basic Skills Requirement at 60 credits.

General Education

Foundation Courses (15 crs.)

First Year Seminar (Select One)

- UNIV 101 - Shippensburg University First Year Seminar Credits: 3
- HONR 113 - Honors: Shippensburg University First Year Seminar Credits: 3

Written Communication (Select One)

- ENGL 114 - Academic Writing Credits: 3
- ENGL 115 - Advanced Academic Writing Credits: 3
- HONR 106 - Honors: Academic Writing Credits: 3

Oral Communication (Select One)

- COST 100 - Introduction to Human Communication Credits: 3
- HONR 100 - Honors: Introduction to Human Communication Credits: 3

Historical Themes (Select One)

- HIST 105 - Historical Foundations of Global Cultures Credits: 3
- HONR 122 - Honors: Historical Foundations of Global Cultures Credits: 3

Quantitative Reasoning (Select One)

- MATH 117 - Applied Statistics Credits: 3
- MATH 217 - Statistics I Credits: 4

Interconnections: Diversity (3 crs.)

Select One:

- HONR 411 - Honors: Introduction to Exceptionalities: Understanding Diverse Learners Credits: 3
- SPEE 273 - Introduction to Exceptionalities: Understanding Diverse Learners Credits: 3

Interconnections (6 crs.)

Select at least one Global Perspectives Course.

Global Perspectives Courses:

- ANTH 105 - Great Discoveries in Archaeology Credits: 3
- ANTH 111 - Cultural Anthropology Credits: 3
- ECON 101 - Principles of Macroeconomics Credits: 3
- FREN 204 - Ideas and Cultures from the French-Speaking World Credits: 3
- GEOG 101 - World Geography Credits: 3
- GERM 150 - German Civilization and Culture Credits: 3
- GERM 204 - Contemporary German Culture Credits: 3
- HIST 106 - Modern World History Credits: 3
- HONR 123 - Honors: Modern World History Credits: 3
- HONR 141 - Honors: World Geography Credits: 3
- HONR 165 - Honors: Principles of Macroeconomics Credits: 3
- INTL 358 - Global Political Economy & Security Credits: 3
- POLI 141 - World Politics Credits: 3
- SOCI 265 - Global Society Credits: 3
- SPAN 153 - Latino Pop Culture Credits: 3
- SPAN 204 - Ideas and Cultures from the Spanish-Speaking World Credits: 3

Foreign Language Courses:

- FREN 101 - Beginning French I Credits: 3
- FREN 102 - Beginning French II Credits: 3
- FREN 103 - Intermediate French Credits: 3

- FREN 202 - Intermediate Conversation Through the Media Credits: 3
- GERM 101 - Beginning German I Credits: 3
- GERM 102 - Beginning German II Credits: 3
- GERM 103 - Intermediate German Credits: 3
- GERM 203 - Intermediate German Communication Credits: 3
- SPAN 101 - Beginning Spanish I Credits: 3
- SPAN 102 - Beginning Spanish II Credits: 3
- SPAN 103 - Intermediate Spanish Credits: 3
- SPAN 202 - Intermediate Conversation Credits: 3

Citizenship & Responsibility (7 crs.)

In addition to the required Critical Analysis & Reasoning math course, select one (1) course from the following program goals: Citizenship or Ethical Reasoning.

- MATH 225 - Discrete Mathematics Credits: 4

Citizenship

Options include:

- COMM 111 - Media Literacy Credits: 3
- ESSC 108 - Introduction to Environmental Sustainability Credits: 3
- HIST 201 - Early History of the United States Credits: 3
- HIST 202 - Recent History of the United States Credits: 3
- HONR 279 - Honors: U.S. Government and Politics Credits: 3
- POLI 100 - U.S. Government and Politics Credits: 3

Ethical Reasoning

Options include:

- PHIL 105 - Ethical Theories and Problems Credits: 3
- HONR 105 - Honors: Ethical Theories and Problems Credits: 3

Natural World & Technology (9 crs.)

Required, Select One:

- PSYC 101 - General Psychology Credits: 3
- HONR 151 - Honors: General Psychology Credits: 3

Choose any Two of the Following:

- ANTH 121 - Physical Anthropology Credits: 3
- BIOL 100 - Basic Biology Credits: 3
- BIOL 145 - Environmental Biology Credits: 3
- BIOL 150 - Human Biology Credits: 3
- BIOL 161 - Principles of Biology: Cell Structure and Function Credits: 4
- BIOL 162 - Principles of Biology: Organismal Diversity Credits: 4

- CHEM 103 - A Cultural Approach Credits: 3
- ESSC 111 - Introduction to Weather and Climate Credits: 3
- HONR 108 - Honors: Astronomy Credits: 3
- HONR 142 - Honors: Introduction to Weather and Climate Credits: 3
- HONR 145 - Honors: Environmental Biology Credits: 3
- HONR 159 - Honors: Physical Anthropology Credits: 3
- HONR 180 - Honors: Physics for Society Credits: 3
- HONR 186 - Honors: Human Biology Credits: 3
- HONR 196 - Honors: A Cultural Approach Credits: 3
- HONR 244 - Honors: Introduction to Geology Credits: 3
- PHYS 108 - Astronomy Credits: 3
- PHYS 110 - Physics for Society Credits: 3

Creativity & Expression (6 crs.)

Select One:

- ENGL 243 - The Art of the Film Credits: 3
- ENGL 248 - Introduction to Culturally Diverse Literature of the U.S. Credits: 3
- ENGL 250 - Literature and Society Credits: 3
- HONR 249 - Honors: Literature and Society Credits: 3

Arts

Select One:

- ART 101 - Art Appreciation Credits: 3
- HONR 111 - Honors: Introduction to Interdisciplinary Arts Credits: 3
- HONR 135 - Honors: Art History III Credits: 3
- HONR 210 - Honors: Introduction to Music Credits: 3
- HONR 261 - Honors: World Music Credits: 3
- INST 111 - Introduction to Interdisciplinary Arts Credits: 3
- MUSI 121 - Introduction to Music Credits: 3
- MUSI 129 - American Popular Music Credits: 3
- MUSI 216 - Music & Film Credits: 3
- MUSI 261 - World Music Credits: 3

Advising Notes:

1. Semester I & II: General Education & Concentration

Elementary/Middle Level Education: Grades 4-8, Science and Social Studies Concentration, B.S.Ed.

Option 1: Single Certification

Students choose one area in which they will be certified to teach. Options include:

- Science
- Mathematics
- Social Studies
- Language Arts.

Option 2: Double Certifications

Students choose two areas in which they will be certified to teach. One area must be math or science. Options include:

- Science and Mathematics;
- Science and Social Studies;
- Science and Language Arts;
- Mathematics and Social Studies; and
- Mathematics and Language Arts.

Credit Requirements*

- **General Education:** 46 credits
- **Major Requirements**: 76 credits
- **Free Electives:** 0 credits
- *Total Credits to Graduate:* **122 credits**

* All undergraduate degree programs require a minimum of 120 credits. Some courses meet multiple requirements, but are only counted once toward the 120 credit total required to graduate.

Concentration Areas

Science (10 crs.)

Required

- BIOL 162 - Principles of Biology: Organismal Diversity Credits: 4
- CHEM 105 - An Observational Approach Credits: 3

Take One (3 Credits)

- BIOL 100 - Basic Biology Credits: 3
- BIOL 145 - Environmental Biology Credits: 3

Social Studies (6 crs.)

- HIST 106 - Modern World History Credits: 3
  Select One:
- Any HIST course at 200, 300, or 400 level or any POLI course at 300 level.

Mathematics (6 crs.)

- MATH 111 - Fundamentals of Mathematics II Credits: 3
- MATH 140 - College Algebra Credits: 3

Professional Core and Student Teaching (51 crs.)

- ECED 480 - Early Childhood Professional Seminar Credits: 3
- EDFN 495 - Student Teaching Credits: 6-15
- READ 232 - Reading in the Elementary School Credits: 3
- READ 329 - Reading in the Content Areas Credits: 3
- READ 363 - Reading and Writing in PK-4 Credits: 3
- SPEE 423 - Effective Instructional Strategies for Students with Exceptionalities Credits: 3
- SPEE 483 - Assessing Children with Exceptionalities for Curricular Decision-Making Credits: 3
- TEED 206 - Social Foundations of Middle Level Education Credits: 3
- TEED 251 - Elements of Middle Level Instruction Credits: 3
- TEED 261 - Adolescent Development and Adolescent Learning Theory Credits: 3
- TEED 345 - Assessment and Evaluation Strategies Credits: 3
- TEED 348 - Teaching Middle Level Social Studies Credits: 3
- TEED 366 - Teaching Science at the Middle Level Credits: 3

Choose One of the Following:

- ESL 450 - Foundations of English Language Learner Instruction a Credits: 3
- READ 413 - Teaching Reading to English Language Learners Credits: 3

Teacher Education Elective (3 crs.)

Select One:

- ECED 415 - Professional Practicum in PK-4 Credits: 3
- ECSP 415 - Professional Practicum: Pre K-4/Dual Credits: 3
- Any ECED 300 or 400 level course
- Any EDFN 400 level course

General Education

Foundation Courses (15 crs.)

First Year Seminar (Select One)

- UNIV 101 - Shippensburg University First Year Seminar Credits: 3
- HONR 113 - Honors: Shippensburg University First Year Seminar Credits: 3

Written Communication (Select One)

- ENGL 114 - Academic Writing Credits: 3
- ENGL 115 - Advanced Academic Writing Credits: 3
- HONR 106 - Honors: Academic Writing Credits: 3

Oral Communication (Select One)

- COST 100 - Introduction to Human Communication Credits: 3

- HONR 100 - Honors: Introduction to Human Communication Credits: 3
  Historical Themes (Select One)
- HIST 105 - Historical Foundations of Global Cultures Credits: 3
- HONR 122 - Honors: Historical Foundations of Global Cultures Credits: 3
  Quantitative Reasoning (Select One)
- MATH 117 - Applied Statistics Credits: 3
- MATH 217 - Statistics I Credits: 4

Interconnections (6 crs.)

Select One:

- SPEE 273 - Introduction to Exceptionalities: Understanding Diverse Learners Credits: 3
- HONR 411 - Honors: Introduction to Exceptionalities: Understanding Diverse Learners Credits: 3
  Select One:
- GEOG 101 - World Geography Credits: 3
- HONR 141 - Honors: World Geography Credits: 3
  Select One:
- ECON 101 - Principles of Macroeconomics Credits: 3
- HONR 165 - Honors: Principles of Macroeconomics Credits: 3

Citizenship & Responsibility (6 crs.)

- GEOG 140 - Human Geography Credits: 3
  Select One:
- POLI 100 - U.S. Government and Politics Credits: 3
- PSYC 101 - General Psychology Credits: 3

Natural World & Technology (10 crs.)

Choose from 2 of the following:

- PHYS 121 - Introductory Physics I - Lecture Credits: 3
  and
- PHYS 123 - Physics Ia Laboratory Credits: 1

- ESSC 110 - Introduction to Geology Credits: 3
- ESSC 111 - Introduction to Weather and Climate Credits: 3

Creativity & Expression (6 crs.)

Literature

Select One:

- ENGL 243 - The Art of the Film Credits: 3
- ENGL 248 - Introduction to Culturally Diverse Literature of the U.S. Credits: 3
- ENGL 250 - Literature and Society Credits: 3

- HONR 249 - Honors: Literature and Society Credits: 3

Arts

Select One:

- ART 101 - Art Appreciation Credits: 3
- HONR 111 - Honors: Introduction to Interdisciplinary Arts Credits: 3
- HONR 135 - Honors: Art History III Credits: 3
- HONR 210 - Honors: Introduction to Music Credits: 3
- HONR 261 - Honors: World Music Credits: 3
- INST 111 - Introduction to Interdisciplinary Arts Credits: 3
- MUSI 121 - Introduction to Music Credits: 3
- MUSI 129 - American Popular Music Credits: 3
- MUSI 216 - Music & Film Credits: 3
- MUSI 261 - World Music Credits: 3

Advising Notes:

1. Semester I & II: General Education & Concentration

Special Education and Early Childhood Education, B.S.Ed.

Credit Requirements*

- **General Education:** 45 credits
- **Major Requirements**: 90 credits
- **Free Electives:** 0 credits
- *Total Credits to Graduate:* **135 credits**

* All undergraduate degree programs require a minimum of 120 credits. Some courses meet multiple requirements, but are only counted once toward the 120 credit total required to graduate.

Professional Core (78 cr.)

Select One Course:

- MATH 105 - Mathematics for Liberal Studies Credits: 3
- MATH 110 - Fundamentals of Mathematics I Credits: 3
- MATH 111 - Fundamentals of Mathematics II Credits: 3
- MATH 117 - Applied Statistics Credits: 3
- MATH 140 - College Algebra Credits: 3

- ECED 210 - The Early Childhood Profession Credits: 3
- ECED 280 - Physical, Language and Cognitive Development Credits: 3
- ECED 320 - Developmental Science: Social & Emotional Basis for Guiding Children's Behavior Credits: 3
- ECED 333 - Social Studies Methods for PK-4th Grade Credits: 3
- ECED 343 - Mathematics Methods I for PreKindergarten & Kindergarten Credits: 3

- ECED 370 - Assessing Young Children Credits: 3
- ECED 373 - Science and Technology Methods in PK-4 Credits: 3
- ECED 393 - Mathematics Methods II, Grades 2-4 Credits: 2
- ECED 394 - Technology Instruction for Early Childhood Classrooms Credits: 1
- ECED 440 - Building Family and Community Partnerships Credits: 3
- ECED 453 - Integrated Curriculum Pre K-4 Credits: 3
- ECED 480 - Early Childhood Professional Seminar Credits: 3
- ECSP 415 - Professional Practicum: Pre K-4/Dual Credits: 3
- READ 323 - Processes of Word/Text/Comprehension in Grades 1-4 Credits: 3
- READ 363 - Reading and Writing in PK-4 Credits: 3
- READ 383 - English Language Learners in PK-4 Credits: 2
- READ 443 - Reading Measures and Interventions in PK-4 Credits: 4
- SPEE 280 - Best Practices in Collaboration: Educators, Families, & Related Service Providers Credits: 3
- SPEE 320 - Interventions for Students with Communication Impairments Credits: 3
- SPEE 325 - Interventions for Students with Social/Emotional and Behavioral Impairments Credits: 3
- SPEE 330 - Teaching Students with Exceptionalities in a Standards-Aligned System Credits: 3
- SPEE 335 - Interventions for Students with Cognitive and/or Physical Impairments Credits: 3
- SPEE 423 - Effective Instructional Strategies for Students with Exceptionalities Credits: 3
- SPEE 446 - Transition to Adult Life for Students with Disabilities Credits: 3
- SPEE 447 - Special Education Processes in a Standards Aligned System Credits: 3
- SPEE 483 - Assessing Children with Exceptionalities for Curricular Decision-Making Credits: 3

Early Childhood/Special Education Student Teaching (12 crs.)

- ECSP 489 - Student Teaching and Professional Practicum Credits: 6-15
- EDFN 495 - Student Teaching Credits: 6-15

General Education

Foundation Courses (15 crs.)

First Year Seminar (Select One)

- UNIV 101 - Shippensburg University First Year Seminar Credits: 3
- HONR 113 - Honors: Shippensburg University First Year Seminar Credits: 3

Written Communication (Select One)

- ENGL 114 - Academic Writing Credits: 3
- ENGL 115 - Advanced Academic Writing Credits: 3
- HONR 106 - Honors: Academic Writing Credits: 3

Oral Communication (Select One)

- COST 100 - Introduction to Human Communication Credits: 3
- HONR 100 - Honors: Introduction to Human Communication Credits: 3

Historical Themes (Select One)

- HIST 105 - Historical Foundations of Global Cultures Credits: 3
- HONR 122 - Honors: Historical Foundations of Global Cultures Credits: 3

Quantitative Reasoning (Select One)

- MATH 105 - Mathematics for Liberal Studies Credits: 3
- MATH 111 - Fundamentals of Mathematics II Credits: 3

- MATH 117 - Applied Statistics Credits: 3
- MATH 140 - College Algebra Credits: 3

Interconnections: Diversity (3 crs.)

- SPEE 273 - Introduction to Exceptionalities: Understanding Diverse Learners Credits: 3

Interconnections: Global Perspectives (6 crs.)

Select Two Courses:

- ANTH 105 - Great Discoveries in Archaeology Credits: 3
- ANTH 111 - Cultural Anthropology Credits: 3
- ECON 101 - Principles of Macroeconomics Credits: 3
- FREN 204 - Ideas and Cultures from the French-Speaking World Credits: 3
- GEOG 101 - World Geography Credits: 3
- GERM 150 - German Civilization and Culture Credits: 3
- GERM 204 - Contemporary German Culture Credits: 3
- HIST 106 - Modern World History Credits: 3
- HONR 123 - Honors: Modern World History Credits: 3
- HONR 141 - Honors: World Geography Credits: 3
- HONR 165 - Honors: Principles of Macroeconomics Credits: 3
- HONR 274 - Honors: Introduction to International Politics Credits: 3
- POLI 141 - World Politics Credits: 3
- SPAN 153 - Latino Pop Culture Credits: 3
- SPAN 204 - Ideas and Cultures from the Spanish-Speaking World Credits: 3

Citizenship & Responsibility (6 crs.)

Select two (2) courses, with no more than one (1) course being attributed with the same program goal: Citizenship, Ethical Reasoning or Critical Reasoning.

Citizenship

Options include:

- ESSC 108 - Introduction to Environmental Sustainability Credits: 3
- HIST 201 - Early History of the United States Credits: 3
- HIST 202 - Recent History of the United States Credits: 3
- HONR 279 - Honors: U.S. Government and Politics Credits: 3
- POLI 100 - U.S. Government and Politics Credits: 3

Ethical Reasoning

Options include:

- PHIL 105 - Ethical Theories and Problems Credits: 3

- HONR 105 - Honors: Ethical Theories and Problems Credits: 3

Critical Reasoning

Options include:

- ACEX 102 - Leadership and Community Credits: 3
- ACEX 210 - Writing Tutoring Theory & Praxis Credits: 3
- COST 125 - Survey of Communication Studies Credits: 3
- ECON 113 - Principles of Economics Credits: 4
- EXER 207 - Stress Management Credits: 3
- FINA 101 - Personal Finance Credits: 3
- GEOG 103 - Geography of the United States and Canada Credits: 3
- GEOG 140 - Human Geography Credits: 3
- GERT 100 - Introduction to Gerontology Credits: 3
- HONR 130 - Honors: Introduction to Philosophy Credits: 3
- HONR 140 - Honors: Geography of the United States and Canada Credits: 3
- PHIL 101 - Introduction to Philosophy Credits: 3
- PHIL 102 - Critical Thinking Credits: 3

Natural World & Technology (9 crs.)

Select Three Courses:

- ANTH 121 - Physical Anthropology Credits: 3
- BIOL 100 - Basic Biology Credits: 3
- BIOL 145 - Environmental Biology Credits: 3
- BIOL 150 - Human Biology Credits: 3
- CHEM 103 - A Cultural Approach Credits: 3
- CHEM 105 - An Observational Approach Credits: 3
- ESSC 110 - Introduction to Geology Credits: 3
- ESSC 111 - Introduction to Weather and Climate Credits: 3
- ESSC 115 - Coastal Hazards and Sustainability Credits: 3
- GEOG 105 - Physical Geography Credits: 3
- HONR 108 - Honors: Astronomy Credits: 3
- HONR 142 - Honors: Introduction to Weather and Climate Credits: 3
- HONR 145 - Honors: Environmental Biology Credits: 3
- HONR 151 - Honors: General Psychology Credits: 3
- HONR 159 - Honors: Physical Anthropology Credits: 3
- HONR 180 - Honors: Physics for Society Credits: 3
- HONR 186 - Honors: Human Biology Credits: 3
- HONR 196 - Honors: A Cultural Approach Credits: 3
- HONR 244 - Honors: Introduction to Geology Credits: 3
- PHYS 108 - Astronomy Credits: 3
- PHYS 110 - Physics for Society Credits: 3
- PSYC 101 - General Psychology Credits: 3

Creativity & Expression (6 crs.)

Literature (Select One):

- ENGL 243 - The Art of the Film Credits: 3
- ENGL 248 - Introduction to Culturally Diverse Literature of the U.S. Credits: 3
- ENGL 250 - Literature and Society Credits: 3
- HONR 224 - Honors: The Art of the Film Credits: 3
- HONR 249 - Honors: Literature and Society Credits: 3

Arts (Select One):

- ART 101 - Art Appreciation Credits: 3
- ENGL 224 - Introduction to Creative Writing Credits: 3
- HONR 111 - Honors: Introduction to Interdisciplinary Arts Credits: 3
- HONR 210 - Honors: Introduction to Music Credits: 3
- HONR 261 - Honors: World Music Credits: 3
- INST 111 - Introduction to Interdisciplinary Arts Credits: 3
- MUSI 121 - Introduction to Music Credits: 3
- MUSI 129 - American Popular Music Credits: 3
- MUSI 216 - Music & Film Credits: 3
- MUSI 261 - World Music Credits: 3

Elementary/Middle Level Education: Grades 4-8, Social Studies Concentration, B.S.Ed.

Option 1: Single Certification

Students choose one area in which they will be certified to teach. Options include:

- Science
- Mathematics
- Social Studies
- Language Arts

Option 2: Double Certifications

Students choose two areas in which they will be certified to teach. One area must be math or science. Options include:

- Science and Mathematics;
- Science and Social Studies;
- Science and Language Arts;
- Mathematics and Social Studies; and
- Mathematics and Language Arts

Credit Requirements*

- **General Education:** 45 credits
- **Major Requirements:** 72 credits

- **Free Electives:** 3 credits
- **Total Credits to Graduate: 120 credits**

* All undergraduate degree programs require a minimum of 120 credits. Some courses meet multiple requirements, but are only counted once toward the 120 credit total required to graduate.

Concentration Area

Social Studies (15 crs.)

- GEOG 101 - World Geography Credits: 3
- GEOG 308 - Geography of Latin America Credits: 3
- GEOG 313 - Geography of South and Southeast Asia Credits: 3
- Select any 1 POLI course at 300 level.
- Select any 1 HIST course at 200 or 300 or 400 level.

Required Math Courses (6 crs.)

- MATH 111 - Fundamentals of Mathematics II Credits: 3
- MATH 140 - College Algebra Credits: 3

Professional Core and Student Teaching (33 crs.)

- TEED 348 - Teaching Middle Level Social Studies Credits: 3
- READ 232 - Reading in the Elementary School Credits: 3
- READ 329 - Reading in the Content Areas Credits: 3
- READ 363 - Reading and Writing in PK-4 Credits: 3
- SPEE 423 - Effective Instructional Strategies for Students with Exceptionalities Credits: 3
- SPEE 483 - Assessing Children with Exceptionalities for Curricular Decision-Making Credits: 3
- TEED 206 - Social Foundations of Middle Level Education Credits: 3
- TEED 251 - Elements of Middle Level Instruction Credits: 3
- TEED 261 - Adolescent Development and Adolescent Learning Theory Credits: 3
- TEED 345 - Assessment and Evaluation Strategies Credits: 3
  Select One:
- READ 413 - Teaching Reading to English Language Learners Credits: 3
- ESL 450 - Foundations of English Language Learner Instruction a Credits: 3

Teacher Education Elective (3 crs.)

Choose 1 of the following courses.

- ECED 415 - Professional Practicum in PK-4 Credits: 3
- ECSP 415 - Professional Practicum: Pre K-4/Dual Credits: 3
- Any ECED 300 or 400 level course.
- Any EDFN 400 level course.

Student Teaching and Professional Practicum (15 Crs.)

- ECED 480 - Early Childhood Professional Seminar Credits: 3
- EDFN 495 - Student Teaching Credits: 6-15

General Education

Foundation Courses (15 crs.)

First Year Seminar (Select One)

- UNIV 101 - Shippensburg University First Year Seminar Credits: 3
- HONR 113 - Honors: Shippensburg University First Year Seminar Credits: 3

Written Communication (Select One)

- ENGL 114 - Academic Writing Credits: 3
- ENGL 115 - Advanced Academic Writing Credits: 3
- HONR 106 - Honors: Academic Writing Credits: 3

Oral Communication (Select One)

- COST 100 - Introduction to Human Communication Credits: 3
- HONR 100 - Honors: Introduction to Human Communication Credits: 3

Historical Themes (Select One)

- HIST 105 - Historical Foundations of Global Cultures Credits: 3
- HONR 122 - Honors: Historical Foundations of Global Cultures Credits: 3

Quantitative Reasoning (Select One)

- MATH 117 - Applied Statistics Credits: 3
- MATH 217 - Statistics I Credits: 4

Interconnections: Diversity (3 crs.)

Select One:

- SPEE 273 - Introduction to Exceptionalities: Understanding Diverse Learners Credits: 3
- HONR 411 - Honors: Introduction to Exceptionalities: Understanding Diverse Learners Credits: 3

Intercommunications: Global Perspectives (6 crs.)

Select One:

- ECON 101 - Principles of Macroeconomics Credits: 3
- HONR 165 - Honors: Principles of Macroeconomics Credits: 3

Select One:

- HIST 106 - Modern World History Credits: 3
- HONR 123 - Honors: Modern World History Credits: 3

Citizenship & Responsibility (6 crs.)

Select One:

- PHIL 105 - Ethical Theories and Problems Credits: 3
- HONR 105 - Honors: Ethical Theories and Problems Credits: 3
- ACEX 120 - Academic Literacies for the 21st Century Credits: 3
- ACEX 210 - Writing Tutoring Theory & Praxis Credits: 3

- COST 125 - Survey of Communication Studies Credits: 3
- ECON 113 - Principles of Economics Credits: 4
- EXER 207 - Stress Management Credits: 3
- FINA 101 - Personal Finance Credits: 3
- GEOG 103 - Geography of the United States and Canada Credits: 3
- GEOG 140 - Human Geography Credits: 3
- GERT 100 - Introduction to Gerontology Credits: 3
- HONR 130 - Honors: Introduction to Philosophy Credits: 3
- HONR 140 - Honors: Geography of the United States and Canada Credits: 3
- PHIL 101 - Introduction to Philosophy Credits: 3
- PHIL 102 - Critical Thinking Credits: 3

Select One:

- POLI 100 - U.S. Government and Politics Credits: 3
- HONR 279 - Honors: U.S. Government and Politics Credits: 3

Natural World & Technology (9 crs.)

Required, Select One:

- PSYC 101 - General Psychology Credits: 3
- HONR 151 - Honors: General Psychology Credits: 3

Select Two:

- ANTH 121 - Physical Anthropology Credits: 3
- BIOL 100 - Basic Biology Credits: 3
- BIOL 145 - Environmental Biology Credits: 3
- BIOL 150 - Human Biology Credits: 3
- CHEM 103 - A Cultural Approach Credits: 3
- CHEM 105 - An Observational Approach Credits: 3
- ECON 102 - Principles of Microeconomics Credits: 3
- ESSC 110 - Introduction to Geology Credits: 3
- ESSC 111 - Introduction to Weather and Climate Credits: 3
- ESSC 115 - Coastal Hazards and Sustainability Credits: 3
- GEOG 105 - Physical Geography Credits: 3
- HONR 108 - Honors: Astronomy Credits: 3
- HONR 142 - Honors: Introduction to Weather and Climate Credits: 3
- HONR 145 - Honors: Environmental Biology Credits: 3
- HONR 159 - Honors: Physical Anthropology Credits: 3
- HONR 180 - Honors: Physics for Society Credits: 3
- HONR 186 - Honors: Human Biology Credits: 3
- HONR 196 - Honors: A Cultural Approach Credits: 3
- HONR 244 - Honors: Introduction to Geology Credits: 3
- PHYS 108 - Astronomy Credits: 3
- PHYS 110 - Physics for Society Credits: 3

Creativity & Expression (6 crs.)

Select One:

- ENGL 243 - The Art of the Film Credits: 3
- ENGL 248 - Introduction to Culturally Diverse Literature of the U.S. Credits: 3
- ENGL 250 - Literature and Society Credits: 3
- HONR 249 - Honors: Literature and Society Credits: 3

Select One:

- ART 101 - Art Appreciation Credits: 3
- ENGL 224 - Introduction to Creative Writing Credits: 3
- HONR 111 - Honors: Introduction to Interdisciplinary Arts Credits: 3
- HONR 135 - Honors: Art History III Credits: 3
- HONR 210 - Honors: Introduction to Music Credits: 3
- HONR 261 - Honors: World Music Credits: 3
- INST 111 - Introduction to Interdisciplinary Arts Credits: 3
- MUSI 121 - Introduction to Music Credits: 3
- MUSI 129 - American Popular Music Credits: 3
- MUSI 216 - Music & Film Credits: 3
- MUSI 261 - World Music Credits: 3

Advising Notes:

1. Semester I & II: General Education & Concentration

Reading Minor

18 (crs.)

- READ 323 - Processes of Word/Text/Comprehension in Grades 1-4 Credits: 3
- READ 327 - Literacy Assessment in PreK-4 Classrooms Credits: 3
- READ 330 - Content Area Reading in the Primary Grades Credits: 3
- READ 340 - Seminar in Literacy Tutoring Credits: 3
- READ 345 - Teaching Language Arts in PreK-4 Classroom Credits: 3
- READ 350 - Text Accessibility and Comprehension in the PK-4 Classroom Credits: 3

The Elnetta G. Jones University Center for Student Success and Exploratory Studies

Academic Engagement & Exploratory Studies Department

Course Descriptions

Course descriptions are organized in alphabetical order by subject. Information on courses can be found under appropriate headings in the below sequence.

Dual-Level (400) Courses

Some courses numbered 400 to 499 are open to graduate students and undergraduate students who meet course or program prerequisites. Credits will apply at either the undergraduate or graduate level but not at both. Each student should consult his/her advisor, program director, and/or dean concerning the policy and the appropriateness of the course prior to enrolling in any 400-level courses.

ACCT 200 - Fundamentals of Financial Accounting Credits: 3

Introduces accounting concepts, principles, and practices followed in the preparation of external financial reports. Alternative accounting treatments and policies relative to asset valuation, liability measurement, and income determination are discussed. Emphasis on interpretation, uses, and limitations of financial reports.

Prerequisite(s): ECON 113 OR ECON 101 OR ECON 102 with a grade of C or better

ACCT 201 - Managerial Accounting Credits: 3

Introduces accounting concepts for planning, control, motivation, internal reporting, and evaluation. Topics included are product cost determination procedures, analysis of cost behavior, budgeting, costs for decision making and control, and responsibility accounting. Emphasis on the internal decision maker's use of information generated by the accounting system.

Prerequisite(s): ACCT 200

ACCT 306 - Tax Accounting Credits: 3

Introduces fundamentals of federal taxation as they apply to tax entities including individuals, corporations, and partnerships. Primary emphasis on taxation of individuals with some emphasis on business activities including property transactions. Other tax entities also discussed. Students introduced to tax research and tax planning.

Prerequisite(s): ACCT 200 with minimum grade of C and ACCT 201 with minimum grade of C

ACCT 310 - Intermediate Accounting I Credits: 3

First of three courses involving an intensive study of accounting concepts, theories, and practices relative to external financial reporting. Topics include: processing and reporting financial transactions and information relating to the content and structure of financial statements; concepts and procedures underlying revenue and expense recognition; application of time value of money concepts in an accounting framework; and valuation and accounting for current assets, long-term tangible assets, current liabilities, and long-term liabilities.

Prerequisite(s): ACCT 200 with minimum grade of C and ACCT 201 with minimum grade of C

ACCT 311 - Intermediate Accounting II Credits: 3

Second of three courses involving an intensive study of accounting concepts, theories and practices relative to external financial reporting. Topics include: processing and reporting financial transactions and information relating to the content and structure of financial statements; concepts and procedures underlying revenue and expense recognition; application of time value of money concepts in an accounting framework; and valuation and accounting for liabilities, stockholders' equity, investments, deferred income taxes, compensation, accounting changes, earnings per share, pension and leases.

Prerequisite(s): ACCT 310 with minimum grade of C

ACCT 312 - Cost Determination and Analysis Credits: 3

Introduces the principles and procedures of cost analysis and control; theories of cost allocation and accumulation; uses of accounting information for planning, control and performance evaluation. Continues development of skills for analyzing complex cost and managerial accounting problems using microcomputer spreadsheet models. Includes process costing, cost allocation, joint costs, transfer pricing, and divisional performance evaluation, statistical applications in cost analysis and capital budgeting. Emphasis throughout on processing of cost information as well as analysis, reporting, and evaluation of the cost data.

Prerequisite(s): ACCT 200 with minimum grade of C and ACCT 201 with minimum grade of C and SCMG 200

ACCT 399 - Independent Study in Accounting Credits: 3

Independent study affords students the opportunity to engage in independent study related to their major field, a supporting area, or specialized interest.

ACCT 401 - Advanced Financial Accounting Credits: 3

Third of three courses involving an intensive study of accounting concepts, theories, and practices relative to external financial reporting. Topics include consolidated financial statements, accounting in the international environment, and governmental accounting. Issues relating to full disclosure and the role of the Securities and Exchange Commission and professional accounting organizations in financial reporting are considered.

Prerequisite(s): ACCT 311 with minimum grade of C
Graduate Credit: This course is available for graduate credit.

ACCT 404 - Auditing Credits: 3

Introduction to standards and procedures employed by professional accountants in performing audits. The objectives of an audit and the types of examinations necessary for rendering opinions on financial reports and for other specified purposes are considered.

Prerequisite(s): ACCT 311 with minimum grade of C
Graduate Credit: This course is available for graduate credit.

ACCT 406 - Advanced Tax Accounting Credits: 3

More in-depth coverage of impact of federal income tax on business entities including proprietors, corporations, and partnerships. Primary emphasis is taxation of corporations and flow-through tax entities. Includes expanded coverage of tax research and planning as well as ethical responsibilities in tax practice.

Prerequisite(s): ACCT 306 with minimum grade of C
Graduate Credit: This course is available for graduate credit.

ACCT 412 - Advanced Cost Analysis and Control Credits: 3

Considers a range of problems related to accumulation and use of accounting data for decision making by the management of the business enterprise. Analytical costing techniques are developed by integrating cost concepts and

information generated by the accounting system with quantitative business methods. Emphasis on relationship of decision theory and the cost accounting function to the management information system. Explicit consideration given to behavioral foundations for planning and control.

Prerequisite(s): ACCT 312 with minimum grade of C
Graduate Credit: This course is available for graduate credit.

ACCT 418 - Accounting Information and Control Systems Credits: 3

Designed to provide an understanding of the accounting function as a subsystem within the total management information system. Consideration given to the source of data processed by the accounting system and the form in which it is stored in order to support the planning, control, reporting, and evaluation activities of management. Emphasis on relationship of the information needs of management to the classification of data and the design of the accounting system.

Prerequisite(s): ACCT 201 with minimum grade of C
Graduate Credit: This course is available for graduate credit.

ACCT 420 - Fraud Examination Credits: 3

Introducing students to fraud examination, presented from the framework of the Association of Certified Fraud Examiners®. The discussion incorporates the elements of fraud and the types of fraud schemes, including fraudulent financial statements, asset misappropriation, Ponzi schemes, corruption, organized crime, and money laundering. Emphasis is also spent on preventing and detecting fraud, through various rudiments. Emphasis centers on fraud investigation, the legal aspects of fraud. Careers in fraud comprising of certifications, law enforcement, and continuing education are considered.

Prerequisite(s): ACCT 310 with a "C" or better
Graduate Credit: This course is available for graduate credit

ACCT 490 - Selected Topics in Accounting Credits: 3

Considers contemporary accounting issues affecting society and businesses (private, public, and not-for-profit) in both the national and international spheres.

Prerequisite(s): ACCT 311 with minimum grade of C
Graduate Credit: This course is available for graduate credit.

ACEX 101 - Foundations for Academic Success Credits: 3

Provides an extended orientation to the academic expectations and demands of Higher Education. Introduction to Higher Education lead to a systematic exploration of values, beliefs, and skills that assist in becoming successful in academic endeavors. Students examine the factors which impact their learning, select relevant methods for deepening their learning and thinking processes, and develop self-regulation strategies for maximizing the effectiveness of their efforts. Skill development in learning strategies, reading, writing, and critical thinking are stressed.

ACEX 102 - Leadership and Community Credits: 3

A systematic exploration of the values, beliefs, and skills that assist in becoming successful in the communities to which one belongs and to society in general. Topics include leadership theory, community identification, career development, and service learning. Self-assessment, diversity, and character development are addressed as subtopics.

ACEX 103 - Introduction to Exploratory Studies Credits: 3

This course engages students in transitioning to an appropriate major through active exploration of occupational and educational opportunities. By participating in experiential activities, students will practice critical thinking, improve their self-knowledge, and construct conceptual frameworks during the process of selecting a major. Students will formally assess their personal characteristics, research possible major choices, and examine associated programs of study.

ACEX 120 - Academic Literacies for the 21st Century Credits: 3

This course helps you learn academic literacies across disciplines. These literacies include professional and digital/media literacies that encompass understanding how to manage and respond to electronic communication, developing competency in navigating the various features of your course management systems, and utilizing syllabi to develop success strategies. You will also learn disciplinary literacies designed to help you deeply interact with academic textbooks and scholarly texts across disciplines. Finally, you will learn about information literacy and practices to help you begin a research project in your field of choice. Throughout all these learning activities, you will practice critical reasoning by applying strategies to a range of academic texts and in courses you are currently taking.

Category: Citizenship & Responsibility - R

ACEX 210 - Writing Tutoring Theory & Praxis Credits: 3

This course provides an opportunity to learn writing center theory and tutoring strategies along with practical applications for improving one's own writing. Students learn about writing across disciplines, how to give writing feedback to a peer, and collaboration strategies for helping writers to meet their goals. Writing assignments and discussions explore the writing process and writing center and composition research. This course also involves field experiences where students will grow in their writing abilities and in their perspectives concerning writing tutoring.

Prerequisite(s): ENGL 113 or ENGL 114 with minimum grade of C.
Category: Citizenship & Responsibility - R

ANTH 105 - Great Discoveries in Archaeology Credits: 3

This course introduces students to great archaeological discoveries around the world that have led to an understanding of the human past on Earth. It explores the various tactics employed by peoples worldwide from the distant and recent times that led to the development of the first civilizations. Its primary focus is on comparing and contrasting how archaeology examines the rise and fall of ancient civilizations through examination of such sites as the pyramids of Ancient Egypt, the ziggurats of Sumer in Iraq, Homer's Troy, the Coliseum in Rome, and the sacrificial pyramids of the Classic Maya and Aztec of Central America. Through the study of these great archaeological discoveries, students will enhance their appreciation of ancient cultural diversity.

Category: Interconnections - G

ANTH 111 - Cultural Anthropology Credits: 3

Is a study of the nature of humanity. Cuts across the boundaries which separate the sciences from the humanities and embraces both. Deals with basic facts concerning humanity in all of its variations, leading to understanding and appreciation of the significant differences in the behavior of various ethnic groups.

Category: Interconnections - G

ANTH 121 - Physical Anthropology Credits: 3

Considers human biology. Topics include genetic, developmental and physiological mechanisms by which human populations adjust to their environment. Included are the study of human origins as seen in the fossil record and the comparative biology of humans and their primate relatives.

Category: Natural World & Technology - N

ANTH 190 - General Education Special Topics Credits: 3

Opportunity to offer courses in areas of departmental general education interest not covered by the regular general education courses.

ANTH 205 - Introduction to Archaeology Credits: 3

Introduces archaeological method and theory, while tracing our prehistoric heritage and the processes that led to the evolution of settled villages, agriculture, and eventually civilization. Topics range from early African human origins to the European Stone Age and from Mesopotamia and Egypt to Mexico and the United States.

ANTH 211 - Comparative Cultures Credits: 3

Is a course in ethnography that studies the wide range and variability of human culture, considers other ways of life, and the continuity of humanity and culture. A number of societies will be studied on the different levels of social organization and on a worldwide basis.

ANTH 310 - Magic, Science and Religion Credits: 3

Provides a cross-cultural framework for the comparison and analysis of supernatural belief systems. Discussion of local nature-based religions as well as major world religions. Also includes a consideration of the relationship between religion and science.

ANTH 330 - Ancient Americans Credits: 3

Introduces varied archaeological cultures that inhabited this continent for at least the last 15,000 years, if not longer. Topics range from the early Paleo-Indian mammoth hunters to the whale-hunting cultures of the Pacific Northwest, the Pueblo cliff dwellers of the American Southwest, the mound builders of the Eastern Woodlands, and finally to the period of contact with European explorers. Course supplemented with slides, films, and artifacts.

ANTH 341 - North American Indians Credits: 3

In this course we will explore the post-European contact lives of native North American tribal peoples, ranging from the Arctic adapted seal hunters to the maize farming cultures of the Desert Southwest and Eastern Woodlands to the Plains buffalo hunters. We will also examine the changes and problems brought on by European contact, that face all surviving Native American people on into the 21st century.

ANTH 360 - Aztec and Maya Archaeology Credits: 3

Examines archaeological evidence recovered from some of the greatest Pre-Columbian civilizations in the Americas, such as the Olmec, Maya, and Aztec. Addresses factors that led to the rise and fall of the ancient civilizations in the region archaeologists call Mesoamerica. Course supplemented with slides, films, and artifacts.

ANTH 390 - Internship I Credits: 3

Contact the department for further information on internships.

ANTH 391 - Internship II Credits: 3

Contact the department for further information on internships.

ANTH 392 - Internship III Credits: 3

Contact the department for further information on internships.

ANTH 393 - Selected Topics in Anthropology Credits: 1-3

Opportunity to offer courses in areas of departmental major interest not covered by the regular courses.

ANTH 394 - Selected Topics in Anthropology Credits: 3

Opportunity to offer courses in areas of departmental major interest not covered by the regular courses.

ANTH 399 - Independent Study in Anthropology Credits: 3

Opportunity to offer courses in areas of departmental major interest not covered by the regular courses.

ART 101 - Art Appreciation Credits: 3

Introduction to the visual arts emphasizing major historical artistic movements, the elements of art, and the media of art. Attention given to multicultural and gender contributions in the areas of fine arts, crafts, and the applied arts.

Category: Creativity & Expression - A

ART 110 - Basic Drawing Credits: 3

Fundamental course including experiences in drawing from the still-life, the environment, and the human figure. Stresses visual perception, the development of eye-hand coordination, sensitivity to a variety of drawing materials, and an introduction to the basic principles of perspective. Descriptive and expressive approaches to drawing will be explored.

ART 190 - General Education Special Topics Credits: 3

Opportunity to offer courses in areas of departmental general education interest not covered by the regular general education courses.

ART 210 - Drawing II Credits: 3

Studio course to develop advanced value rendering skills and an increased awareness of the principles of light and shadow. Experimental and contemporary drawing approaches are introduced. A diverse range of media in black-and-white will be explored; color will be included. A portfolio, which represents an investigation of self-expression and experimentation, is an outcome and a requirement.

Prerequisite(s): ART 110

ART 211 - Figure Drawing Credits: 3

Directed at analyzing the human form and its structure. A variety of drawing media and drawing approaches are used to address anatomy, texture, space, and the principles of light and shadow. Exploration of the relationship between the figure and the environment and the development of figurative imagery, which is descriptive and expressive, will be included.

Prerequisite(s): ART 110

ART 215 - Color and Two-Dimensional Design Credits: 3

Laboratory course to provide analyses of the basic elements and principles of visual design. Various media including traditional and contemporary tools, such as the computer, will be explored. Assignments and presentation of a design portfolio is required of each student. (Offered in fall only.)

ART 217 - Computer Design I Credits: 3

Introductory course taught on the Macintosh computer. Basic elements of page layout design including composition, type and typesetting, graphic elements, cropping, text wrapping, photo image control, and the use of a scanning device will be covered along with information about the design industry: creating publications and working with printers and photographers. General usage of the Macintosh operating system will be taught. Emphasis on visual appearance and design of publications.

ART 218 - Three-Dimensional Design Credits: 3

Introduction to working with elements and principles of three-dimensional design. Work with basic concepts of form, shape, mass, color, and texture using a variety of materials: paper, wood, metal, plaster, and clay. (Offered in spring only.)

ART 231 - Art History I Credits: 3

Begins with the prehistoric period and Near Eastern art. Progresses through the Mediterranean cultures of Egypt, Minoan and the Cycladic Islands, Mycenaean, Greek, Etruscan and Roman art. Followed by early Christian, Byzantine and Islamic art. Concludes by examining early Medieval and Romanesque art. (Offered even years, fall only.)

Category: Creativity & Expression - A

ART 232 - Art History II Credits: 3

Continues where Art History I concluded. Study of gothic art and introduction to art of India, China, Japan, and the native art of the Americas, Africa, and the South Pacific. The Proto-Renaissance in Italy, 15th and 16th century Italian art, the Renaissance outside of Italy, and Baroque art are studied. Rococo period of the 18th century is the final period discussed here. (Offered in fall only.)

Category: Creativity & Expression - A

ART 233 - Art History III Credits: 3

Continues where Art History II concluded. Begins with Romanticism and Neoclassicism in Europe, follows the events leading to Impressionism and beyond in France. Cubism, the destruction of Renaissance space, and the anti-art activities of the Dada artists will lead into abstract expressionism, pop art, minimalism and conceptual art. All the major isms of the 20th century will be addressed. Global influences are reviewed and their impact on major artistic movements discussed. Concludes with contemporary postmodern art. (Offered in spring only.)

Category: Creativity & Expression - A

ART 300 - Independent Studio/Ceramics Credits: 3

For advanced study in a particular art medium. Opportunity to pursue in-depth study using a single art form or combination of art forms that are of personal interest under the direction and guidance of a department faculty member. Student agrees to meet with a regularly scheduled studio art course through arrangement with the instructor. (Prior instructor approval required.) In case the student would schedule more than one independent studio, ART 301, ART 302, ART 303, ART 304, ART 305, or ART 309 may be substituted.

ART 301 - Independent Studio/Drawing Credits: 3

For advanced study in a particular art medium. Opportunity to pursue in-depth study using a single art form or combination of art forms that are of personal interest under the direction and guidance of a department faculty member. Student agrees to meet with a regularly scheduled studio art course through arrangement with the instructor. (Prior instructor approval required.) In case the student would schedule more than one independent studio, ART 300, ART 302, ART 303, ART 304, ART 305, or ART 309 may be substituted.

ART 302 - Independent Studio/Enameling Credits: 3

For advanced study in a particular art medium. Opportunity to pursue in-depth study using a single art form or combination of art forms that are of personal interest under the direction and guidance of a department faculty member. Student agrees to meet with a regularly scheduled studio art course through arrangement with the instructor. (Prior instructor approval required.) In case the student would schedule more than one independent studio, ART 300, ART 301, ART 303, ART 304 , ART 305, or ART 309 may be substituted.

ART 303 - Independent Studio/Painting Credits: 3

For advanced study in a particular art medium. Opportunity to pursue in-depth study using a single art form or combination of art forms that are of personal interest under the direction and guidance of a department faculty member. Student agrees to meet with a regularly scheduled studio art course through arrangement with the instructor. (Prior instructor approval required.) In case the student would schedule more than one independent studio, ART 300, ART 301, ART 302, ART 304, ART 305, or ART 309 may be substituted.

ART 304 - Independent Studio/Sculpture Credits: 3

For advanced study in a particular art medium. Opportunity to pursue in-depth study using a single art form or combination of art forms that are of personal interest under the direction and guidance of a department faculty member. Student agrees to meet with a regularly scheduled studio art course through arrangement with the instructor. (Prior instructor approval required.) In case the student would schedule more than one independent studio, ART 300, ART 301, ART 302, ART 303, ART 305, or ART 309 may be substituted.

ART 305 - Independent Studio /Computer Design Credits: 3

For advanced study in a particular art medium. Opportunity to pursue in-depth study using a single art form or combination of art forms that are of personal interest under the direction and guidance of a department faculty member. Student agrees to meet with a regularly scheduled studio art course through arrangement with the instructor. (Prior instructor approval required.) In case the student would schedule more than one independent studio, ART 300, ART 301, ART 302, ART 303, ART 304, or ART 309 may be substituted.

ART 306 - Computer Design II Credits: 3

Second-level course taught on the Macintosh computer. Will learn the art of computer illustration, drawing and rendering techniques, including all aspects of a postscript language illustration program. Also taught in-depth will be type manipulation and how to incorporate an illustration. Use of a color scanning device and a color printer will be covered along with information about the illustration and design industry, the future of the computer, and advanced use of the Macintosh operating system. Emphasis creating visually strong illustrations and designs. (Offered in spring only.)

Prerequisite(s): ART 217

ART 309 - Independent Studio Credits: 3

For advanced study in a particular art medium. Student agrees to meet with a regularly scheduled studio art course through arrangement with the instructor. (Prior instructor approval required.) In case student would schedule more than one independent studio, ART 300, ART 301, ART 302, ART 303, ART 304, or ART 305 may be substituted.

ART 319 - Computer Design III Credits: 3

Third-level course taught on the Macintosh computer. Will learn the art of photo manipulation, editing, painting, compositing, and pre-press techniques including all aspects of using a bitmapped software program. Also covered choosing printers, preparing files for output, setting halftone screens, resolutions, traps, chokes, and creating color separations. Elements and principles of design, working between software programs, the use of a color scanning device, video and still camera capturing devices covered along with creating meaningful imagery. Emphasis on creating visually strong computer generated photographs, paintings, and designs.

Prerequisite(s): ART 217

ART 321 - Watercolor I Credits: 3

Fundamental course in watercolor painting designed to introduce the varied materials, tools, and techniques of watercolor painting with special attention to its unique characteristics as a painting medium. Composition and development of personal imagery also discussed. (Prior experience in drawing and working with color is recommended.) (Offered in spring only.)

ART 322 - Watercolor II Credits: 3

Intermediate level that stresses the exploration of watercolor painting media as a means of unique personal expression with increased emphasis on composition and structure. (Offered in fall only.)

Prerequisite(s): ART 321

ART 326 - Painting I Credits: 3

Fundamental course in painting designed to introduce the varied materials, tools and techniques of oil-based or acrylic-based painting media. Composition and development of personal imagery also discussed. (Prior experience in drawing and working with color is recommended.) (Offered in fall only.)

ART 327 - Painting II Credits: 3

Intermediate level that stresses the exploration of oil/acrylic painting media as a means of unique personal expression with increased emphasis on composition and structure. (Offered in spring only.)

Prerequisite(s): ART 326

ART 333 - Independent Studio in Art Credits: 3

For advanced study in a particular art medium. Opportunity to pursue in-depth study using a single art form or combination of art forms that are of personal interest under the direction and guidance of a department faculty member. Student agrees to meet with a regularly scheduled studio art course through arrangement with the instructor. (Prior instructor approval required.) In case the student would schedule more than one independent studio, ART 300, ART 302, ART 303, ART 304, ART 305, or ART 309 may be substituted.

ART 334 - Independent Studio in Art Credits: 3

For advanced study in a particular art medium. Opportunity to pursue in-depth study using a single art form or combination of art forms that are of personal interest under the direction and guidance of a department faculty member. Student agrees to meet with a regularly scheduled studio art course through arrangement with the instructor. (Prior instructor approval required.) In case the student would schedule more than one independent studio, ART 300, ART 302, ART 303, ART 304, ART 305, or ART 309 may be substituted.

ART 335 - Independent Studio in Art Credits: 3

For advanced study in a particular art medium. Opportunity to pursue in-depth study using a single art form or combination of art forms that are of personal interest under the direction and guidance of a department faculty member. Student agrees to meet with a regularly scheduled studio art course through arrangement with the instructor. (Prior instructor approval required.) In case the student would schedule more than one independent studio, ART 300, ART 302, ART 303, ART 304, ART 305, or ART 309 may be substituted.

ART 337 - Printmaking I Credits: 3

Introductory course in printmaking. Primarily a studio course, students will have an opportunity to make original prints using various traditional and contemporary printmaking processes. Also deals with history of printmaking and some important printmakers. Gives a better grasp of wide range of techniques and means of expression found in what can be a very complex art form.

ART 339 - History of American Art Credits: 3

Chronological study of American artpainting, sculpture, and architecture from the Colonial period to the 20th century. (Offered odd years, fall only.)

Category: Creativity & Expression - L

ART 340 - Ceramics Credits: 3

Exploration of the potential of clay with emphasis on both hand building and wheel throwing techniques.

ART 341 - Advanced Ceramics Credits: 3

Studio course that further develops knowledge of clay and the various working processes. Emphasis on mastery and refinement of skillshand building and/or wheel throwing. Greater attention placed on mixing glazes and clay bodies and on firing techniques. (Offered in spring only.)

Prerequisite(s): ART 340

ART 356 - Social Structures of Aesthetics, Philosophy and Criticism in the Arts Credits: 3

Deals with general questions about art. Topics will be to handle abstract ideas, to discuss rationally, to distinguish between objective and subjective statements, to imagine possibilities, and to recognize necessary conditions within a definition. Criticism deals with responding to a specific work as well as a body of work. Two important functions considered are to interpret the meaning of the work and to demonstrate support judgments about the aesthetic merits of the work. Includes exposure to the arts through attendance at various performances, exhibitions, museums, and field trips. The aim is to explore the philosophical and historical aspects of the arts and how they are valued through art criticism. This knowledge will be applied to the environment of art education.

ART 370 - Sculpture Credits: 3

Is an aesthetic analysis of three-dimensional form utilizing both traditional and contemporary materials and techniques. (Offered in fall only.)

ART 385 - Senior Art Seminar Credits: 3

Requires student to examine the contemporary artists, art movements, and influences that directly impact their work and area of concentration. Emphasis on creating a portfolio of work with a specific focus conceived by the student. These works will be presented in a public exhibition. All stages of exhibition preparation will be addressed: scheduling, publicity materials, developing and creating an exhibition catalog, photographing and presenting works of art for exhibition, staging an exhibition, and the packaging/transporting works of art. Rsum preparation and developing a career portfolio will also be included. (Required of all art majors.)

ART 389 - Selected Topics in Art Credits: 1

Opportunity to offer courses in areas of departmental major interest not covered by the regular courses.

ART 391 - Selected Topics in Art Credits: 3

Opportunity to offer courses in areas of departmental major interest not covered by the regular courses.

ART 392 - Selected Topics in Art Credits: 3

Opportunity to offer courses in areas of departmental major interest not covered by the regular courses.

ART 393 - Selected Topics in Art Credits: 1-3

Opportunity to offer courses in areas of departmental major interest not covered by the regular courses.

ART 394 - Selected Topics in Art Credits: 3

Opportunity to offer courses in areas of departmental major interest not covered by the regular courses.

ART 395 - Internship in Art I Credits: 3

Offers a planned program of research, observation, study and work in approved art agencies and institutions for junior and senior art majors. Specific nature of the experience will follow the pattern dictated by the agency/institution. Only 6 crs. of internship credit can count toward the art major. (Prior approval of the Department of Art and the cooperating agency is required.)

ART 396 - Internship in Art II Credits: 3

Offers a planned program of research, observation, study and work in approved art agencies and institutions for junior and senior art majors. Specific nature of the experience will follow the pattern dictated by the agency/institution. Only 6 crs. of internship credit can count toward the art major. (Prior approval of the Department of Art and the cooperating agency is required.)

ART 397 - Internship in Art III Credits: 3

Offers a planned program of research, observation, study and work in approved art agencies and institutions for junior and senior art majors. Specific nature of the experience will follow the pattern dictated by the agency/institution. Only 6 crs. of internship credit can count toward the art major. (Prior approval of the Department of Art and the cooperating agency is required.)

ART 398 - Independent Study in Art Credits: 3

Independent study affords students the opportunity to engage in independent study related to their major field, a supporting area, or specialized interest.

ART 399 - Independent Study Credits: 3

Independent study affords students the opportunity to engage in independent study related to their major field, a supporting area, or specialized interest.

ART 400 - Contemporary Methods in Art Education Credits: 3

Explores studio materials, art-making processes, and modes of thought from a culturally diverse perspective and current methods regarding studio art instruction in the fields of elementary and secondary education. Exploring their personal artwork, students introduced in role of art teacher as facilitator, guide, and mentor, plus the various instructional strategies and models currently employed for success in the field. Besides exploring a cross section of contemporary art-making processes, students will analyze how they create in order to allow others to understand that process. Students will gain competency in lesson planning, organization, classroom management, and assessment. Student emerges with a clearer understanding of the relationship between ideas, process, critique, and the vital role of the studio teacher. Consists of classroom lecture/presentation and intense studio activity. Includes an early field experience, designing, and implementing a studio art project with elementary-age students at the campus laboratory school. All artworks, projects, and experiences will culminate in critique and evaluation.

Graduate Credit: This course is available for graduate credit.

ART 425 - Computer Design IV Credits: 3

Fourth-level course taught on the Macintosh computer. Learning the art of animation and multimedia production including sound and video editing and compositing. Using page composition and illustration/painting/digital photography techniques learned in Computer Design I, II, and III, students learn to compile text, paintings, and photographs into a composite multimedia program. Using paint and ink effects, information will be enhanced, with sound and video added to it. Elements and principles of design, working between software programs, the use of a color scanning device, video and still camera capturing devices, and CD authoring will be covered. Content includes techniques directed at creating visually strong multimedia productions.

Prerequisite(s): ART 217
Graduate Credit: This course is available for graduate credit.

ART 430 - Computer Design V Credits: 3

Fifth-level course taught on the Macintosh computer. Learning the art of animation and multimedia production including sound and video editing and compositing for web design. Using page composition and illustration/painting/digital photography techniques learned in Computer Design I, II and III, students will learn how to compile text, paintings, and photographs into a composite web program. Using transparency and vector embedding techniques, information will be enhanced with added sound and video. Elements and principles of design, working between software programs, the use of a color scanning device, video and still camera capturing devices, and CD authoring will be covered. Content includes techniques directed at creating visually sound and effective web design.

Graduate Credit: This course is available for graduate credit.

ART 435 - Computer Design VI Credits: 3

Sixth-level course taught on the Macintosh computer. Examines the book as a physical artifact, as the material embodiment of text and visual imaging. Topics include the transitions between hand production and mechanical production, methods of bookmaking, printers and publishers, letter forms and typography, paper, page formats and layouts, illustrations, bindings, and the purpose of the book with special emphasis on the relationships between meaning and physical form and the complex conventions of the book. The art of typographic design, calligraphy, book and portfolio design, papermaking, and bookmaking skills following both traditional and nontraditional techniques are covered. Using page composition and illustration/painting/digital photography techniques learned in Computer Design I, II, and III, students enlarge and enhance their knowledge of typography and how to use it in book design. They will use their computer illustration, painting, and digital photographic skills to add visuals into the composite book. Elements and principles of design, working between software programs, the use of a color scanning device and digital camera capturing devices will be covered. Content includes techniques directed at creating visually and thematically strong and unique artist's portfolios and books.

Prerequisite(s): ART 217
Graduate Credit: This course is available for graduate credit.

ART 485 - Selected Topics in Art Credits: 3

Opportunity to offer courses in areas of departmental major interest not covered by the regular courses.

Graduate Credit: This course is available for graduate credit.

ART 490 - Selected Topics in Art Credits: 1-3

Opportunity to offer courses in areas of departmental major interest not covered by the regular courses.

Graduate Credit: This course is available for graduate credit.

ART 491 - Selected Topics in Art Credits: 3

Opportunity to offer courses in areas of departmental major interest not covered by the regular courses.

Graduate Credit: This course is available for graduate credit.

ART 492 - Selected Topics in Art Credits: 3

Opportunity to offer courses in areas of departmental major interest not covered by the regular courses.

Graduate Credit: This course is available for graduate credit.

ART 493 - Selected Topics in Art Credits: 3

Opportunity to offer courses in areas of departmental major interest not covered by the regular courses.

Graduate Credit: This course is available for graduate credit.

ART 494 - Selected Topics in Art Credits: 3

Opportunity to offer courses in areas of departmental major interest not covered by the regular courses.

Graduate Credit: This course is available for graduate credit.

ART 495 - Selected Topics in Art Credits: 3

Opportunity to offer courses in areas of departmental major interest not covered by the regular courses.

Graduate Credit: This course is available for graduate credit.

ART 496 - Selected Topics in Art Credits: 3

Opportunity to offer courses in areas of departmental major interest not covered by the regular courses.

Graduate Credit: This course is available for graduate credit.

ART 497 - Selected Topics in Art Credits: 3

Opportunity to offer courses in areas of departmental major interest not covered by the regular courses.

Graduate Credit: This course is available for graduate credit.

ART 498 - Selected Topics in Art Credits: 3

Opportunity to offer courses in areas of departmental major interest not covered by the regular courses.

Graduate Credit: This course is available for graduate credit.

ART 499 - Selected Topics in Art Credits: 3

Opportunity to offer courses in areas of departmental major interest not covered by the regular courses.

Graduate Credit: This course is available for graduate credit.

ASL 101 - American Sign Language Credits: 3

This course introduces the basics of American Sign Language (ASL). This course is designed for students with no or minimal sign language skills to develop basic skills in use of ASL and knowledge of Deaf culture. Emphasis is upon acquisition of comprehension, production and interactional skills using basic grammatical features. ASL will be taught within contexts and related to general surroundings and everyday life experiences.

Category: Interconnections - F

ASL 102 - American Sign Language II Credits: 3

This course introduces the basics of American Sign Language (ASL). This course is designed for students with no or minimal sign language skills to develop basic skills in use of ASL and knowledge of Deaf culture. Emphasis is upon acquisition of comprehension, production and interactional skills using basic grammatical features. ASL will be taught within contexts and related to general surroundings and everyday life experiences.

Category: Interconnections - F

BIOL 100 - Basic Biology Credits: 3

Deals with the principles of biology. Topics include evolution and origins of life, cellular structure and physiology, growth and repair, reproduction and development, control, sources of food energy, inheritance, and human inter-relationship with the biological environment. Not open to biology majors. Three hours of lecture/week. Credit earned in this course is not applicable to credits required of the biology major.

Category: Natural World & Technology - N

BIOL 145 - Environmental Biology Credits: 3

Examines human impacts on the environment. Students will explore issues resulting from the expanding human population and our increasing consumption of resources, and will consider sustainable alternatives. Topics include: basic ecology, human population growth, biodiversity and conservation, climate change, resource use, and pollution. Three hours lecture/week. Credit earned in this course is not applicable to the credits required of the biology major.

Category: Natural World & Technology - N

BIOL 150 - Human Biology Credits: 3

Introductory course for non-biology majors which involves a study of the structure and function of the human organism. Major diseases and contemporary factors that adversely affect human existence are considered. Three hours

lecture/week. Credit earned in this course is not applicable to credits required of the biology major.

Category: Natural World & Technology - N

BIOL 161 - Principles of Biology: Cell Structure and Function Credits: 4

Introductory course for majors that examines cell structure and function, genetics, population genetics, and evolution. Three hours lecture and two hours lab/week.

Category: Natural World & Technology - N

BIOL 162 - Principles of Biology: Organismal Diversity Credits: 4

Introductory course for majors that examines the diversity of life, plant form and function, animal form and function, and ecology. Three hours lecture and two hours lab/week.

Category: Natural World & Technology - N

BIOL 190 - General Education Special Topics Credits: 3

Opportunity to offer courses in areas of departmental general education interest not covered by the regular general education courses.

BIOL 191 - General Education Special Topics Credits: 3

Opportunity to offer courses in areas of departmental general education interest not covered by the regular general education courses.

BIOL 201 - Introduction to Biotechnology Credits: 1

Comprehensive introduction to applications and methods of biotechnology. Topics include microbial, plant, animal, and marine biotechnology. Applications to medicine, forensics, and the environment will be examined. Required for Biotechnology concentration. One hour lecture/week.

Prerequisite(s): BIOL 162 with minimum grade of C (may be taken concurrently) and BIOL 161 with minimum grade of C (may be taken concurrently) and BIOL 260 (may be taken concurrently) and BIOL 220 (may be taken concurrently) and CHEM 121 (may be taken concurrently) and CHEM 122 (may be taken concurrently)

BIOL 205 - Marine Biology Credits: 3

Introduction to the marine environment. Includes the physical characteristics of marine ecosystems and the adaptations of organisms that live there. Only at WIMSC during summers. Two periods lecture and two periods lab/week.

Prerequisite(s): BIOL 162 with minimum grade of C

BIOL 208 - Field Biology Credits: 3

Field/laboratory course designed for biology majors with secondary education certification with focus on identification and ecology of local plants and animals including the study of soil, hydrology, oceanography, and a survey of current assessment technologies like GIS. Two hours lecture and three hours lab/field/week. Requires one weekend field trip.

(Students may not count both BIO208 and BIOL 210 towards major requirements).

Prerequisite(s): BIOL 162 with minimum grade of C
Category: Natural World & Technology - N

BIOL 210 - Field Zoology Credits: 3

Introduction to principles and techniques of field zoological investigation. Field and laboratory studies provide opportunity to learn appropriate procedures for the collection, preservation, and identification of selected groups of local animals. Both lecture and laboratory present the theory and methodology of zoological systematics. Two hours lecture and three hours lab/week. Requires one weekend field trip. (Students may not count both BIOL 208 and BIO210 towards major requirements).

Prerequisite(s): BIOL 162 with minimum grade of C

BIOL 220 - Microbiology Credits: 4

Deals with the structural characteristics, physiology, and genetics of bacteria as well as principles of immunology and host-parasite relationships. Viruses and fungi are also considered. Laboratory exercises provide experience in the aseptic technique, staining, and evaluating the responses of microorganisms to various environmental changes. Three hours lecture and two hours lab/week.

Prerequisite(s): BIOL 161 with minimum grade of C and sophomore standing or with permission from the department

BIOL 230 - Botany Credits: 3

This course explores the amazing properties of plant life, emphasizing their role in the environment as well as practical implications for humans. Students will examine plant diversity and learn basic plant morphology, physiology, development, and reproduction as well as plant ecology and evolution. Labs and discussion of primary literature will emphasize topics covered during lectures.

Prerequisite(s): BIOL 162 with minimum grade of C and BIOL 161 with minimum grade of C

BIOL 237 - Human Anatomy & Physiology I Credits: 4

A systematic study of the structure and function of the various systems of the human body. Topics included are: the cell, integument, skeletal, musculature, digestive, endocrine, and reproductive systems. Dissections of specimens are required in the laboratory portion of this course. Note: Human Anatomy and Physiology I & II are integral parts of a one-year (two-semester) comprehensive course sequence. Three hours lecture and two hours lab/week. Credit earned in this course is not applicable to the credits required of the biology major.

Category: Natural World & Technology - N

BIOL 238 - Human Anatomy & Physiology II Credits: 4

A systematic study of the structure and function of the various systems of the human body. Continuation of Human Anatomy and Physiology I. Topics included are: the nervous system, cardiovascular system, lymphatic system, respiratory system, metabolism, urinary system, fluid and pH balance. Although laboratory exercises will be more experimental in nature than in Human A&P I, some dissection of specimens will be required in the laboratory portion of this course. Note: Human Anatomy and Physiology I & II are integral parts of a one-year (two-semester)

comprehensive course sequence. Three hours lecture and two hours lab/week. Credit earned in this course is not applicable to the credits required of the biology major.

Prerequisite(s): BIOL 237

BIOL 242 - Ecology Credits: 3

Examines the interactions between organisms and their environment and the relationship between ecological processes and patterns of distribution and abundance of organisms. Laboratory/field sessions emphasize ecological principles and techniques. Two hours lecture and three hours lab/week.

Prerequisite(s): BIOL 162 with minimum grade of C and Sophomore standing.

BIOL 245 - Marine Ecology Credits: 3

Deals with interactions of plants and animals in the unstable coastal environment. The barrier islands of the U.S. East Coast are emphasized. Only at WIMSC during summers.

Prerequisite(s): BIOL 162 with minimum grade of C

BIOL 260 - Genetics Credits: 4

Introductory course dealing with the principles of heredity and the nature of the gene. The role of genetics in development, behavior, medicine, agriculture, biodiversity and evolution will be addressed as well as the implications and ethical considerations of modern biotechnology. Laboratory work includes genetic analysis in Drosophila and other organisms, recombinant DNA technology, and bioinformatics. Three hours lecture and two hours lab/week.

Prerequisite(s): BIOL 161 with minimum grade of C and sophomore standing or with permission from the department

BIOL 300 - Careers in the Health Professions Credits: 1

This seminar introduces students to the educational preparation, employment responsibilities, and opportunities for many of the health professional fields. Information presented by speakers (practicing health professionals) will assist students in making educated choices regarding careers in the health sciences. Strongly recommended for students in the Biology/Health Professions concentration. One hour/week

BIOL 315 - Marine Invertebrates Credits: 3

Survey of invertebrate phyla indigenous to coastal waters. Structural and functional adaptations discussed. Only at WIMSC during summers.

Prerequisite(s): BIOL 162 with minimum grade of C

BIOL 317 - Parasitology Credits: 3

Phenomenon of parasitism as it is practiced by a variety of organisms. Broad coverage will include the phylogeny, morphology, classification, and life cycles primarily of parasites of medical and veterinary importance; host-parasite relationships; and ecology epidemiology of parasitic diseases. Two hours lecture and two hours lab/week.

Prerequisite(s): BIOL 161 with minimum grade of C and sophomore standing or with permission from the department

BIOL 320 - Marine Botany Credits: 3

Is an introduction to the plants of the marine fringe. Near-shore and aquatic plants, both attached and free floating, are discussed. Taught only at WIMSC during summers.

Prerequisite(s): BIOL 230

BIOL 324 - Pathogenic Microbiology Credits: 3

Considers the role of bacteria and fungi in the diseases of man with emphasis upon the differentiation and culture of microorganisms, types of diseases, immunology, modes of disease transmission, prophylactic, therapeutic and epidemiological aspects. Two hours lecture and two hours lab/week.

Prerequisite(s): BIOL 161 with minimum grade of C and sophomore standing or with permission from the department

BIOL 330 - Animal Behavior Credits: 3

Basic course emphasizing such topics as territoriality, social hierarchy, and communication. The laboratory is a most important part of this course with the opportunity to structure experiments, evaluate results, and report conclusions. Two hours lecture and two hours lab/week. (Offered fall semester, even years.)

Prerequisite(s): BIOL 162 with minimum grade of C and BIOL 161 with minimum grade of C

BIOL 331 - Behavior of Marine Organisms Credits: 3

Examines intra- and interspecific behavior with emphasis on adaptive significance that accrues to marine species. Topics include conflict, reproduction, and communication. Only at WIMSC during summers.

Prerequisite(s): 9 hours of biology or psychology

BIOL 350 - Human Physiology Credits: 4

Study of the function of the human organ systems and their role in maintaining homeostasis. Three hours lecture and two hours lab/week. (Recommended for pre-health professions and secondary education students. Students may not count both BIO350 and BIOL 351 towards major requirements.)

Prerequisite(s): BIOL 162 with minimum grade of C and BIOL 161 with minimum grade of C

BIOL 351 - Animal Physiology Credits: 4

Study of the function of organ systems of animals. Related anatomy is taught as needed. Two hours lecture and three hours lab/week. (Students may not count both BIO350 and BIO351 towards major requirements.)

Prerequisite(s): BIOL 162 with minimum grade of C and BIOL 161 with minimum grade of C and Junior standing as Biology major or permission of instructor.

BIOL 362 - Invertebrate Zoology Credits: 3

Synopsis of the phylogeny, classification and important adaptive features of major and minor invertebrate phyla. Emphasis on taxonomy and a comparative study of the morphology, composition, and functioning of the animal organ

systems or their operational equivalent, as they occurring a broad representation of invertebrate groups, to include patterns of development, reproductive strategies, and life history adaptations.

Prerequisite(s): Requires Upper division standing or permission of instructor.

BIOL 363 - Vertebrate Zoology Credits: 3

Explores the diversity, function, and phylogenetic relationships among the vertebrate animals. Two hours lecture and two hours lab/week.

Prerequisite(s): BIOL 162 with minimum grade of C and BIOL 161 with minimum grade of C or permission of instructor.

BIOL 370 - Comparative Vertebrate Anatomy Credits: 4

Introductory course in the structure of vertebrate animals. Laboratory work includes the comparative anatomical study of organ systems using representatives of the various protochordate and chordate classes. Emphasis on the physical evolution of the vertebrate classes using anatomical, embryological, and paleontological evidence. Two hours lecture and three hours lab/week.

Prerequisite(s): BIOL 162 with minimum grade of C and BIOL 161 with minimum grade of C

BIOL 371 - Human Anatomy Credits: 4

Involves a comprehensive, detailed study of the development, growth and functional anatomy of the human body. Enrollment priority is given to students in pre-health professional programs that require human anatomy. Three hours lecture and two hours lab/week.

Prerequisite(s): BIOL 162 with minimum grade of C and BIOL 161 with minimum grade of C

BIOL 373 - Developmental Biology Credits: 3

Introductory course in developmental biology. Emphasis will be on the molecules and mechanisms that control gametogenesis and the process of development from a single fertilized egg to an adult organism. Topics that will be highlighted include the role of genetic regulation in development, comparison of genes and processes in different organisms, and the contribution developmental biology makes to our understanding of evolution. Three hours of lecture/week.

Prerequisite(s): BIOL 260

BIOL 374 - Hematology Credits: 2

Designed to give a basic understanding of the formation, structure, and function of the blood elements. Both normal and abnormal cells are studied as well as the more common blood diseases. Laboratory periods are interspersed with lecture. Two hours lecture/lab/week.

Prerequisite(s): BIOL 161 with minimum grade of C and sophomore standing or with permission from the department

BIOL 375 - Histology Credits: 3

Involves the microscopic examination of vertebrate tissues from morphological and physiological perspectives. Reference made to organ embryogenesis to support understanding of organ form and function. Laboratory work involves extensive examination of microscope slides. Tissue preparation for histological examination is demonstrated. Two hours lecture and two hours lab/week.

Prerequisite(s): BIOL 161 with minimum grade of C and sophomore standing or with permission from the department

BIOL 385 - Cell Biology Credits: 3

Examines the structure and function of the cell. Topics include the molecular constituents of cells, information transfer, and the control of cell division. The structure, function, and biogenesis of the plasma membrane, internal membranes, nucleus, cytoskeleton, mitochondria, and chloroplasts will be addressed. Laboratory work is examination of cell structure and function by molecular and microscopic techniques. Two hours lecture and two hours lab/week.

Prerequisite(s): BIOL 260 and CHEM 121 and CHEM 122

BIOL 391 - Biology Internship I Credits: 1-3

Provides opportunity to gain practical experience in chosen career area. [Please note that only 3 credits of internship may count as biology credits. Credits in excess of that number count as free electives in the General Education requirement.]

BIOL 392 - Biology Internship II Credits: 1-3

Provides opportunity to gain practical experience in chosen career area. [Please note that only 3 credits of internship may count as biology credits. Credits in excess of that number count as free electives in the General Education requirement.]

BIOL 393 - Selected Topics in Biology Credits: 1-3

Opportunity to offer courses in areas of departmental major interest not covered by the regular courses.

BIOL 394 - Selected Topics in Biology Credits: 3

Opportunity to offer courses in areas of departmental major interest not covered by the regular courses.

BIOL 397 - Introduction to Research Credits: 3

Opportunity to do research under the guidance of selected faculty members. Students should obtain approval of the research topic from the selected advisor before registering for this course. Available as a pass/fail grade only. [Please note that only 3 credits of research may count as biology credits. Credits in excess of that number count as free electives in the General Education requirement.]

BIOL 398 - Research II Credits: 3

Opportunity to do research under the guidance of selected faculty members. Students should register for this course only if they have credit for BIOL 397. Students should obtain approval of the research topic from the selected advisor before registering for this course. [Please note that only 3 credits of research may count as biology credits. Credits in excess of that number count as free electives in the General Education requirement.]

BIOL 399 - Independent Study in Biology Credits: 1-4

Independent study affords students the opportunity to engage in independent study related to their major field, a supporting area, or specialized interest.

BIOL 401 - Coral Reef Ecology Credits: 3

Graduate Credit: This course is available for graduate credit.

BIOL 403 - Aquaculture Credits: 3

Graduate Credit: This course is available for graduate credit.

BIOL 406 - Mammalogy Credits: 3

Surveys various areas of mammalian biology including mammalian characteristics, evolution, classification, zoogeography, adaptive radiation, reproduction, population dynamics, behavior, physiology, ecology, and economic importance. Laboratory material covers trapping, study of skin preparation, identification of North American mammals, examination of skeletal and external adaptations, plus field and laboratory techniques. Graduate students are required to complete an additional course project. Includes a weekend field trip. Two hours lecture and two hours lab/week.

Prerequisite(s): BIOL 162 with minimum grade of C and BIOL 161 with minimum grade of C
Graduate Credit: This course is available for graduate credit.

BIOL 408 - Principles of Virology Credits: 3

Covers morphology, replication cycles, and genetics of important bacterial, plant, and animal viruses as well as the use of gene therapy. Special emphasis given to viral pathogens of humans including the pathophysiology, transmission, treatment, and prevention of viral diseases. Newly emerging viral diseases and their impact on society will also be discussed. Graduate students expected to submit a 5-10 page term paper on a virology-related topic approved by the instructor.

Prerequisite(s): BIOL 260 and BIOL 385 (may be taken concurrently)
Graduate Credit: This course is available for graduate credit.

BIOL 409 - Immunology Credits: 3

Introduction to immunology, including immunity, serology, immunochemistry, and immunobiology. Other topics include immunodeficiency diseases, tumor immunology, transplantation immunology, autoimmune diseases, and allergies. Graduate students must complete additional course requirements. Three (3) hours lecture/wk.

Prerequisite(s): BIOL 260 and BIOL 385 (may be taken concurrently)
Graduate Credit: This course is available for graduate credit.

BIOL 412 - Ichthyology Credits: 3

This course surveys the biology of fishes, emphasizing the evolution, systematics, ecology, and conservation of Pennsylvania species. Laboratory and field exercises will include fish sampling, species identification, population estimation, community characterization, and fisheries techniques such as aging fishes and estimating population structure and production. (2h lecture and 2h lab)

Prerequisite(s): (BIOL 162 with minimum grade of C and BIOL 242 or Graduate standing.
Graduate Credit: This course is available for graduate credit.

BIOL 413 - Marine Ichthyology Credits: 3

Study of the internal and external structure of fishes, their systematic and ecological relationships, and their distribution in time and space. Only at WIMSC during summers.

Prerequisite(s): 16 credits of biology or Graduate standing.
Graduate Credit: This course is available for graduate credit.

BIOL 417 - Herpetology Credits: 3

Study of amphibians and reptiles including classification, evolution, functional morphology, ecology, and husbandry. Laboratory work includes anatomical study, identification, and field trips. Graduate students must complete additional course requirements. Two hours lecture and two hours lab/week.

Prerequisite(s): BIOL 162 with minimum grade of C and BIOL 161 with minimum grade of C
Graduate Credit: This course is available for graduate credit.

BIOL 418 - Molecular Biology Credits: 3

Examines structure and expression of prokaryotic and eukaryotic genes. Topics include experimental techniques used to clone, express, and analyze DNA sequences; chromosome and gene structure; mechanisms of DNA replication and repair; mechanisms of transcription and translation; the regulation of transcription; RNA processing and post-transcriptional regulation; gene regulation in development; and molecular mechanisms of mutagenesis and cancer. Includes discussion of current literature and use of on-line resources for analysis of DNA sequences. Graduate students must complete additional course requirements.

Prerequisite(s): BIOL 260
Graduate Credit: This course is available for graduate credit.

BIOL 419 - Ornithology Credits: 3

Study of birds including their taxonomic relationships, anatomy, physiology, ecology and conservation. A major focus of the course is identification of avian species found in Pennsylvania and the eastern US, which will be accomplished via field trips and museum skin study. Laboratory instruction will include methods of avian capture, census techniques, museum skin preparation and field trips. Two Saturday field trips and one weekend field trip are required. Graduate students are required to complete an additional course project. Two hours lecture and two hours lab/week.

Prerequisite(s): BIOL 161 with minimum grade of C and BIOL 162 with minimum grade of C
Graduate Credit: This course is available for graduate credit.

BIOL 425 - Biota of Florida Credits: 3

Seminar/field course deals with the biology of warm temperate and subtropical Florida including vegetation, fauna, geology, history, and economy. Offered spring semester of even-numbered years, it requires a plus and intensive 10-day field trip to parks, natural area, and refuges in Florida over spring break. Field trip costs for the student include food, transportation, entrance and camping fees. Graduate students must complete additional course requirements.

Prerequisite(s): Requires junior standing.
Graduate Credit: This course is available for graduate credit.

BIOL 428 - Entomology Credits: 3

Taught in a lecture format with supporting laboratories and field trips, students in this course will study the anatomy, morphology, phylogeny, ecology, taxonomy, and development of arthropods, primarily insects. Emphasis will be placed on collecting techniques, identification, and preparation of specimens.

Graduate Credit: Can be taken for graduate credit

BIOL 430 - Principles of Evolution Credits: 3

Introduction to evolutionary principles, their applications, and the appropriate literature. Major topics include the history of evolutionary concepts, the species and speciation processes, phylogenetic patterns and their reconstruction, classification, biogeography, extinction, and biological nomenclature. Graduate students must complete additional course requirements. Three hours lecture/week.

Prerequisite(s): BIOL 162 with minimum grade of C and BIOL 161 with minimum grade of C and BIOL 260
Graduate Credit: This course is available for graduate credit.

BIOL 442 - Aquatic Ecology Credits: 3

Examines the ecology of inland aquatic habitats including streams, springs, lakes, wetlands and estuaries. Lectures explore the physical, chemical, and biological forces shaping aquatic systems, with an emphasis on the ecology and conservation of freshwater organisms and habitats. Field and laboratory work includes sampling techniques, characterization of aquatic habitats, and identification of aquatic organisms. Graduate students enrolled in this class will be required to complete additional course requirements. Two hours lecture and three hours lab/week.

Prerequisite(s): BIOL 162 with minimum grade of C or Graduate standing. BIOL 242 and one year of chemistry strongly recommended.
Graduate Credit: This course is available for graduate credit.

BIOL 444 - Conservation Biology Credits: 3

Applies the principles of population ecology, population genetics, biogeography, animal behavior, and paleobiology to the maintenance of global diversity and natural systems. Research theory is applied to conservation policy and management decisions. Graduate students must complete additional course requirements. Two periods lecture and two periods lab/discussion per week. Includes midweek and weekend field trips.

Prerequisite(s): BIOL 242
Graduate Credit: This course is available for graduate credit.

BIOL 448 - Field Botany and Plant Taxonomy Credits: 3

Deals with principles of classification and systematics of vascular plants, with emphasis on local plant communities. Field trips and laboratories develop skill in the use of technical and popular identification manuals. Library readings develop familiarity with principles and literature of plant systematics and ecology. Memorization of selected, local species required. Field trips include several local excursions plus a weekend trip to natural areas in Pennsylvania and the Delmarva Peninsula. Graduate students must complete additional course requirements. Two hours lecture and two hours lab/week.

Prerequisite(s): BIOL 162 with minimum grade of C or BIOL 100
Graduate Credit: This course is available for graduate credit.

BIOL 450 - Endocrinology Credits: 3

Study of the glands of internal secretion and their biochemical and physiological role in development, growth, metabolism, homeostasis, and reproduction of animals. Graduate students must complete additional course requirements. Three hours lecture/week.

Prerequisite(s): BIOL 350 or BIOL 351
Graduate Credit: This course is available for graduate credit.

BIOL 461 - Techniques in Biotechnology Credits: 3

Provides hands-on experience with standard molecular biology and immunological techniques commonly used in industrial and academic laboratories. Methods include immunoblotting methods, ELISA, isolation and analysis of DNA and RNA, protein purification, and gene cloning techniques. Graduate students must complete additional course requirements. One hour lecture and four hours lab/week. (Offered spring semester).

Prerequisite(s): BIOL 385 or BIOL 418 or CHEM 301 (may be taken concurrently)
Graduate Credit: This course is available for graduate credit.

BIOL 464 - Freshwater Invertebrate Zoology Credits: 3

This course will survey the ecology, evolution, and conservation of the invertebrate phyla, with a focus on freshwater invertebrates. This will be a practical course intended for anyone with an interest in aquatic ecology and environmental assessment. Lab will emphasize the collection and identification of Pennsylvania taxa and their use in bioassessment of freshwater habitats. Graduate students will complete additional course requirements.

Prerequisite(s): BIOL 162 and BIOL 242 with a C or better
Graduate Credit: May be taken for graduate credit

BIOL 475 - Natural History of Costa Rica Credits: 3

This course explores the biological richness, unique geological setting, and exceptional natural history of Costa Rica, an example of the tropical flora and fauna unparalleled in the world. This class reviews the natural of history of Costa Rica, including the cloud forest, central ridge mountains, the dry tropical forest, and marine tropical environments. Students will become familiar with the geography, geology, vegetation, and fauna of Costa Rica, as well as learning about the history, culture, and language (Spanish) of Costa Rica. This course includes at least 27 hours of lecture and 25 hours of lab during the course. The seminars consist of students' oral presentations with outlines, visual aids, and written summaries. For this class, it is required to attend the 9-11 day field trip to Costa Rica.

Prerequisite(s): Approval by instructor
Graduate Credit: This course is available for graduate credits.

BIOL 483 - Wildlife and Fisheries Management Credits: 3

Applies biological and ecological concepts to the practical management of fisheries and wildlife populations. This course addresses the history and principles of conservation and resource management, key legislation, and current public policy issues related to fisheries and wildlife management. Lab includes sampling methods, case studies, use of

population and harvest models, and field meetings with wildlife and fisheries professionals.

Prerequisite(s): BIOL 161, BIOL 162, and BIOL 242, all with a C or better
Graduate Credit: May be taken for graduate credit

BIOL 491 - Selected Topics in Biology Credits: 1-3

Opportunity to offer courses in areas of departmental major interest not covered by regular courses.

Graduate Credit: This course is available for graduate credit.

BIOL 492 - Selected Topics in Biology Credits: 3

Opportunity to offer courses in areas of departmental major interest not covered by regular courses.

Graduate Credit: This course is available for graduate credit.

BIOL 494 - Field Research Techniques Credits: 3

Overview of methods for investigating biological field problems. Students will learn to use a variety of techniques in field conditions. Collection, analyses, and interpretation of data will be emphasized. Methods applied in current professional literature will be discussed. Graduate students will be required to complete an independent project culminating in a written report.

Prerequisite(s): Requires upper division or graduate standing.
Graduate Credit: This course is available for graduate credit.

BIOL 495 - Selected Topics in Biology Credits: 3

Opportunity to offer courses in areas of departmental major interest not covered by regular courses.

Graduate Credit: This course is available for graduate credit.

BIOL 496 - Selected Topics in Biology Credits: 3

Opportunity to offer courses in areas of departmental major interest not covered by regular courses.

Graduate Credit: This course is available for graduate credit.

BIOL 497 - Selected Topics in Biology Credits: 3

Opportunity to offer courses in areas of departmental major interest not covered by regular courses.

Graduate Credit: This course is available for graduate credit.

BIOL 498 - Selected Topics in Biology Credits: 3

Opportunity to offer courses in areas of departmental major interest not covered by regular courses.

Graduate Credit: This course is available for graduate credit.

BIOL 499 - Capstone Seminar in Biology Credits: 1

Required senior capstone course. This one-hour seminar will include reading, discussion, and analysis of the primary literature in diverse areas of biology. The course will allow students from the various tracks within biology to share perspectives and apply their knowledge to the analysis and solution of real-world biological problems. Students will lead discussion, write a short paper, present their paper orally, and complete the departmental exit exam. Course topic will vary.

Prerequisite(s): 26 Biology credits in the major and BIOL 350 or BIOL 351
Graduate Credit: This course is not available for graduate credit.

BLAW 261 - American Legal Environment Credits: 3

Deals with the nature and classification of the law, the history and framework of our legal system, our courts and court procedures, civil and criminal law, the principles of law applicable to business, and to the individual in these business relationships, i.e., contracts, agency and employer-employee relations, and the government regulation of business. Case studies included.

BUSN 101 - Foundations of Business Administration Credits: 2

Foundation course for all majors in the College of Business. Establishes platform for understanding of functional areas in business and how they work in concert for the benefit of the organization. Students will gain meaningful information and tools so that they may make informed choices with respect to their educational experiences and pursuit of a career in business. This course is restricted to declared business majors.

BUSN 408 - Internship in Business Administration I Credits: 1

Planned program requiring 40 hours or more on a job in business or government. Designed to supplement classroom study in the student's major. Work content must be approved by the department chair and internship director and supervised by a faculty member.

Prerequisite(s): 55 credits, 2.0 or greater QPA in business, major and overall or 30 credits, 3.0 or greater QPA in business, major, and overall.
Graduate Credit: This course is not available for graduate credit.

BUSN 409 - Internship in Business Administration I Credits: 2

Planned program requiring 80 hours or more on a job in business or government. Designed to supplement classroom study in the student's major. Work content must be approved by the department chair and internship director and supervised by a faculty member.

Prerequisite(s): 55 credits, 2.0 or greater QPA in business, major and overall or 30 credits, 3.0 or greater QPA in business, major and overall.
Graduate Credit: This course is not available for graduate credit.

BUSN 410 - Internship in Business Administration I Credits: 3

Planned program requiring 120 hours or more on a job in business or government. Designed to supplement classroom study in the student's major. Work content must be approved by the department chair and internship director and supervised by a faculty member.

Prerequisite(s): 55 credits, 2.0 or greater QPA in business, major and overall or 30 credits, 3.0 or greater QPA in business, major and overall.
Graduate Credit: This course is not available for graduate credit.

BUSN 411 - Internship in Business Administration II Credits: 3

Planned program requiring 120 hours or more on a job in business or government. Designed to supplement classroom study in the student's major. Work content must be approved by the department chair and internship director and supervised by a faculty member.

Prerequisite(s): BUSN 410 but, if with same employer, at least 25 percent must be new duties or involve increased responsibility.
Graduate Credit: This course is not available for graduate credit.

BUSN 412 - Internship in Business Administration II Credits: 2

Planned program requiring 80 hours or more on a job in business or government. Designed to supplement classroom study in the student's major. Work content must be approved by the department chair and internship director and supervised by a faculty member.

Prerequisite(s): BIOL 409 but, if with same employer, at least 25 percent must be new duties or involve increased responsibility.
Graduate Credit: This course is not available for graduate credit.

BUSN 413 - Internship in Business Administration II Credits: 1

Planned program requiring 40 hours or more on a job in business or government. Designed to supplement classroom study in the student's major. Work content must be approved by the department chair and internship director and supervised by a faculty member.

Prerequisite(s): BUSN 408 but, if with same employer, at least 25 percent must be new duties or involve increased responsibility.
Graduate Credit: This course is not available for graduate credit.

BUSN 417 - Internship Business Administration I Credits: 4

Planned program requiring 160 hours or more on a job in business or government. Designed to supplement classroom study in the student's major. Work content must be approved by the department chair and internship director and supervised by a faculty member.

Prerequisite(s): 55 credits, 2.0 or greater QPA in business, major and overall.
Graduate Credit: This course is not available for graduate credit.

BUSN 420 - Internship in Business Administration I Credits: 6

Planned program requiring 240 hours or more on a job in business or government. Designed to supplement classroom study in the student's major. Work content must be approved by the department chair and internship director and supervised by a faculty member. Students are required to submit learning goals; submit a paper related to their job, major, and career field assigned by their supervising faculty; complete a book report on the assigned internship text; and participate in a mid-semester group internship discussion. Also required to give a presentation or conduct interviews with alumni in their chosen major, on their internship. This is a graded internship.

Prerequisite(s): 55 credits, 2.0 or greater QPA in business, major, and overall.
Graduate Credit: This course is not available for graduate credit.

BUSN 421 - Internship Business Administration II Credits: 9

Planned program requiring 360 hours or more on a job in business or government. Designed to supplement classroom study in the student's major. Work content must be approved by the department chair and internship director and supervised by a faculty member. Students are required to submit learning goals; submit a paper related to their job, major, and career field assigned by their supervising faculty; complete a book report on the assigned internship text; and participate in a mid-semester group internship discussion. Also required to give a presentation or conduct interviews with alumni in their chosen major, on their internship. This is a graded internship.

Prerequisite(s): 55 credits, 2.0 or greater QPA in business, major, and overall.
Graduate Credit: This course is not available for graduate credit.

BSAD 304 - Managerial Communications Credits: 3

Examines the process of communications for management and business and develops an ability to utilize various communications techniques including business letter-writing, report development and presentation, listening, interviewing, conference and meeting leadership, research, preparation of employee communications, and organizational and interpersonal communications. Effective writing skill is emphasized. Open to all majors.

Prerequisite(s): ENGL 114 or ENGL 115 or HONR 106

BSAD 393 - Selected Topics in Business Credits: 3

Opportunity to offer courses in areas of departmental major interest not covered by the regular courses.

BSAD 399 - Independent Study in Business Education Credits: 3

Independent study affords students the opportunity to engage in independent study related to their major field, a supporting area, or specialized interest.

BSAD 490 - Selected Topics in Business Credits: 2

Opportunity to offer courses in areas of departmental major interest not covered by the regular courses.

Graduate Credit: This course is available for graduate credit.

CHEM 103 - A Cultural Approach Credits: 3

Develops an understanding of the relationship between chemistry and our society and illustrates the way a scientist thinks about his science. Coverage will include discussion of elements, atoms, molecules, molecular properties, simple chemical reactions, nuclear energy, and man in his environment. May not be taken by students who are currently taking or who have successfully completed CHEM 121.

Category: Natural World & Technology - N

CHEM 105 - An Observational Approach Credits: 3

Develops an appreciation of modern chemistry through an integration of laboratory experimentation with lecture discussion. May be used as preparation for CHEM 121. Two periods lecture, three periods lab/week. May not be taken by students who are currently taking or who have successfully completed CHEM 121.

Category: Natural World & Technology - N

CHEM 110 - The Chemistry Experience Credits: 1

This course is intended for entering chemistry majors. The course introduces students to the expectations and skills required of the course of study leading to a B.S. in Chemistry. The course incorporates instruction in chemistry library research and resources, Microsoft Word and Excel, graphing, laboratory safety, writing formal lab reports, scientific writing skills and oral presentation skills. In addition, the course also incorporates discussions and demonstrations of cognitive processing in the context of necessary and appropriate study skills, note taking and reading scientific texts.

CHEM 121 - Chemical Bonding Credits: 3

Study of the structure of matter ranging from atoms through molecules to crystalline structures. Three periods lecture/week.

Prerequisite(s): MATH 175 (may be taken concurrently) or MATH 117 (may be taken concurrently) or math placement level of 5 and passage of a chemistry placement exam, which is administered by the Chemistry Department.
Category: Natural World & Technology - N

CHEM 122 - Chemical Dynamics Credits: 3

Study of the reactions of ions and molecules using thermodynamics, equilibrium and kinetics. Three periods lecture/week.

Prerequisite(s): CHEM 121 with minimum grade of C

CHEM 123 - Laboratory IA-Chemical Systems Credits: 1

This course will expose and train students in the fundamentals of bench top chemistry. Students will be trained in a number of laboratory skills, will investigate elementary chemical reactions, and will be instructed how to keep a proper laboratory notebook. The course will meet for three periods of laboratory/week.

Prerequisite(s): CHEM 121 (may be taken concurrently)

CHEM 124 - Laboratory IIA-Experimental Quantitative Analysis Credits: 3

Deals with techniques of quantitative chemical determinations involving gravimetric and volumetric analysis, enzymatic techniques, and the fundamental application of instruments. Two periods of lecture, three periods of lab per week.

Prerequisite(s): CHEM 123 or CHEM 125) and CHEM 122 (may be taken concurrently)

CHEM 125 - Laboratory IB-Stoichiometry and Reactions Credits: 1

Provides investigation of elementary reactions and physical measurements. Three periods/week.

Prerequisite(s): CHEM 121 (may be taken concurrently)

CHEM 126 - Laboratory IIB-Equilibrium and Instrumentation Credits: 1

Study of equilibrium systems utilizing instrumental methods. Three periods/week.

Prerequisite(s): CHEM 123 or CHEM 125) and CHEM 122 (may be taken concurrently)

CHEM 190 - General Education Special Topics Credits: 3

Opportunity to offer courses in areas of departmental general education interest not covered by the regular general education courses.

CHEM 221 - Modern Organic Chemistry I Credits: 3

Study of modern organic chemistry including structural theory, methods of structure determination, conformational analysis and other aspects of stereochemistry, reaction mechanisms, and the synthesis and characteristic reactions of hydrocarbons. Three periods of lecture/week.

Prerequisite(s): CHEM 122

CHEM 222 - Modern Organic Chemistry II Credits: 3

Continuation of Modern Organic Chemistry I and includes reactions and synthesis of the principle classes of organic compounds with an emphasis on application of mechanistic reasoning to the classification of organic reactions, further applications of spectroscopy to structure determination and mechanistic studies, and consideration of examples taken from the physical and life sciences. Three periods of lecture/week.

Prerequisite(s): CHEM 221

CHEM 223 - Laboratory IIIA-Experimental Organic Techniques Credits: 1

Involves an in-depth study of the basic techniques of isolation, purification and identification of organic compounds. These techniques are applied in examples of common organic synthetic reactions and also in a project involving the isolation, purification and characterization of an over-the-counter pharmaceutical drug or a natural product. Three periods/week.

Prerequisite(s): CHEM 124 or CHEM 126) and CHEM 221 (may be taken concurrently)

CHEM 224 - Laboratory IVA-Qualitative Organic Analysis Credits: 3

Involves the identification in the laboratory of unknown polyfunctional compounds by chemical and instrumental analytical techniques. Also involves an in-depth study of the theory of NMR and interpretation of both 1-D and 2-D NMR spectra. Use of the NMR instrument and spectral manipulation will be emphasized. This class will also build on the fundamental organic laboratory techniques learned in CHEM 223 by performing various types of organic chemical reactions. Two periods of lecture and three periods of lab/week.

Prerequisite(s): CHEM 223 or CHEM 225) and CHEM 222 (may be taken concurrently)

CHEM 225 - Laboratory IIIB-Basic Organic Techniques Credits: 1

Involves application of the basic techniques of isolation, purification, and identification of organic compounds to the various types of synthetic sequences utilized in organic chemistry. Three periods/week.

Prerequisite(s): CHEM 124 or CHEM 126) and CHEM 221 (may be taken concurrently)

CHEM 226 - Laboratory IVB-Experimental Organic Studies Credits: 1

Continuation of Laboratory IIIB in which the basic techniques of modern organic chemistry are utilized in the study of organic reactions not previously considered and applied to the identification of principal compound types. Three periods/week.

Prerequisite(s): CHEM 223 or CHEM 225) and CHEM 222 (may be taken concurrently)

CHEM 227 - Introduction to Biochemistry Credits: 4

Intended for biology majors who require only 4 semesters of chemistry. Lecture provides an introduction to the study of structure and function of proteins, carbohydrates, lipids, and nucleic acids. Also gives an overview of the metabolic pathways these molecules participate in within living cells. The lab teaches physical skills and techniques of modern experimental biochemistry and encourages students to think critically about data. This course cannot be used as a prerequisite CHEM 301, CHEM 420 or CHEM 421. Students may not enroll in this course if already completed or enrolled in CHEM 222.

Prerequisite(s): CHEM 221 and CHEM 225 and BIOL 161

CHEM 301 - Biochemistry I Credits: 3

Study of chemistry and metabolism of proteins, carbohydrates, lipids, and nucleic acids and the functions of enzymes, vitamins, and other controlling factors related to cellular metabolism. Principles of kinetics and thermodynamics are applied throughout. Three periods of lecture/week.

Prerequisite(s): CHEM 222 and BIOL 161

CHEM 309 - Chemistry Internship Credits: 1-3

Study of various methods of research and development in a nonacademic environment. Study done in a laboratory and requires prior departmental and dean's approval. Requirements include faculty supervision and a written report.

CHEM 310 - Chemistry Internship Credits: 1-3

Study of various methods of research and development in a nonacademic environment. Study done in a laboratory and requires prior departmental and dean's approval. Requirements include faculty supervision and a written report.

CHEM 313 - Chemistry Seminar Credits: 1

Study of selected areas of chemical research. Students will attend seminars presented by students and faculty lecturers, participate in discussions of the seminar topics presented, and present one seminar prepared by library research. One period/week.

Prerequisite(s): Requires junior standing.

CHEM 324 - Advanced Organic Chemistry Laboratory Credits: 1

Expands on the fundamental laboratory techniques acquired in qualitative organic analysis. Crucial to any career in organic chemistry, students will perform multistep organic synthesis and incorporate NMR and GC-MS analysis techniques in identification of their products. 3 periods lab/week

Prerequisite(s): CHEM 222 and CHEM 224 or permission of instructor.

CHEM 363 - Physical Chemistry I Credits: 4

Study of theoretical chemistry, including quantum chemistry and kinetics with applications to bonding, spectroscopy and thermodynamics. Related physiochemical measurements emphasized in the laboratory. Three periods lecture, three periods lab/week.

Prerequisite(s): A minimum of C or better average in all chemistry (CHM) courses, PHYS 205 and MATH 212 with minimum grade of C or permission of instructor.

CHEM 364 - Physical Chemistry II Credits: 4

Continuing study of theoretical chemistry including phenomenological thermodynamics, equilibria, and statistical mechanics. Related fundamental physiochemical measurements emphasized in the laboratory. Three periods lecture, three periods lab/week.

Prerequisite(s): CHEM 363

CHEM 371 - Analytical Chemistry Credits: 4

Presents instrumental analysis including UV-VIS spectrometry, mass spectrometry, gas and high performance liquid chromatography, nuclear methods, atomic absorption, ICP, polarography, potentiometry, X-ray, and NMR techniques. Three periods lecture, three periods lab/week. Graduate students may register without the laboratory for three credit hours.

Prerequisite(s): CHEM 363 (may be taken concurrently) or permission of instructor

CHEM 381 - Inorganic Chemistry Credits: 3

This course will focus on atomic structure, periodic trends, molecular symmetry, group theory, molecular orbital theory, coordination chemistry, crystal field field, ligand field theory, and the electronic structure of coordination compounds. Three periods lecture/week.

Prerequisite(s): CHEM 363 (may be taken concurrently) or permission of instructor

CHEM 382 - Inorganic Chemistry Laboratory Credits: 1

Involves application of synthetic techniques of isolation, purification, and identification of inorganic compounds and then characterization with a variety of techniques including NMR, CV, FT-IR, UV-Vis, and ESI-MS.

Prerequisite(s): CHEM 381

CHEM 399 - Independent Study in Chemistry Credits: 3

Independent study affords students the opportunity to engage in independent study related to their major field, a supporting area, or specialized interest.

CHEM 420 - Biochemistry II Credits: 3

Extension of CHEM 301. Develops to a greater depth the topics of bioorganic chemistry, enzyme kinetics and mechanisms, intermediary metabolism and metabolic controls, and certain selected topics which are necessary for an understanding of modern biochemistry.

Prerequisite(s): CHEM 301
Graduate Credit: This course is not available for graduate credit.

CHEM 421 - Biochemistry Laboratory Credits: 1

Introduces various laboratory techniques essential to the practice of modern biochemistry including separations, purification, and analytical methods.

Prerequisite(s): CHEM 301 (may be taken concurrently)
Graduate Credit: This course is not available for graduate credit.

CHEM 490 - Selected Topics in Chemistry Credits: 1-3

Opportunity to offer courses in areas of departmental major interest not covered by the regular courses.

Graduate Credit: This course is not available for graduate credit.

CHEM 496 - Introduction to Biochemistry Research Credits: 1

This independent laboratory research course is taken co-current with CHM 421 Biochemistry Laboratory. It includes independent investigations in biochemistry. The time in lab for this portion of the course will be dedicated to independent development of protocols, preparation of solutions, and problem solving independently in a laboratory.

Prerequisite(s): Students must have completed CHM 301 Biochemistry I
Corequisite(s): Students must be enrolled in CHM 421 Biochemistry Laboratory
Graduate Credit: This course is not available for graduate credit.

CHEM 497 - Introduction to Research II Credits: 1-3

Includes original investigations in analytical, organic, physical, biochemistry, or inorganic chemistry. A formal, comprehensive research report and a seminar presentation are required upon completion of these experimental studies. A combined total of a minimum of 2 credits in research courses are required for all chemistry majors expecting American Chemical Society accreditation. Course credit is a variable 1-3 credits per semester. To enroll in research students must have a cumulative GPA of 2.8 and maintain a minimum grade of C in all courses during the research semesters. All seniors applying to do research must have completed the Junior Competency Examination. These courses are restricted to undergraduate students.

Graduate Credit: This course is not available for graduate credit.

CHIN 101 - Beginner's Chinese Credits: 3

This course is designed for students who have little or no previous exposure to Mandarin Chinese and no experience in learning Mandarin Chinese. It aims at developing listening comprehension and basic language skills in speaking and writing using basic structures in contextual settings such as self, school, family, and hobbies. Students will also learn and master the Pinyin pronunciation system and write Chinese characters. The course will be taught in Mandarin Chinese. English will be used when necessary to provide direction and clarify instructional needs. The course is designed following the *ACTFL National Standards. *American Council on the Teaching of Foreign Languages

Category: Interconnections - F

CHIN 102 - Beginner's Chinese II Credits: 3

Chinese102 is a continuation of Chinese 101. It aims to expand existing skills in Mandarin Chinese - speaking, listening, reading, and writing. The course assumes that students have successfully completed Chinese 101 or its high school equivalent, or have other previous exposure to Mandarin Chinese at the Novice level. The course adopts the 5 C's of American Council on the Teaching of Foreign Languages (ACTFL)* as a framework focusing on Communication, Cultures, Connections, Comparisons, and Communities. Specifically, the course concentrates on interactive communication, essential basic grammatical structures, and basic vocabulary and usages. Students learn communicative skills regarding college life, scheduling, making appointments, shopping and travel. *American Council on the Teaching of Foreign Languages

Prerequisite(s): CHIN 101 or 1 year of Chinese in high school
Category: Interconnections - F

CHIN 103 - Intermediate Chinese Credits: 3

Chinese 103 is a continuation of CHIN 102. It aims to expand existing skills in Mandarin Chinese ? speaking, listening, reading, and writing. The course assumes that students have successfully completed CHIN 102 or its high school equivalent, or have other previous exposure to Mandarin Chinese at the Novice High level. The course adopts the 5 C?s of American Council on the Teaching of Foreign Languages (ACTFL)* as a framework focusing on Communication, Cultures, Connections, Comparisons, and Communities. Specifically, the course concentrates on interactive communication, essential grammatical structures, vocabulary and usages. Students learn communicative skills regarding such topics as asking directions, hosting parties, seeing a doctor, renting an apartment, sports and travel. *American Council on the Teaching of Foreign Languages.

Prerequisite(s): CHIN 102 or 2 years of Chinese in high school or permission of instructor.
Category: Interconnections - F

CIVE 110 - Introduction to Surveying Credits: 3

The course introduces the principles and methods for measuring different quantities in the lab and in the field. Students will collect data and then using a CAD tool, such as AutoCAD Civil, create a site plan and then make a presentation of the prepared plan. Students will work in small teams to complete these tasks.

Prerequisite(s): Math placement level 6.

CIVE 200 - Mechanics of Materials Credits: 4

The course provides an introduction to the strength of different materials. Students will learn about different types of stresses, how to analyze and measure those stresses and find the limits of the materials. Students will design and build models to test how well their designs can meet project requirements. 4 credits.

Prerequisite(s): MCAE 200 with a C or better

CIVE 300 - Structural Analysis Credits: 3

Methods for analyzing statically determinate and indeterminate strucures and loads. Course presents methods for analyzing staically determinate loads, including equations of equilibrium, shear-moment diagrams, and influence lines. Course also presents methods of statically indeterminate loads, including approximations, moment-area theorems, conjugate-beam method, Castiglaino's theorem, the force method, and slope-deflection methods.

Prerequisite(s): MCAE 230 with a C or better

CIVE 310 - Design of Steel Structures Credits: 3

The design and behavior of steel structures. Course analyzes the strength and limits of steel members including girders, beams, and columns. The course will also study the behavior and design of different joining techniques, including welding, bolting, and gusset plates. Mixed concrete and steel structures will also be introduced. Students will also learn about relevant safety considerations and code requirements for building steel structures. 3 credits.

Prerequisite(s): CIVE 300 with a C or better

CIVE 320 - Construction Methods and Materials Credits: 3

This course provides an introduction to a variety of construction methods and the amterials used in them. Students learn about the material properties, such as hardness, torsional strength, and tensile strength. Students will also study the long-term mechanical and non-mechanical properties of various building materials and the physical properties that act on them, such as corrosion, cold and work hardening, and fatigue. Students will also study different construction methods and the applicability of materials to those techniques. Students will carry out lab experiements on materials and will work to design and test scale models. 3 credits.

Prerequisite(s): MCAE 230 with a C or better

CIVE 330 - Environmental Engineering Credits: 3

An introduction to topics in environmental engineering. The course provides an introduction to environmental chemistry, air and water pollution, environmental mass and energy balances, and interactions between the air-water interface. The course also studies topics in sustainability, including waste management, risk assessment, and impact human activity has on the environment.

Prerequisite(s): MCAE 220 with a C or better.

CIVE 331 - Hydraulic Engineering Credits: 3

Theoretical and experimental aspects of surface-water flows. Topics include uniform and non-uniform flow, critical, sub-critical, and super-critical flow, gradually varied flow, hydraulic jump, contaminant transport, and channel design.

Prerequisite(s): MCAE 220 with C or better.

CIVE 340 - Reinforced Concrete Structures Credits: 3

Introduces topics related to reinforced concrete structures. Specifically, the different types of loads that they experience including flexure, shear, axial loads, and torsion, strategies for designing using different types of concrete and targeting different types of structures, including beams, columns, and slabs. 3 credits.

Prerequisite(s): CIVE 320 with a C or better

CIVE 350 - Soil Mechanics Credits: 4

Introduces the fundamentals of soil mechanics including the physical properties of soils, compaction, water flow, distribution of stress and loading.

Prerequisite(s): ESSC 110
MCAE 220 with a C or better

CIVE 400 - Construction Project Management Credits: 3

Focuses on the construction project life-cycle, from planning phases through start-up and commissioning. Topics include: procurement, contracts, estimating, and bidding; scheduling and planning techniques; performance measurement and process control. The course also emphasizes site management, safety, risk and value management. Other topics include: contract claims and management, liability, sub-contracting, quality management, benchmarking. 3 credits.

Prerequisite(s): Junior or senior standing (60 or more credits earned).

CIVE 410 - Foundation Engineering Credits: 3

Course studies topics related to design and construction of foundation structures. Topics include: soil parameters, bearing capacity, settlement, and structural design of shallow and deep foundations and retaining walls. 3 credits.

Prerequisite(s): CIVE 350 with a C or better

CIVE 420 - Transportation Engineering Credits: 3

An introduction to transportation engineering. Topics include planning and design to operation of transportation systems. The course will explore the various modes and complexity of various transportation systems as both a human activity and as an
engineering discipline. 3 credits.

Prerequisite(s): Junior or senior standing

CIVE 430 - Project Modeling Credits: 3

Introduction to site data collection and modeling site characteristics. The course also introduces the finite element method for modeling physical system and its application to structural analysis. 3 credits.

Prerequisite(s): CIVE 300 with a C or better

CIVE 436 - Engineering Hydrology Credits: 3

This course focused on engineering applications of the science of hydrology. The course content includes the following topics: Precipitation Data Analysis, Rainfall - Runoff Analysis, Rational Method, Curve Number Method, Unit

Hydrograph, Lumped and Distributed Flow Routing, Reservoir and River Flood Routing, Kinematics / Diffusive / Dynamic Waves, Groundwater, Design Storm/Flow, Watershed Modelling and Hydrologic Design, Risk and Uncertainty Analysis, and Bayesian Decision Analysis.

Prerequisite(s): MCAE 220 with C or better.
Graduate Credit: This course is not available for graduate credit.

CIVE 440 - Water and Wastewater Treatment Credits: 3

This course introduces theory and practice used to treat water into either safe drinking water or wastewater that is safe to reintroduce to the environment. Topics include different types of pollutants, processes to treat those pollutants, and measuring the impacts of those processes on the performance of a treatment system. 3 credits.

Prerequisite(s): CIVE 330 with a C or better

CIVE 450 - Waste Management Credits: 3

Introduces topics around solid and hazardous waste management engineering. Topics include technology for collection and disposal, health and policy issues, regulations, distribution of contamination into the environment, and impacts on public health and safety.

Prerequisite(s): CIVE 330 with a C or better

CIVE 451 - Water and Wastewater Conveyance Systems Design Credits: 3

This course is divided into two intimately related topics that are most relevant to civil and Environmental engineering areas; namely, Water Supply/Distribution Systems and Waste and Storm Water Collection Systems. Students will learn identification and evaluation of design solutions for providing a community with adequate water supply, storage tanks, pumping stations, water resources, water demand forecasting, collecting and disposing of stormwater and sewage, and managing excess stormwater flow.

Prerequisite(s): CIVE 331 and CIVE 436 with C or better.
Graduate Credit: This course is not available for graduate credit.

CIVE 460 - Highway Engineering and Design Credits: 3

Pavement types; Materials used in flexible pavement layers (soil, aggregate, and asphalt); Calculation of Equivalent Standard Axle Loads (ESAL); flexible pavement thickness design, Hot Mix Asphalt (HMA) design; Highway construction operations; highway performance.

Prerequisite(s): CIVE 320
Graduate Credit: This course is not available for graduate credit.

CIVE 499 - Civil Engineering Capstone Credits: 3

The goal of the capstone project is to provide students with an opportunity to work on a real-world engineering project and provide valuable experience to the students. Under the supervision of faculty, students will work on teams with other engineering students to lead the design and development, and ultimately the final approval of the project. 3 credits.

Prerequisite(s): CIVE 320 with a C or better

CMPE 210 - Network Engineering Credits: 3

An introduction to network architectures and engineering. Topics will include network physical media, protocols, software interfaces, routing devices, performance, reliability, and security. Students completing this course will be able to design, build, test, and improve computer networks to meet a variety of goals including cost, reliability, throughput, latency, and security.

Corequisite(s): MATH 225

CMPE 220 - Computer Organization Credits: 4

An introduction into the organization and architecture of CPU, memory, and I/O devices, and the interaction between software and hardware. Topics include assembly language programming, Von Neumann architecture, representing data and instructions in memory, integer and floating point arithmetic in hardware, pipelining, memory systems, caching, the I/O system, and performance analysis. At the end of this course students will be able to write simple and complex programs in Assembly language, convert between C and Assembly, assess performance of a program on a machine, and understand how modern processors achieve multiple instructions per cycle.

Prerequisite(s): CMSC 111 with minimum grade of C or ENGR 120 with minimum grade of C
Corequisite(s): MATH 225

CMPE 230 - Computer Security Credits: 3

An introduction to computer security. Topics will include: access controls, encryption, malicious software, denial of service attacks, intrusion detection, buffer overflow attacks, trusted computing, social engineering, physical security, and penetration testing. Students completing this course will be able to identify different types of cyber- and physical-attacks and the standard methods to prevent, detect, and defend against them.

Prerequisite(s): CMPE 322 with a C or better

CMPE 240 - Digital Logic Design Credits: 4

Data representation, number systems and codes, conversion between number systems, Boolean algebra, logic functions simplification, combinational and sequential logic, flip-flops, counters, registers, multiplexers, decoders, memory devices, programmable logic devices, digital arithmetic, introduction to Hardware Description Language, and basic computer architecture.

Prerequisite(s): ENGR 120

CMPE 310 - Computer Systems Engineering Credits: 3

An introduction to computer systems engineering, with an emphasis on systems administration, computer system design, analysis, and testing. Students who complete this course will design, configure, and build computer systems to meet set goals such as performance, reliability, or cost; and then install, configure, and manage a variety of UNIX and Windows operating systems and critical services.

Prerequisite(s): CMPE 320 with a C or better

CMPE 320 - Operating Systems Credits: 4

A study of operating systems concepts and interfaces, with special emphasis throughout the course on the concept of abstraction and separating mechanism from policy as a design technique. Topics include UNIX shells and common commands, writing shell scripts, important system calls, performance benchmarking, OS impact on program design and performance, processes, multiprogramming, multiprocessing, threading, scheduling, process isolation, inter-process communication, mutual exclusion, deadlock detection and avoidance, file system design, permissions and protections, and RAID. At the end of the course, students will be able to describe the importance of abstraction as a design pattern, and use it to explain the organization of OS components, interact with the UNIX shell and write shell scripts, and write programs using important system interfaces, understand the performance impact of making system calls, and independently find sources to guide their future development.

Prerequisite(s): CMPE 220 with minimum grade of C

CMPE 322 - Microcontrollers & Interfaces Credits: 4

An introduction to microcontroller programming and interfacing. Topics include: architecture of microcontrollers, mechanics of mapping voltages to logic signals, building a proper device abstraction layer, writing quality code, compliance with MISRA-C and other standards, GPIO, interrupts, timers, I2C, SPI, RS232, controller motors and servos, analog to digital conversion, displays, speakers, microphones, acting as a USB device, and designing complete embedded systems involving microcontrollers. Students should have a basic understanding of circuits, voltage, current, resistors, and capacitors.

Prerequisite(s): CMPE 220 with minimum grade of C and students should have at least basic knowledge of electronics

CMPE 330 - Advanced Computer Architecture Credits: 3

An advanced continuation of computer organization, this class will cover topics including Intel assembly language, high-performace computing with GPGPU/CUDA and OpenCL, an introduction to distributed processer systems and super-computers using MPI, and emerging architectures such as quantum computing.

Prerequisite(s): CMPE 220 with a C or better

CMPE 411 - OS Design and Implementation Credits: 4

This course explores the design and implementation of operating systems. Topics include designing interfaces between hardware and application systems, creating layers of abstractions to extend lower-level services, bringing a CPU from POST to regular operation, development of device drivers and other services within the kernel, context switching, interrupt handling, building character and block drivers, deferred operations, memory mapping and DMA arbitration. By the end of the course, students will have written a primitive operating system, understand the device abstraction layer and how to integrate a device into it, and built device drivers for Linux and Windows.

Prerequisite(s): CMPE 320 with a C or better

CMPE 412 - Networks and Computer Security Credits: 4

Topics include encryption, symmetric and public key algorithms, key distribution, access controls, digital signature, authentication, malicious software, intrusion detection, social engineering, network physical media, types of networks and internetworks, data link layer, application layer, transport layer, network protocols, and network security.

Prerequisite(s): CMPE 220

CMPE 420 - Digital and Reconfigurable Computing Credits: 4

An introduction to high-speed and reconfigurable computation using FPGAs. Topics include behavioral HDL modeling, simulation, and testing; developing peripherals to interface to a variety of devices such as RS232 and I2C; developing computational elements to off-load computing tasks from the CPU; direct memory access (DMA) and bus-mastering; generating and handling interrupts; mixed PS-PL interactions; prototyping circuits in an FPGA; and converting a design to a VLSI ASIC.

Prerequisite(s): CMPE 330 with a C or better

CMPE 499 - Engineering Design & Development Credits: 2

This is the integrated engineering capstone course that is shared between computer, electrical, and mechanical engineering students. Students will work together in teams to build requirements, design, build, and test an electro-mechanical component or system. Project topics vary every semester, although there is usually an external customer that will work with students. The instructor of record for the course serves as the project manager, assessing the individual and team performance, and students will be assessed on their ability to act as a professional working in the field. The course meets for 2 credit hours per week reflecting the amount of time the students will meet as one collective group with the faculty, but students should expect to work substantially more hours with their team, outside of class. Graduate students are not permitted to take this course.

Prerequisite(s): Senior standing in CMPE, ELEC, or MECH majors
Graduate Credit: This course is not available for graduate credit.

COMM 111 - Media Literacy Credits: 3

This course explores the structure and functions of the mass media in the United States to help students become more critical media consumers and more responsible, informed citizens. The course introduces students to the history and operation of various media industries, as well as the mass media's roles, ethical responsibilities and First Amendment protections in a democratic society. Students will examine the mass media's cultural, political and economic influence, including the ways in which they, as media producers and consumers, can use the tools of mass communication to address individual and collective issues.

Category: Citizenship & Responsibility - S

COMM 112 - Media Writing Credits: 3

Introduces the variety of mass communication mediums students may encounter in their professional careers. Focuses on preparation and presentation of various mass communication formats. Examines message construction, framing and interpretation from the perspective of print and electronic media, public relations, and advertising. Study of grammar, spelling, and Associated Press news style also a focus. A proficiency exam will be given during the semester. Students must pass the proficiency test with a C or better to pass the course.

COMM 190 - General Education Special Topics Credits: 3

Opportunity to offer courses in areas of departmental general education interest not covered by the regular general education courses.

COMM 201 - Principles of Public Relations Credits: 3

Introductory course dealing with role and function of public relations in society. Emphasizes the application of theory and principles to the practice of public relations.

COMM 224 - Media Scriptwriting Credits: 3

This is a required Broadcast Media Production concentration course in which students write and design content for radio, television, documentary film and the Internet, including news, commercials/promotions, documentary films, and/or public service announcements. The course provides students with the knowledge and skills necessary to become part of a media production team. Students will learn and apply writing and design skills necessary to successfully participate in upper-division production courses, qualify for internships, and assist in student media productions.

Prerequisite(s): COMM 111 and COMM 112 with minimum grade of C.

COMM 241 - Public Relations Writing I Credits: 3

Provides public relations majors with a variety of public relations writing experiences most likely to be encountered in business, government, education, journalism, and community organizations and offers practical exercises in progressive sequence. In addition to helping students develop strong writing skills, the course will review basic public relations principles that practitioners use to reach audiences through mass media.

Prerequisite(s): COMM 112 with minimum grade of C

COMM 245 - Diversity and the Media Credits: 3

Focuses on the diverse nature of mass media and the legal and ethical issues raised by race-, class- and gender-related representations of individuals and groups by the media. The course examines media's influence on various populations within the United States as well as globally. The course develops students' critical thinking skills in regard to message framing, message interpretation, and message presentation.

Category: Interconnections - D

COMM 251 - Media Studio Production Credits: 3

This is an intermediate-level course designed for students entering the field of media production and to be exposed to the techniques and purpose of various television studio productions through direct hands-on experience. The course will offer students the opportunity to explore the many facets of television studio production through a variety of projects and exercises.

Prerequisite(s): COMM 284

COMM 252 - Digital Media Tools Credits: 3

In this course students will learn to produce compelling stories through various digital mediums, gaining experience and practice using apps in the classroom and in the field. COM 252 will expose students to a suite of tools employed in contemporary media reporting, editing, design and delivery. The course is intended to give students the confidence to tell stories in any digital medium so that students can, in effect, "learn how to learn" any new technology or medium, should they need to use it for journalism or public relations.

COMM 260 - Visual Literacy Credits: 3

Visual literacy is the ability to interpret, negotiate and make meaning from information presented in the form of an image. COM 260 focuses on the theories and concepts of visual literacy and visual communication, two areas of importance for communication professionals. It explores the changing nature of visual content and the impact of visual communication in print, broadcast, web and social media. Readings and class assignments will provide students with

the knowledge to effectively communicate the meaning of different types of images in journalism (print, broadcast, Internet and social
media), public relations and advertising.

Prerequisite(s): COMM 111 and COMM 112 with minimum grade of C or permission of instructor.

COMM 284 - Basic Media Production Credits: 3

This course is a required department course in which students learn the key elements of the media production process. The course provides students with the knowledge and skills necessary to become part of a media production team. Students will learn basic production equipment and software that will enable them to work on projects within their own emphasis whether it may be media production, public relations, journalism or visual media.

Prerequisite(s): COMM 111 and COMM 112 with a minimum grade of C

COMM 285 - Basic News Reporting Credits: 3

Introduces students to ways journalists select and process news and information. Introduces students to long-form (print and online) and short-form (broadcast) journalistic writing. Explores different story structures and the various forms of newswriting journalists use in producing content for multiple platforms for print, online, broadcast and social media. Explores newswriting and reporting skills needed in interviewing sources to gather, analyze, synthesize and disseminate information. Provides in- and out-of-class writing experience.

Prerequisite(s): COMM 111 and COMM 112 with minimum grade of C

COMM 290 - Advertising Copywriting Credits: 3

Emphasis on writing advertising copy and headlines. Also examines design and layout for print and electronic media.

Prerequisite(s): COMM 112 with minimum grade of C

COMM 293 - News Editing & Design Credits: 3

Introduces students to the basic principles and techniques of news editing and design. Students will learn how to select and edit news stories, photos and video for multiple platforms, including print, radio, television, the Internet and social media. Students also will learn the fundamentals of page design and headline writing.

Prerequisite(s): COMM 285

COMM 294 - Social Media Strategy Credits: 3

Introduces students to a variety of social media platforms and the ways in which they may be used by communication professionals for information gathering, reporting, publicity, promotion and audience engagement. Examines basic practices and principles of social media planning, content creation and analytics.

Prerequisite(s): COMM 111 and COMM 112 with minimum grade of C.

COMM 305 - Sports Journalism Credits: 3

In Sports Journalism, students will first explore the history and role of sports journalism and develop a working knowledge of the cultural, legal and ethical issues related to sports journalism. Second, students will use this

knowledge to learn and apply the fundamentals of gathering, organizing, evaluating, and writing information to produce effective sports headlines, summaries and stories for publication in various media formats (print, broadcast and online).

Prerequisite(s): COMM 111 with minimum grade of C and COMM 112 with minimum grade of C and COMM 245 with minimum grade of C (may be taken concurrently)

COMM 335 - Media Advertising and Sales Credits: 3

Examines sales function of advertising in commercial media including newspapers, magazines, radio, television, and the Internet. Theory and practical application in media advertising, sales, and research are explored. Media competitive advantages and disadvantages as well as sales techniques of each mass medium discussed.

Prerequisite(s): COMM 111 with minimum grade of C and COMM 112 with minimum grade of C

COMM 342 - Public Relations Writing II Credits: 3

This course will help future public relations and corporate communications professionals develop an in-depth understanding of how to interview, write, edit, and pitch story ideas, as well as package information for multimedia platforms. Emphasis will be given to strategic aspects of PR writing and development of writing and editing skills for a wide variety of public relations vehicles. Students will practice work on writing speeches, op-ed articles, white papers, press kits, and special event packages.

Prerequisite(s): COMM 241

COMM 345 - Media Law Credits: 3

Familiarizes students with the laws and regulations governing the mass media in the United States. Deals with fundamental legal topics, including libel, privacy, obscenity, free press/fair trial, copyright, and the regulation of broadcasting and advertising. Explores seminal U.S. Supreme Court and lower court rulings that have had an impact on the application of the First Amendment and the rights and operations of the mass communication professions as well as society at large.

Prerequisite(s): COMM 111 with minimum grade of C and COMM 112 with minimum grade of C and junior standing.

COMM 351 - Media Field Production Credits: 3

This course is designed to produce visual storytellers, a term that describes single-camera videographers who link pictures, words, and sounds to create stories that communicate a sense of experience to their audience. This course will create, develop, and polish the skills and techniques needed by students to produce video news reporter packages, documentaries, corporate video projects, and/or commercial video productions. These skills and techniques include telling the visual story without words; writing & shooting long-form TV stories, interviews, and features; learning visual grammar; perfecting video editing; and developing on-camera performance abilities.

Prerequisite(s): COMM 224 and COMM 284

COMM 360 - Basic Digital Photography Credits: 3

Introduces principles of digital photography and teaches basic competencies to produce digital photographs in color and black-and-white. Students study history of photography; the camera and its functions; the techniques of

photographic composition, exposure, and light; and digital image editing techniques using Adobe Photoshop. Developmental assignments are designed to teach how to take photographs for effective visual communication. Practical application of digital printing techniques also is covered in the course. Students are expected to develop an understanding of the relationship of photography to their professional goals.

COMM 362 - Photojournalism Credits: 3

For students who have an understanding of basic photographic equipment and photographic techniques. Examines and explores use of visual communication techniques in print media and websites. Covers history of photojournalism, technical aspects of photojournalism, and modern visual communication production techniques in both traditional and digital formats. Assignments designed to teach how to produce and edit visual elements and combine them with text for both print and web-based publications.

Prerequisite(s): COMM 360 or permission of instructor.

COMM 375 - Advanced News Reporting Credits: 3

Explores the journalistic process of beat reporting for gathering information for dissemination on multiple platforms. Provides instruction in methods of reporting about government and politics; law enforcement and the courts; public and higher education; labor, business, finance, and the economy; arts and entertainment; sports; science and technology; and other "beats." Students will participate in actual news gathering assignments at government meetings, police briefings, court proceedings, educational meetings and other out-of-class opportunities to explore the process of public affairs reporting.

Prerequisite(s): COMM 285

COMM 381 - Promotional Publication Design Credits: 3

Offers writers and designers study in print and web-based communication with primary emphasis on desktop publishing (Macintosh) and web-based publishing (DreamWeaver and other web software). Examines practical application of basic contemporary design to printed and web-based materials such as newsletters, booklets, pamphlets, and advertising messages.

Prerequisite(s): COMM 111 with minimum grade of C and COMM 112 with minimum grade of C

COMM 389 - Internship Communications/Journalism Credits: 3

Internship of three credit hours can be earned for serviced in an approved field. Qualifications include junior or senior class standing; 2.5 or higher QPA overall and 3.0 in the major; completion of at least five courses in the major, including courses necessary for successful work in the internship position; completion of a written analysis of the experience as prescribed by the faculty supervisor; approval of the communication/journalism faculty. Applications must be processed in advance through the Department of Communication/Journalism.

Prerequisite(s): Requires junior standing and departmental permission.

COMM 392 - Selected Topics in Communication, Journalism & Media Credits Credits: 3

Opportunity to offer courses in areas of departmental major interest not covered by the regular courses.

Prerequisite(s): Requires junior standing.

COMM 394 - Selected Topics in Communication, Journalism & Media Credits Credits: 3

Opportunity to offer courses in areas of departmental major interest not covered by the regular courses.

Prerequisite(s): Requires junior standing.

COMM 395 - Internship I Credits: 1-6

Internship of three credit hours can be earned for serviced in an approved field. Qualifications include junior or senior class standing; 2.5 or higher QPA overall and 3.0 in the major; completion of at least five courses in the major, including courses necessary for successful work in the internship position; completion of a written analysis of the experience as prescribed by the faculty supervisor; approval of the communication/journalism faculty. Applications must be processed in advance through the Department of Communication/Journalism. Requires junior standing and departmental permission to enroll.

COMM 396 - Internship II Credits: 1-6

Internship of three credit hours can be earned for serviced in an approved field. Qualifications include junior or senior class standing; 2.5 or higher QPA overall and 3.0 in the major; completion of at least five courses in the major, including courses necessary for successful work in the internship position; completion of a written analysis of the experience as prescribed by the faculty supervisor; approval of the communication/journalism faculty. Applications must be processed in advance through the Department of Communication/Journalism. Requires junior standing and departmental permission to enroll.

COMM 399 - Independent Study in Communication, Journalism & Media Credits: 3

Independent study affords students the opportunity to engage in independent study related to their major field, a supporting area, or specialized interest.

COMM 401 - Film in the Contemporary World Credits: 3

This course reviews the economic, political and social aspects of the storytelling process in films. Though students are exposed to the various components of the filmmaking process, more importantly, they are taught how to analyze, critique and theorize contemporary narrative, documentary and global films. Students are expected to apply these concepts to discussions and various writings assigned in the course.

COMM 405 - Brand Journalism Credits: 3

More businesses and organizations are becoming media creators, producing original blogs, videos, digital and print magazines, and other content. Brand journalism (also called content marketing) has quickly become a ubiquitous presence on the media landscape. Brands and content strategists frequently hire journalists to create this content, as they have strong news judgment, conduct solid research and reporting, and write what readers want and need. Public relations professionals may work on strategy, research, social media and content creation. In this course, students will learn how to apply journalistic techniques and practices to create original multimedia content and develop strategies for companies, nonprofits and brands. Students can expect to analyze and compare brands and their content, create customer personas and editorial calendars, write original blog and social media posts, design storyboards and more.

Graduate Credit: This class is available for graduate credit.

COMM 410 - Women and the Media Credits: 3

Introduces overview of the many and varied contributions of women in mass media. Through slide lectures, documentary videos, and student research presentations, students explore the lives and work of women media professionals, explore some of the notable historical obstacles to women in this once male-dominated field: sexist attitudes, stereotypes, lack of women in management, and conflicts between job and family. Also examines the ethnic diversity of women in this important professional field. Will explore how women's style and vision differs from their male counterparts.

Prerequisite(s): COMM 111 with minimum grade of C and COMM 112 with minimum grade of C) or permission of instructor.
Graduate Credit: This course is available for graduate credit.

COMM 424 - Media Producing & Performance Credits: 3

This course serves as the culminating experience for students in the Media Production concentration and includes a professional project. Develops skills in both production and on-air performance for television, along with an understanding of how each area affects the other. Students will develop news judgment in selecting information to place before an audience, further develop writing skills introduced in COMM 285 and COMM 224, learn production formatting and style, learn the specialized professional language of television production, understand and apply legal and ethical obligations and limits of a television producer. Students will produce a live television program during the course.

Prerequisite(s): COMM 224 or COMM 285 and COMM 284. Seniors only.
Graduate Credit: This course is not available for graduate credit.

COMM 425 - Feature Writing Credits: 3

Deals with specialized writing for newspapers and magazines and offers instruction and practice in developing ideas for articles, using research methods, and writing for mass audiences. Keyboarding skills required.

Prerequisite(s): COMM 111 with minimum grade of C and COMM 112 with minimum grade of C) or permission of instructor.
Graduate Credit: This course is available for graduate credit.

COMM 432 - Public Relations Research and Campaigns Credits: 3

Explores the theory and philosophy of promotion as it pertains to public relations. Examines basic quantitative and qualitative research methods (survey, content analysis, focus group, etc.) that can be used effectively to design a campaign plan. Explores the various components of a public relations campaign plan, which students will draw upon to produce a public relations campaign for a corporation or non-profit organization. This plan will be the assessment vehicle for professional performance in the PR emphasis. Not open to graduate students.

Prerequisite(s): COMM 201 and COMM 241
Graduate Credit: This course is not available for graduate credit.

COMM 445 - Media Ethics & Professionalism Credits: 3

The Communication, Journalism & Media Department expects every student leaving the undergraduate program to have excellent speaking, writing, listening and reading skills. It also expects every student to have a clear understanding of the ethical principles that guide decision making in the professional world. Additionally, the bachelor's degree tells others about every graduate's demonstrated leadership capacity, chosen professional identity and ability to adapt to changes in the communication professions. This course is designed to develop students' understanding of ethical guidelines through examination of case studies and learn to think critically about the decision-making process in mass

communication. The course also gives students the opportunity to showcase the skills acquired during their four years in the program. The course has three primary components: the full appreciation and understanding of media ethics, an understanding of and appreciation for professionalism, and the development of a digital portfolio to showcase their skills to potential employers.

Prerequisite(s): Restricted to undergraduate majors in their senior year.
Graduate Credit: This course is not available for graduate credits.

COMM 460 - Case Studies in Public Relations Credits: 3

Reviews current public relations principles and practices as related to business, governments, institutions, and associations. Examines the application of PR principles and practices in the management of contemporary public issues and problems. Different evaluation criteria applied to graduate/undergraduate students.

Prerequisite(s): COMM 111 with minimum grade of C and COMM 112 with minimum grade of C) or permission of instructor.
Graduate Credit: This course is available for graduate credit.

COMM 465 - Documentary Storytelling Credits: 3

This course introduces students to storytelling in documentary film. Students will learn basic principles of documentary film storytelling with an emphasis on the aesthetic, intellectual and ethical considerations involved in this cinematic form. Traditional writing, form, style and structure in documentary film will be stressed; however, students may explore new creative forms of documentary storytelling for their final project.

Graduate Credit: This course is available for graduate credits.

COMM 470 - Advanced Digital Photography Credits: 3

Introduces principles of advanced digital photography and teaches competencies in areas such as photographic composition, exposure, and lighting. Students explore practical applications of advanced photographic techniques in RAW and high dynamic range (HDR) photography. Students also learn advanced techniques in photographic lighting for natural and studio applications. Developmental assignments cover techniques in various types of photography, such as portrait; fashion and bridal; still life and product/promotion; nature and wildlife; sports and action; and architectural photography. The course explores advanced digital manipulation techniques through application of Adobe Photoshop. Students are expected to develop an understanding of the relationship of digital photography to their professional goals. Graduate students enrolled in the course must conduct original research on a topic related to visual communication. Different evaluation criteria are applied to graduate/undergraduate students.

Prerequisite(s): COMM 360 or permission of instructor.
Graduate Credit: This course is available for graduate credit.

COMM 476 - Magazine Media & Design Credits: 3

Provides opportunity to examine, discuss, and create periodical publications (magazines) in a variety of specialized formats. Develops skills in understanding and creating periodical publications by focusing on writing and design. Examines a variety of magazines to provide an understanding of content, typography, design, layout, and production. Students learn to create promotional materials necessary to develop audience for periodical publication. Students write and edit several stories for their own publication, which is final course project. Students produce a 32-page magazine as this final project. Graduate students conduct market research analysis and a strategic promotional plan in addition to standard coursework.

Prerequisite(s): COMM 111 with minimum grade of C and COMM 112 with minimum grade of C) or permission of instructor.
Graduate Credit: This course is available for graduate credit.

COMM 478 - Digital Journalism Credits: 3

This course is a senior-level experiential class for students in the Journalism concentration and includes developmental projects as well as a final professional project. It focuses on the changing nature of technology and its use in news organizations to gather, analyze, synthesize and disseminate information. Focuses on developing, researching, and writing specialized stories for newspaper, magazine, television and radio websites and social media. Students learn to approach stories as packages, developing story ideas that can be presented in written, audio, and video formats. Focuses on writing and editing, written narrative, blogging, podcasting, live tweeting, and capturing and editing digital audio and digital video segments, developing accompanying links, and designing a story package to be presented in print, on a website and on social media.

Prerequisite(s): COMM 285, COMM 293 and COMM 375. Seniors only; graduate students with approval of instructor
Graduate Credit: This course is available for graduate credit.

COMM 481 - Interactive Media Design Credits: 3

This course primarily deals with digital and interactive design techniques for multiple-platforms with emphasis on web design. It also includes lessons on how to format a web-based publication for mobile and digital pads, how to create basic interactive online advertisements and slideshows; and how to design interactive promotional publications.

Graduate Credit: This course is available for graduate credit.

COMM 482 - Web Content Management Credits: 3

This course helps you build foundations for how to create, populate, edit, design, and promote your website. Students will learn about Content Management Systems (CMS) in this course. Students will acquire an understanding of what a CMS is and how it works. Students will create websites and personalize them; work with blocks to understand settings and menu options; learn about illustrations and how to use graphic elements correctly; edit blocks/page content and posts; and learn to promote web content by using the links function to connect with relevant social media sites.

Prerequisite(s): COMM 111 with minimum grade of C and COMM 112 with minimum grade of C) or permission of instructor.
Graduate Credit: This course is not available for graduate credit.

COMM 483 - Issues in Media Management Credits: 3

Many job roles today are facing unique leadership challenges in an increasingly digitized and globalized context. This is especially true of the mass media. From journalism and public relations to advertising and other communication roles - newer technologies, shrinking workforces, and the convergence of multiple media platforms have meant employees have to not just learn new tools, but also get better at social networking, dealing with diversity issues at the workplace, and understanding why employees resist change. At the same time, media professionals at all levels are experiencing more decision-making latitude. As start-ups and smaller organizations become the norm, leadership positions are thrust upon employees at a much earlier stage in their careers. Communication strategies will play a key role in negotiating many of these challenges. This course prepares students for possible decision-making challenges, communicating effectively to address emerging challenges, and team training in a media organizational context.

Graduate Credit: This course is available for graduate credits.

COMM 484 - Media Programming Credits: 3

Provides students with insights into the programming of local TV and radio stations; local cable TV systems; national TV, radio, and cable TV networks; national DBS, DTH, and wireless cable services; and international Internet program providers. Emphasis on issues involving program creation and development, program scheduling, program distribution, and audience evaluation of programs.

Prerequisite(s): COMM 111 and COMM 112 with gades of C or better or permission of instructor.
Graduate Credit: This course is available for graduate credit.

COMM 490 - Selected Topics in Communication, Journalism & Media Credits: 1-3

Opportunity to offer courses in areas of departmental major interest not covered by the regular courses. Requires junior standing to enroll.

Graduate Credit: This course is available for graduate credit.

COMM 491 - Selected Topics in Communication, Journalism & Media Credits: 1-3

Opportunity to offer courses in areas of departmental major interest not covered by the regular courses.

Prerequisite(s): Requires junior standing.
Graduate Credit: This course is available for graduate credit.

COMM 492 - Selected Topics in Communication, Journalism & Media Credits: 1-3

Opportunity to offer courses in areas of departmental major interest not covered by the regular courses.

Prerequisite(s): Requires junior standing.
Graduate Credit: This course is available for graduate credit.

COMM 493 - Selected Topics in Communication, Journalism & Media Credits: 3

Opportunity to offer courses in areas of departmental major interest not covered by the regular courses.

Prerequisite(s): Requires junior standing.
Graduate Credit: This course is available for graduate credit.

COMM 494 - Selected Topics in Communication, Journalism & Media Credits: 3

Opportunity to offer courses in areas of departmental major interest not covered by the regular courses.

Prerequisite(s): Requires junior standing.
Graduate Credit: This course is available for graduate credit.

COST 100 - Introduction to Human Communication Credits: 3

A performance based comprehensive course that advances communication competence through knowledge of theory in application to communication skills. Emphasis is placed upon developing citizenship, cultural mindfulness and ethical choices through practice in listening, verbal and nonverbal communication, interpersonal, small group, and public

speaking contexts. Students interact with diverse populations and acquire communication skills transferrable to their personal, professional, and student lives.

Category: Foundations - O

COST 125 - Survey of Communication Studies Credits: 3

Surveys the academic field of human communication with attention to the various contexts in which communication is experienced, and the cultural influences in the production and evaluation of communication across all contexts. The course introduces students to the discipline, establishes the social scientific approach to the study of communication, and extends the understanding of human communication across academic, personal, and professional contexts. It is intended to provide a depth of knowledge in the General Education Program, and is encouraged for those considering the major or minor.

Category: Citizenship & Responsibility - R

COST 190 - General Education Special Topics Credits: 3

Opportunity to offer courses in areas of departmental general education interest not covered by the regular general education courses.

COST 191 - General Education Special Topics Credits: 3

Opportunity to offer courses in areas of departmental general education interest not covered by the regular general education courses.

COST 200 - Human Communication Theory Credits: 3

A research/writing intensive fundamental examination of human communication from a theoretical perspective. Included are explorations into theories of the processes, myths, effects, ethics, and criticism of this pervasive phenomenon. Students analyze interpersonal, group, public, cultural, gender-based, and mass communication theories to discover how they become vital to explaining daily living and interactions. Students begin to understand the underpinnings of theories that are the foundation and guidelines of the discipline. Must be a declared human communication major or minor to enroll.

Prerequisite(s): COST 125 with minimum grade of C

COST 210 - Public Speaking Credits: 3

A performance based course emphasizing the preparation and delivery of speeches to proximate and remote audiences. Advanced instruction is given and practice provided in logical organization of the speech and analysis of the audience, the speaker, the occasion and the topic. Must be a declared, major or minor in Human Communication Studies to enroll.

Prerequisite(s): Restricted to HCS majors/minors.

COST 220 - Nonverbal Communication Credits: 3

A performance based course designed to familiarize the primary concepts and the body of literature relating to nonverbal communication. Approached from a theoretical examination relating to the functional and practical

constructs of nonverbal communication. Students will acquire an understanding of nonverbal cues, how they impact interactions, and will stress improvement of communication skills.

COST 225 - Communication and Sport Credits: 3

Sport permeates communication and communication is the essential vehicle for the accomplishment of sport. In this course, we examine the ways in which everyone even those who disdain athletic endeavors comes to know and rely on sport in language, metaphor, and mythology. This analysis adopts a critical/cultural lens, through which issues of sex/gender, race/ethnicity, (dis)ability and nationality inform our communication about sport, and where communication about sport may be influenced and shown to have significant effects on participants and communicators. This exploration will provide the foundation for in-depth study of the many contexts in which communication and sport are intrinsically bound, including the expression of sport fan identity, interpersonal (player-player, player-coach) communication, small group/team communication, and organizational communication.

COST 230 - Small Group Communication Credits: 3

Experiential perspective, combining theory and practice, into the study of group experiences. Topics include group formation, decision-making, roles and leadership, conflict, risky shift, and groupthink. Students gain understanding and build skills through practical application of these topics.

COST 241 - Practicum in Experiential Learning Credits: 1

The practicum in experiential learning (COST) is designed to engage students in activities aligned with their future career goals. Students will participate in co-created activities that demonstrate the application of human communication theories, concepts, and critical thinking relevant to the student's area of interest. Students will collaborate with faculty to select activities that further develop communication skills while developing professional experiences designed to enhance career opportunities.

With faculty approval, practicum students are afforded the opportunity to gain experience within their major, participate in on-campus anti-racist--civic engagement fora and debate opportunities; coach and mentor in the Speech and Communication Center at Shippensburg University, and serve as a representative at departmental and university events. Students will gain both applied and academic experiences in the areas of outreach, civic engagement and forensics, coaching/mentorship, professional development, social capital, and computer mediated communication (CMC) through campus-based internal and extracurricular activities. Students are required to work 40 hours per credit hour each semester and complete skills reports throughout and at the end of the semester. Students will earn one credit per semester, up to THREE practicum credits.

Upon completion of the semester's practicum, students will produce an electronic portfolio and report detailing the application of the acquired skills.

Prerequisite(s): COST 200

COST 250 - Interpersonal Communication Credits: 3

A performance based course focused on communication theories, processes, and outcomes in dyadic interaction. This course develops critical thinking and interpersonal communication skills through discussion and application of significant theories relevant to relational formation, development, change, maintenance, and termination in a variety of contexts. This course incorporates presentations, case studies, and experiential learning to support theory-based skill acquisition.

COST 260 - Computer-Mediated Communication Credits: 3

A twofold approach to computer-mediated communication technology and its impact on human communication with the following objectives: (1) familiarization with and discussion of different forms of computer-mediated communication and their impact on various communicational and societal contexts (interpersonal communication, group communication, intercultural communication, organizational communication, social networking, education, commerce and miscellaneous other areas); (2) application and/or creation of popular computer-mediated communication tools such as basic HTML, webpage design, the web form, basic audio and video editing tools, social media, and certain prominent instructional and presentational technologies.

Prerequisite(s): COST 125

COST 265 - Interviewing Credits: 3

Practical approach to the information exchange process. Students participate in information-gathering and information-giving interviews. Skill development in this performance-based course emphasizes interviews in employment, and as a form of data collection, persuasion, and feedback. Students explore a variety of interview contexts and appropriate written instrumentation for each category.

COST 270 - Intergroup/Intercultural Communication Credits: 3

This performance-based course investigates the processes through which the elements of communication and culture are mutually reinforcing. Students will identify the manner in which cultural values and norms permeate discourse, and analyze the role of communication in (re)creating culture. Special emphasis is place on nonverbal and verbal communicative interaction between members of disparate cultural traditions in order to develop cultural awareness (of the self and other), knowledge, appreciation, and skills essential to intercultural communication.

COST 275 - Special Topics in Communication Skill Credits: 3

A performance-based course that investigates selected contexts in which interpersonal communication is of interest. Selected Topics will allow students to apply Interpersonal Communication theories and concepts to the analysis and practice of communication in an area of recent development, new faculty interests, or emerging student concern. Selected Topics courses will require case studies, dyadic presentations, and additional modes of performance. Topics may include, but are not limited to: Friendship, Family Communication, the "dark side" of interpersonal communication, Doctor-Patient interaction, and so on.

COST 310 - African-American Communication Credits: 3

A performance-based exploration of body of oral discourses, styles, and traditions of African-Americans. Students will discover a foundation for understanding the nature and power of the spoken word, develop appreciation for communication theory through the rhetoric of resistance to the human communication of oppression, and explore Afrocentric communication theory and African-American rhetoric.

COST 315 - Asian-American Communication Credits: 3

A performance-based course examining the cultural heritage of Asian American ethnic groups and the communication patterns that emerge based on this cultural heritage. Students will explore the similarities and differences of Asian American communicative experiences inside the United States in order to get a better understanding of the relationships among ethnicity, ethnic identity, generation, and communication.

COST 325 - Voices of Black Anti-Racism and Resistance Credits: 3

A research, writing-intensive, and discursive course that emphasizes bibliographical, historical, and the contemporary critical analyses of significant speeches, lyrics, movements, and other artifacts by African-Americans.
Students will examine, the narratives of enslaved people, artifacts from the Antebellum period, Civil Rights, Black Power, Black Lives Matter, and Anti-Racist movement. Emphasis is placed on public address, social movement rhetoric, music, Hip Hop culture, intersectional perspectives, and images of African Americans historically to the present.

COST 330 - Special Topics in Cultural Perspectives Credits: 3

A performance-based course that investigates selected contexts in which cultural perspectives of communication are of interest. Selected Topics will allow students to apply theories and concepts specific to culture in communication to the analysis and practice of communication in an area of recent development, new faculty interests, or emerging student concern. Selected Topics courses will require case studies, dyadic presentations, and additional modes of performance. Topics may include, but are not limited to co-culture communication patterns, culture and nonverbal communication, LGBTQA communication, (dis)ability, and aging.

Prerequisite(s): COST 270 with minimum grade of C

COST 333 - Communicating Identity Credits: 3

This writing-intensive seminar course examines identity from the standpoint of human communication, which maintains that identity is (in)formed and (re)produced through communication. The course includes an examination of theories of identity in communication studies, and places emphasis on how features of identity (including sex/gender, race/ethnicity, age, ability, sexual orientation, etc) are communicated interpersonally, in groups, and through the mass media.

COST 335 - Popular Culture and Gender Construction Credits: 3

This performance based course examines the influence of different forms of popular culture, such as film, music, fashion, and sport on the construction of gender ideals in a particular culture. As part of the course, students explore theories that explain how popular culture is formed generally, and focus on the ways females and males are portrayed in specific images and roles specifically. In this process, the changes in images and roles with regard to gender, including androgyny, are also considered.

COST 340 - Gender and Communication Credits: 3

A course that explores messages about sex, gender, and communication. This course investigates the similarities and differences in the ways humans communicate 'sex' and 'gender' and considers the socializing agents that may influence the manner in which we communicate. In addition, students in this course explore how gender is both created through communication and communicated in interactions. Students may select communication theories or levels of interaction to explore how gender is communicated, and consequently constructed and performed, including (but not limited to) personal relationships and groups, the workplace, education, and mass media.

COST 342 - Health Communication Credits: 3

A course designed to investigate the nature of health communication through theory, research, and skills associated with communicating in various health-related contexts. More specifically, students analyze communication messages among and between patients, providers, family caregivers, healthcare organizations, and communities. This class examines the sociohistorical, intrapersonal, interpersonal, intergroup, organizational, intercultural, and generational communication with all aspects of health so that students may become more mindful, educated, and effective health communicators.

COST 343 - Communication and Humor Credits: 3

A theory-based course focused on examining humor as communication. The course overviews classical and modern theories of humor, communicative functions of humor, and current research. The course offers general knowledge about the nature and communicative effects of humorous messages.

Prerequisite(s): COST 200

COST 344 - Family Communication Credits: 3

A course focused on issues related to family interaction, functioning, relationships, and communication. Research and theories from communication, sociological, and psychological perspectives will be examined. Readings and discussions will include coverage of marital, parent-child, sibling, and intergenerational interactions in the family. Research on topics such as marital satisfaction, divorce, courtship, and the impact of the family on its children (and vice versa) will be examined. The nature of family interaction will also be focused on as it is associated with family dysfunctions such as family violence, mental health problems, and marital distress.

COST 345 - Environmental Communication Credits: 3

This course is centered on the rhetorical construction and communication of interrelated issues pertaining to sustainability and environmental movements. Specifically, with a communication approach, we shall explore the roles and functions of communication in media presentation, strategies of public participation, awareness campaigning, and personal embodiment of principles of environmentalism and sustainability.

COST 350 - Theories of Organizational Communication Credits: 3

Combines theory and application. Theoretically, students analyze different perspectives on organizational theory; communication, relationships, and media within the organization; dynamics of organizational culture; and strategic communication and public relations. In terms of application, students analyze real-life case studies of organizational communication, and develop and simulate resolutions to the cases.

COST 351 - Special Topics: Comm Contexts Credits: 3

A performance based course that emphasizes communication within selected contexts or applications. Selected Topics in Communication Contexts will allow students to apply theories and concepts to the practice and evaluation of communication in an area of recent development, new faculty interest, or emerging student concern. Selected Topics in Communication Skills may require individual, dyadic, and group presentations, and additional modes of performance.

COST 352 - Argumentation & Debate Credits: 3

A performance-based, research-intensive course that incorporates analysis of forms of reasoning, ethics, use of evidence, refutation, and style in the development of argument. Designed to develop research, critical thinking, and persuasive speaking ability. Includes study of debates and participation in classroom debates involving vital contemporary issues.

COST 356 - Persuasion Credits: 3

A performance-based research-intensive survey of classical, humanistic, and social scientific theories of persuasion, and application of theory to written and oral assignments. Emphasis is given to analysis of persuasive strategies, preparation of persuasive appeals, ethics of persuasion, persuasive campaigns, and audience analysis.

COST 360 - Research Methods in Communication Credits: 3

This research intensive course provides instruction and training in social science research methods in communication studies. There are three units: An overview of ethical practices in social scientific approaches; an examination of survey design for quantitative analysis; and an examination of qualitative research methods. Students engage in a semester-long research project, including study design, data collection, data analysis, and reporting in both quantitative and qualitative traditions. Students apply instruction to contexts of communication study in order to produce a research proposal for the senior thesis project.

Prerequisite(s): COST 200
Corequisite(s): COST 370

COST 363 - Political Rhetoric Credits: 3

This course will explore the role of communication in the political process. Emphasis will be on the functions of rhetoric, great media events, ghost writing, mudslinging, advertising, and presidential rhetoric as each relates to political communication and rhetoric.

COST 365 - Language and Meaning Credits: 3

A writing-intensive philosophical examination of the relationship between thoughts, words, and actions. Theories of symbolic interaction, social constructionism, and semiotics are the basis for course. Exploration given to application of theory to contexts as diverse as specific social movements, health care, public discourse, diversity, conflicts, debates, political campaigns, and family dynamics.

COST 370 - Rhetorical Criticism Credits: 3

A research- and writing-intensive course that teaches students how to critically analyze and evaluate public discourse. Attention is given to the logical, aesthetic, political and controversial components of communication designed to influence belief, affect social change and craft cultural identities. Topics include the scope and function of rhetoric in contemporary culture, various approaches and methods of rhetorical criticism, and discussion of contexts for criticism. Must be junior status to enroll.

Prerequisite(s): COST 200
Corequisite(s): COST 360

COST 372 - Communication for Training and Instruction Credits: 3

Opportunity to examine how communication is the tool for imparting knowledge and understanding in educational and training environments. Cornerstone activity will analyze, understand, and employ learning theory to prepare a training program.

Prerequisite(s): COST 210 with minimum grade of C.

COST 375 - Special Topics in Rhetoric and Symbolism Credits: 3

A performance-based course that investigates selected contexts in which rhetoric and symbolism is of interest. Selected Topics will allow students to apply theories and concepts of rhetoric and symbolism to the analysis and practice of communication in an area of recent development, new faculty interests, or emerging student concern. Selected Topics courses will require case studies, dyadic presentations, and additional modes of performance. Topics may include, but are not limited to: Health Communication campaigns, framing, new media analysis, and so on.

Prerequisite(s): COST 200 with minimum grade of C

COST 381 - Professional Communication and Multi-media Presentation Credits: 3

A performance based course designed to improve and enhance skills in speaking, writing, and utilizing multi-media channels for effective communication in modern professional settings. The core speaking component emphasizes structure, audience adaptation, style of presentation, and the integrated use of contemporary presentational techniques. Successful completion indicates students have demonstrated high levels of skill and a strong theoretical understanding of effective performance of public oral communication in the workplace.

Prerequisite(s): COST 210 with minimum grade of C.

COST 385 - Resolving Conflict through Communication Credits: 3

Performance based course focusing on the development of communication skills that assist in the resolution of conflict. Students use communication techniques such as listening, interviewing, responding, and persuading and apply them to conflict situations. Emphasis is placed on the non-adversarial methods of conflict resolution such as interest based negotiation and third party mediation.

COST 386 - Crisis Communication Credits: 3

This course is a communication course that is theory-based and applied. The course overviews the nature of crises and emphasizes the explanatory and predictive capacities of communication theory. Additionally, the course explicates applied and practical tools for messaging, the implementation of crisis-communication planning, and practical decision-making for groups and organizations.

Prerequisite(s): COST 200

COST 387 - Selected Topics in Human Communication Studies Credits: 3

Opportunity to offer courses in areas of departmental major interest not covered by the regular courses.

COST 388 - Selected Topics in Human Communication Studies Credits: 3

Opportunity to offer courses in areas of departmental major interest not covered by the regular courses.

COST 389 - Selected Topics in Human Communication Studies Credits: 3

Opportunity to offer courses in areas of departmental major interest not covered by the regular courses.

COST 390 - Internship I Credits: 1-9

Offers a planned program of full or part time work in a field related to communication studies which supplements classroom learning. Placement must be approved by the student's academic advisor. Approval of the department internship coordinator and/or chair, and the College Dean, is required.

Prerequisite(s): Permission only.

COST 391 - Internship II Credits: 1-9

Offers a planned program of full or part time work in a field related to communication studies which supplements classroom learning. Placement must be approved by the student's academic advisor. Approval of the department internship coordinator and/or chair, and the College Dean, is required.

Prerequisite(s): Permission only.

COST 392 - Internship III Credits: 1-9

Offers a planned program of full or part time work in a field related to communication studies which supplements classroom learning. Placement must be approved by the student's academic advisor. Approval of the department internship coordinator and/or chair, and the College Dean, is required.

Prerequisite(s): Permission only.

COST 393 - Selected Topics in Speech Credits: 3

Opportunity to offer courses in areas of departmental major interests not covered by the regular courses.

Prerequisite(s): Requires permission of instructor.

COST 394 - Selected Topics in Human Communication Studies Credits: 3

Offers a planned program of full- or part-time work in a field related to speech communication to supplement classroom study. Work content must be given prior approval by the department chair and the dean and be supervised by a faculty member.

Prerequisite(s): At least 12 HCS credits completed in the major or minor, 2.5 QPA in major and 2.5 QPA overall and at least junior standing.

COST 399 - Independent Study in Human Communication Studies Credits: 3

Independent study affords students the opportunity to engage in independent study related to their major field, a supporting area, or specialized interest.

COST 400 - Senior Seminar Credits: 3

Required capstone course for all COST majors that emphasizes a summative experience in the advanced studies of the field of human communication. Students engage in extensive seminar discussion about the study of communication, particularly as it relates to careers and advanced study. Students are expected to produce, from their own scholarly investigation in the form of a senior thesis, results that are potentially presentable at professional conferences and in scholarly publications.

Prerequisite(s): (COST 360 with minimum grade of C and COST 370 with minimum grade of C)
Graduate Credit: This course is available for graduate credit.

COST 410 - Feminist Perspectives on Communication Theory and Research Methods Credits: 3

A writing-intensive seminar course in which students engage in a critical examination of traditional approaches in communication theory and research methods to reveal their underlying, often unstated assumptions about human nature

and human communication. Feminist perspectives on different communication contexts, models, theories, and research methods are employed to explore the limitations and biases of traditional theories and modes of inquiry. In examining group, interpersonal, organizational, public, and intercultural communication contexts androcentric and Eurocentric biases are deconstructed and alternative approaches to the study of communication are discussed and applied in order to overcome the theory/method, subject/object dualism characteristic of conventional communication research.

Graduate Credit: This course is available for graduate credit.

COST 430 - Advanced Interpersonal Communication Credits: 3

Advanced Interpersonal Communication is a writing- and research-intensive course that explores the design, execution, and reporting of interpersonal communication research. In this course students will refine their skills in writing literature reviews, designing interpersonal communication research, engaging in data collection, and reporting findings in written and oral presentation. This class extends the basic research skills acquired in the program to a specific area of study, with additional emphasis given to applied research that has immediate utility and benefit.

Prerequisite(s): COST 250 with minimum grade of C
Graduate Credit: This course is not available for graduate credit.

COST 491 - Selected Topics in Human Communication Studies Credits: 3

Opportunity to offer courses in areas of departmental major interest not covered by the regular courses.

Graduate Credit: This course is available for graduate credit.

COST 492 - Selected Topics in Human Communication Studies Credits: 3

Opportunity to offer courses in areas of departmental major interest not covered by the regular courses.

Graduate Credit: This course is available for graduate credit.

COST 493 - Selected Topics in Human Communication Studies Credits: 3

Opportunity to offer courses in areas of departmental major interest not covered by the regular courses.

Graduate Credit: This course is available for graduate credit.

COST 494 - Selected Topics in Human Communication Studies Credits: 3

Opportunity to offer courses in areas of departmental major interest not covered by the regular courses.

Graduate Credit: This course is available for graduate credit.

CRJU 100 - Introduction to Criminal Justice Credits: 3

General overview of the criminal justice system, including history, current role, developments and constitutional implications of law enforcement, describes the major agencies: police, prosecution, courts and corrections, and analyzes their interdependence.

CRJU 221 - Policing a Democracy Credits: 3

Surveys the major trends and issues in law enforcement, including the historical and contemporary development of the police role in society. Analyzes police behavior and attitudes affecting their relationship with the community they serve, as well as the legal framework within which they operate.

Prerequisite(s): CRJU 100 with minimum grade of C

CRJU 241 - Survey of Corrections Credits: 3

Analyzes the development of correctional practices in the handling of criminals from early to modern times. Students analyze contemporary correctional organizational structures and treatment process, as well as institutional and community-based programs, practices, innovations, and problems.

Prerequisite(s): CRJU 100 with minimum grade of C

CRJU 261 - Criminal Law and Procedure Credits: 3

Comprehensive study of sources, distinctions and limitations relating to substantive and procedural criminal law; the development of the criminal law and procedure in the United States; the principles of criminal liability; the various crimes and their elements; the criteria considered in determining capacity and defenses. Emphasis on role of criminal justice personnel in the criminal law process as they perform their duties within the prescribed procedural framework.

Prerequisite(s): CRJU 100 with minimum grade of C

CRJU 309 - Theories of Crime and Crime Control Credits: 3

Acquaints students with the different explanations of the origins of crime and society's ultimate reaction to it from antiquity to present. Provides a broad understanding of the relationship between theory and the behavior of criminal justice system agencies.

Prerequisite(s): CRJU 221 with minimum grade of C and CRJU 241 with minimum grade of C

CRJU 310 - Research Methods Credits: 3

Introduction and overview to the evaluation of information concerning criminological and criminal/juvenile justice issues. Approaching these issues from a scientific perspective, such concerns as the theory/method interaction, measurement of criminal justice concepts, and methods in conducting criminal justice/criminological research are addressed from a consumer point of view.

Prerequisite(s): CRJU 309 with minimum grade of C

CRJU 321 - Criminal Investigation Credits: 3

Introduction to criminal investigation, crime scene search and recording, collection and preservation of evidence, crime scene technology, modus operandi, sources of information, interviewing and interrogation, stages of investigation, and case preparation.

Prerequisite(s): CRJU 309 with minimum grade of C or CRJU 310 with minimum grade of C

CRJU 324 - Sexual Offenses and Offenders Credits: 3

Sexual offenses are a specific type of offending that most citizens are aware of either through personal experience, the experiences of others, through media coverage or from word of mouth. For the purposes of this course, we will examine multiple types of sexual offending, victims and offenders, short and long-term ramifications of sexual offenses, and the legal consequences of committing a sexual offense.

Prerequisite(s): CRJU 309 with a minimum grade of C

CRJU 326 - Victimology: The Victim and the Law Credits: 3

An introduction to the study of victims and the Criminal Justice system with a focus on defining victimization, treatment of victims, characteristics of victim-offender typologies, domestic violence, sexual assault, restitution, compensation, shared responsibility, and the victim rights movement. Approved elective for Disabilities Studies Minors with Departmental permission.

Prerequisite(s): CRJU 309 with minimum grade of C or CRJU 310 with minimum grade of C

CRJU 336 - Introduction to Forensic Science Credits: 3

Application of science to criminal investigation. Designed to familiarize students with the process of criminal investigation and the basic principles and uses of forensic science in the American justice system. Emphasis on reviewing the basic applications of biological, physical, chemical, medical, and behavioral sciences to questions of criminal investigation, evidence, and law.

Prerequisite(s): CRJU 309 with minimum grade of C or CRJU 310 with minimum grade of C

CRJU 342 - Crime Prevention Credits: 3

This course is intended to present students with a working knowledge of crime prevention. The course will focus on providing students with an understanding of where and why crime patterns emerge, crime prevention techniques that can be used to intervene in those areas, and the most effective methods of evaluating those techniques. Particular attention will be paid to crime prevention theory and crime prevention methods utilized by criminal justice agencies and private security firms.

Prerequisite(s): CRJU 100 with minimum grade of C and CRJU 261 with minimum grade of C and CRJU 221 with minimum grade of C and CRJU 241 with minimum grade of C and CRJU 309 with minimum grade of C

CRJU 345 - Organization & Management of CRJ Agencies Credits: 3

Survey course on organization, administration, and management of criminal justice agencies. Topics covered pertain to the principles of management as they relate to the functions and activities of criminal justice agencies. While organizational structure is examined, emphasis on criminal justice operations and the contemporary theories of criminal justice management.

Prerequisite(s): CRJU 309 with minimum grade of C or CRJU 310 with minimum grade of C

CRJU 351 - Juvenile Justice Credits: 3

Surveys the juvenile justice system of approaches and procedures concerning identification, detention, informal adjustment, adjudication, and disposition relevant to administration of justice policy, practice, and law.

Prerequisite(s): CRJU 309 with minimum grade of C or CRJU 310 with minimum grade of C

CRJU 356 - Organized Crime Credits: 3

Examines roots of organized crime and its transformation from a violence-driven regional and national set of illegal enterprises to an international and technologically sophisticated set of illegal enterprises. Role of technology in controlling organized crime will be examined, as will the global features of new organized crime groups as they emerge in a wide variety of countries. Social context of organized crime will be a consistent theme throughout.

Prerequisite(s): CRJU 309 with minimum grade of C or CRJU 310 with minimum grade of C

CRJU 363 - Intimate Partner Violence Credits: 3

CRJU 309 This course will provide students with an overview of the theoretical paradigms examining the definitions of, causes of, ramifications of, and interventions for intimate partner violence. More specifically, from a criminal justice perspective we will (1) examine the nature and extent of intimate partner violence; (2) take an in-depth look at the perpetrators and victims of intimate partner violence; (3) examine theories to gain a better understanding of why these forms of violence take place; (4) examine the criminal justice response (e.g., police, courts, corrections, juvenile justice) to intimate partner violence; and (5) examine some of the larger cultural contexts within which the varieties of abuse occur. This course recognizes that a disproportionate number of the victims are women, but that a strict feminist analysis needs to be modified to recognize abuse in same sex relationships and a growing literature on female offenders.

Prerequisite(s): CRJU 100 with minimum grade of C and CRJU 261 with minimum grade of C and CRJU 221 with minimum grade of C and CRJU 241 with minimum grade of C and CRJU 309 with minimum grade of C

CRJU 365 - White Collar Crime Credits: 3

Introduces the increasingly complex subject of crime committed by individuals whose legitimate employment provides them the opportunity for engaging in illegal activities. A variety of illegal activities will be examined as will white-collar scandals of the past and present. Relationship between the criminal justice system and white-collar crime will be thoroughly explored.

Prerequisite(s): CRJU 309 with minimum grade of C or CRJU 310 with minimum grade of C

CRJU 370 - Mock Trial Credits: 3

Course in being a trial lawyer. Students will master the Federal Rules of Evidence (FRE) and apply them in a trial advocacy setting, either through the introduction of testimonial, documentary, or demonstrative evidence and/or by objecting to said admission of evidence. The student will perform all phases of a mock trial, from opening statements, direct, and cross-examinations (with objections), introducing evidence, jury instructions, and closing arguments. Last two weeks will be devoted to a full mock trial exercise.

Prerequisite(s): CRJU 309 with minimum grade of C or CRJU 310 with minimum grade of C

CRJU 377 - Hate Crime Credits: 3

This course explores the social phenomenon of hate crime in America. Hate crime or, more appropriately labeled, bias crime is a specific sub-type of criminal behavior perpetrated against victims because they are members of a group or groups which the offender exhibits prejudice towards. Topics addressed include the conceptualization of hate crime, its measurement, observed patterns and trends, hate crime legislation, policy issues, victims and reporting, offending and hate groups, as well as the uniqueness of bias crime compared to non-bias crime. Restricted to criminal justice majors and disability studies minors.

Prerequisite(s): CRJU 309 or CRJU 310 with a minimum grade of C.

CRJU 381 - Mental Health in the Criminal Justice System Credits: 3

An exploration of the intersection of the mental health and criminal justice systems in the United States. The primary theme is the deinstitutionalization movement which has resulted in the shifting of persons with mental illness from hospitals into correctional facilities. Important topics include school-to-prison pipeline (STPP), civil and outpatient commitment, police as first responders, training for law enforcement responding to crisis situations, and other efforts to decrease criminalization and stigmatization, such as Crisis Intervention Teams, Mental Health Courts, Assertive Community Treatment, and reentry strategies. Engagement and innovative policy solutions are required from students.

Prerequisite(s): CRJU 309 with minimum grade of C

CRJU 383 - Immigration and Criminal Justice Credits: 3

An exploration of the intersection of immigration and the criminal justice system in the United States. Includes the history of immigration and treatment of immigration in the United States; the myths surrounding immigration and crime; the development and evolution of civil and criminal immigration law and procedure; the components and sources of crimmigration; immigration enforcement, federal court processing of immigration cases, and immigration detention and corrections; and assessment and analysis of structure, policy, practice, and issues regarding immigration and criminal justice.

Prerequisite(s): CRJU 309 or CRJU 310

CRJU 396 - Selected Topics in Criminal Justice Credits: 3

Opportunity to offer courses in areas of departmental major interest not covered by the regular courses.

Prerequisite(s): CRJU 309 with minimum grade of C or CRJU 310 with minimum grade of C

CRJU 397 - Selected Topics in Criminal Justice Credits: 3

Opportunity to offer courses in areas of departmental major interest not covered by the regular courses.

Prerequisite(s): CRJU 309 with minimum grade of C or CRJU 310 with minimum grade of C

CRJU 398 - Selected Topics in Victimology Credits: 3

Opportunity to offer courses in areas of departmental major interest not covered by the regular courses.

Prerequisite(s): CRJU 100 with minimum grade of C and CRJU 261 with minimum grade of C and CRJU 221 with minimum grade of C and CRJU 241 with minimum grade of C and CRJU 309 with minimum grade of C

CRJU 399 - Independent Study in Criminal Justice Credits: 1

Independent study affords students the opportunity to engage in independent study related to their major field, a supporting area, or specialized interest.

Prerequisite(s): CRJU 100 with minimum grade of C and CRJU 261 with minimum grade of C and CRJU 221 with

minimum grade of C and CRJU 241 with minimum grade of C and CRJU 309 with minimum grade of C and CRJU 310 with minimum grade of C

CRJU 411 - Terrorism Credits: 3

To gain a basic appreciation for understanding the response of the criminal justice system to the terrorism problem. Includes types of terrorism, formation, leadership, location, motives and purposes, criminality, historical and contemporary issues and research, law enforcement, judicial and correctional efforts aimed at curtailing, controlling and understanding terrorism. Approved elective for Ethnic Studies Minors with Departmental permission.

Prerequisite(s): CRJU 309 with minimum grade of C or CRJU 310 with minimum grade of C
Graduate Credit: This course is available for graduate credit.

CRJU 433 - Evidence Law Credits: 3

Analyzes the law and public policies which guide the introduction of evidence in court. Primary emphasis on Federal Rules of Evidence and the manner of collecting and presenting evidence consistent with the Fourth, Fifth and Sixth Amendments to the United States Constitution. Students demonstrate evidentiary foundations through in-class practicum exercises and learn to introduce, by way of witness testimony, documents, scientific and real evidence, opinion and expert testimony resulting in a thorough understanding of the evidentiary concepts of burden of proof, probative value, competency, relevancy, materiality, the hearsay rule and its exclusions, and privileges.

Prerequisite(s): CRJU 309 with minimum grade of C or CRJU 310 with minimum grade of C
Graduate Credit: This course is not available for graduate credit.

CRJU 440 - Community Corrections Credits: 3

Examines the historical development and growth of community interventions, practices, and policies with respect to individuals who violate society's legal norms. Students analyze correctional philosophy, court sentencing and sanctioning alternatives, treatment methods, and the competing goals and potential future trends of corrections. Adherence to evidence based programming and the principles of effective intervention will be consistent themes throughout.

Prerequisite(s): CRJU 100 with minimum grade of C and CRJU 261 with minimum grade of C and CRJU 221 with minimum grade of C and CRJU 241 with minimum grade of C and CRJU 309 with minimum grade of C
Graduate Credit: This course is available for graduate credit.

CRJU 452 - Race, Ethnicity, and Crime Credits: 3

Acquaints students with the issues regarding the role played by ethnicity/race in the American Criminal Justice system. A necessarily broad approach will be undertaken to achieve this task. The course will deal with three areas: (1) the making of laws and race, (2) the breaking of laws and race, and (3) society's reaction to the breaking of laws and race. In addition to making students aware of an important area of study, the course should provide students with a broad understanding of the philosophical and practical issues revolving around crime and race in American society. Approved elective for Ethnic Studies Minors with Departmental permission.

Prerequisite(s): CRJU 309 with minimum grade of C and CRJU 310 with minimum grade of C
Graduate Credit: This course is not available for graduate credit.

CRJU 454 - Policy, Professionalism, and Ethics Credits: 3

Assists students in understanding the critical issues confronting the police, courts, and corrections as Criminal Justice professionals prepare to move into the next century. The course will focus on such issues as the use of discretion in practitioner decision-making; the impact of the law on Criminal Justice agency behavior; racial and gender issues; ethical issues and dilemmas; the impact of external influences on the operation of Criminal Justice agencies; the privatization of Criminal Justice services; and the future of the American Criminal Justice system. This course will provide a knowledge base from which Criminal Justice majors can either proceed to graduate courses or enter the field. This course can be particularly useful for the student who is currently considering an internship or employment in a Criminal Justice agency.

Prerequisite(s): Restricted to Criminal Justice majors. CRJU 309 with minimum grade of C and CRJU 310 with minimum grade of C and CRJU 452 with minimum grade of C
Graduate Credit: This course is not available for graduate credit.

CRJU 456 - Forensic Science: Evidence Analysis Credits: 3

Provides a continuation of CRJU 336. Surveys various types of physical evidence commonly encountered at a crime scene and in a crime laboratory environment. Consists of lecture and laboratory exercises including crime processing, the identification and analysis of trace evidence including hairs and fibers, fingerprints, footwear evidence, shoe and tire impressions, and tool marks.

Prerequisite(s): CRJU 309 with minimum grade of C or CRJU 310 with minimum grade of C) and CRJU 336 with minimum grade of C
Graduate Credit: This course is not available for graduate credit.

CRJU 461 - Social Construction of Homicide Credits: 3

Explores the nature of homicide in contemporary society and includes social theories of homicide, domestic murder, serial murder, infanticide, hate crimes, and youth gangs. Examination of the impact of drugs and alcohol and an assessment of capital punishment as a deterrent is included.

Prerequisite(s): CRJU 309 with minimum grade of C or CRJU 310 with minimum grade of C
Graduate Credit: This course is available for graduate credit.

CRJU 464 - Popular Culture, Crime and Justice Credits: 3

Examines the interrelationships between popular culture, crime, and justice. Explores history of this linkage, the research, and the current issues. Examines popular culture's depictions of victims, offenders, and professionals in the criminal justice system. Popular culture depictions are found in print media (newspapers, magazines, and tabloids), popular literature (police and law procedures), true crime fiction, films, television, rap music, and comics. Impact of popular culture by various media is addressed through the presentation of historical and contemporary research images of crime on individuals, groups, and public policy. Approved elective for Ethnic Studies minors with departmental permission.

Prerequisite(s): CRJU 309 with minimum grade of C or CRJU 310 with minimum grade of C
Graduate Credit: This course is available for graduate credit.

CRJU 469 - Victim Treatment and Services Credits: 3

This course introduces students to the dynamic and often controversial field of advocacy, treatment, and services for crime victims, ranging from protective services to therapeutic treatment of victims and survivors. Specific emphasis will be placed on the criminal justice and juvenile justice systems? ability to prevent and help victims recover from serious violent crime. Further, students will be introduced to the processes currently utilized by criminal justice and

social service agencies to engage, investigate, and provide support services for victims and their families.

Prerequisite(s): CRJU 309 with minimum grade of C or CRJU 310 with minimum grade of C or permission of deparment.

CRJU 471 - Internship in Criminal Justice I Credits: 3-12

Offers a planned program of research, observation, study, and work in selected criminal justice agencies representing the major components of the system. Designed to supplement classroom study with constructive participation in the criminal justice system of communities, the United States, and the Commonwealth of Pennsylvania. This class is not available for graduate credit. 3-12 credits

Prerequisite(s): CRJU 309 with minimum grade of C or CRJU 310 with minimum grade of C and permission of deparment.
Graduate Credit: This course is not available for graduate credit.

CRJU 472 - Internship in Criminal Justice II Credits: 3-12

Offers a planned program of research, observation, study, and work in selected criminal justice agencies representing the major components of the system. Designed to supplement classroom study with constructive participation in the criminal justice system of communities, the United States, and the Commonwealth of Pennsylvania. This class is not available for graduate credit. 3-12 credits

Prerequisite(s): CRJU 309 with minimum grade of C or CRJU 310 with minimum grade of C and permission of deparment.
Graduate Credit: This course is not available for graduate credit.

CRJU 476 - Internship in CRJ - Victimology Credits: 3

Offers a planned program of research, observation, study, and work in selected criminal justice agencies representing the major components of the system. Designed to supplement classroom study with constructive participation in the criminal justice system of communities, the United States, and the Commonwealth of Pennsylvania. If prerequisite courses are not met departmental approval is required. This class is not available for graduate credit.

Prerequisite(s): CRJU 309 with minimum grade of C or CRJU 310 with minimum grade of C and permission of department.
Graduate Credit: This course is not available for graduate credit.

CRJU 481 - Independent Study in Criminal Justice Credits: 1-3

Opportunity to pursue in-depth study on a topic or issue of personal interest under the direction and guidance of a department faculty member.

Prerequisite(s): CRJU 100 with minimum grade of C and CRJU 261 with minimum grade of C and CRJU 221 with minimum grade of C and CRJU 241 with minimum grade of C and CRJU 309 with minimum grade of C and CRJU 310 with minimum grade of C
Graduate Credit: This course is not available for graduate credit.

CRJU 490 - Selected Topics in Criminal Justice Credits: 3

Opportunity to pursue in-depth study on a topic or issue of personal interest under the direction and guidance of a department faculty member.

Prerequisite(s): CRJU 100 with minimum grade of C and CRJU 261 with minimum grade of C and CRJU 221 with minimum grade of C and CRJU 241 with minimum grade of C and CRJU 309 with minimum grade of C and CRJU 310 with minimum grade of C
Graduate Credit: This course is available for graduate credit.

CMSC 103 - Overview of Computer Science Credits: 3

Breadth-first overview of computer science introducing students to a wide range of topics, including algorithms, hardware design, computer organization, system software, language models, programming, compilation, theory of computation, artificial intelligence, or social issues involving computing.

Category: Natural World & Technology - T

CMSC 104 - Programming in Python Credits: 3

Studies structured algorithm design, developing algorithmic solutions to problems, the Python programming language, and SQL. Students will learn how to write programs in Python to solve various problems. Additionally, students will learn the basics of SQL and how to use it to aid in managing data. The course is not available to computer science (B.S.) for major credit.

Category: Natural World & Technology - T

CMSC 110 - Computer Science I Credits: 4

An introduction to computer programming from an object-oriented perspective. Students will be introduced to the basic concepts of computer programming. Topics include: fundamental programming techniques including algorithm design, documentation, style, and debugging; fundamental program constructs including simple data types, and control structures; fundamental object oriented techniques including classes, abstraction, polymorphism, inheritance, and encapsulation; and fundamental computer science principles. Prerequisite: Level 4 or better Math proficiency. (4 cr)

Note: Students can't take both CSC 110 and SWE 100.

Prerequisite(s): Prerequisite: Level 4 or better Math proficiency.

CMSC 111 - Computer Science II Credits: 4

Students will reinforce their proficiency with core programming techniques by developing more challenging programs than in CS1. Students will apply new techniques such as pointers, structures and unions to create advanced programs and solutions. Students will also need to improve their solutions to enhance efficiency and soundness. Topics include intermediate programming techniques; using advanced data types including multi-dimensional arrays, queues, stacks, linked lists, recursion , sorting and searching algorithms.

Prerequisite(s): CMSC 110 or SWEN 100 with minimum grade of C and successful completion of the programming competency exam.

CMSC 190 - General Education Special Topics Credits: 3

Opportunity to offer courses in areas of departmental general education interest not covered by the regular general education courses.

CMSC 191 - General Education Special Topics Credits: 3

Opportunity to offer courses in areas of departmental general education interest not covered by the regular general education courses.

CMSC 310 - Design and Analysis of Algorithms Credits: 4

Examines various techniques for designing algorithms and analyzing their efficiencies, and examines and compares their efficiency of execution. Studies the theoretical foundations for analysis of algorithms and the ramifications of design strategies on efficiency.

Prerequisite(s): CMSC 111 or ENGR 120 with minimum grade of C and MATH 225 with minimum grade of C.

CMSC 350 - Introduction to Computer Graphics Credits: 4

Provides a non-mathematical introduction to the basic concepts and techniques of computer graphics. Topics include real-world vs. synthetic image creation; graphics primitives; interaction and animation; I/O hardware environment; 3-D modeling and viewing; color, light, and shading; segments; textures; realistic effects. A typical graphics API (e.g., OpenGL) is used to create computer-generated images.

Prerequisite(s): CMPE 220 or SWEN 200 with minimum grade of C

CMSC 361 - Video Game Programming Credits: 4

This course will look at the key concepts needed to build 2D and 3D video games using an existing game engine. The course will look at asset management, animation, collision detection and physics, and managing user input. Additionally, It will look at some key design patterns related to game programming.

Prerequisite(s): SWEN 200 with minimum grade of C

CMSC 390 - Computer Science Internship I Credits: 3

Contact the department for further information on internships.

CMSC 391 - Computer Science Internship II Credits: 3

Contact the department for further information on internships.

CMSC 392 - Computer Science Internship III Credits: 3

Contact the department for further information on internships.

CMSC 393 - Selected Topics in Computer Science Credits: 4

Opportunity to offer courses of departmental major interest not covered by the regular courses.

Prerequisite(s): Requires junior standing or permission of instructor.

CMSC 399 - Independent Study in Computer Science Credits: 3

Independent study affords students the opportunity to engage in independent study related to their major field, a supporting area, or specialized interest.

CMSC 402 - Big Data Analytics Credits: 4

We are living in data-intensive world. Efficiently extracting, interpreting, and learning from very large datasets requires efficient and scalable algorithms as well as new data management technologies. Machine learning techniques and high performance computing make the efficient analysis of large volumes of data. In this course we explore big dataset analysis techniques and apply it to the distributed. This course is highly interactive. Students are expected to make use of technologies to design highly scalable systems that can process and analyze Big Data for a variety of scientific, social, and environmental challenges.

Prerequisite(s): CMSC 310 with a minimum grade of C and MATH 217

CMSC 403 - Machine Learning Credits: 4

This introductory course gives an overview of machine learning. This is a wide ranging field including topics such as: classification, linear regression, Principal Component Analysis (PCA), neural networks, bagging and boosting, support vector machines, hidden Markov models, Bayesian networks, Q-learning, reinforcement learning.

Prerequisite(s): (One course from: MATH 117, MATH 217, or MATH 375) and CMSC 310
Graduate Credit: This course is not available for graduate credit.

CMSC 410 - Theoretical Foundations of Computer Science Credits: 3

Topics include finite automata, regular languages, regular expressions, and regular grammars; pushdown automata and context-free languages; Turing machines; Church-Turing Thesis; the Halting Problem; undecidability; classes of languages, including the Chomsky hierarchy and the classes P, NP, and NP-Complete. Proof techniques for showing language (non)membership in a class.

Prerequisite(s): CMSC 310 with a C or better.
Graduate Credit: This course is not available for graduate credit.

CMSC 431 - Computer Networks Credits: 4

Studies protocol suites, emphasizing the TCP/IP 4-layer model. Topics included are network addresses, sub netting, client/server network programming via the sockets API, network utilities, architecture of packets, routing, fragmentation, connection and termination, connection-less applications, data flow, and an examination of necessary protocols at the link layer, particularly Ethernet. Other topics may include FDDI, wireless, ATM, congestion control, and network security.

Prerequisite(s): CMPE 220 or SWEN 200 with minimum grade of C or better.
Graduate Credit: This course is available for graduate credit.

CMSC 462 - Artificial Intelligence Credits: 4

Overview of artificial intelligence. Emphasis on basic tools of AI, search and knowledge representation, and their application to a variety of AI problems. Search methods include depth-first, breadth-first, and AI algorithms; knowledge representation schemes include propositional and predicate logics, semantic nets and frames, and scripts. Planning using a STRIPS-like planner will also be addressed. Areas that may be addressed include natural language processing, computer vision, robotics, expert systems, and machine learning.

Prerequisite(s): SWEN 200 with minimum grade of C
Graduate Credit: This course is available for graduate credit.

CMSC 471 - Database Management Systems Credits: 3

Detailed examination of theory and practical issues underlying the design, development, and use of a DBMS. Topics include characteristics of a well-designed database; high-level representation of an application using ER modeling; functional dependency theory, normalization, and their application toward a well-designed database; abstract query languages; query languages; concurrency; integrity; security. Advanced topics may be included (e.g., distributed databases; object-oriented databases). Theory to practice is applied in a number of projects involving the design, creation, and use of a database.

Prerequisite(s): SWEN 200 with minimum grade of C
Graduate Credit: This course is available for graduate credit

CMSC 490 - Selected Topics in Computer Science Credits: 3

Opportunity to offer courses in areas of departmental major interest not covered by the regular courses.

Graduate Credit: This course is available for graduate credit.

CMSC 491 - Selected Topics in Computer Science Credits: 3

Opportunity to offer courses in areas of departmental major interest not covered by the regular courses.

Graduate Credit: This course is available for graduate credit.

CMSC 492 - Selected Topics in Computer Science Credits: 3

Opportunity to offer courses in areas of departmental major interest not covered by the regular courses.

Graduate Credit: This course is available for graduate credit.

CMSC 494 - Selected Topics in Computer Science Credits: 4

Opportunity to offer courses in areas of departmental major interest not covered by the regular courses.

Graduate Credit: This course is available for graduate credit.

CMSC 495 - Selected Topics in Computer Science Credits: 4

Opportunity to offer courses in areas of departmental major interest not covered by the regular courses.

Graduate Credit: This course is available for graduate credit.

CMSC 498 - Senior Research Methods Credits: 3

Students will learn basic research strategies including conducting literature reviews, designing experiments, defining hypotheses, and writing proposals. Topics include finding and evaluating sources of information, defining topics, developing and supporting hypotheses, and acceptable research and experimental practices. Graduate students are not permitted to take this course.

Prerequisite(s): CMSC 310 with a C or better
Corequisite(s): MATH 117 or MATH 217 or MATH 375
Graduate Credit: This course is not available for graduate credit.

CMSC 499 - Senior Research and Development Credits: 3

Students will independently, but under the direction of the instructor, execute the proposal developed in CMSC 498. Students will conduct the experiments outlined in their testing / implementation plan. Students will then analyze the results and determine if their hypothesis was supported or not. The goal is to gain experience with a formal development process and understand how the scientific method, mathematical reasoning, logic, and algorithmic thinking will generate concrete answers to problems.

Prerequisite(s): CMSC 498 with minimum grade of C and PHIL 105
Graduate Credit: This course is not available for graduate credit.

DISA 100 - Introduction to Disability Studies Credits: 3

Introduction to Disability Studies provides students with the opportunity to examine disability as a social, cultural, and political phenomenon. We will explore the impact of disability as it relates to the individual, families, social institutions, cultures and societies, and we will analyze the lives and perspectives of people with disabilities. We use an intersectional approach to diversity, always situating disability within its historical and social context and in relationship to other potential identities rooted in race, gender, class, and sexuality. This is an interdisciplinary course. Requires no more than 60 credits or permission of instructor to enroll.

Category: Interconnections - D

DISA 391 - Internship in Disability Studies Credits: 3

The internship in Disability Studies provides students with a learning experience in a professional setting related to disability.

Prerequisite(s): DISA 100

DISA 392 - Internship in Disability Studies II Credits: 1-3

The Internship in Disability Studies II provides students with additional learning experience in a professional setting related to disability.

Prerequisite(s): DISA 100 , and DISA 391 (may be taken concurrently)

DISA 400 - Capstone in Disability Studies Credits: 3

This interdisciplinary course is designed to allow students to apply a number of theoretical approaches and models to real-life examples. Students will integrate their understanding of concepts, issues and debates within the intersecting

disciplines related to disability studies. The class will be highly interactive, integrating seminar discussions and group work by students in an attempt to further explore in-depth issues and topics discussed in class in relatively broad terms. Students will apply, integrate, and build on course material through short papers and oral presentations. In addition, they will advance and polish their writing, oral communication, research and critical analysis skills through the conduct of original research or a service learning project.

Prerequisite(s): DISA 100
Graduate Credit: This course is not available for graduate credit.

ECED 204 - Child Development and Brain Building Science Credits: 3

This course covers the latest research on brain and child development to give participants foundational knowledge in developmental progressions for children from birth to age 5. Through course readings, discussions, activities, and assignments, participants will learn to identify children's developmental trajectories. An emphasis on brain development will provide participants with a unique lens to apply in an early learning program as an additional tool to identify developmental progressions. Participants will learn how to create early childhood environments that promote physical, language, social and emotional, and cognitive development. Participants will also explore the key role that individual differences and family and socio-cultural context plays in development and learn strategies to build relationships that support each child's individual development.

Prerequisite(s): Restricted to entry into the Early Childhood Credential (ECC) Pathway or Early Childhood Apprenticeship (ECA) Pathway.

ECED 205 - Positive Behavioral Supports for Young Children Credits: 3

This course utilizes evidence-based strategies for promoting social and emotional development and preventing and addressing challenging behaviors in preschool-aged children. Through course readings, discussions, activities, and related experiences, participants will learn about a variety of these research-based practices. This course will also provide opportunities for participants to see teacher-child interactions and specific instructional strategies that promote social and emotional development and prevent challenging behaviors. Students will implement strategies that provide positive behavioral support and analyze and assess their own classroom strategies to create a plan for improvement.

Prerequisite(s): Entry into the Early Childhood Credential (ECC) Pathway or Early Childhood Apprenticeship (ECA) Pathway.

ECED 206 - Becoming an Early Childhood Professional Credits: 3

This course introduces a variety of professional topics and competencies in early childhood education. Centered around the perspective that effective early childhood professionals are self-aware, culturally competent leaders who practice ongoing reflection and growth, this course addresses state and national standards, professional ethics, and developmentally appropriate approaches to teaching and learning. Students also explore connections between early childhood theory and classroom practice, as well as strategies for creating a caring community of learners through effective classroom environments and strong relationships with young children and families from diverse backgrounds.

Prerequisite(s): Entry into the Early Childhood Credential (ECC) Pathway or Early Childhood Apprenticeship (ECA) Pathway

ECED 210 - The Early Childhood Profession Credits: 3

Students in this course will be introduced to professional topics and competencies in early childhood education and will be given examples of the value of and strategies for creating a community of learners. Students will also be provided

opportunities for practicing professional dispositions and behaviors in a variety of inclusive settings. Field hours are required.

ECED 220 - Developmental Science: Physical, Motor, & Health Credits: 3

A study of multiple aspects of physical development, prenatally through middle childhood. Attention is given to both typical and atypical development. Field hours are required.

ECED 260 - Developmental Science: Cognitive & Language Credits: 3

Students in this course will read about, write about and observe children's cognitive development from birth to age 11. The course will link the students understanding of development with implications for classroom practice preschool through the fourth grade.

ECED 280 - Physical, Language and Cognitive Development Credits: 3

Provides child development information in the physical, language and cognitive domains birth through fourth grade. Content will be linked to application for both families and teachers. Required for dual certification majors in the Pre K-4/Special Education major.

ECED 320 - Developmental Science: Social & Emotional Basis for Guiding Children's Behavior Credits: 3

A study of multiple aspects of social and emotional development, birth through middle childhood. Attention is given to both typical and atypical development. Application will be made to guiding children's behavior in the classroom settings. Field hours are required.

Prerequisite(s): ECED 210 with minimum grade of C and ECED 220 with minimum grade of C and (ECED 260 with minimum grade of C or ECED 280 with minimum grade of C)

ECED 333 - Social Studies Methods for PK-4th Grade Credits: 3

Students will learn age appropriate content and strategies for teaching social studies in pre K-4 grade classrooms. Resources and methods to support Pennsylvania learning standards will be presented for each age group.

Prerequisite(s): (ECED 210 with minimum grade of C and ECED 220 with minimum grade of C and ECED 260 with minimum grade of C) or (ECED 210 with a minimum grade of C and ECED 280 with minimum grade of C)
May be taken as concurrently

ECED 343 - Mathematics Methods I for PreKindergarten & Kindergarten Credits: 3

Students will gain knowledge about teaching mathematics using age appropriate methods, strategies and materials for pre-kindergarten, kindergarten, and first grade children. Concepts related to early numeracy understanding will be emphasized. The course will include content, strategies, resources, and technology information.

ECED 370 - Assessing Young Children Credits: 3

Addresses a variety of effective and developmentally appropriate assessment techniques for use in early education practices. Responsible use of assessment is emphasized. Field experiences include both observation of and administering effective assessment measures and strategies.

Prerequisite(s): (ECED 220 with minimum grade of C and ECED 260 with minimum grade of C) or ECED 280 with minimum grade of C
May be taken concurrently

ECED 373 - Science and Technology Methods in PK-4 Credits: 3

Students will gain knowledge about teaching science in age appropriate ways for the Early Childhood/Elementary Education: PK-4 grades. Includes content, strategies and resources for meeting Pennsylvania standards for each age level.

ECED 393 - Mathematics Methods II, Grades 2-4 Credits: 2

Students will gain knowledge about teaching mathematics using age appropriate methods, strategies and materials for children in second through fourth grade. Concepts related to early numeracy understanding will be emphasized. Includes content, strategies, resources, and technology information. Field hours required.

Prerequisite(s): ECED 343 with minimum grade of C

ECED 394 - Technology Instruction for Early Childhood Classrooms Credits: 1

Technology Instruction for Early Childhood Classrooms is designed to prepare Pre K-4 majors for teaching pre K-4th grades with emphasis on the use of technology. Best practices will be utilized from the professional early childhood education field.

ECED 415 - Professional Practicum in PK-4 Credits: 3

This field-based course is for senior-level student participation in early childhood environments. Emphasis is placed on building partnerships with families and various community entities and implementing facets of an integrated curriculum. Instructor led seminars are scheduled throughout the course. Students will complete a total of at least 125 hours in a placement with students aged three to nine years.

Prerequisite(s): ECED 210, ECED 220, ECED 260, ECED 320, ECED 333, ECED 343, ECED 370, and ECED 373, all with minimum grade of C

May be taken concurrently.
Graduate Credit: This course is available for graduate credit.

ECED 440 - Building Family and Community Partnerships Credits: 3

Emphasis is on understanding contemporary families with young children. Family diversity and fostering reciprocal relationships are stressed. Field experiences are required and will be completed in ECED 415. Field experiences include both observation of and participation in family/school/community interactions.

Graduate Credit: This course is available for graduate credit.

ECED 453 - Integrated Curriculum Pre K-4 Credits: 3

Students will apply Pennsylvania standards for math, science, literacy, social studies and the arts. Competencies will be practiced through projects, portfolio collections and demonstrations.

Prerequisite(s): ECED 210 with minimum grade of C and ECED 220 with minimum grade of C and ECH 253 with minimum grade of C and ECED 260 with minimum grade of C and ECED 320 with minimum grade of C* and ECED 333 with minimum grade of C* and ECED 343 with minimum grade of C* and ECED 370 with minimum grade of C* and ECED 373 with minimum grade of C* and ECED 393 with minimum grade of C* and READ 323 with minimum grade of C and READ 363 with minimum grade of C and READ 383 with minimum grade of C
* = May be taken concurrently
Graduate Credit: This course is not available for graduate credit.

ECED 480 - Early Childhood Professional Seminar Credits: 3

Students in this course will demonstrate professional competencies in early childhood education student teaching placement. They will demonstrate their understanding of the value of and strategies for creating a community of learners. Practice of professional dispositions and behaviors in an inclusive setting will be refined. Guided field assignments will be required in ECED 489.

Corequisite(s): ECED 489
Graduate Credit: This course is not available for graduate credit.

ECED 489 - Early Childhood Student Teaching Credits: 1-12

This supervised, full-semester field-based experience is the culmination of the early childhood teacher preparation program. Early childhood teacher candidates are placed in pre-kindergarten, kindergarten, or first through fourth grade classrooms. Candidates will observe teachers, apply developmental theory and best educational practice, demonstrate dispositions for teaching, engage in ethical and effective professional practice to support the learning of all children.

Prerequisite(s): Completion of all course requirements for the early childhood certification major.
Corequisite(s): ECED 480
Graduate Credit: This course is available for graduate credit.

ECED 490 - Selected Topics in Early Childhood Credits: 3

Opportunity to offer courses in areas of departmental major interest not covered by the regular courses.

Graduate Credit: This course is available for graduate credit.

ECED 491 - Selected Topics in Early Childhood Credits: 3

Opportunity to offer courses in areas of departmental major interest not covered by the regular courses.

Graduate Credit: This course is available for graduate credit.

ECED 492 - Selected Topics in Early Childhood Credits: 3

Opportunity to offer courses in areas of departmental major interest not covered by the regular courses.

Graduate Credit: This course is available for graduate credit.

ECED 493 - Selected Topics in Early Childhood Credits: 3

Opportunity to offer courses in areas of departmental major interest not covered by the regular courses.

Graduate Credit: This course is available for graduate credit.

ECED 494 - Selected Topics in Early Childhood Credits: 3

Opportunity to offer courses in areas of departmental major interest not covered by the regular courses.

Graduate Credit: This course is available for graduate credit.

ECED 495 - Selected Topics in Early Childhood Credits: 3

Opportunity to offer courses in areas of departmental major interest not covered by the regular courses.

Graduate Credit: This course is available for graduate credit.

ECED 496 - Selected Topics in Early Childhood Credits: 3

Opportunity to offer courses in areas of departmental major interest not covered by the regular courses.

Graduate Credit: This course is available for graduate credit.

ECED 497 - Selected Topics in Early Childhood Credits: 3

Opportunity to offer courses in areas of departmental major interest not covered by the regular courses.

Graduate Credit: This course is available for graduate credit.

ECED 498 - Selected Topics in Early Childhood Credits: 3

Opportunity to offer courses in areas of departmental major interest not covered by the regular courses.

Graduate Credit: This course is available for graduate credit.

ECED 499 - Selected Topics in Early Childhood Credits: 1-3

Opportunity to offer courses in areas of departmental major interest not covered by the regular courses.

Graduate Credit: This course is available for graduate credit.

ECON 101 - Principles of Macroeconomics Credits: 3

Introduction to aggregative economics. Provides some historical and institutional perspective on the U.S. and world economy, focus primarily upon contemporary theories of employment, inflation, and growth. Also examined are monetary and fiscal policy and foreign trade.

Category: Interconnections - G

ECON 102 - Principles of Microeconomics Credits: 3

Introduction to theory of price, including demand theory; the theory of the firm under purely competitive and imperfectly competitive market conditions; and the theory of income distribution. Application of theory to practical problems stressed.

Category: Natural World & Technology - T

ECON 113 - Principles of Economics Credits: 4

Introduces fundamental concepts important for understanding how individuals and organizations function within an economy. Covering both microeconomic and macroeconomic principles, a wide array of both theoretical and applied issues are addressed as are how changing market conditions impact consumers and firms and how government policies influence the economy and business decisions. This course is not open to students who have completed either ECON 101 and/or ECON 102.

Category: Citizenship & Responsibility - R

ECON 190 - General Education Special Topics Credits: 3

Opportunity to offer courses in areas of departmental general education interest not covered by the regular general education courses.

ECON 270 - Intermediate Macroeconomic Theory Credits: 3

Concerned with economic variables in the aggregate. Involves an analysis of national income accounting, the volume of output, income and employment, and the fine points of fiscal and monetary policy. Designed to aid students in advanced work in economics and especially to prepare them for graduate study.

Prerequisite(s): ECON 101 or HONR 165 or ECON 113 or permission of department.

ECON 280 - Managerial Economics Credits: 3

Designed in the methods of applying economic concepts to solving business problems and gaining insight into the nature of business enterprises. Combined with statistics, economic principles are used to analyze decision-making within profit maximizing organizations. Alternative market structures and how they affect the business environment are considered. Based upon theoretical concepts and empirical research results, students can appreciate the applicability of analytical thinking within organizations.

Prerequisite(s): (ECON 113 or ECON 102 or HONR 166) and (MATH 181 or MATH 211)

ECON 303 - Labor Economics: Theory and Policy Credits: 3

Analyzes the theoretical determination of labor supply and demand, wage rates and the levels of employment with applications to competitive, monopsonistic and unionized markets. Includes discussions of how job characteristics, educational attainment and discrimination combine with legislation and governmental policies to determine the distribution of income to specific segments of the population.

Prerequisite(s): ECON 102 or ECON 113 or HONR 166

ECON 305 - Money and Banking Credits: 3

Deals with monetary and banking principles and practices, credit, commercial banks and other financial institutions, and the Federal Reserve System.

Prerequisite(s): ECON 101 or HONR 165 or ECON 113 or permission of department.

ECON 310 - Public Finance Credits: 3

Deals with theory and categories of public expenditures, principles and effects of taxation, major forms of taxes, theory and problems of government borrowing and deficit financing, fiscal policy, budgets, and fiscal administration.

Prerequisite(s): (ECON 101 or HONR 165) and (ECON 102 or HONR 166) or ECON 113 or permission of department.

ECON 317 - Health Economics Credits: 3

Introduces the fundamental concepts of health care markets. Transactions among health care providers, insurance companies, government and patients will be examined. Basic tools of economics are introduced to analyze the behavior of consumers, hospitals, insurers, and health care professionals. Topics covered include the demand and supply of health care, health insurance, pharmaceutical industry, quality of care, access to care, competition, reform proposals, and government programs and regulation.

Prerequisite(s): ECON 102 or ECON 113 or HONR 166 or permission of department.

ECON 321 - International Economics Credits: 3

Introduces basic theory of international trade and finance. Highlights sources of comparative advantage, gains and losses from trade, the impact of trade on economic growth, and effects of trade policy interventions such as tariffs, quotas, voluntary export restraints and export subsidies. International agreements on regional trade liberalization (such as EU and NAFTA) and on multilateral trade liberalization (e.g., WTO) will also be discussed. Topics on international finance include balance of payments, determination of foreign exchange rates, and international monetary system.

Prerequisite(s): ECON 102 or ECON 113 or HONR 166 or permission of department.

ECON 333 - Research and Analysis in Economics Credits: 3

Provides the opportunity for students to have a hands-on experience in applying various economic research methodology and analysis in addressing current socio-economic issues. Quantitative research approaches and the use of computer statistical software are essential in this course.

Prerequisite(s): (SCMG 200 or MATH 117) and (ECON 113 or ECON 101 or ECON 102 or HONR 166 or HONR 165) or permission of department.

ECON 335 - Economic Analysis of the Law Credits: 3

This course will cover the economic analysis of the law, including how economics shapes the law, the applications of economic analysis required to apply the law, and the economic analysis of the effects of new laws or regulations. Students will cover tort law, contracts law, property law, and criminal law each semester. Students choose additional topics that are covered, including intellectual property law, antitrust law, and civil procedure as time permits. Students will engage in research on the topic of their choice and present their findings to the class as a whole.

ECON 340 - Introduction to Regional Economics Credits: 3

Discusses the economics of industrial location, land utilization, urban structure, and regional development. Problems of locational change and adjustment are analyzed. Objectives, methods, and implications of policies of public control are emphasized.

Prerequisite(s): ECON 102 or ECON 113

ECON 345 - The Economics of Growth and Development Credits: 3

Introduces the general field of economics growth and the problems of developing countries. Specifically, the nature of a typical underdeveloped area and the problems of capital formation, population growth, and economic organization are analyzed and compared with those arising with the growth of industrialized countries. Theories of economic growth and their relevance to current problems in developing areas and various forms of international assistance, are examined.

Prerequisite(s): ECON 102 or HONR 166 or permission of department.

ECON 355 - Environmental Economics Credits: 3

Focuses on environmental issues from both a microeconomic and macroeconomic point of view. Pollution control policies such as taxes, subsidies, marketable pollution permits, and government mandated pollution standards are analyzed from theoretical and applied perspectives.

Prerequisite(s): ECON 102 or HONR 166 or ECON 113 or permission of the department

ECON 360 - Industrial Organization Credits: 3

Analyzes structure, conduct, and performance of American industry with emphasis on the economic and social impact of the concentration of economic power in the industrial sector.

Prerequisite(s): ECON 102 or HONR 166 or ECON 113 or permission of department.

ECON 377 - Sports Economics Credits: 3

Tools of economic analysis are used to study the sports industry. Topics of discussion include monopoly, monopsony, pricing strategies, profitability, role of unions, discrimination, salary determination, and college athletics. The course is divided into three main sections: 1) the market structure of sports, 2) the financing of professional sports, and 3) the labor markets of professional and amateur sports.

Prerequisite(s): ECON 101 or ECON 102 or ECON 113 or HONR 165 or HONR 166

ECON 391 - Internship in Economics I Credits: 3

Students supplement their classroom studies by acquiring human capital through a professional internship. Contact the internship coordinator of the department for further information.

Prerequisite(s): Requires permission of department to enroll.

ECON 392 - Internship in Economics II Credits: 3

Students supplement their classroom studies by acquiring human capital through a professional internship. Contact the internship coordinator of the department for further information.

Prerequisite(s): Requires permission of department to enroll.

ECON 393 - Selected Topics in Economics Credits: 3

Opportunity to offer courses in areas of departmental major interest not covered by the regular courses.

ECON 394 - Selected Topics in Economics Credits: 3

Opportunity to offer courses in areas of departmental major interest not covered by the regular courses.

ECON 395 - Selected Topics in Economics Credits: 3

Opportunity to offer courses in areas of departmental major interest not covered by the regular courses.

ECON 396 - Selected Topics in Economics Credits: 3

Opportunity to offer courses in areas of departmental major interest not covered by the regular courses.

ECON 399 - Independent Study in Economics Credits: 1-3

Independent study affords students the opportunity to engage in independent study related to their major field, a supporting area, or specialized interest.

ECON 484 - Mathematical Economics Credits: 3

Covers the specification of economic models in mathematical terms. Applications of mathematical analysis to both macroeconomic and microeconomic concepts are presented.

Prerequisite(s): (ECON 101 or HONR 165) and (ECON 102 or HONR 166)) and (MATH 181 or MATH 211))
Graduate Credit: This course is available for graduate credit.

ECON 485 - Econometrics Credits: 3

Covers statistical estimation and testing of economic models. Topics include specification of models, data problems, and estimation problems encountered in the study of economics, such as serial correlation, hetroscedasticity, autoregression, lag models, and identification.

Prerequisite(s): (ECON 101 or HONR 165) and (ECON 102 or HONR 166))
Graduate Credit: This course is available for graduate credit.

ECON 490 - Selected Topics in Economics Credits: 3

Opportunity to offer courses in areas of departmental major interest not covered by the regular courses.

Graduate Credit: This course is available for graduate credit.

ECSP 415 - Professional Practicum: Pre K-4/Dual Credits: 3

Early Childhood Special Education (ECS 415) is for senior-level student participation in early childhood /early intervention environments. Emphasis is placed on building partnerships with families and various community entities and implementing facets of an integrated curriculum. Instructor led seminars are scheduled throughout the course. Students will complete a total of at least 50 hours in a placement with preschool children.

Graduate Credit: This course is not available for graduate credit.

ECSP 489 - Student Teaching and Professional Practicum Credits: 6-15

This course is a site-based professional experience that provides guided teaching in special education classrooms during which the student, under the direction of a qualified cooperating teacher and university supervisor, takes increasing responsibility for planning and directing the learning experience of a specific group(s) of students.

EDFN 290 - Introduction to English/Language Arts Education: Teaching Adolescent Writers Credits: 3

The first of three pedagogy courses in the English, Secondary Certification 7-12 major, EDU 290: Introduction to English Language Arts Education: Teaching Adolescent Writers, introduces pre-service English teachers to the theory and practice of teaching English language arts in the secondary schools. The special focus of the course--teaching writing--provides opportunities for students to study composition and curriculum theory, engage in effective, hands-on, literacy practices in partnered secondary classrooms, and write practical lesson plans that address NCTE & INTASC standards for process writing, multimodal composition, grammar and rhetoric, language acquisition, instructional technology, diversity, differentiation, assessment, and reflection. This course establishes the foundation required for students to be successful in the two pedagogy courses that follow, and more broadly, in their own teaching practice as future educators. This course is designed to meet the Stage 2 Field Experience Competencies outlined by the Pennsylvania Department of Education. A field placement is assigned, and the completion of field hours is required. All field clearances are required to be submitted to the Office of Partnerships, Professional Experiences and Outreach prior to the end of the first week of the semester. Failure to submit clearances as required will result in a withdrawal from the course and the field placement.

EDFN 393 - Selected Topics in Educational Foundations Credits: 1-3

Opportunity to offer courses in areas of departmental major interest not covered by the regular courses.

EDFN 399 - Independent Study in Education Foundation Credits: 3

Independent study affords students the opportunity to engage in independent study related to their major field, a supporting area, or specialized interest.

EDFN 409 - Seminar in Middle Level Learning Credits: 3

Students in this course will demonstrate professional competencies in middle level education student teaching placement. They will demonstrate their understanding of the value of and strategies for creating a community of learners. Practice of professional dispositions and behaviors in an inclusive setting will be refined. Co-requisite: EDFN 495 . Guided field assignments will be required in EDFN 495 .

Corequisite(s): EDFN 495

EDFN 410 - Environmental Education Practicum Credits: 3

Opportunity to apply knowledge gained in previous courses and other experiences to a practical situation. Includes activities specifically designed to develop and evaluate skills needed to create a course of study for teaching environmental education in the elementary and secondary schools. An integral part is working with both elementary and secondary students in the application of both skills and knowledge.

Prerequisite(s): Approval of coordinator of environmental education.
Graduate Credit: This course is available for graduate credit.

EDFN 412 - Teaching Social Studies in Secondary Schools I Credits: 3

Designed to acquaint the prospective teacher of social studies with the philosophy of the field, curriculum preparation and materials, and recent methods and techniques. Course outline, preparation of teaching units, testing and visual aids are stressed.

Corequisite(s): EDFN 413
Graduate Credit: This course is available for graduate credit.

EDFN 413 - Teaching of Social Studies II Credits: 3

Explores the rationale for media use in education, provides an opportunity to develop audiovisual materials and become familiar with commercial materials to supplement teaching techniques and hands-on experiences with a variety of media equipment. Incorporates techniques of evaluation and testing through presentations and projects, which enhance student decision making to include these elements in classroom instructions.

Corequisite(s): EDFN 412
Graduate Credit: This course is available for graduate credit.

EDFN 420 - Microcomputers in the Classroom Credits: 3

Provides basic knowledge of evolution and operation of a microcomputer system. A variety of educational applications are reviewed and analyzed for instructional contributions. Using recommended evaluation procedures, software reviewed and discussed as to classroom utilization. .

Graduate Credit: This course is available for graduate credit.

EDFN 422 - Methods of Teaching English in Secondary Schools Credits: 3

The third of three pedagogy courses in the English, Secondary Certification 7-12 major, EDU 422: Methods of Teaching English in the Secondary Schools completes the professional preparation students require prior to entering the student teaching semester. Students will practice direct applications of the practical and theoretical skills obtained in EDFN 290 and ENGL 426 and will apply elements of advanced pedagogical knowledge in sustained and intensive simulated and/or real classroom environments. Students will write frequently about their reading and other forms of pedagogical learning, complete one sustained piece of pedagogical research that results in a paper of 6-8 pages, and create a full curriculum unit that includes all elements needed to meet NCTE & INTASC standards and to demonstrate mastery of relevant pedagogical planning knowledge. This course is taken in conjunction with ENG XXX: Field Practicum in Teaching English in the Secondary Schools. This course is designed to meet the Stage 3 Field Experience Competencies outlined by the Pennsylvania Department of Education. A field placement is assigned, and the completion of field hours is required. All field clearances are required to be submitted to the Office of Partnerships, Professional Experiences and Outreach prior to the end of the first week of the semester. Failure to submit clearances as required will result in a withdrawal from the course and the field placement.

Prerequisite(s): EDFN 290
Graduate Credit: This course is available for graduate credit.

EDFN 426 - Methods of Teaching Foreign Languages Credits: 3

Focuses on techniques and materials for teaching foreign languages in the K-12 school setting. Theoretical rationales for a variety of methodologies and specific techniques examined along with the implications of findings from research in second language acquisition. Through a variety of strategies and experiences students develop those skills needed to begin a successful teaching career.

Prerequisite(s): Requires permission of instructor to enroll.
Graduate Credit: This course is available for graduate credit.

EDFN 434 - Teaching of Mathematics in the Secondary Schools I Credits: 3

Covers theories of learning mathematics, national and state standards, and educational issues related to teaching and learning mathematics. Mathematical content and curricula for secondary school students will be explored and analyzed. Lesson and long-range planning and the classroom environment are included. Requires acceptance into Professional Semester, completion of appropriate Praxis exams, and junior standing. Course open to the following majors: Mathematics, Secondary Education Certification; or, Middle Level Education, Math Concentration; or, Middle Level Education, dual concentration with Math. Students will participate in pre-student teaching clinical experiences.

Graduate Credit: This course is not available for graduate credit.

EDFN 435 - Teaching of Mathematics in the Secondary Schools II Credits: 3

Covers instructional and assessment strategies for secondary school mathematics classrooms. Differentiated instruction techniques, the use of student-centered approaches, and reading and writing connections are included. Students will participate in pre-student teaching clinical experiences.

Prerequisite(s): EDFN 434
Graduate Credit: This course is available for graduate credit.

EDFN 440 - Teaching of Science in Secondary Schools Credits: 3

Students develop an instructional philosophy through discussions and reading as well as experience in simulated teaching activities. Use of demonstrations, experiments, visual aids, projects, cooperative learning, and other inquiry and discovery activities are stressed. Additional topics include individual differences among students, handicapped, or reading disabled.

Corequisite(s): EDFN 441
Graduate Credit: This course is available for graduate credit.

EDFN 441 - Curriculum and Evaluation in the Secondary Science Classroom Credits: 3

Understanding of inter-relatedness between the life science, physical science, chemistry, and earth and space science curricula through reading, demonstrations, and visits to schools. Emphasis on relationships among learning objectives, teaching/learning activities, and the attainment of those objectives. Evaluation component includes construction of classroom rubrics, quizzes and tests, and the analysis and improvement of those assessment tools.

Corequisite(s): EDU440
Graduate Credit: This course is available for graduate credit.

EDFN 490 - Selected Topics in Education Foundation Credits: 3

Opportunity to offer courses in areas of departmental major interest not covered by the regular courses.

Graduate Credit: This course is available for graduate credit.

EDFN 491 - Selected Topics in Education Foundation Credits: 3

Opportunity to offer courses in areas of departmental major interest not covered by the regular courses.

Graduate Credit: This course is available for graduate credit.

EDFN 492 - Selected Topics in Education Foundation Credits: 3

Opportunity to offer courses in areas of departmental major interest not covered by the regular courses.

Graduate Credit: This course is available for graduate credit.

EDFN 493 - Selected Topics in Education Foundation Credits: 3

Opportunity to offer courses in areas of departmental major interest not covered by the regular courses.

Graduate Credit: This course is available for graduate credit.

EDFN 494 - Selected Topics in Education Foundation Credits: 3

Opportunity to offer courses in areas of departmental major interest not covered by the regular courses.

Graduate Credit: This course is available for graduate credit.

EDFN 495 - Student Teaching Credits: 6-15

Professional site-based experience provides a full semester of guided teaching in the K-12 schools during which the student, under the direction of a qualified cooperating teacher and university supervisor, takes increasing responsibility for planning and directing the learning experience of a specific group(s) of students. Student Teaching is a variable credit course based on your program requirements. Program requirements should be verified for the proper number of student teaching credits required for graduation. CREDIT HOURS: 9 hours graduate student teaching, 12 hours middle level student teaching all options except language arts single concentration, 12 hours early childhood student teaching (pre k-grade 4), and 12 hrs secondary education concentration students.

Prerequisite(s): 3.0 GPA
Graduate Credit: This course is available for graduate credit.

EDFN 496 - Selected Topics in Education Foundation Credits: 1

Opportunity to offer courses in areas of departmental major interest not covered by the regular courses.

Graduate Credit: This course is available for graduate credit.

EDFN 497 - Selected Topics in Education Foundation Credits: 3

Opportunity to offer courses in areas of departmental major interest not covered by the regular courses.

Graduate Credit: This course is available for graduate credit.

EDFN 498 - Selected Topics in Education Foundation Credits: 3

Opportunity to offer courses in areas of departmental major interest not covered by the regular courses.

Graduate Credit: This course is available for graduate credit.

EDFN 499 - Selected Topics in Education Foundation Credits: 3

Opportunity to offer courses in areas of departmental major interest not covered by the regular courses.

Graduate Credit: This course is available for graduate credit.

SPEE 273 - Introduction to Exceptionalities: Understanding Diverse Learners Credits: 3

Provides students with an understanding of the history of the field of special education in the US with a focus on past and current laws governing provision of educational services to students with disabilities. Addresses the roles of general and special educators in the identification of students with disabilities and the development of individualized educational programs (IEP). Examines the prevalence, characteristics, academic and behavioral needs of students with disabilities according to the definitions of the disability categories recognized under federal law. Covers effective assessment and evidence-based instructional and behavioral strategies for students with disabilities in general and special education settings.
Note: This course requires field observation hours at a location determined by the department. Clearances are required for this course. Contact the OPPEO at fieldexperiences@ship.edu for clearance information.

Category: Interconnections - D

SPEE 280 - Best Practices in Collaboration: Educators, Families, & Related Service Providers Credits: 3

Designed to address essential elements of effective collaboration and communication with a variety of stakeholders. Teacher candidates learn to effectively implement the guiding principles of current special education federal legislation and to collaborate with all appropriate stakeholders in a given multidisciplinary, Individualized Family Services Plan (IFSP), and Individualized Education Program (IEP) team. 3 credits.
Note: This course requires field placement hours and clearances. Contact the OPPEO at fieldexperiences@ship.edu for clearance information.

Prerequisite(s): Requires Admission into the Prek-4/Special Education Dual Certification Program and SPEE 273 with minimum grade of B or HONR 411 with minimum grade of B

SPEE 320 - Interventions for Students with Communication Impairments Credits: 3

This course is to prepare preservice special education teachers to work with students who have been identified with a speech/communication impairment. Preservice special education teachers will develop an understanding of (a) basic concepts related to communication impairments, (b) effects communication impairments have on academic, social, and behavioral outcomes, (c) how to design and adapt instruction for students affected by communication impairments, and (d) how to program for students identified with a communication impairment.
Note: This course requires field placement hours and clearances. Contact the OPPEO at fieldexperiences@ship.edu for clearance information.

Prerequisite(s): SPEE 273 with minimum grade of B

SPEE 325 - Interventions for Students with Social/Emotional and Behavioral Impairments Credits: 3

Understanding how to address atypical development in social/emotional and/or behavioral development is critical to educating young children with exceptionalities. This course will prepare preservice special education teachers to (a) identify and assess young students with social/emotional and/or behavioral impairments; (b) develop, implement, and monitor individualized education programs (IEP) for young students with social/emotional and/or behavioral impairments; and (c) design, provide, and adapt instruction for young students with social/emotional and/or behavioral impairments. This course will also focus on developing and implementing classroom-wide behavior management systems. Teacher candidates will become familiar with current trends in proactive behavior management approaches used within classrooms and schools. This course will also address connections of challenging behaviors to aspects of the learner's (a) environments, (b) cultural diversity, (c) developmental and academic skills, and (d) physiological needs.
Note: This course requires field placement hours and clearances. Contact the OPPEO at fieldexperiences@ship.edu for clearance information.

Prerequisite(s): SPEE 273 with minimum grade of B

SPEE 330 - Teaching Students with Exceptionalities in a Standards-Aligned System Credits: 3

This course will prepare teacher candidates to design and implement standards-based instruction and Individualized Education Programs (IEPs) for Pk-8 (change to Pk-12) students with disabilities within the general curriculum or adapted curriculum. Teacher candidates will learn how to identify current content standards, design specialized instruction for students with exceptionalities, and implement appropriate accommodations and/or modifications, as needed.
Note: This course requires field placement hours and clearances. Contact the OPPEO at fieldexperiences@ship.edu for clearance information.

Prerequisite(s): Requires admittance into the Pk-4/Special Education Dual Certification Program and SPEE 273 with minimum grade of B

SPEE 335 - Interventions for Students with Cognitive and/or Physical Impairments Credits: 3

This course will prepare preservice teachers to identify and use the most current and evidence-based instruction for students identified with cognitive and/or physical impairments. Preservice teachers will also learn about atypical cognitive and physical development, as well as how to design, implement, and monitor individual educational programs for students identified with cognitive and/or physical impairments.

Prerequisite(s): SPEE 273 with minimum grade of B

SPEE 423 - Effective Instructional Strategies for Students with Exceptionalities Credits: 3

Designed to prepare both general and special education teachers to effectively teach students with disabilities in general education settings. Emphasis given to utilizing evidence based instructional practices for students with varying disabilities, creating a positive learning environment, collaborating and communicating with other school personnel and parents, and implementing positive behavioral interventions.

Prerequisite(s): SPEE 273 or HONR 411
Graduate Credit: This course is available for graduate credit.

SPEE 446 - Transition to Adult Life for Students with Disabilities Credits: 3

Information about the pre-vocational and vocational training of adolescents and young adults who have intellectual disabilities, learning disabilities, or behavior disorders. Provides an understanding of curriculum developments, methods, materials and teaching techniques utilized in the development of skills and attitudes essential to success in the world of work.

Prerequisite(s): SPEE 273 or EEC 526 or Equivalent
Graduate Credit: This course is available for graduate credit

SPEE 447 - Special Education Processes in a Standards Aligned System Credits: 3

EEC 447 is an advanced study in planning and delivering instructional content to students with disabilities in a standards aligned system. The course will focus on: 1) the major principles of IDEA emphasizing evaluation, identification, and writing legally correct Evaluation Report's (ER) and Individualized Education Programs (IEP), 2) the principles of Least Restrictive Environment, Due Process, and Parent Involvement, 3) Behavior management of students with disabilities.

Prerequisite(s): (SPEE 273 or EEC 411 or HONR 411)
Graduate Credit: This course is available for graduate credit.

SPEE 483 - Assessing Children with Exceptionalities for Curricular Decision-Making Credits: 3

Designed to provide teacher candidates with a comprehensive overview of the skills, processes, and research-based interventions for linking assessment and instructional decision-making in inclusive settings for students with disabilities. The academic core areas of literacy, writing, math, and behavior will focus on preparing candidates to participate in pre-referral data collection, contribution to the identification of students with disabilities, IEP writing, progress monitoring, and curriculum based assessment.
Note: This course requires field placement hours and clearances. Contact the OPPEO at fieldexperiences@ship.edu for clearance information.

Prerequisite(s): (SPEE 273 or EEC 411 or HONR 411)
Graduate Credit: This course is available for graduate credit.

SPEE 490 - Selected Topics in Special Education Credits: 1-3

Opportunity to offer courses in areas of departmental major interest not covered by the regular courses.

Prerequisite(s): SPEE 273 or EEC 411 or HONR 411
Graduate Credit: This course is not available for graduate credit.

SPEE 491 - Selected Topics in Special Education Credits: 3

Opportunity to offer courses in areas of departmental major interest not covered by the regular courses.

Prerequisite(s): SPEE 273 or EEC 411 or HONR 411
Graduate Credit: This course is not available for graduate credit.

SPEE 495 - Student Teaching & Professional Practicum Special Education Credits: 6

This course is a site-based professional experience that provides a half semester (eight weeks) of guided teaching PreK-8 special education classrooms during which the student, under the direction of a qualified cooperating teacher and university supervisor, takes increasing responsibility for planning and directing the learning experience of a specific group(s) of students with disabilities.

Prerequisite(s): SPEE 273

ELEN 220 - Linear Circuit Analysis Credits: 4

An introduction to electric circuit analysis techniques, including DC and AC circuit analysis techniques. Students will learn Volt-ampere characteristics for circuit elements. Students will analyze circuits with independent and dependent sources. The course will also introduce Kirchoff's laws for voltage and current, Thevenin's and Norton's theorems. The course will also introduce transient response of resistor-capacitor (RC), resistor-inductor (RL), and resistor-inductor-capacitor (RLC) circuits. Students will also analyze signals at frequency to examine sinusoidal steady-state and impedance and to study both instantaneous and average power. Finally, students will use PSPICE to model the ideal behavior of these systems.

Prerequisite(s): MATH 212 with a C or better and {(PHYS 206 and PHYS 125) or PHYS 222 } with a C or better

ELEN 230 - Instrumentation Credits: 3

This course provides an overview of the different mechanisms and instruments used to measure physical values such as temperature, pressure, flow, and force; that are common in modern industrial processes. The course provides background in the sources of measurement error and methods to compensate for them.

Prerequisite(s): PHYS 206 with minimum grade of C or PHYS 222 with minimum grade of C

ELEN 300 - Foundations of Electronic Systems Credits: 4

Foundations of electronic systems including basic circuit theory, and fundamental and composite devices. Advanced circuit theory includes circuit analysis laws including KVL and KCL, lumped matter approach, and isomorphic analysis. Basic devices (e.g., resistors and capacitors) will be modeled and used to construct composite devices (e.g., transformer is constructed from two mutual inductors). Non-linear devices (e.g., transistors and diodes) will also be modeled and used to construct other basic systems (e.g., amplifiers, voltage regulators). Students will use and extend PSPICE to model the ideal behavior of these systems.

Prerequisite(s): MATH 212 with minimum grade of C and PHYS 221 with minimum grade of C

ELEN 310 - Signals and Systems Credits: 4

Signals and systems covers the basic concepts of signals and system modeling. Students will learn about the differences between time-domain and frequency domain representation of a signal and modes of analysis. Students will also learn

about continuous and discrete signals analysis using a number of different techniques (e.g. Fourier Analysis). Students will use state of the art tools (e.g. MATLAB) to simulate and analyze systems that use signals propagation.

Prerequisite(s): MATH 322 with minimum grade of C

ELEN 323 - Electronic Design & Processes Credits: 4

Students will learn the principles of designing advanced circuits using state-of-the-art CAD tools to create a schematic within given engineering constraints, including factors such as functionality, physical limitations, cost, standard parts inventories, reliability, verifiability, signal integrity, and manufacturing complexity. Students will use advanced simulation tools to verify their designs. Students will learn about Printed Circuit Boards (PCBs), and will create a PCB layout for their schematic. Students will then use the lab facilities to manufacture their board, from blank copper plates to populated board. This board will then be inspected, verified, and reworked as needed. Finally, the student will learn how to use system programmers and debuggers to load their software onto the board, and deliver a completed system.

Prerequisite(s): CMPE 322 with minimum grade of C

ELEN 330 - Control Systems Credits: 3

This is a study of the design and implementation of control systems used across a wide range of modern mechanical and electrical systems. This course explores the theory behind control systems allows us to effectively model their behavior, including frequency and time domain models of these systems. Both open- and closed-loop control systems are developed, with a special emphasis on the PID controller. Students will ultimately learn how to take measurements from a physical system and build a model of that system, develop a control system that meets engineering requirements, and then actually implement that control system using MATLAB. Finally, students will compare the theoretical results and the actual results of their control systems.

Prerequisite(s): ELEN 230 with minimum grade of C or CMPE 322 with minimum grade of C

ELEN 360 - Communications Systems Credits: 4

Introduction to analog and digital communication systems. Emphasis on engineering applications of theory to communication system design. Students will study the basics of sampling and quantization, coding, signal detection, and digital modulation schemes including AM, FM, PAM, and PCM. Transmission of information and system performance in the presence of noise will be covered. Students will use state of the art tools such as MATLAB to analyze communication systems limited by bandwidth and noise.

Prerequisite(s): ELEN 310 with minimum grade of C

ELEN 422 - High Speed Circuits Credits: 4

Students will learn about analog and mixed-signal circuits including high-speed clocks, phase-lock-loops, A/D and D/A converters, and amplifiers. Students will also learn about principles of high-speed communications, including energy and band-width constrained waveforms, and various forms of signal modulations, and data encodings (e.g. 8/10b encoding).

Prerequisite(s): CMPE 322 with minimum grade of C
Graduate Credit: This course is not available for graduate credit.

EDLD 490 - Selected Topics in Educational Leadership and Policy Credits: 1-3

Opportunity to offer courses in areas of departmental major interest not covered by the regular courses.

Graduate Credit: This course is available for graduate credit.

EDLD 491 - Selected Topics in Educational Leadership and Policy Credits: 3

Opportunity to offer courses in areas of departmental major interest not covered by the regular courses.

Graduate Credit: This course is available for graduate credit.

EDLD 492 - Selected Topics in Educational Leadership and Policy Credits: 3

Opportunity to offer courses in areas of departmental major interest not covered by the regular courses.

Graduate Credit: This course is available for graduate credit.

EDLD 493 - Selected Topics in Educational Leadership and Policy Credits: 3

Opportunity to offer courses in areas of departmental major interest not covered by the regular courses.

Graduate Credit: This course is available for graduate credit.

EDLD 494 - Selected Topics in Educational Leadership and Policy Credits: 3

Opportunity to offer courses in areas of departmental major interest not covered by the regular courses.

Graduate Credit: This course is available for graduate credit.

ENGL 113 - Introduction to Academic Writing Credits: 3

This is an introductory writing course designed to increase students' writing proficiency to the level required in ENGL 114, a course that fulfills the General Education writing requirement. ENG 113 focuses on the writing process and provides an introduction to the kinds of critical and analytical writing that will be required in ENGL 114. Students will read and respond to a variety of texts and strengthen their ability to develop a clear and focused argument. Particular attention is paid to essential writing skills, such as the ability to generate ideas, create a clear and focused argument, develop focused paragraphs, use sources and create error-free sentences. There will also be a sustained focus on grammar and usage so that students are better prepared for the rigor of ENGL 114. This course DOES NOT fulfill the writing requirement. This course is NOT OPEN to students who have successfully completed ENG 114.

Prerequisite(s): Writing placement score of 2

ENGL 114 - Academic Writing Credits: 3

Introduces thought provoking texts and subjects. Assists students in developing four foundational skills: writing, reading, discussion, and critical-thinking. Students learn to communicate more effectively as writers and learn to read, discuss, and think more deeply and successfully. Introduces some university resources, such as the library and the Writing Studio. Focuses on process writing that includes composing several drafts, revising, editing, and proofreading within a small, writing intensive course.

Category: Foundations - W

ENGL 115 - Advanced Academic Writing Credits: 3

Provides well-prepared students with enhanced course work in writing effective essays in accordance with a process model of pre-writing, drafting, peer reviewing, revising, editing, and proofreading, as well as sophisticated rhetorical analysis of audience, form, and content. Students compose some writing from print, non-print and on-line sources, using such appropriate documentation formats as Modern Language Association (MLA) format for essays in the humanities. Students are assigned to ENG115 instead of ENGL 114 on the basis of their performance on the SAT.

Category: Foundations - W

ENGL 130 - Literary Studies for the English Major and Minor Credits: 3

Introduces the fundamental components of the three main literary genres (poetry, fiction, and drama) and emphasizes the use of close reading to support the interpretation of literary texts. Students are taught how to identify and utilize key literary devices as lenses through which to provide in-depth textual analysis across the three genres. Students will engage in this textual analysis through multiple writing assignments and intensive in-class discussion.

ENGL 190 - General Education Special Topics Credits: 3

Read poetry, fiction, creative nonfiction, and plays; learn techniques of creative writing like dialogue, image, narrative, point of view, scene and plot. Students will have the chance to apply what they learn to their own creative writing.

ENGL 213 - Writing and Research About Literature Credits: 3

Introduces the fundamentals of the research methodologies and critical approaches in the English major. Students are taught how to write and workshop a critically informed literary analysis involving both primary and secondary texts and using standard practices in the discipline (accessing authoritative criticism, cultural, and/or historical information using specialized research tools, and cultivating an ability to apply diverse critical perspectives). Course work includes reading and writing assignments that develop writing skills and original, critically informed analyses. Students should expect to write at least one documented paper.

ENGL 222 - Foundations in Grammar and Editing Credits: 3

A writing-intensive foundational study of grammar, syntax, style, and formatting with attention to effective communication as writers generally and as English majors specifically. Students will engage in exercises to understand and apply the interplay of content, form, and structure in writing, and the impact and methodologies of revision and editing. They will understand the context for editing from the entry-level job of copyediting to comprehensive editing, including the use of style sheets, and begin a portfolio of writing and editing samples.

ENGL 224 - Introduction to Creative Writing Credits: 3

Introduction to Creative Writing introduces elements of creative writing in a variety of genres, providing practice analyzing short stories, creative nonfiction pieces, poems and/or dramatic scenes from the point of view of a creative writer. In a series of creative assignments, students will learn to use the tools of creative writing such as scene, dialog, imagery and description to explore and improve their own creative writing. Students will write a series of short summary/analysis responses to reading assignments. Students will complete a series of short explorations of creative writing, with a culminating assignment of an expanded and revised creative work in a process portfolio. This course satisfies the requirement for a course in Writing.

Category: Creativity & Expression - C

ENGL 229 - Foundations in Creative Writing Credits: 3

A writing-intensive course that increases students' understanding of language and the writing process through an exploration of forms of creative writing. Topics may include various genres including poetry, fiction, and nonfiction. An emphasis will be placed on: the value of original imaginative content; effective methods for offering feedback; incorporating such feedback in meaningful revision; line-by-line editing; and the development of a signature style. Course work will include concentrated writing assignments, readings, discussions, and in-class workshops. Credit will not be given for both ENGL 224 and ENG 229.

Prerequisite(s): ENGL 114 or ENGL 115 or HONR 106

ENGL 238 - Technical/Professional Writing Credits: 3

Introduces the process, techniques, and forms of technical writing. Students learn to apply the writing process from research through drafting to editing for clarity, conciseness, and accuracy. Includes using graphics and analyzing audience to convey information clearly and effectively. Students create writing assignments important to the technical communication field including memos, letters, resumes, instructions, and presentations. A major research project in the disciplines gives students additional experience in developing specific forms of professional writing required in their academic area.

ENGL 242 - Foundations in Literary Histories Credits: 3

A writing-intensive foundational study of time periods that are influential to literary interpretation and their contexts. Specific topics will vary by instructor. Students will be introduced to the major tenets of literary histories or movement(s) and will engage in close reading of various texts. Throughout the semester, students will frequently engage in the practice of critical reading and writing about literature.

ENGL 243 - The Art of the Film Credits: 3

The course provides an introduction to film and to the fundamentals of how it communicates as an art form and a cultural medium. Screenings in the course are chosen to emphasize the variety of narrative film by including literary adaptations of fiction and drama, classical American movies, foreign-language films, and examples of independent and silent cinema. The course aims to help students acquire skills of watching and responding that will enable them to become more knowledgeable and perceptive viewers, more aware of how movies work to shape our ideas about life and social experience.

Category: Creativity & Expression - L

ENGL 246 - Foundations in Ethnic Literature Credits: 3

A writing-intensive foundational study of ethnicity in literature and minoritized authors. Specific topic will vary by instructor. Students will be introduced to the United States' diverse literary heritage and equally diverse culture, including African American, American Jewish, Arab American, Asian American and Pacific Islander, Latinx, and Indigenous communities. Throughout the semester, students will frequently engage in the practice of critical reading and writing about literature.

ENGL 248 - Introduction to Culturally Diverse Literature of the U.S. Credits: 3

Introduces literature by writers of African-American, Hispanic American, Asian American, and Native American descent. Representative authors may include John Edgar Wideman, Junot Diaz, Leslie Marmon Silko and Amy Tan. Expect to write analyses of the assigned readings.

Category: Creativity & Expression - L

ENGL 250 - Literature and Society Credits: 3

Read, think, and write about literature and its elements as appropriate for the general education curriculum. Students will study literature authored by an array of writers, including those of African American, Latinx, Asian American, and Indigenous descent. Course satisfies general education literature requirement.

Category: Creativity & Expression - L

ENGL 307 - Poetry Writing Credits: 3

Provides students the opportunity to develop their creative skills in writing poetry. Students will explicate examples of the form and independently compose a number of original poems. Utilizing a workshop approach, students will hone their analytic abilities by offering considered criticism to classmates, gaining insight into the editing and revision process.

ENGL 308 - Fiction Writing Credits: 3

Provides students the opportunity to develop their creative skills in writing fiction. Students will explicate examples of short stories and independently compose a number of original works of fiction demonstrating a significant understanding of the key elements of narrative. Utilizing a workshop approach, students will hone their analytic abilities by offering considered criticism to classmates, gaining insight into the editing and revision process.

ENGL 323 - Reviewing the Arts for Publication Credits: 3

Provides students with practical experience in writing critical reviews in the arts-music, dance, painting, literature, sculpture and architecture-as they learn to meet the expectations of different publications, such as a mass circulation weekly, daily newspaper, or professional journal. Readings in the history of the arts and related ideas enable students to develop and apply sharper critical analysis of artistic formats. Students should be prepared to submit at least one review to an outside venue for publication.

ENGL 335 - Creative Nonfiction Writing Credits: 3

Provides students the opportunity to develop their creative skills in writing nonfiction. Students will explicate examples of the form and independently compose a number of original works of memoir, personal essays, and/or travel and nature writing that demonstrate a significant understanding of the key elements of nonfiction. Utilizing a workshop approach, students will hone their analytic abilities by offering considered criticism to classmates, gaining insight into the editing and revision process.

Graduate Credit: This course is not available for graduate credit.

ENGL 336 - Language, Learning, and Literacy Credits: 3

Engages students in reading, research, and experiential application of theories of literacy practices in English language arts education. Specific content will vary according to the instructor and might include: critical and cultural literacy, new media, rhetorical/composition theory, performance, and second language learning. Students can expect to engage in experiential learning activities (such as field experiences, hands-on media creation, or performance-based learning), to read a variety of theoretical texts, to write analytically as well as reflectively/creatively, and to work independently

and/or collaboratively on projects and presentations that demonstrate advanced pedagogical knowledge. Course work will include at least one sustained independent analytic or creative piece.

ENGL 338 - Technical Writing for Professionals Credits: 3

Covers the essential forms of technical writing, including e-mails, memos, letters and instructions. Emphasis on audience analysis, editing for clarity and effectiveness, and incorporation of graphics and design to convey information. An advanced project, such as a proposal report, is tailored to the interests and occupations of the students. Offered exclusively online. Restricted to students in the Degree Completion Program.

Prerequisite(s): Requires enrollment in degree completion program.

ENGL 341 - Teaching Writing in the Secondary Schools Credits: 3

Teaching Writing instructs certification students in the pedagogy and best practices of teaching writing in the secondary schools. Through practical engagement in a variety of activity-oriented and project-based writing tasks, students will learn the skills necessary to design writing lessons and to assess writing in the secondary schools. Students can expect to develop practical materials related to process writing, writing on demand, authentic assessment, grammar, student-directed writing, and writing workshops, to name a few. This course satisfies the requirement for a course in Writing.

Prerequisite(s): ENGL 130

ENGL 342 - Studies in Mythology Credits: 3

This writing-intensive course acquaints students with the mythos of classical Western and/or non-Western cultures. Students will study myth as represented in both traditional and contemporary texts and evaluate the place of myth in modern society in an effort to articulate how myth constructs cultural identities and connects us, more broadly, to our shared humanity. Specific topics will vary by instructor and may include the study of classical Greek/Roman and Norse mythologies; world mythologies; theories of mythologies; and fairy tales, tall tales, urban legends, and/or other contemporary myths. Course work will include discussion and research of relevant cultural and historical matters, frequent written analyses of course texts and contexts, sustained analytic essays, and student-led discussion and/or class presentations.

ENGL 345 - Women's Literature Credits: 3

This writing-intensive course introduces poetry, drama, fiction, and nonfiction written by women. Readings may come from a range of historical periods and different national traditions with depth of study given to how women write from within and in response to the contours of lived experience intersected with gender, race, sexuality, and class. Independent research and academic writing will deepen understanding of women's writing and the representation of women in writing. Course work will include discussion and research of relevant cultural and historical matters, frequent written analyses of course texts and contexts, sustained analytic essays, and student-led discussion and/or class presentations.

ENGL 348 - Studies in Early British Literature Credits: 3

This writing-intensive course focuses on a sustained and in-depth analysis of British literature up to 1800, and may cover topics from Medieval, Renaissance (including Shakespeare), and/or 18th Century literatures. Specific content will vary according to the instructor. Representative topics might include histories and representations of sexuality and gender roles, histories and representations of race, globalism and empire, and the invention and development of literary forms. Students will propose, prepare, and manage an independent critical and/or experiential research project developed from core course concepts.

ENGL 358 - Studies in U.S. Latinx Literature Credits: 3

This writing-intensive course provides an in-depth look at the origins and development of the U.S. Latinx literary tradition in the 19th century to the present day. Students will read a variety of genres, including autobiographies, poems, novels, and essays, as well as relevant scholarship and literary theory. Topic will vary by instructor and may include: magical realism, the Chicano Movement, or AfroLatinidad. Course work will include discussion and research of relevant cultural and historical matters, frequent written analyses of course texts and contexts, sustained analytic essays, and student-led discussion and/or class presentations.

ENGL 359 - Studies in Indigenous Literature Credits: 3

This writing-intensive course provides an in-depth exploration of literary texts written by Indigenous authors. In addition to analyzing these texts as literary productions, students will learn historical and political background to help them contextualize Indigenous literature and culture, especially in terms of the impact of and response to settler colonialism. Specific topics will vary by instructor and may include: exploring the power of Indigenous storytelling as a means to connect to tribal heritage and reclaim cultural and political sovereignty; highlighting the ways in which Indigenous literary traditions address and resist ongoing physical and cultural dispossession; and examining the importance of place and landscape to Indigenous cultural identity. Course work will include discussion and research of relevant cultural and historical matters, frequent written analyses of course texts and contexts, sustained analytic essays, and student-led discussion and/or class presentations.

ENGL 360 - Studies in Popular Culture Credits: 3

This writing-intensive course provides an in-depth study of literature's relationship to culture. Students will examine consumption and influences of popular culture, or the ways social structures (such as power, race, ability, or gender and sexuality) influence the construction of texts and our response to them. Specific topic will vary by instructor and may include: film noir, global hip hop, and pulp fiction. Course work will include discussion and research of relevant cultural and historical matters, frequent written analyses of course texts and contexts, sustained analytic essays, and student-led discussion and/or class presentations.

ENGL 362 - Studies in Disability & Literature Credits: 3

This writing-intensive course provides an in-depth study of literature written about and by people with various disabilities. Students will be introduced to the foundational elements of Disability Studies as an interdisciplinary and theoretical approach and will analyze how literary texts engage with disability as a complex social, cultural, and political identity. Specific topics will vary by instructor and may include: examining the role literature has played in both producing and resisting cultural stereotypes about disability; highlighting how literary productions by authors with disabilities foster disability culture; and exploring how the concerns of the disability community intersect with those of a range of other marginalized social groups. Course work will include discussion and research of relevant cultural and historical matters, frequent written analyses of course texts and contexts, sustained analytic essays, and student-led discussion and/or class presentations.

ENGL 366 - History and Structure of the English Language Credits: 3

Engages students in study and practice of structural grammar, the history of English language development, and concepts and debates in sociolinguistics. Focus may vary by instructor. Course is open to any major, but course is intended to engage with some content Secondary Certification majors will encounter on PRAXIS/PAPA tests.

ENGL 370 - Studies in Queer Literature Credits: 3

This writing-intensive course provides in-depth study of gay, lesbian, bisexual, and/or transgender literature and/or film in the historical context of GLBT social and political movements as well as the development of queer theory. Focus may vary by instructor. Some topics might include the impact of heteronormativity, response to social stigma, subcultural discovery and transmission, and the constructed-versus-essential nature of sexuality and gender. Students will propose, prepare, and manage independent research to produce a writing-intensive critical project that will support their professional development. Other coursework will include discussion and research of relevant cultural and historical matters, frequent written analyses of course texts and contexts, and student-led discussion and/or class presentations.

ENGL 375 - Studies in African American Literature Credits: 3

This writing-intensive course provides in-depth study of the African American literary tradition from the 18th century to the present day. Students may read a variety of genres, including autobiographies, poems, novels, and essays, as well as relevant scholarship and theory. Topics will vary by instructor and may include readings in the slave narrative tradition, the New Negro Renaissance, or the Black Arts movement. Course work will include discussion and research of relevant cultural and historical matters, frequent written analyses of course texts and contexts, sustained analytic essays, and student-led discussion and/or class presentations.

ENGL 380 - Studies in Later British Literature Credits: 3

This writing-intensive course focuses on sustained and in-depth analysis of British literature and may cover topics from 1800 to the present. Specific topic will vary according to the instructor and might include: Romantic-era poetry, Victorian novels, Modernist poetry, or contemporary British plays. Course work will include discussion and research of relevant cultural and historical matters, frequent written analyses of course texts and contexts, sustained analytic essays, and student-led discussion and/or class presentations.

Prerequisite(s): ENGL 130

ENGL 381 - Studies in Later American Literature Credits: 3

This writing-intensive course focuses on a sustained and in-depth analysis of American literature since the middle of the nineteenth century, including the Civil War, Reconstruction, and the Harlem Renaissance, through to the 21st century. Specific content will vary according to the instructor and might include: regionalism, World War II literature, modernism, or digital poetics in the internet age. Course work will include discussion and research of relevant cultural and historical matters, frequent written analyses of course texts and contexts, sustained analytic essays, and student-led discussion and/or class presentations.

ENGL 385 - Studies in Postcolonial Literature Credits: 3

This writing-intensive course provides a focused study of works by authors from Asia, Africa, the Caribbean, the Pacific, Latin America, and/or the Middle East writing after the age of European colonial rule. Specific topic will vary by instructor and may include: the poetics of decolonization, the Negritude movement, or the South Asian novel. Course work will include discussion and research of relevant cultural and historical matters, frequent written analyses of course texts and contexts, sustained analytic essays, and student-led discussion and/or class presentations.

Prerequisite(s): ENGL 130

ENGL 387 - English Internship I Credits: 1-9

Contact department for further information on internships.

ENGL 388 - Independent Study-Senior Paper Credits: 3

Allows senior English majors to write a lengthy critical paper on a topic of their choice. Students wishing to exercise this option should submit a proposal to the curriculum committee of the English department no later than March 30 of their junior year. Must be taken as an independent study course in the final semester of the student's senior year.

ENGL 389 - English Internship II Credits: 1-9

Contact department for further information on internships.

ENGL 399 - Independent Study in English Credits: 3

Independent study affords students the opportunity to engage in independent study related to their major field, a supporting area, or specialized interest.

ENGL 423 - Field Studies in English, Secondary Certification Credits: 3

Linked with the senior methods course EDFN 422: Methods of Teaching English in the Secondary Schools, the primary purpose of this course is to provide English, Secondary Certification pre-service teachers with ongoing opportunities to connect the evidence-based teaching methodologies they learn in EDU 422, to practical, hands-on, teaching conducted in real classrooms. This guided field course will structure opportunities for students to practice the Stage 3 field competencies outlined by the Pennsylvania Department of Education (PDE) and required for professional teaching certification. Students enrolled in the course will collaborate with experienced ELA teachers and higher education faculty in a variety of school settings in order to: conduct evidence-based research, write and implement effective ELA curriculum for adolescent learners, foster respectful, differentiated and antibiased learning environments, design formative and summative assessments that accurately measure student learning, connect and communicate with students, cooperating teachers, school administration, and community members, and finally, reflect critically on their observations in relation to student learning. Students enrolled in this course must also be enrolled in EDU 422. Assignments in this course will focus on completing field-based activities related to language arts education at the secondary level, such as directly engaging in instruction, conducting field-based research, and developing a professional teaching portfolio, linked to PDE, INTASC and NCTE Standards for the initial preparation of English language arts teachers, 7-12.

Prerequisite(s): EDFN 290
Corequisite(s): EDFN 422
Graduate Credit: This course is available for graduate credits.

ENGL 426 - Teaching Adolescent Literature Credits: 3

The second of three pedagogy courses in the English, Secondary Certification 7-12 major, ENG 426: Teaching Adolescent Literature acquaints pre-service English students with award-winning young adult texts and themes and offers instruction on the research-based teaching methodologies and best practices required to teach these texts effectively. Working directly with field partners and community mentors, students will design culturally responsive, inclusive, multimodal lesson plans that demonstrate their growing awareness of the needs of adolescent readers and their knowledge of adolescent literacies more broadly. Students will additionally complete course assessments aligned with current NCTE & INTASC standards for pre-service, secondary English language arts teachers.

Prerequisite(s): EDFN 290
Graduate Credit: This course is available for graduate credit.

ENGL 427 - Advanced Poetry Workshop Credits: 3

Provides opportunities for advanced students to enhance professional skills as poets. Students will compose original poems and revise them guided by feedback, ultimately producing creative pieces of sufficient quality to be submitted to appropriate publication venues and/or conferences. In addition, students will offer refined critiques to fellow poets, modeling approaches applied in the publishing world. Significant recent trends in publishing as well as resources to locate outlets for publication will be reviewed. If prerequisite courses are not met, instructor approval is required.

Prerequisite(s): ENGL 307
Graduate Credit: This course is not available for graduate credit.

ENGL 428 - Advanced Fiction Workshop Credits: 3

Provides opportunities for advanced students to enhance professional skills as authors and editors. Students will compose original works of short fiction and/or novel chapters, and revise them guided by feedback, ultimately producing creative pieces of sufficient quality to be submitted to appropriate publication venues and/or conferences. Significant recent trends in publishing as well as resources to locate outlets for publication will be reviewed. In addition, students will offer refined critiques to fellow writers, modeling approaches applied in the publishing world. If prerequisite course is not met, instructor approval is required.

Prerequisite(s): ENGL 308 or permission of instructor.
Graduate Credit: This course is not available for graduate credit.

ENGL 430 - Seminar in Literary History & Movements Credits: 3

This writing-intensive course focuses on a sustained and in-depth analysis of a literary historical period, literary movement, or literary historiography not covered by an existing course-specific content will vary according to the instructor. Some topics might include Romanticism, the Chicago Renaissance, New Historicism, or "distant reading." Students can expect to read and write theoretically on the chosen history or movement, conduct research on relevant cultural and historical matters, and present their advanced, independent work in frequent written analyses, sustained analytic papers, and other forms or presentations that reflect professional or graduate-level understanding and communication skills.

Graduate Credit: This course is not available for graduate credit.

ENGL 435 - Advanced Creative Nonfiction Credits: 3

Provides opportunities for advanced students to enhance professional skills as authors and editors. Students will compose original works of short nonfiction and/or novel chapters, and revise them guided by feedback, ultimately producing creative pieces of sufficient quality to be submitted to appropriate publication venues and/or conferences. Significant recent trends in publishing as well as resources to locate outlets for publication will be reviewed. In addition, students will offer refined critiques to fellow writers, modeling approaches applied in the publishing world. If prerequisite courses are not met, instructor approval is required.

Prerequisite(s): ENGL 335 or permission of instructor.
Graduate Credit: This course is not available for graduate credit.

ENGL 438 - Advanced Technical/Professional Writing Credits: 3

Combines hands-on writing projects with advanced knowledge of technical and professional principles and theories. Emphasizes critical evaluation of information, project management and implementation, audience analysis, and organizational skills. Students work both independently and collaboratively to complete advanced assignments such as writing a proposal, creating a website or professional e-portfolio, and making a persuasive presentation. Increases professionalization and preparation for internships and jobs in technical or professional writing; the course is a

significant asset for any student whose employment goals require strong writing skills and the ability to lead and to coordinate projects.

Prerequisite(s): ENGL 238
Graduate Credit: This course is not available for graduate credit.

ENGL 440 - Seminar in Genre Credits: 3

This writing-intensive course engages students in reading, research, and analysis of a selected literary genre. Particular attention will be given to the politics, theories, and contexts of literary form. Specific topic will vary by instructor and may include: the sonnet, historical fiction, or realist drama. Students can expect to read and write theoretically on the chosen genre, conduct research on relevant cultural and historical matters, and present their advanced, independent work in frequent written analyses, sustained analytic papers, and other forms or presentations that reflect professional or graduate-level understanding and communication skills.

Graduate Credit: This course is not available for graduate credit.

ENGL 445 - Seminar in Literature and Identities Credits: 3

This writing-intensive course focuses on a sustained and in-depth analysis of a problem, theme, concept, theory, and/or historical aspect of one or more identities otherwise not covered by an existing course-specific content will vary according to the instructor. Some topics might include theories of cultural and racial formation, literature of gender and sexuality (focused on women or LGBTQIA+), globalization and local culture, or social media and identity. Students can expect to read and write theoretically on the chosen identity, conduct research on relevant cultural and historical matters, and present their advanced, independent work in frequent written analyses, sustained analytic papers, and other forms or presentations that reflect professional or graduate-level understanding and communication skills

Graduate Credit: This course is not available for graduate credit.

ENGL 450 - Seminar in Cultural Studies Credits: 3

This course focuses on a sustained and in-depth analysis of systems of social organization (such as race, gender, or sexuality) from a cultural studies perspective, in particular, how literature imagines the limits and possibilities of change and resistance. Specific content will vary by instructor. Students will propose, prepare, and manage independent research to produce a writing-intensive critical project that will support their professional development.

Graduate Credit: This course is not available for graduate credit.

ENGL 466 - Seminar in Literary Criticism Credits: 3

The writing-intensive course focuses on theories of literary criticism. Specific content will vary by instructor. Some topics might include: psychoanalysis, Marxism, feminism, and critical race theory. Students can expect to read and write theoretically, conduct research on relevant cultural and historical matters, and present their advanced, independent work in frequent written analyses, sustained analytic papers, and other forms or presentations that reflect professional or graduate-level understanding and communication skills.

Graduate Credit: This course is not available for graduate credits.

ENGL 480 - Professional Endeavors Credits: 3

Following completion of the majority of required English courses, students will demonstrate their professional skills through practical work experience in multiple subfields (librarianship, editing, technical writing, publishing, alternative certification for teaching, etc.), or advanced knowledge through writing graduate-level work. Students will be introduced to a number of different career paths open to English majors, and will create a resume, CV, and/or portfolio to demonstrate their strengths. Students will likewise practice skills necessary for the workforce and for job seeking.

Graduate Credit: This course is not available for graduate credits.

ENGR 100 - Engineering Seminar I Credits: 1

The goal of this course is to prepare the student for study in an engineering discipline. This will include general skills for achieving success in college, in addition to an introduction to the engineering disciplines and the engineering development process.

ENGR 110 - Modeling and Simulation Credits: 3

An introduction to programming, modeling physical systems, and simulating them using MATLAB. Topics will include basic programming topics such as: variables, conditionals, loops, and functions. Other topics will include vectors, matrices, visualizing data, reading and writing data files, and vectorizing code. Students will model collect data and model physical systems as spring-damper systems, and use open- and closed-loop systems.

Prerequisite(s): Math placement level of 6
Category: Citizenship & Responsibility - R

ENGR 120 - Programming for Engineers Credits: 3

An introduction to programming for electrical engineers. This course is a highly focused introduction to programming in C language. It covers the basics of programming including procedures, variables, types, loop, and control structures. The course introduces basic computing resources, and introduces algorithmic solutions to common engineering and numerical problems.

Prerequisite(s): CMSC 110, ENGR 110, SWEN 100, CMSC 104, or ITAN 240 with a minimum grade of C.
Category: Natural World & Technology - T

ENGR 200 - Engineering Seminar II Credits: 1

This course is focused on the tools that teams use to engineer solutions together. Participation in a team project will help the students learn about and apply current team coordination tools for project management, configuration management, and personal improvement.

ENGR 300 - Engineering Seminar III Credits: 1

The goal of this course is to prepare the student for upper class courses and entering the workplace. Career preparation will include strategies for finding internships and full-time positions and preparing for the hiring process (building a resume, writing a cover letter, and interviewing). Academic preparation will be focused on how to find and read journal publications on a given topic.

ENGR 310 - Statistical Process Control Credits: 3

The course will develop the students' understanding of statistical process control. A variety of control charts will be used for assessing process stability and estimation of process capability. We will also study how engineers design

experiments based on statistical quality control for the purpose of controlling, improving, and optimizing the engineering process.

Prerequisite(s): MATH 375 with minimum grade of C

ENGR 311 - Managing Development Processes Credits: 4

The course will develop the students' understanding of statistical process control. A variety of control charts will be used for assessing process stability and estimation of process capability. We will also study how engineers design experiments based on statistical quality control for the purpose of controlling, improving, and optimizing the engineering process.

Prerequisite(s): MATH 375 with C grade or better.

ENGR 380 - Engineering Internship I Credits: 1-4

The aim of the engineering internship is to enable students to gain experience and build their practice their engineering skills in a real-world setting. The scope of work for the internship must be aligned with the program of study for the student. Throughout the internship, the student will keep a journal of the hours and work performed. Students will produce a reflection and summary of their internship experience. An internship employer will provide a review of the student's work at the conclusion of the internship.

Prerequisite(s): Junior or Senior standing in the major and department approval.

ENGR 381 - Engineering Internship II Credits: 1-4

The aim of the engineering internship is to enable students to gain experience and build their practice their engineering skills in a real-world setting. The scope of work for the internship must be aligned with the program of study for the student. Throughout the internship, the student will keep a journal of the hours and work performed. Students will produce a reflection and summary of their internship experience. An internship employer will provide a review of the student's work at the conclusion of the internship.

Prerequisite(s): Junior or Senior standing in the major and departmental approval

ENGR 382 - Engineering Internship III Credits: 1-4

The aim of the engineering internship is to enable students to gain experience and build their practice their engineering skills in a real-world setting. The scope of work for the internship must be aligned with the program of study for the student. Throughout the internship, the student will keep a journal of the hours and work performed. Students will produce a reflection and summary of their internship experience. An internship employer will provide a review of the student's work at the conclusion of the internship.

Corequisite(s): Junior or Senior standing in the major and department approval

ENGR 390 - Special Topics in Engineering Credits: 3-4

Opportunity to offer courses in an area of engineering that is not covered by the regular courses.

ENGR 391 - Special Topics in Engineering Credits: 3-4

Opportunity to offer courses in an area of engineering that is not covered by the regular courses.

ENGR 490 - Special Topics in Engineering Credits: 3-4

Opportunity to offer courses in an area of engineering that is not covered by the regular courses.

ENGR 491 - Special Topics in Engineering Credits: 3

Opportunity to offer courses in an area of engineering that is not covered by the regular courses.

ENTR 110 - Introduction to Entrepreneurship Credits: 3

Introduction to Entrepreneurship is designed for freshmen and sophomores who wish to learn about entrepreneurship. It offers an insight into the culture and characteristics of entrepreneurs; the approaches they use to create, identify and evaluate opportunities for new ventures; and the skills that are needed to start and manage new ventures and develop a preliminary business plan.

Category: Creativity & Expression - C

ENTR 336 - Product Design & Development Credits: 3

This course will examine the product-creation process (product and services) from opportunity identification to product production. Topics will include --- identifying customer needs, patents and intellectual property, robust design, rapid prototyping, concept testing, product architecture and product production (or outsourcing). This is a hands-on course that relies primarily on real world application of product creation across multiple disciplines. A group project will require students to design and development of an actual product.

Prerequisite(s): MKTG 205 (may be taken concurrently)

ENTR 337 - Issues in Entrepreneurship Credits: 3

Covers a series of applied topics in a very hands-on method. Concepts, theories, and business practices from a variety of disciplines covered from an entrepreneurial prospective. This perspective used to drive students to a more thorough understanding of the necessities of an entrepreneur or manager-entrepreneur. Consists of a series of discipline modules considered the tools of the entrepreneur.

ENTR 338 - Social and Green Entrepreneurship Credits: 3

This course focuses on three issues; entrepreneurial decision making, social entrepreneurship creation, and green entrepreneurship creation. An applied approach to these three topics is employed which means projects and experiential learning will be the primary course methodology. Students will complete a series of "lean" business plans for both a social and green product and/or service. The course requires student introduction into entrepreneurial decision-making and knowledge of campus Maker Space facilities.

Prerequisite(s): ENTR 337

ENTR 431 - Corporate Entrepreneurship Credits: 3

Examines the need for entrepreneurship in a corporate setting. Companies must be faster, more flexible, more aggressive and more innovative in order to maintain their competitive edge. In other words, they must be more entrepreneurial. Topics will include the need for speed, adaptability, and innovation in order to maintain a competitive edge. This course will cover many entrepreneurial issues and controversies, and students will be challenged to develop

and defend their positions regarding these matters. This is an application-oriented course. Students will apply concepts, tools, and frameworks in a series of real world cases and contexts.

Prerequisite(s): ACCT 201 and FINA 311 and MGMT 305
Graduate Credit: This course is not available for graduate credit.

ENTR 432 - Entrepreneurship Credits: 3

Focuses on the concepts, skills, and know-how, information, attitudes and alternatives relevant for start-up and early-stage entrepreneurs and entrepreneurial managers. A difficult and complex course with two fundamental objectives: To teach the use of entrepreneurial perspective in order to make better decisions and increase the odds of success; and teach effective entrepreneurial and general management practice from the perspectives of the founder and the vital stakeholders who can make a substantial difference in the ultimate success or failure of the entrepreneurial process. Central focus is the critical role of opportunity creation and recognition, as the principal success factor in new enterprise formation and building. Especially relevant for aspiring entrepreneurs bent on launching and growing a business.

Prerequisite(s): ENTR 337 and ENTR 433
Graduate Credit: This course is not available for graduate credit.

ENTR 433 - Small Business Management Credits: 3

Studies the concerns and trends unique to small businesses. Emphasis on the profitable operation of an ongoing small business. Designed for students who are primarily interested in owning and managing the small business enterprise. Case analysis and analysis of actual small business operations will be used. Consideration will be given regarding how to market and produce new and existing products and how to determine pricing and demand elasticities. Basic objective to enhance the students' probability of successfully running and growing a small business by mixing a variety of instructional exercises including the textbook, Internet exercises, a simulation, and a promotional newsletter or brochure.

Prerequisite(s): ACCT 201 and FINA 311 and MGMT 305 and MKTG 205
Graduate Credit: This course is not available for graduate credit.

ENTR 480 - Innovation Management Credits: 3

This is the capstone course for the IM concentration. We ask and address some of the seminal management questions related to innovation, such as: (1) What is innovation? (2) How is innovation best created and achieved in a company? (3) Under what conditions should innovation be attempted? (4) Why do so many innovation projects fail? (5) How do co-opetition and collaboration affect innovation? (6) What are the sources of innovation? (7) How do emergent, incremental, continuous, disruptive, and destructive innovation differ? (8) How is innovation best measured? (9) What types of organizational structures are best aligned/supportive of/with high performance innovation? (10) What is the role of an innovation incubator? (11) How do innovation accelerators work? (12) How do "open" and "closed" innovation differ and under what conditions should each be used?

Prerequisite(s): ENTR 337
Graduate Credit: This course is not available for graduate credit.

ENTR 481 - Innovation Competencies and Tools Credits: 3

This course focuses on implementation in organizations where innovation is considered the sustainable competitive advantage. It follows and complements the more comprehensive Innovation Management course (ENTR 480). The term innovation will be used broadly incorporating products, services, and processes.

Prerequisite(s): ENTR 337; ENTR 480
Graduate Credit: This course is not available for graduate credit.

ESSC 226 - Hydrology Credits: 3

Presents basic concepts of hydrology with emphasis on the relationship of water to natural and human systems. Major topics include the dynamics of surface water flow, hydrogeology, water pollution, and water resources analysis.

EXER 150 - Introduction to Exercise Science Credits: 3

This course provides students with an overview of the foundational content within the areas of exercise science. Course topics include athletic training and sports medicine, clinical and sport biomechanics, clinical and exercise physiology, exercise and sport nutrition, fitness training, exercise and sport psychology, and motor behavior. Students in the course will explore options available for professional career opportunities, career development, and employment.

EXER 193 - Selected Topics in Exercise Science Credits: 1-3

Opportunity to offer courses in areas of departmental major interest not covered by the regular courses. 1-3 credits.

EXER 200 - Health & Wellness Credits: 3

Designed to assist young adults in the understanding of and planning for a lifelong healthful lifestyle. Wellness topics discussed include the five components of health-related fitness, chronic disease prevention, stress management, nutrition, and weight management with an emphasis on lifetime fitness. Students will design and implement an individualized fitness and behavior modification program.

EXER 207 - Stress Management Credits: 3

Students will examine how stress is conceptualized, analyze our body's physiological stress response, and evaluate the relationship between stress and well-being. Sources of stress in different populations and settings will be explored. Emphasis will be placed on evaluating one's own stressors and stress reactions. Students will also gain skill in using different types of stress management interventions, including relaxation techniques.

Category: Citizenship & Responsibility - R

EXER 213 - Organization and Administration for Fitness and Sport Facilities Credits: 3

Explores organization and administrative procedures for health, fitness and sport settings. May include health and safety concerns, fitness facility maintenance and planning, fitness facility design and evaluation, financial management, legal liability issues, organizational design, security, and facility and event assessment.

EXER 220 - Fundamentals of Coaching Credits: 3

The Fundamentals of Coaching course provides students with the foundational knowledge that is essential for coaching any sport. Successful coaches help athletes master new skills, enjoy competing with others, and develop self-esteem. Successful coaches are not only well versed in the technical and tactical skills of their sports but also know how to teach these skills to young people. And successful coaches not only teach athletes sport skills, they also teach and model the skills athletes need to live successfully in our society.

EXER 244 - Movement Science & Skill Analysis Credits: 3

This course will help students explain how and why a basic understanding of mechanical principles helps produce improved sport and exercise performance. Students will analyze human movement and make recommendations for improvements that are based on sound mechanical principles. Students will learn how to apply the mechanics of human movement to real-world scenarios in health, fitness, and sport settings.

EXER 260 - Principles of Nutrition Credits: 3

Provides students with foundational information on nutrition science, a cornerstone of human health. The roles of macro- and micro-nutrients as well as population specific recommendations for facilitating and improving health and wellness will be address. Other issues related to the socio/environmental influence of nutrition, eating disorder, different diet strategies, and utility of supplements and safety issues will be examined.

EXER 278 - Medical Terminology Credits: 3

This course is designed to introduce students with language of medicine used in health related settings. Students will gain understanding of basic elements and rules of building and analyzing medical terms. These medical terms will be discussed in the context of anatomy, physiology, pathology, diagnostic and treatment procedures, and pharmacology. Special attention will also be paid on some common chronic diseases including heart disease, pulmonary disorder, hypertension, diabetes, and vascular diseases. In depth exploration of how each of these diseases relates to exercise will be made. Restricted to Exercise Science majors until schedule clean-up.

EXER 321 - Exercise Physiology I Credits: 4

Focus on development of knowledge in applied physiology as a basis for understanding the physiological responses and adaptations related to acute and chronic exercise stress. Includes applied laboratory learning experiences that facilitate student understanding. Open to exercise science majors only.

Prerequisite(s): EXER 150 (with a minimum grade of C) and [BIOL 238 (with minimum grade of of C) or BIOL 350 (with minimum grade of C)]

EXER 325 - Sport Psychology Credits: 3

This course will provide students with knowledge of how psychological factors (e.g., anxiety, confidence, coaching strategies) affect sport behavior and performance, and how participation in sport affects one's psychology (e.g., motivation, personality development). An additional focus of the course will be on how psychological skills (e.g., goal setting, imagery, self-talk) can be used to improve sport performance.

Prerequisite(s): PSYC 101 or HONR 151 and 30 credits completed.

EXER 333 - Biomechanics Credits: 4

This course helps students analyze human motion using qualitative and quantitative mechanical principles. Students will perform kinematic and kinetic analyses of linear and angular motions associated with sport skills and exercise movements. Students also perform laboratory activities where they can apply their knowledge in practical settings.

Prerequisite(s): EXER 244 with minimum grade of C and (PHYS 121 with minimum grade of C and PHYS 123 with minimum grade of C) or PHYS 110 with minimum grade of C) and (BIOL 371 with minimum grade of C or BIOL 237 with minimum grade of C)

EXER 336 - Motor Behavior Credits: 3

Students will learn the principles underlying the acquisition of motor skills and how control of skilled movements is gained, maintained, and adapted. Laboratory activities will help students understand how people learn to move, learn skilled actions, and how the principles of motor performance and learning can be useful in health, fitness, sport, and rehabilitation settings. Restricted to exercise science majors/minors.

Prerequisite(s): EXER 244 and 30 credits completed.

EXER 340 - Prevention and Care of Athletic Injuries Credits: 3

This course will provide students with a broad foundation of sports medicine concepts. Students will develop a greater understanding of sports medicine terminology, injury prevention, acute injury recognition, and the care, evaluation, and treatment of common sport and fitness related injuries/conditions. Other areas addressed include the roles of different allied health professions, relevant sports medicine issues, organization and administration, physical conditioning and training, and psychological concerns. Students will receive instruction on a variety of sports medicine skills and will have the opportunity to complete a First Aid, CPR, and AED certification.

Prerequisite(s): Grade of C or better in EXER 150 or EXER 220, and BIOL 150 or BIOL 238 or BIOL 350 or HONR 186.

EXER 343 - Foundations of Exercise Physiology Credits: 4

Involves the study of the physiological response to physical activity and structured exercise with a focus on how the body responds and adapts in both the acute and chronic condition.

Prerequisite(s): Grade of C or better in EXER 150 or EXER 220, and BIOL 150 or BIOL 238 or BIOL 350 or HONR 186.

EXER 348 - Group Exercise Techniques & Leadership Credits: 3

This course will focus on the knowledge and skills to safely and effectively conduct group exercise activities. More specifically, it will explore the fundamentals of group exercise leadership, primary components of group exercise, and group exercise programming. In addition, students will be introduced to a variety of group exercise formats (i.e., high/low cardio, sports conditioning, yoga, functional training). This course will provide an opportunity to teach and evaluate group exercise sessions for all ages. Prerequisite(s): EXER 321 with minimum grade of C or EXER 343 with minimum grade of C.

Prerequisite(s): EXER 343 with minimum grade of C or EXER 321 with minimum grade of C. May be taken concurrently.

EXER 350 - Nutrition for Sport & Fitness Credits: 3

Builds upon concepts from EXER 260 with an emphasis on metabolic processes and applications of nutrition to sport, performance, and fitness. Explores ergogenic aspects of nutrition and the role of nutrition in weight control.

Prerequisite(s): EXER 260 with minimum grade of C, and EXER 343 with minimum grade of C or EXER 321 with minimum grade of C

EXER 352 - Psychology of Physical Activity Credits: 3

This course will explore topics about the relationship between physical activity and psychology. Specifically, this includes understanding how and why physical activity improves mental health and cognitive functioning, explaining various psychosocial factors that affect activity levels, using behavior change theories to improve rates of physical activity participation, and identifying issues unique for various diverse populations.

Prerequisite(s): PSYC 101 or HONR 151 and 60 credits completed.

EXER 360 - Sports Medicine Credits: 3

This course is designed to cover various aspects of the sports medicine field. The content will address: basic rehabilitation principles; documentation and note taking; how therapeutic modalities affect pain and healing; and sport pharmacology. Additionally, special considerations for the pediatric, female, and senior athletes related to injury prevention, identification, and rehabilitation will be covered. Finally, this course will cover general medical conditions (gastrointestinal problems, diabetes, hypertension, skin infections, etc.). Prerequisite Courses: ESC 278 & ESC 340

Prerequisite(s): EXER 278 and EXER 340

EXER 375 - Exercise Testing and Programming Credits: 3

This course is designed to aid students in gaining the knowledge and practical application of testing, programming and exercise techniques associated with fitness training. The fitness training will be based on cardiorespiratory, flexibility, and resistance training guidelines from the ACSM and/or the NSCA. Restricted to exercise science majors. Restricted to Exercise Science majors and Exercise Science minors. Prerequisites: ESC 321 or ESC 343 with C or better and Exercise Science Minors: ESC 343 with C or better.

Prerequisite(s): Exercise Science Majors: EXER 321 or EXER 343 with C or better
Exercise Science Minors: EXER 343 with C or better

EXER 387 - Theory and Practice of Power and Agility Training Credits: 3

This course prepares students to design both short-term and longterm training programs for both power and agility training. The primary goal is for the student to be able to develop the knowledge and skills to train a variety of different athletes and populations. Restricted to Exercise Science Majors and Coaching Minors and PAGE Certificate students.

Prerequisite(s): EXER 343 with minimum grade of C or EXER 321 with minimum grade of C. May be taken concurrently.

EXER 391 - Selected Topics in Exercise Science Credits: 3

Opportunity to offer courses in areas of departmental major interest not covered by the regular courses.

EXER 393 - Selected Topics in Exercise Science Credits: 1-3

Opportunity to offer courses in areas of departmental major interest not covered by the regular courses.

EXER 395 - Internship in Allied Health Setting Credits: 1-12

Students will complete an observational, practical, and/or research-based learning experience in an allied health, rehabilitation, or medical setting of the student's choice. This will allow students to apply the knowledge and skills they have gained from their coursework to a real-world experience in a professional setting that supports their career goals. Internship placements must be approved by the student's academic advisor. The Exercise Science Department will schedule students into their internship only when all required paperwork is completed. At least 3 credits are required for the major; additional credits may count towards major elective or free elective credits.

Prerequisite(s): EXER 278 and EXER 495 with a C or better, Junior standing

EXER 399 - Independent Study in Exercise Science Credits: 1-3

Independent study affords students the opportunity to engage in independent study related to their major field, a supporting area, or specialized interest.

EXER 420 - Clinical Exercise Physiology Credits: 4

Provides students with understanding of pathophysiology of different chronic conditions, acute response to exercise as well as chronic training effects in these populations. Case specific exercise principles and techniques applied to the prevention, management, and treatment of chronic conditions will be explored. Prerequisite(s): EXER 321 or EXER 343 .

Prerequisite(s): Prerequisite(s): EXER 321 or EXER 343
Graduate Credit: This course is available for graduate credit.

EXER 421 - Exercise Physiology II Credits: 4

Provides an understanding of the physiology of exercise with an emphasis on the physiological responses and adaptations to exercise, the relationship between health and fitness, and the physiology of athletic performance. Includes advanced applied lab-based experiences to help facilitate student learning. Open to exercise science majors only. Prerequisite(s): EXER 321 (with minimum grade of C)

Prerequisite(s): EXER 321 with minimum grade of C
Graduate Credit: This course is available for graduate credit.

EXER 424 - Internship Credits: 6-12

Offers a practical, research, observational, study, and/or work experience within an area or career path of student's choice through constructive participation within the field of Exercise Science.

Prerequisite(s): Requires 2.50 QPA overall; must have completed all exercise science major course requirements with a grade of C or above.
Graduate Credit: This course is not available for graduate credit.

EXER 425 - Exercise Science & Weight Control Credits: 3

Overview of weight control and health. Metabolism, energy balance equation, and role of diet and exercise in preventing/treating over-weight and obesity. Methods for assessing body composition. Examination of eating disorders, and behavior modification approaches, surgical intervention and other methods of dealing with mild to severe obesity.

Prerequisite(s): EXER 260 with a C or higher
AND

EXER 321 with a C or higher OR EXER 343

EXER 445 - Coaching Internship Credits: 3

The coaching internship gives students the opportunity to help young athletes develop physically, psychologically, and socially. Students will utilize the sport science knowledge they have obtained in the Coaching Minor curriculum to help coach a local athletic team. The internship experience is completed under the supervision of a local professional and a Shippensburg University supervisor.

Prerequisite(s): ESC 220 with a grade of C or better; and EXER 244 with a grade of C or better; and EXER 340 with a grade of C or better; and (EXER 321 OR EXER 343) with a grade of C or better

EXER 452 - Psychology of Injury & Rehabilitation Credits: 3

The purpose of this course is to understand the cognitive, emotional, behavioral, and social factors that affect injury, rehabilitation, and return to activity. Theory and research will be examined to understand these psychological factors and to learn how to improve the rehabilitation process. Students will also learn about qualitative research methodologies and conduct a qualitative investigation.

Prerequisite(s): PSYC 101 / HONR 151 & 90 credits completed.

EXER 453 - Research Design and Statistics Credits: 4

Students will learn basic methodological concepts for designing, implementing, and interpreting research projects within Exercise Science. This will include hypothesis development, data collection, statistical data analysis, presentation of data through written and oral mediums, and ethical principles surrounding research. Restricted to Exercise Science majors only.

Prerequisite(s): EXER 321 or EXER 343, and EXER 336, and EXER 352, and EXER 375, and MATH 117 or MATH 217 , all with a minimum grade of C.
Graduate Credit: This class is not available for graduate credit.

EXER 475 - Exercise Prescription for Special and Athletic Populations Credits: 3

This course is designed to aid students in gaining the knowledge and practical application of testing, programming and exercise techniques associated with fitness training in a wide range of populations with special needs. The fitness training will be based on cardiorespiratory, flexibility, and resistance training guidelines from the ACSM and/or the NSCA. Prerequisite: EXER 375 .

Prerequisite(s): EXER 375 with a C or higher

EXER 490 - Selected Topics in Exercise Science Credits: 1-3

Opportunity to offer courses in areas of departmental major interest not covered by the regular courses.

Graduate Credit: This course is available for graduate credit.

EXER 495 - Internship in Fitness & Performance Setting Credits: 3-12

Students will complete a practical, observational, and/or research-based learning experience in a fitness, performance, or sport setting of the student's choice. This will allow students to apply the knowledge and skills they have gained from their coursework to a real-world experience in a professional setting that supports their career goals. Internship placements must be approved by the student's academic advisor. The Exercise Science Department will schedule students into their internship only when all required paperwork is completed. At least 3 credits are required for the major; additional credits may count towards major elective or free elective credits.

Prerequisite(s): EXER 340 and EXER 375 with a C or better, Senior standing
Graduate Credit: This course is not available for graduate credits.

ESSC 108 - Introduction to Environmental Sustainability Credits: 3

Analyzes humanity's relationship to the natural environment and its resources. Attention is given to both current utilization and predicted future availability of natural resources. Specific topics may include population demographics, agriculture, mineral and energy resources, climate change, ecology, and water resources. Along with understanding the underlying science, all topics are examined using the perspective of current economic, social, and political conditions.

Category: Citizenship & Responsibility - S

ESSC 110 - Introduction to Geology Credits: 3

Examines and analyzes the geological processes and elements involved in the mobile earth, with emphasis on earth materials, external and internal processes, and earth history. Attention given to human interaction with the geological environment. Topographic maps, fossils, minerals and rocks are used to enhance understanding and student involvement. Lab/lecture.

Category: Natural World & Technology - N

ESSC 111 - Introduction to Weather and Climate Credits: 3

Introduction to the atmospheric processes that produce weather and climate patterns as well as the scientific methods commonly employed in understanding such patterns. The course emphasizes the scientific method of inquiry and is segmented into three parts: 1. basic atmospheric concepts such as temperature, pressure, humidity, and precipitation; 2. major atmospheric disturbances such as blizzards, tornados, and hurricanes; 3. human impacts on the atmosphere such as urban heat islands, air pollution, and global warming. Laboratory and hands-on exercises are used to aid the understanding of atmospheric and scientific processes in general.

Category: Natural World & Technology - N

ESSC 115 - Coastal Hazards and Sustainability Credits: 3

Provides a global perspective of the geology and geography of coastal landscapes, the processes responsible for their formation, diversity, and change over time. Content includes a review of human impacts and responses (i.e. engineering, mitigation, adaptation, emergency response, land use planning, etc.) to coastal hazards affecting people living in coastal zones. Historic and late-breaking case studies will be integrated, especially studies of the Eastern U.S. Students will collect and analyze real data to apply critical thinking and problem-solving skills to real-world issues affecting human populations today and in the future. Students will consider options to improve resiliency and sustainability in these dynamic environments. Course is delivered in hybrid format and includes required field study at the Chincoteague Bay Field Station at Wallops Island, Virginia.

Category: Natural World & Technology - N

ESSC 190 - General Education Special Topics Credits: 3

Opportunity to offer courses in areas of departmental general education interest not covered by the regular general education courses.

ESSC 191 - General Education Special Topics Credits: 3

Opportunity to offer courses in areas of departmental general education interest not covered by the regular general education courses.

ESSC 212 - Historical Geology Credits: 3

Deals with origin and evolution of the geological and biological earth. Major areas include principles of historical geology, significance of sedimentary rocks, fossil records, and history of the Earth. Lab/lecture.

Prerequisite(s): ESSC 110 or HONR 244

ESSC 214 - Geology of National Parks Credits: 3

Presents broad overview and basic geology in limited detail of the North American continent and Hawaii, particularly as represented by the National Parks. Classroom discussion supplemented by demonstration/laboratory exercises with earth materials, models, maps, and stereo photos.

Prerequisite(s): ESSC 110 or HONR 244

ESSC 220 - Oceanography Credits: 3

Comprehensive study of the ocean and surroundings. Main topics include origin of the ocean basins; water of the sea; physiography of the sea floor; plate tectonics; marine sediments; chemical properties of the sea; ocean circulation; waves, tides, beach, and shoreline processes; estuaries and life of the ocean.

Prerequisite(s): ESSC 110 or CHEM 103 or CHEM 105 or HONR 244 or HONR 196 or permission of instructor

ESSC 340 - Marine Geology Credits: 3

ESSC 355 - Meteorology Credits: 3

Deals with atmosphere and stresses those forces which bring about changes within it. Insolation, temperature, precipitation, humidity, winds, storms, and cloudiness are the chief topics studied. Origin and development of cyclones and their significance in weather forecasting play an important interpretative part of this course. Two hours lecture and two hours lab/week.

ESSC 393 - Selected Topics in Earth Science Credits: 1-3

Opportunity to offer courses in areas of departmental major interest not covered by the regular courses.

ESSC 397 - Introduction to Research Credits: 3

Opportunity to do research under the guidance of selected faculty members.

ESSC 399 - Independent Study in Earth Science Credits: 3

Independent study affords students the opportunity to engage in independent study related to their major field, a supporting area, or specialized interest.

ESSC 400 - PASSHE Geology Field Experience Credits: 3-6

The PASSHE Geology Field Experience is an opportunity for students to apply their knowledge and skills to 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 perform 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.

Prerequisite(s): ESSC 110 (Required)
ESSC 212 (Recommended)

or Permission of Instructor
Graduate Credit: This course is available for graduate credit

ESSC 404 - Applied Weather and Climate Credits: 3

Project-based study of atmospheric phenomena and how they relate to other Earth systems or human endeavors. Specific examples may include climate change and its impacts, alternative energy and energy efficiency, hydrologic monitoring and forecasting, and urban climatology. Secondary focus is to enhance research and writing skills through the development of a semester-long applied research project focused on a subject of the student's choosing.

Prerequisite(s): ESSC 111
Graduate Credit: This course is available for graduate credit.

ESSC 410 - Sedimentary Geology and Paleoenvironments Credits: 3

Sedimentary Geology involves the study of physical, chemical, and biologic processes that result in the formation, transportation and deposition of soils, sediments, fossils, and sedimentary rocks. These earth materials accumulate in a range of terrestrial, marginal-marine and marine depositional environments that experience processes that are often characteristic and unique to those environments. This course will engage students in an exploration of various earth materials (soils, sediments, and sedimentary rocks), sedimentary structures, and fossils, and the chemical, physical, and biologic processes that impact their formation. Students will also explore how soils, sediments, fossils, and sedimentary rocks record spatial and temporal changes in plate tectonics, earth system processes, and environments. An important focus will be on how geoscientists reconstruct ancient environments using earth materials and how they generate scientific models to help test short-term and long-term changes in the atmosphere, hydrosphere, biosphere, and lithosphere through time. The course will entail lectures, local and regional field trips that make occur on the weekend, as well as laboratory assignments that are designed to provide students with substantial hands-on, field experience.

Prerequisite(s): ESSC 110 or HONR 244
Graduate Credit: This course is available for graduate credit.

ESSC 413 - Mineral and Rock Resources Credits: 3

Deals with metallic ore deposits such as iron, ferroalloys and nonferrous metals, mineral fuels, and other selected minerals of economic significance. Emphasis on geologic occurrence and mode of origin, geographical distribution, and importance to humans.

Prerequisite(s): ESSC 110 or HONR 244
Graduate Credit: This course is available for graduate credit.

ESSC 421 - Structural Geology Credits: 3

Recognition, interpretation and illustration of geological structures; kinematic and dynamic analysis of rock deformation; stress, strain and deformation mechanisms. 2 hrs. lecture, 3 hours lab., Field trips required

Prerequisite(s): ESSC 110 or HONR 244 and ESSC 212 with C or higher.
Students must provide their own transportation for the course as noted/required by the instructor.
Graduate Credit: This course is available for graduate credits.

ESSC 424 - Soils Credits: 3

The course examines the physical characteristics of soil, processes of soil formation (physical, chemical, and biological), taxonomic classification, geographic distribution, and environmental applications of soil science. Study is set in the context of geoenvironmental science and environmental land use planning through lecture, laboratory exercises, and field work.

Prerequisite(s): ESSC 110 or HONR 244 or graduate student standing
Graduate Credit: This course is available for graduate credit

ESSC 442 - Environmental Geology Credits: 3

Deals with relationships between man and the geological habitat. Concerned with problems people have in using the earth and the reaction of the earth to that use in both a rural and urban setting. Stress placed on developing problem-solving skills in collecting, recording, and interpreting data through field investigations and simulation techniques.

Prerequisite(s): ESSC 110 or HONR 244
Graduate Credit: This course is available for graduate credit.

ESSC 451 - Coastal Environmental Oceanography Credits: 3

This field-intensive course examines the interaction of biological, chemical, physical, geological, and ecological ocean processes as applied to coastal environments. A significant emphasis is focused on describing and documenting coastal environments, their biotas, their environmental tolerances and ranges. Emphasis is also placed on environmental management issues of the coastal zone. Topics include water quality analysis, barrier island geology and ecology, estuarine pollution, beach defense and biological implications in areas of coastal upwelling and coastal fronts. Specific cases in coastal pollution, human impacts on coastal landforms, shoreline erosion, wetland loss, sea-level fluctuations, nutrients in estuaries, and climate change will be examined from coastal environments around the U.S. Lecture, field trips, and laboratory exercises are designed to provide students with hands-on experience with field and laboratory equipment used to solve real-world problems in diverse coastal settings. The course is field-based and taught out of the Marine Science Consortium, Wallops Island, Virginia. The course may also include a travel component to the Florida Keys Marine Lab or similar research facility for additional field experience.

Prerequisite(s): ESSC 220 or permission of instructor
Graduate Credit: This course is available for graduate credit.

ESSC 475 - Problems in the Marine Science Environment Credits: 3

Graduate Credit: This course is available for graduate credit.

ESSC 490 - Selected Topics in Earth Science Credits: 1-3

Opportunity to offer courses in areas of departmental major interest not covered by the regular courses.

Graduate Credit: This course is available for graduate credit.

ESSC 491 - Selected Topics in Earth Science Credits: 3

Opportunity to offer courses in areas of departmental major interest not covered by the regular courses.

Graduate Credit: This course is available for graduate credit.

ESSC 492 - Selected Topics in Earth Science Credits: 3

Opportunity to offer courses in areas of departmental major interest not covered by the regular courses.

Graduate Credit: This course is available for graduate credit.

ESSC 493 - Selected Topics in Earth Science Credits: 3

Opportunity to offer courses in areas of departmental major interest not covered by the regular courses.

Graduate Credit: This course is available for graduate credit.

ESSC 494 - Selected Topics in Earth Science Credits: 1-6

Opportunity to offer courses in areas of departmental major interest not covered by the regular courses.

Graduate Credit: This course is available for graduate credit.

ETHS 100 - Introduction to Ethnic Studies Credits: 3

Introduces perspectives about ethnic realities in America. Through an interdisciplinary examination of intellectual thought presented through various formats, students facilitate the formation of a well-rounded view of ethnic groups, an awareness of their own ethnicity, and an appreciation for human diversity. Major emphasis on African-Americans, Asian Americans, Latino Americans, and Native Americans. Also focuses on immigration experiences of European ethnic groups.

Category: Interconnections - D

ETHS 101 - Introduction to African-American Studies Credits: 3

Provides an interdisciplinary overview of the various perspectives that have impacted African-American life and culture. Introduces the Afrocentric conceptual framework as well as other intellectual paths of African-American thought. These intellectual frameworks are the foundation for critical understanding and discussion of African-American experiences and the relevance of African-American studies as an academic discipline.

Category: Interconnections - D

ETHS 102 - Introduction to Latino Studies Credits: 3

This course provides a historical and cultural understanding of Hispanic presence in the United States through an interdisciplinary approach. Through an analysis of the wide variety of historical, political, sociological, and artistic components students will achieve a deep understanding of the impact and relevance of the multiple Latin American cultures that are part of the Latino experience in the American society, discuss issues of systemic inequities, racism and oppression, and grow an awareness about how power and privilege work.

Category: Interconnections - D

ETHS 190 - General Education Special Topics Credits: 3

Opportunity to offer courses in areas of departmental general education interest not covered by the regular general education courses.

ETHS 390 - Ethnic Studies Internship Credits: 3

Contact Ethnic Studies for further information on internships.

ETHS 399 - Independent Study in Ethnic Studies Credits: 3

Independent study affords students the opportunity to engage in independent study related to their major field, a supporting area, or specialized interest.

FINA 101 - Personal Finance Credits: 3

Survey course that introduces the student to basic skills needed to manage their personal financial affairs. This course includes topics such as financial budgeting and cash management, net worth analysis, consumer purchases and protections, personal credit and debt management, savings and investments, home ownership as well as large purchase decision making analysis, insurance needs and protection, personal income tax effects, long-term retirement and estate planning issues.

Category: Citizenship & Responsibility - R

FINA 311 - Financial Management Credits: 3

Introduces concepts and techniques of financial management in the context of a business firm seeking to maximize the firm's value. Topics include wealth maximization, agency issues, analyses of cash flows and financial ratios, time value of money, valuation of stocks and bonds, risk-return relationship, Capital Asset Pricing Model, capital budgeting, and cost of capital. Requires junior standing to enroll.

Prerequisite(s): ACCT 200 and (ECON 113 or ECON 102 or HONR 166)

FINA 312 - Investments Credits: 3

Deals with the basic principles of security analysis and analytical techniques. Includes a study of the economic functions and operations of the security markets, portfolio management, and the formulation of investment programs.

Prerequisite(s): FINA 311 with a minimum grade of C and SCMG 200 with a minimum grade of D

FINA 313 - Advanced Financial Management Credits: 3

Explores financial theory and financial decision models necessary for handling complex business problems. Topics include capital structure, dividend policy, working capital management, analyses of long-term financing, option pricing, international aspects of financial management, and merges and acquisitions.

Prerequisite(s): FINA 311 with a minimum grade of C and SCMG 200 with a minimum grade of D.

FINA 314 - Financial Institutions Credits: 3

Approaches financial institutions and capital markets from a managerial point of view. Topical coverage includes financial management principles and policies unique to commercial banks, savings institutions, pension funds, and insurance companies.

Prerequisite(s): FINA 311 with a minimum grade of C and SCMG 200 with a minimum grade of D

FINA 320 - Risk Management and Insurance Credits: 3

Introduces the concept of pure risk and scope of exposure facing individuals, businesses, and other organizations. Study includes examinations of various risk control techniques with special emphasis on insurance.

Prerequisite(s): FINA 311 with a minimum grade of C and SCMG 200 with a minimum grade of D.

FINA 322 - Estate Planning Credits: 3

Focuses on efficient conservation and transfer of wealth consistent with the client's goals. Study of the legal, tax, financial, and non-financial aspects of this process, covering topics such as trusts, wills, probate, advanced directives, charitable giving, wealth transfers, and related taxes.

Prerequisite(s): BLAW 261 and ACCT 306 (may be taken concurrently) and FINA 320 (may be taken concurrently)

FINA 324 - Retirement Planning and Employee Benefits Credits: 3

Provides knowledge of both public and private retirement plans. Public plans include Social Security, Medicare, and Medicaid. Private plans include defined benefit and defined contribution plans and their regulatory provisions. Specifics of the various plans are analyzed as well as non-qualified deferred compensation plans. Issues individuals face in retirement, such as life-styles choices and medical issues also discussed.

Prerequisite(s): FINA 311 with a minimum grade of C.

FINA 333 - Applied Company and Security Analysis Credits: 3

Develops the ability to understand and analyze how forecasts for the economy, stock market, industries, and companies are used in a traditional fundamental analysis approach to investing. At its conclusion, students should be able perform a complete equity analysis of a firm, discussing its competitive position, analyzing its financial statements, generating a valuation model, and estimating its fair value.

Prerequisite(s): FINA 311 with a minimum grade of C and SCMG 200 with a minimum grade of D.

FINA 340 - Principles of Real Estate Credits: 3

Introduces the field of real estate. Designed to provide an understanding of the fundamental determinants of real estate value, the real estate market within which such value is established, real estate laws, instruments and institutions which facilitate and regulate the managerial functions required for efficient growth, and the allocation of real estate resources.

Prerequisite(s): FINA 311 with a minimum grade of C.

FINA 393 - Selected Topics in Finance Credits: 1-3

Opportunity to offer courses in areas of departmental major interest not covered by the regular courses.

FINA 399 - Independent Study in Finance Credits: 3

Independent study affords students the opportunity to engage in independent study related to their major field, a supporting area, or specialized interest.

FINA 405 - Real Estate Finance, Investments, & Appraisal Analysis Credits: 3

Provides understanding of the techniques, risks, and rewards associated with various ways of investing and financing both residential and commercial real estate. Topical coverage includes investing, financing, appraising, consulting, and managing real estate.

Prerequisite(s): FINA 311 with a minimum grade of C.
Graduate Credit: This course is not available for graduate credit.

FINA 414 - Bank Management Credits: 3

Deals with the regulatory and managerial environment within which the bank manager operates. Concerned with the regulatory framework which controls the balance sheet policies of a bank as well as branching and merger activity. Other selected advanced topics of bank management, such as the management of deposits and capital adequacy, the bank's balance sheet, assets, and liquidity, are addressed.

Prerequisite(s): FINA 314 or permission of department chair
Graduate Credit: This course is not available for graduate credit.

FINA 421 - Personal Financial Planning Capstone Credits: 3

Capstone synthesis course for Personal Financial Planning majors. Requires students to apply information and skills learned in business core and personal financial planning courses to case situations. Includes the financial planning process, personal financial statements, cash flow and debt management, analysis of insurance needs, investment planning, as well as estate, retirement, and income tax planning. Designed to apply and integrate the above knowledge into a cohesive personal financial plan.

Prerequisite(s): FINA 312 and FINA 320 and FINA 322 and FINA 324 and ACCT 306
Graduate Credit: This course is not available for graduate credit.

FINA 425 - Global Financial Management Credits: 3

Studies the international environment, the foreign exchange risk management, the investment decision, the financing decision, and management of ongoing business operations in global settings. Emphasis on the analysis and evaluation of the investment decision, financial decision, and operational and financial risk in foreign countries.

Prerequisite(s): FINA 311 with a minimum grade of C and SCMG 200 with a minimum grade of D
Graduate Credit: This course is available for graduate credit.

FINA 434 - Investment Management Program I Credits: 1-3

Students manage a real money security portfolio to obtain practical investing experience. Students establish investment philosophy, investment objectives and policies, identify investment strategies, and present recommendations for buying and selling investment securities toward the goal of constructing and managing a real portfolio.

Prerequisite(s): FINA 333 and permission of department.
Graduate Credit: This course is not available for graduate credit.

FINA 435 - Investment Management Program II Credits: 1-3

Students manage a real money security portfolio to obtain practical investing experience. Students establish investment philosophy, investment objectives and policies, identify investment strategies, and present recommendations for buying and selling investment securities toward the goal of constructing and managing a real portfolio.

Prerequisite(s): FINA 333 and permission of department.
Graduate Credit: This course is not available for graduate credit.

FINA 442 - Derivatives Markets Credits: 3

Broad overview of different types of financial derivatives (forwards, futures, options, options on futures, and swaps), while focusing on the principles that determine market prices. To integrate the understanding of these instruments, the discussion emphasizes the relationships among futures, options, and swaps. Emphasizes the application of financial derivatives as risk management tools, not as instruments of speculation.

Prerequisite(s): FINA 312 or permission of department chair.
Graduate Credit: This course is not available for graduate credit.

FINA 490 - Selected Topics in Finance Credits: 1-3

Opportunity to offer courses in areas of departmental major interest not covered by the regular courses.

Graduate Credit: This course is not available for graduate credit.

FREN 101 - Beginning French I Credits: 3

Designed for students who have never studied the language. Both textbook and authentic materials used to enable students to express themselves on personalized topics.

Category: Interconnections - F

FREN 102 - Beginning French II Credits: 3

Continuation of FREN 101. Both textbook and authentic materials used to enable students to express themselves on a variety of topics concerning self, family, and friends.

Prerequisite(s): FREN 101 with minimum grade of C or Departmental Placement
Category: Interconnections - F

FREN 103 - Intermediate French Credits: 3

Continuation of FREN 102. Both textbook and authentic materials used to enable students to express themselves on a variety of topics concerning self, family, friends, and their communities. Reading, writing, listening and speaking are combined to explore the history, geography, music, arts, and film of the French-speaking world.

Prerequisite(s): FREN 102 or Departmental Placement
Category: Interconnections - F

FREN 150 - Modern France and the Francosphere Credits: 3

This course offers an exploration of France's political, social, and cultural evolution from the establishment of the Third Republic (1870) to the present, with special attention to its complex relationship with the Francophone world. We will study the key events and ideologies that have shaped modern France, including the impact of colonialism, the two World Wars, and the development of the European Union. The course will also emphasize the Francosphere (i.e. countries and regions influenced by French culture and language), by examining how French colonialism, decolonization, and global Francophone communities have influenced both France and the broader world. We will explore how the Francophone regions in Africa, the Caribbean, and the Pacific have developed unique cultural identities while maintaining a connection to the French language and traditions. Topics such as post-colonialism, immigration, and multiculturalism will be examined to understand contemporary challenges facing France and its global influence. Taught in English.

Category: Interconnections - D

FREN 190 - General Education Special Topics Credits: 3

Opportunity to offer courses in areas of departmental general education interest not covered by the regular general education courses.

FREN 202 - Intermediate Conversation Through the Media Credits: 3

Designated to promote and improve speaking and listening comprehension skills in the language through explorations of various contemporary media. Utilizing radio and television broadcasts, Internet materials, video, film, and audio programs and the tradition of printed text, students consider current topics of interest through discussion, debate and oral presentations. Special attention given to vocabulary building and improving students' oral/aural proficiency. May be taken concurrently with FREN 103 with permission of the department.

Prerequisite(s): FREN 103 or Departmental Placement
Category: Interconnections - F

FREN 204 - Ideas and Cultures from the French-Speaking World Credits: 3

Introduction to comparative cultural studies of the French and Francophone world. Exploration of the rich cultural exchanges among Francophone communities with an emphasis on their geographical, historical and social contexts undertaken. Sustained attention will be given to oral and written expression.

Prerequisite(s): FREN 103 or Departmental Placement
Category: Interconnections - G

FREN 211 - Intermediate French Grammar Credits: 3

This grammar course will hone previously acquired skills with verbs will introduced to additional tenses as well as moods. Students will continue developing their writing skills with simple sentences and will be encouraged to develop compound sentences. The linguistic elements will be contextualized in cultural issues to develop oral and written expression.

FREN 300 - Advanced French Conversation Credits: 3

This course will allow students to develop their French-speaking skills through listening, reading and discussion of authentic material representing French socio-cultural realities including economics, politics, popular culture, and family life in the 21st century. Designed to improve and refine communicative skills, this course emphasizes listening comprehension and fluency in speaking, and provides students the opportunity to practice the language through discussion of topics of interest and exploration of a variety of media. Through oral presentations, debates, collaborative projects, and other assignments, FRN 300 prepares students to express opinions and points of view in order to attain the proficiency level of Advanced Low following the American Council on the Teaching of Foreign Languages (ACTFL) guidelines. The course in taught in French.

Prerequisite(s): (FREN 202 or FREN 204) and FREN 211 or Departmental Placement

FREN 308 - Diction et Comprehension Credits: 3

Intensive pronunciation and intonation drills supported by examination of phonetic principles. Sound production is stressed and student will learn to distinguish stylistic nuances in phonetic variants. Graduated listening comprehension exercises train the student to understand various style levels, regional and national variations in accent, etc.

Prerequisite(s): FREN 202 or FREN 204 or permission of instructor.

FREN 309 - French Grammar Credits: 3

Examines in detail the structure of the French language. Extensive oral and written exercises are designed to provide the more advanced student with a mastery of those elements of French which pose the greatest difficulties for the American student.

Prerequisite(s): FREN 202 or FREN 204 or permission of instructor.

FREN 316 - Composition and Stylistics Credits: 3

Intended to help develop basic writing skills in sustained contexts: narratives, descriptions, dialogs, essays, etc. Emphasizes syntax of written French at formal and semiformal levels.

Prerequisite(s): FREN 202 or FREN 204 or permission of instructor.

FREN 320 - French for the Professions Credits: 3

Emphasizes skills in communication in the daily world of business, health professions, social work, law enforcement, etc. May include techniques of translation, a study of the economic and business systems in the French-speaking world, and extensive practice in using forms and expressions frequently used in correspondence of the above mentioned professions. Content may be adapted to students' needs.

Prerequisite(s): FREN 202 or FREN 204 or permission of instructor.
Category: Interconnections - F

FREN 330 - Masterpieces of French Literature Credits: 3

Designed to pursue selective readings of classical French literature in all genres from the medieval period to the present day. Students will engage in critical discussions of the textual examples in efforts to trace the evolution of particular literary themes and styles.

Prerequisite(s): FREN 202 or FREN 204 or permission of instructor.
Category: Creativity & Expression - L

FREN 331 - Masterpieces of Francophone Literature Credits: 3

Introduction to rich variety of authors writing in French-speaking world outside of metropolitan France. Works by authors from North and sub-Saharan Africa, Quebec, and other regions of Canada, as well as the Caribbean region, Indian Ocean and South Pacific can be included.

Prerequisite(s): FREN 202 or FREN 204 or permission of instructor.
Category: Creativity & Expression - L

FREN 340 - Genres Litteraires Credits: 3

Offers an intensive critical study of a single literary genre (novel, short story, essay, poetry, theatre) within the French and/or Francophone traditions. Content will vary depending on the instructor.

Prerequisite(s): FREN 202 or FREN 204 or permission of instructor.

FREN 380 - Aspects De La Civilisation FranÇaise/Francophone Credits: 3

Particular topics, historical events or political and artistic movements that have assisted in fashioning French and Francophone cultures will be critically explored.

Prerequisite(s): FREN 202 or FREN 204 or permission of instructor.

FREN 388 - Internship French I Credits: 3

Contact the department for further information on internships.

FREN 392 - French Cultural Studies Immersion Credits: 3

This course will be offered in Quebec or in France every other summer. It will allow students to witness and appreciate first hand elements of culture such as traditions and history, music, theater, dance or even cuisine. It will also give the opportunity to the students to practice their language skills with native speakers in an immersion environment.

FREN 393 - Selected Topics in French Credits: 3

Opportunity to offer courses in areas of departmental major interest not covered by the regular courses.

FREN 399 - Independent Study in French Credits: 3

Independent study affords students the opportunity to engage in independent study related to their major field, a supporting area, or specialized interest.

FREN 400 - Seminar: Advanced Studies in French Language and Literature Credits: 3

Detailed examination of specific aspects of French literature authors, genres, literary and philosophic schools, or linguistic problems such as translation and dialects. Seminar may be taken more than once provided a specific topic is not repeated.

Prerequisite(s): Requires permission of isntructor.
Graduate Credit: This course is not available for graduate credit.

FREN 401 - Seminar: Advanced Studies in French Language and Literature Credits: 3

Detailed examination of specific aspects of French literature authors, genres, literary and philosophic schools, or linguistic problems such as translation and dialects. Seminar may be taken more than once provided a specific topic is not repeated.

Prerequisite(s): Requires permission of instructor.
Graduate Credit: This course is not available for graduate credit.

FREN 402 - Seminar: Advanced Studies in French Language and Literature Credits: 3

Detailed examination of specific aspects of French literature authors, genres, literary and philosophic schools, or linguistic problems such as translation and dialects. Seminar may be taken more than once provided a specific topic is not repeated.

Prerequisite(s): Requires permission of instructor.
Graduate Credit: This course is not available for graduate credit.

FREN 411 - Theory and Practice of Translation Credits: 3

Introduces various types and tools of oral and written translation and provides extensive practice in French-to-English translating in professional contexts (business, education, criminal justice, medicine, computer science, international relations and political science) and in translating works of literature. Emphasis will be given to discussion of translation problems, recognition of appropriate solutions, and the use of specific translation strategies in French-to-English translation.

Prerequisite(s): FREN 309 and FREN 316
Graduate Credit: This course is not available for graduate credit.

FREN 490 - Selected Topics in French Credits: 3

Opportunity to offer courses in areas of departmental major interest not covered by the regular courses.

Graduate Credit: This course is available for graduate credit.

FREN 491 - Selected Topics in French Credits: 3

Opportunity to offer courses in areas of departmental major interest not covered by the regular courses.

Graduate Credit: This course is available for graduate credit.

FREN 492 - Selected Topics in French Credits: 3

Opportunity to offer courses in areas of departmental major interest not covered by the regular courses.

Graduate Credit: This course is available for graduate credit.

FREN 493 - Selected Topics in French Credits: 3

Opportunity to offer courses in areas of departmental major interest not covered by the regular courses.

Graduate Credit: This course is available for graduate credit.

ESSC 405 - Groundwater and Hydrogeology Credits: 3

Examines the fundamental concepts of groundwater and hydrogeology in the context of real-world applications on the foundations of theory. Emphasis on the principles of groundwater flow, well installation, field data collection, and the analysis of physical and water chemistry as they relate to professional groundwater investigations. Grades based on exams and application-oriented assignments (problem sets). Required field trip(s) will supplement classroom material (field trip dates and times will be determined during class).

Prerequisite(s): ESSC 110 or HONR 244
Graduate Credit: This course is available for graduate credit.

GEOG 101 - World Geography Credits: 3

Study of basic global patterns and problems and the distinctive characteristics and interconnections of world culture regions with human ways of living viewed in their interactions and associations with natural, human, and technological resources of aspects of the environment. Course made functional in everyday living through perception of relations between concepts of the course and current world problems.

Category: Interconnections - G

GEOG 103 - Geography of the United States and Canada Credits: 3

Introductory regional analysis of population, land utilization, and economic activity through a comprehensive study of interrelationships between humans and the physical and cultural environments. Provides a conceptual framework within which past, present, and future rural and urban environments of the United States and Canada become explainable.

Corequisite(s):

Category: Citizenship & Responsibility - R

GEOG 105 - Physical Geography Credits: 3

Studies way the basic natural phenomena of air, water, and ground mutually interact and the way in which these interactions vary from one part of the earth to another to yield different natural environmental regions. Two hours lecture/two hours lab/week.

Category: Natural World & Technology - N

GEOG 140 - Human Geography Credits: 3

Examines the diverse spatial and cultural landscapes of the world. The spatial behavioral patterns of people, groups, and nations are viewed through the lenses of ethnicity, race, language, religion, environment, and technology, among others. The course focuses on spatial and regional differences created by diverse populations on the one hand, and the connections and collaborations between them on the other.

Category: Citizenship & Responsibility - R

GEOG 190 - General Education Special Topics Credits: 3

Opportunity to offer courses in areas of departmental general education interest not covered by the regular general education courses.

GEOG 202 - GIS I: Introduction to Geographic Information Systems Credits: 3

Introduction to the fundamental mapping and computer concepts and skills that underlie Geographic Information Systems (GIS) and every other geotechnology. Topics include representation (raster vs. vector), display, map scale, coordinate systems, data acquisition, and data management.

GEOG 203 - Climate, Energy, and Sustainability Credits: 3

Introduction to climate processes at multiple scales, human energy consumption, and an assessment of the sustainability of the relationship between climate and human activities. The course examines: the physical mechanisms controlling local, regional, and global climates; changes in climate at multiple time scales; the impact of human activities on climate, with a focus on energy consumption; sustainable human development as related to the climate and human energy choices.

GEOG 244 - Community and Land Use Planning Credits: 3

Reviews the relationship of people to the land and how technological advances and expanding population have put increasing pressure on lean resources and have created a variety of complex land use dilemmas which affect persons at all levels of society. Rural to urban migration, energy-consumptive settlement patterns, urban sprawl, private land ownership and control, and federal, state and local land use regulations will be studied. Spatial approach of land and the interaction of the physical and cultural environment in the decision-making process will be emphasized.

GEOG 301 - Introduction to Biogeography Credits: 3

Basic concepts and factors which are important in understanding the processes and influences involved in studying the distribution of terrestrial organisms over the earth will be presented. Some topics of importance include biodiversity; past and present patterns of the distribution of terrestrial organisms; the abiotic, biotic and human influences on those patterns; and a variety of factors related to the various time scales at which organisms can be studied.

GEOG 306 - Geomorphology Credits: 3

Studies physical and chemical processes that have in the past and are presently forming the landscape. Description and classification of landforms and the theoretical and dynamic aspects of landform evolution are studied. Geomorphic techniques of quantitative analysis, advanced interpretation of topographic maps and air photographs, and field work are stressed. Two hours lecture and two hours lab/week.

Prerequisite(s): ESS 110 or HON 244 or ESS 210

GEOG 308 - Geography of Latin America Credits: 3

Comparative study of the geographical regions of Middle and South America. Latin American relations with the United States and the rest of the world are interpreted through the analysis of the economic, social, and cultural activities of people in relation to the physical factors of this environment.

GEOG 310 - Transportation Geography Credits: 3

Explores the broad range of transportation modes, networks, services and infrastructure required for passenger, freight, and other transport services across geographic scales. Consideration is given to the historical development of transport systems while the course emphasizes the geographic, technical, political, social, environmental, and economic realities that challenge the maintenance of current, and provision of future, networks. The course has a strong focus on topical case studies, emerging technologies and the connections between effective transportation and environmental sustainability.

Prerequisite(s): Sophomore Status, 2.0 GPA

GEOG 313 - Geography of South and Southeast Asia Credits: 3

Examines the diverse cultural and physical features giving form to the present political/economic situation in this region and shaping the future.

GEOG 320 - Geoarchaeology Credits: 3

This course emphasizes the relationships between the natural environment and cultural resources. The course focuses on a variety of field and computer techniques useful for the analysis and preservation of important historic and prehistoric cultural resources. Field visits to archaeological sites on South Mountain are an integral part of the learning experience.

GEOG 322 - Urban Geography Credits: 3

Surveys the city, its forms, functions, internal and external relations, and evolution. Emphasis on large urban agglomerations, particularly those of the Western World. Individual and group field work examining local and regional urban areas of several classes is integral to the course.

GEOG 329 - Economic Geography Credits: 3

This course investigates regional economic processes and associated spatial patterns at a variety of spatial and temporal scales. With a focus on sustainability, the spatial economy is considered both in terms of the factors of production on the one hand and the impact of economic activity on the environment, ecosystems, and human well-being on the other. Basic analytical tools relevant to analyzing and understanding regional economic growth and development, human behavior, and spatial interactions are covered. An introductory course in Geography is strongly suggested and solid math skills are required.

Prerequisite(s): Sophomore Status, 2.0 GPA

GEOG 332 - Field Methods in Oceanography Credits: 3

A course to familiarize students with the dynamic marine environment and field work on board small research vessels; to instruct in the use and application of standard oceanographic instruments and sampling devises; to promote and encourage independent research through the initial stages of a scientific project.

Prerequisite(s): ESSC 220 with a minimum grade of D or permission of instructor

GEOG 336 - Coastal Geomorphology Credits: 3

A study of coastal environments with an emphasis on understanding the interrelationships among landforms, processes, and material. The student will participate in field studies conducted along high and low wave energy environments.

Prerequisite(s): ESSC 220 with a minimum grade of D or permission of the instructor

GEOG 339 - Remote Sensing Credits: 3

Explores viewing and interpreting the earth from aircraft and satellite-borne imaging systems. Examines remote sensing of the Earth and uses the interaction of electromagnetic energy with matter to determine physical properties of surfaces. Imagery will include those from Landsat TM, SPOT, TIMS, and radar.

GEOG 352 - Cartography Credits: 3

Introduces basic tools of map making. Explains techniques for displaying data and develops skills in compilation, design, and execution of maps.

GEOG 360 - Internship in Geography I Credits: 3

Contact the department for further information on internships.

GEOG 361 - Internship in Geography II Credits: 1-4

Contact the department for further information on internships.

GEOG 363 - GIS2: Intermediate Geographic Information Systems Credits: 3

Continues development of the student's understanding of GIS and extends understanding into spatial analysis. Fundamental concepts covered previously, including scale, earth models, map projections and coordinate systems, are also developed. New major concepts include Boolean logic, overlays, map algebra, terrain modeling. Technical skill development focuses on data collection and integration, digitizing, and design of spatial data display. Primary emphasis on using real-world examples in GIS modeling and analysis.

Prerequisite(s): GEOG 202 with a mininum grade of C.

GEOG 390 - Internship in Urban Studies I Credits: 3

Contact the department for further information on internships.

GEOG 391 - Geography Seminar Credits: 1

Opportunity for advanced students to explore in greater depth those aspects of geography and geographic thought not fully developed in other courses. Geography viewed in light of its historical development and the leading edges of current research. Distinctive areas of specialization opened for in-depth consideration. Drawing upon departmental, interdepartmental and outside sources, seminar designed to stimulate and excite interest in a rapidly expanding professional field concerned with current social and environmental problems. Required for all arts and science and secondary education majors in geography.

GEOG 393 - Selected Topics in Geography Credits: 1-3

Opportunity to offer courses in areas of departmental major interest not covered by the regular courses.

GEOG 394 - Internship in Urban Studies II Credits: 3

Contact the department for further information on internships.

GEOG 397 - Introduction to Research Credits: 1-3

Opportunity to do research under the guidance of selected faculty members.

GEOG 399 - Independent Study in Geography Credits: 3

Independent study affords students the opportunity to engage in independent study related to their major field, a supporting area, or specialized interest.

GEOG 402 - Medical Geography Credits: 3

Introduces student to a geographical approach in the analysis of problems regarding environmental health. Dynamic interaction between the total person and the total environment (physical, biological, cultural, economic) lie at the core of geography, a discipline that integrates natural and social sciences. Consideration of such interactions is essential for an understanding of the changes that occur in the distribution of health and disease, when, for instance the environment is altered, or human lifestyles undergo substantial modification.

Graduate Credit: This course is not available for graduate credit.

GEOG 405 - Environmental Conservation and Management in PA Credits: 3

This course examines the management of environmental and natural resource issues. Legislation, policies, programs, and strategies that are developed at the local, state, and federal levels of government are discussed as they apply to these issues. There will be an emphasis on current environmental and natural resource issues in Pennsylvania. Topics that will be considered during the course will include the environment as a public policy issue, waste management and cleanup programs, energy, air and water pollution, and the use of public lands. Through lectures, discussion, readings, writing assignments, and case study analysis, the student will be introduced to a range of environmental and natural resource issues.

Graduate Credit: This course is available for graduate credit.

GEOG 406 - Sustainable Food Systems from the Soil Up Credits: 3

Everyone eats. Everyone is a part of the food system. But the food system does not work for everyone. How does food make its way to your plate? In this time of social and ecological change, is it possible to build food systems that

sustainably and equitably feed our communities, now and in the future? The short answer: YES! The long answer is more complicated, and requires skills and knowledge from ecology, geography, economics, and social justice. In this course, we will unpack the food system, examine its parts, and develop the tools necessary to build sustainable food systems that work for everyone. We will accomplish this through class discussion, active problem-solving, engaging with readings and multi-media materials, visiting local farms, and getting our hands dirty at the Campus Organic Farm.

Graduate Credit: This course is not available for graduate credits.

GEOG 415 - Geography of Africa Credits: 3

This course explores Africa as a world region although greater emphasis is placed on Sub-Saharan Africa, the part of Africa that lies south of the Sahara Desert. Africa is most commonly portrayed as a crisis-ridden continent, plagued by underdevelopment, disease, political disorder, warfare, hunger, economic strife, etc. Some have even referred to it as 'the dark continent'. In so doing, the vitality, richness of cultures, achievements, and the vibrance of African societies and peoples are often overlooked. This course, thought by an African, provides students with a more balanced understanding of Africa including its history, cultures and traditions, diversity, innovations, and developmental challenges. The course examines both the physical and the human geographies of Africa.

Graduate Credit: This course is available for graduate credit.

GEOG 420 - GIS3: Advanced Geographic Information Systems Credits: 3

GIS3 is the capstone course for both the GIS Major and GIS Minor programs. GIS3 examines advanced topics in GIS such as spatial data analysis and visualization, workflow automation, and recognizing the interoperable nature of GIS, Remote Sensing, GNSS, and other geotechnologies. Skills development focuses on advanced forms of spatial data analysis (e.g., network analysis, spatial point pattern analysis, terrain modelling, optimum site selection, etc.), workflow automation methods, and both desktop and online mapping. Students are expected to design and implement an independent Capstone GIS Project during the course.

Prerequisite(s): GEOG 363 with a grade of C or better.
Graduate Credit: This course is not available for graduate credit.

GEOG 421 - Environmental Law Credits: 3

Environmental Law examines the interrelationship between laws, regulations, and policies, which have a direct and indirect impact upon the environment. This course covers the major federal and Pennsylvania environmental laws, regulations, and policies and discusses the importance of compliance in order to avoid liability. The course will include an analysis of laws that establish compliance obligations, laws that enforce and impose liability, and the court?s role in the environmental law process.

Graduate Credit: This course is available for graduate credit.

GEOG 425 - Image Processing Credits: 3

Computer processing of remotely-sensed imagery is explored and laboratory exercises enhance understanding of image processing. Intermediate and Advanced processing techniques performed on imagery from local and non-local areas. Techniques include spatial modeling, multispectral classification, and learning new techniques in processing satellite-borne imagery and other data. Successful completion of GEOG 339 - Remote Sensing Credits: 3 is suggested.

Graduate Credit: This course is available for graduate credit.

GEOG 427 - Sustainability Credits: 3

This course examines how human society faces the challenges of global environmental change, resource limitations, and environmental degradation. Areas of focus include global change, ecosystems, population growth, environmental economics and policy, energy, water, agriculture, ethics and history. As a naturally interdisciplinary subject, this course will examine both the physical and social science involved with these issues and the various types of solutions that humans will apply to sustainability problems including: technology, engineering, management, and planning. The course will rely heavily on insight and guest lectures from many disciplines as well as applied projects that focus on different areas of sustainability.

Prerequisite(s): ESSC 108 or BIOL 145
Require junior/senior/graduate standing to enroll in this course.
Graduate Credit: This course is available for graduate credit.

GEOG 440 - Field Techniques Credits: 3

Studies geoenvironmental aspects of the local landscape by direct field observation. Various procedures and techniques are utilized to collect data concerning landforms, geology, soil, streams, air quality, population, transportation, housing characteristics and land use. Instruments, maps, air photographs, and statistics are used to aid in the research, analysis, and evaluation of the field problem.

Graduate Credit: This course is available for graduate credit.

GEOG 441 - Quantitative Methods Credits: 3

Broad-based education in the geographical sciences requires a proficiency in applying statistical techniques to environmental problems. Provides a comprehensive and empathetic approach to statistical problem solving using practical geographic examples.

Graduate Credit: This course is available for graduate credit.

GEOG 444 - Environmental Land-Use Planning Credits: 3

Studies the spatial pattern of land-use development in rural and urban areas and interaction between urbanization and environment. Examines the physical and cultural requirements of environmental land-use planning including the study of the land-use classification, planning and zoning procedures, economic activity and the city as an ecosystem. City planning techniques, land-use mapping and field study of local region are utilized.

Graduate Credit: This course is not available for graduate credit.

GEOG 446 - Water Resources Management Credits: 3

Roles of water resources management policies and institutions are examined within central theme of unified river basin management. Stresses interrelationships among watershed planning; relevant legislation; agency authority and coordination; and the geography of watershed management. North American case studies used to illustrate multiple use issues, including aquatic ecology, wetlands, floodplain management, recreation, water supply, hydropower, industry, and commercial shipping.

Prerequisite(s): ESSC 226
Graduate Credit: This course is available for graduate credit.

GEOG 450 - Geography-Geology Field Studies Credits: 1-3

One week to 10-day regional field study observing and analyzing the physical and cultural landscape. Emphasis placed upon the physical and historical geology and geography of a prescribed route including several states.

Prerequisite(s): Vary depending on topic, please contact instructor.
Graduate Credit: This course is available for graduate credit.

GEOG 452 - Geography-Geology Field Studies Credits: 1

One week to 10-day regional field study observing and analyzing the physical and cultural landscape. Emphasis placed upon the physical and historical geology and geography of a prescribed route including several states.

Prerequisite(s): (ESSC 212 and (GEOG 103 or HONR 140)) or permission of instructor.
Graduate Credit: This course is available for graduate credit.

GEOG 463 - Applied Geophysical Imaging Credits: 3

This course familiarizes students with the concepts and field implementation of shallow subsurface geophysical techniques applicable to environmental studies. This course will be taught from a practical, environmental perspective rather than an engineering perspective and is field intensive. We will apply multiple geophysical methods in the field to detect and map underground geologic and artificially buried features at selected sites in and around Shippensburg. The course covers the basics of five critical geophysical methods: Electrical Resistivity, Ground-penetrating Radar, Electromagnetic Induction, Gravity, and Seismic methods, with emphases on the basic principles, applications, strengths and the limitations of each method. Field exposure will involve the first three of the five methods, for which the department maintains equipment. Students will map several underground features in the field, including groundwater-bearing zones as well as contaminated sites around landfills, buried man-made features, sinkholes, caves, saltwater/freshwater interfaces, etc.

Graduate Credit: This course is available for graduate credit.

GEOG 490 - Selected Topics in Geography Credits: 1-3

Opportunity to offer courses in areas of departmental major interest not covered by the regular courses.

Graduate Credit: This course is available for graduate credit.

GEOG 491 - Selected Topics in Geography Credits: 3

Opportunity to offer courses in areas of departmental major interest not covered by the regular courses.

Graduate Credit: This course is available for graduate credit.

GEOG 492 - Selected Topics in Geography Credits: 3

Opportunity to offer courses in areas of departmental major interest not covered by the regular courses.

Graduate Credit: This course is available for graduate credit.

GEOG 493 - Selected Topics in Geography Credits: 3

Opportunity to offer courses in areas of departmental major interest not covered by the regular courses.

Graduate Credit: This course is available for graduate credit.

GEOG 494 - Selected Topics in Geography Credits: 3

Opportunity to offer courses in areas of departmental major interest not covered by the regular courses.

Graduate Credit: This course is available for graduate credit.

GERM 101 - Beginning German I Credits: 3

Designed for students with no background in the language. Both textbook and authentic materials used to enable students to express themselves on personalized topics. The department reserves the right to remove students found to be in violation without notice.

Category: Interconnections - F

GERM 102 - Beginning German II Credits: 3

Continuation of GERM 101. Both textbook and authentic materials used to enable students to express themselves on a variety of topics concerning self and other personalized topics.

Prerequisite(s): GERM 101 or Departmental Placement
Category: Interconnections - F

GERM 103 - Intermediate German Credits: 3

Continuation of GERM 102. Both textbook and authentic materials used to enable students to express themselves on a variety of topics concerning self, family, friends, and their communities. Reading, writing, listening and speaking are combined to explore the language and culture of the German-speaking world.

Prerequisite(s): GERM 102 or Departmental Placement
Category: Interconnections - F

GERM 150 - German Civilization and Culture Credits: 3

Examines the culture, the social and artistic factors which have contributed to the evolvement of the civilization and culture of German-speaking peoples. Examines trends in world history that had an impact on the cultural development of German-speaking countries and employs a historical approach. Taught in English; knowledge of German language and culture helpful but not essential.

Category: Interconnections - G

GERM 151 - German Cinema Credits: 3

Survey of Germany's cinematographic production within its cultural/historical/social contexts from the beginnings until today. Works of art movements (e.g. Expressionism, the New German Cinema) or of individual filmmakers are analyzed; some film criticism and film analysis skills are employed. Taught in English.

Category: Creativity & Expression - L

GERM 190 - General Education Special Topics Credits: 3

Opportunity to offer courses in areas of departmental general education interest not covered by the regular general education courses.

GERM 203 - Intermediate German Communication Credits: 3

Designed as a continuation of GERM 103 and to promote and improve the four skills through exploration of various authentic materials. Students consider topics of interest through discussion, presentations and written reflection while reviewing/building language skills. Special attention given to vocabulary building and improving students' oral/written proficiency in order to attain ACTFL level Intermediate-Low-Mid.

Prerequisite(s): GERM 103 or Departmental Placement
Category: Interconnections - F

GERM 204 - Contemporary German Culture Credits: 3

Introduction to comparative cultural studies and current cultural topics of the German-speaking world. Sustained attention will be given to oral and written expression.

Prerequisite(s): GERM 103 or Departmental Placement
Category: Interconnections - G

GERM 220 - Intermediate German Grammar Credits: 3

Presents a thorough review of the fundamentals of verb and case of the German language. Students will be trained in the use of grammatically-correct German through extensive oral and written practice.

Prerequisite(s): GERM 103 or permission of instructor.

GERM 221 - German Culture through Music Credits: 3

Welcome to German 221! In this course, we will explore the history and cultural background of German music, its movements, its sounds and its relationship to German political and religious life and culture. We will look at major themes, movements, and trends, including the baroque and the three German "Bs" (Bach, Beethoven, Brahms), cabaret, opera, political and folk music as well as industrial, Krautrock, and contemporary German "Schlager," and examine their contributions to an evolving German musical identity (or identities). Apart from the historical and narrative context of the music under study, we will also consider how music, as a cultural manifestation of its time, produces resonance and emotion. While this course is not an introduction to music studies, it will give you a new perspective on how to think and write about music in a critical way. Taught in German.

Prerequisite(s): GERM 103 with a minimum grade of D.

GERM 300 - Introduction to German Literature Credits: 3

Introduction to selected works in German literature and approaches to understanding and reading literature in a critical way (e.g. reading strategies, cultural/historical discourses, German/Cultural Studies methods). (varying content)

Prerequisite(s): GERM 203 or GERM 204 or permission of instructor.

GERM 309 - German Phonetics Credits: 3

Presents a careful analysis of the sounds of German. Provides an introduction to the principles of phonetics combined with intensive drills in the pronunciation of standard German (in terms of accent, intonation, and stress). Special attention paid to the identification and correction of individual pronunciation errors.

Prerequisite(s): GERM 203 or GERM 204 or permission of instructor.

GERM 312 - German Grammar Credits: 3

Presents a thorough review of misc. details in the structure of the German language. Students will be trained in the use of grammatically correct German through extensive oral and written practice.

Prerequisite(s): GERM 203 or GERM 204 or permission of instructor.

GERM 313 - Composition and Stylistics Credits: 3

Intended to help develop students' writing skills in the form of narratives, descriptions, argumentative texts, etc., this course will emphasize the use of written German at formal and semi-formal levels and focus on relevant (academic) writing. It will enable students to develop a repertoire of textual forms in order to communicate effectively and fluently in writing.

Prerequisite(s): GERM 203 or GERM 204 or permission of instructor.

GERM 320 - Berlin Credits: 3

Employs Berlin as an example of the concept and culture of metropolis. Analyzes the sociological, political, and historical significance of Berlin and provides a survey of the history of the German capital and its culture. Literature, film, other artworks and nonfictional texts about Berlin will be analyzed.

Prerequisite(s): GERM 203 or GERM 204 or permission of instructor.

GERM 322 - Readings in German Literature Credits: 3

Studies different authors, genres, or movements in German literature (varying topics). Focus on close readings and analysis within a cultural context.

Prerequisite(s): GERM 203 or GERM 204 or permission of instructor.

GERM 323 - The Holocaust and its German Legacy Credits: 3

This course will investigate the evolving relationship of Germany to the Holocaust in its immediate German context. Beginning with the letters and testimonies of both Holocaust perpetrators and survivors, students will confront the Holocaust at its most immediate level. Students will also engage with selected literature of the Holocaust, with special emphasis placed upon German-language works and their reception in post-war Germany. Finally, the legacy and memorialization of the Holocaust in Germany will be considered. The course is conducted entirely in German.

Prerequisite(s): GER 200 level course or permission of instructor

GERM 390 - German Internship Credits: 3

Contact the department for further information on internships.

GERM 393 - Selected Topics in German Credits: 3

Opportunity to offer courses in areas of departmental major interest not covered by the regular courses.

Prerequisite(s): Requires permission of instructor.

GERM 394 - Selected Topics in German Credits: 3

Opportunity to offer courses in areas of departmental major interest not covered by the regular courses.

Prerequisite(s): Requires permission of instructor.

GERM 395 - Selected Topics in German Credits: 3

Opportunity to offer courses in areas of departmental major interest not covered by the regular courses.

Prerequisite(s): Requires permission of instructor.

GERM 399 - Independent Study in German Credits: 3

Independent study affords students the opportunity to engage in independent study related to their major field, a supporting area, or specialized interest.

GERM 400 - German Seminar Credits: 3

Detailed examination of specific aspects of German culture or literature (varying topics). Seminar may be taken more than once provided a specific topic is not repeated.

Prerequisite(s): Requires permission of instructor.
Graduate Credit: This course is not available for graduate credit.

GERM 490 - Selected Topics in German Credits: 1-3

Opportunity to offer courses in areas of departmental major interest not covered by the regular courses.

Graduate Credit: This course is not available for graduate credit.

GERT 100 - Introduction to Gerontology Credits: 3

This foundation course gives a broad overview of the field of gerontology. Gerontology is interdisciplinary in nature. Theories and unique problems in studying gerontology are addressed. The course covers demographic, social, psychological, biological, and economic aspects of aging. Policy issues and social service delivery issues are covered as they pertain to the aging population. Particular attention is paid to at risk populations such as women, minority groups, and the oldest-old.

Category: Citizenship & Responsibility - R

GERT 301 - Gerontology Internship Credits: 3

Provides an off-campus, professional learning experience in the field of aging. Contact the program director for information.

Prerequisite(s): GERT 100 and at least two other courses from disciplines in the Gerontology Minor list of approved courses.

GERT 303 - Gerontology Internship II Credits: 3

This optional second internship provides an additional off-campus, professional learning experience in the field of aging. Contact the program director for information.

Prerequisite(s): GERT 100 and at least two other courses from disciplines in the Gerontology Minor list of approved courses.

GERT 390 - Selected Topics in Gerontology Credits: 3

Opportunity to offer courses in areas of program minor not covered by the regular courses.

GERT 391 - Selected Topics in Gerontology Credits: 1-3

Opportunity to offer courses in areas of program minor not covered by the regular courses.

GERT 392 - Selected Topics in Gerontology Credits: 3

Opportunity to offer courses in areas of program minor not covered by the regular courses.

GERT 490 - Selected Topics in Gerontology Credits: 3

Opportunity to offer courses in areas of program minor not covered by the regular courses.

Graduate Credit: This course is available for graduate credit.

GERT 491 - Advanced Selected Topics in Gerontology Credits: 1-3

Opportunity to offer advanced courses in areas of program minor not covered by the regular courses.

Graduate Credit: This course is available for graduate credit.

GERT 492 - Selected Topics in Gerontology Credits: 3

Opportunity to offer courses in areas of program minor not covered by the regular courses.

Graduate Credit: This course is available for graduate credit.

HIST 105 - Historical Foundations of Global Cultures Credits: 3

Introduces the premodern social, cultural, economic, political, scientific, and environmental foundations of today's globalized world. Particularly emphasizes the origins and interactions of major cultural and political traditions; world religions such as Buddhism, Christianity, Islam, and Judaism; and the local religious traditions of Africans, Asians,

Native Americans, and others. Fosters interdisciplinary thinking by drawing insights from related disciplines. Also develops essential study skills of independent learning, analytic reading, critical thinking, and effective written and oral communication.

Category: Foundations - H

HIST 106 - Modern World History Credits: 3

Explores the political, economic, social, cultural, scientific, and environmental changes since 1500 that have shaped today's world. Students will examine the historical background of contemporary issues. Particularly emphasizes the historical context of modern globalization; the transformation of traditional societies; and the international role of the United States. Fosters interdisciplinary thinking by drawing insights from related disciplines. Also, systematically builds on study skills developed in History 105, further strengthening ability to learn independently, think and read critically, and produce college-level research and writing.

Category: Interconnections - G

HIST 190 - General Education Special Topics Credits: 3

Opportunity to offer courses in areas of departmental general education interest not covered by the regular general education courses.

HIST 201 - Early History of the United States Credits: 3

Traces the major social, political, and cultural themes of American history from the initial contacts among Africans, Europeans, and Native Americans through the Civil War.

Prerequisite(s): HIST 105
Category: Citizenship & Responsibility - S

HIST 202 - Recent History of the United States Credits: 3

Examines the social, political, and economic currents of American history since the Civil War. Emphasizes changes taking place in agriculture, labor, urban society, social relations, and industry.

Prerequisite(s): HIST 105

HIST 203 - Theory and Practice of History Credits: 3

Covers briefly the history of the discipline. Introduces historiographical issues, methodology, and the craft of argumentation; includes library skills, the use of computers, analysis of professional historians' research. Hands-on approach provides opportunities to work with primary sources (documents, oral sources, quantitative data, visual/material evidence). Seminar with discussion, oral presentations, written exercises, and a major paper or project. Must be sophomore standing to enroll or permission of instructor.

Prerequisite(s): HIST 105 or HONR 122

HIST 301 - The West in American History Credits: 3

Studies the history and significance of the continuously advancing West in the development of the United States and present day life in America. Frontier society and migration are included is the importance of the American frontier on

the nation's history.

Prerequisite(s): HIST 105 or HONR 122 and sophomore standing or permission of instructor.

HIST 305 - The Civil War Era Credits: 3

Studies the background, development and results of sectional rivalries between northern and southern sections of the United States. The war and its aftermath are considered from political, military, economic, and sociological points of view.

Prerequisite(s): HIST 105 or HONR 122 and sophomore standing or permission of instructor.

HIST 307 - America from War to Watergate, 1945-1974 Credits: 3

This course examines the history of the United States following World War II through the mid-1970s. Topics include the origins and evolution of the Cold War, and its impact on America's role in international affairs; the influence of the Cold War on American society and politics; the creation and consequences of economic affluence in postwar society; the revolution in race and ethnic relations; changes in the role of women and gender relations; the nationalization of American culture; the shift from liberalism to conservartism.

Prerequisite(s): HIST 105 or HONR 122 and sophomore standing or permission of instructor.

HIST 309 - History of the American Worker Credits: 3

Covers the historical development of the American working class between the 18th and 20th centuries. Readings focus on the process of unionization and the relationship between industrial workers and the social, educational, political, and economic life in America.

Prerequisite(s): HIST 105 or HONR 122 and sophomore standing or permission of instructor.

HIST 314 - History of Jacksonian America Credits: 3

Analyzes the social, intellectual, political, economic, and religious events, trends, issues, and problems in American life from the 1810s until the 1850s.

Prerequisite(s): HIST 105 or HONR 122 and sophomore standing or permission of instructor.

HIST 318 - History of U.S. Women Credits: 3

Focuses upon historical factors that shaped the lives of American women in the 18th, 19th, and 20th centuries. Changing standards of behavior, expectations of marriage and family, and options of work outside the home will be explored, as well as women's demands for equality in education, careers, and citizenship. Women's differing experiences based on race, ethnicity, religion, region, social class, and age will be discussed.

Prerequisite(s): HIST 105 or HONR 122 and sophomore standing or permission of instructor.

HIST 319 - Introduction to Public History Credits: 3

Explores the field of public history and the ways that historians preserve, interpret, and present the past to the general public. Through guest speakers and hands-on activities performed in class and at area historical institutions, students will learn about the work of public historians in areas such as archives, historical editing, oral history, material culture

studies, museums, historic preservations, digital history, and historical film productions. special emphasis will be placed on the financial, legal. ethical. political, and interpretative issues faced by historians presenting the past to diverse audiences, and recent public history controversies. Students will also explore career opportunities available in the field of public history.

Prerequisite(s): HIST 105 or HONR 122 and sophomore standing or permission of instructor.

HIST 320 - Europe in the Early and High Middle Ages: 300 to 1270 Credits: 3

Surveys the important political, economic and cultural developments in Europe from the time of the late Roman Empire to the end of the crusading movement. Special emphasis on the great cultural achievements of the 11th through the 13th centuries.

Prerequisite(s): HIST 105 or HONR 122 and sophomore standing or permission of instructor.

HIST 321 - Late Medieval Europe: 1270 to 1517 Credits: 3

Examines the decline of medieval civilization and the emergence of the modern, with particular emphasis upon growth of the modern state, the Italian and northern renaissances, and the crises of the Catholic Church in the 14th and 15th centuries.

Prerequisite(s): HIST 105 or HONR 122 and sophomore standing or permission of instructor.

HIST 325 - History of the Tsarist Russia Credits: 3

Studies the development of the Tsarist system (1462-1917) and of the 1917 Russian revolutions. Major attention focused on tsars, clergy, nobles, bureaucrats, intelligentsia, and peasantry in terms of their character, relations, institutions, and beliefs. Special concern given to causes of the 1917 revolutions and the legacy of pre-Soviet Russia.

Prerequisite(s): HIST 105 or HONR 122 and sophomore standing or permission of instructor.

HIST 326 - History of the U.S.S.R. Credits: 3

Considers the history of modern Russia in three phases: a study of the basic aspects of Marxist-Leninist ideology; chronological coverage of the history of Soviet Russia from the 1917 revolution to the present; and a study of conditions within present-day Russia and her relations with the rest of the world.

Prerequisite(s): HIST 105 or HONR 122 and sophomore standing or permission of instructor.

HIST 330 - History of Modern Germany: 1919 to Present Credits: 3

Survey of German history from the end of World War I to the present, emphasizing social and political developments. Particular attention paid to the dissolution of the Weimar Republic and the establishment of the National Socialist totalitarian state.

Prerequisite(s): HIST 105 or HONR 122 and sophomore standing or permission of instructor.

HIST 331 - History of Modern France: 1750 to Present Credits: 3

Examined origins and course of the French Revolution and assesses the consequences for social, economic, institutional, political, and intellectual trends. These themes then are followed through successive revolutions, wars,

and governmental changes down to the present.

Prerequisite(s): HIST 105 or HONR 122 and sophomore standing or permission of instructor.

HIST 332 - English History: 1066 to Present Credits: 3

Surveys British history from the Norman Conquest to the late 20th century, emphasizing the unique character of English institutional and social developments. Major topics include growth of common law and Parliament, the changes in institutions and religion during the Tudor-Stuart era, the impact of the Industrial Revolution, the acquisition and evolution of empire, and the role of Great Britain in the 20th century.

Prerequisite(s): HIST 105 or HONR 122 and sophomore standing, or permission of instructor.

HIST 334 - Europe 1715-1815: The Era of the Industrial and French Revolutions Credits: 3

The century from 1715-1815 has a fair claim to be the most important one hundred years in the history of the world, because of the importance of the Industrial Revolution and the French Revolution. This course introduces students to the period, to give them a better context for understanding the causes and consequences of these major events using both primary and secondary sources.

Prerequisite(s): HIST 105 or HONR 122 and sophomore standing, or permission of the instructor.

HIST 337 - History of the Byzantine Empire Credits: 3

This course examines the eastern Roman, or Byzantine, Empire and its civilization from the age of Constantine to the fall of Constantinople to the Ottomans in 1453. Of special interest will be three themes: the relationship of Byzantium to Western Europe, the development of the Byzantine state, and the influence of Byzantine economy, art, and religion on both the Empire and its neighbors.

Prerequisite(s): HIST 105 or HONR 122 and sophomore standing, or permission of the instructor.

HIST 338 - Colonial America Credits: 3

Explores changing patterns of life in North America from the late 15th century to the mid-18th century. Themes examined include the European exploration and settlement of the Americas, the demographic and ecological consequences of colonization, and the development of distinct regional cultures in colonial America.

Prerequisite(s): HIST 105 or HONR 122 and sophomore standing, or permission of instructor.

HIST 339 - The Central Islamic Lands, 500-1700 Credits: 3

This course examines the development of Islam as a cultural and religious tradition from its origins in the late antique Middle East until the period of the "Gunpowder Empires". It includes the rise and disintegration of the caliphate as an Islamic empire, the development of Islamicate societies and Islamic institutions, the spread of Islam through much of Asia and Africa, the simultaneous localization and globalization of the Islamic tradition, and the rise of new imperial systems under the Ottomans, Safavids, and Mughals.

Prerequisite(s): HIST 105 or HONR 122 and sophomore standing, or permissoin of the instructor.

HIST 341 - African-American History Credits: 3

Traces the experiences of African-Americans from the early colonial period to the present while emphasizing the following themes: the formation of a racial identity among diverse African-Americans, the rise of slavery and abolitionism, the struggles of African-Americans after the Civil War, and the evolution of 20th century civil rights movements.

Prerequisite(s): HIST 105 or HONR 122 and sophomore standing, or permission of instructor.

HIST 342 - U.S. Immigration and Ethnicity Credits: 3

Examines the history of immigration and ethnicity in the United States between 1820 and 1980. Traces processes, politics, and cultures of new Americans with special emphasis on legal barriers to full citizenship. Focus on gender relations and the experiences of recent ethnics included.

Prerequisite(s): HIST 105 or HONR 122 and sophomore standing, or permission of instructor.

HIST 344 - History of the Modern Middle East Credits: 3

Surveys the modern Middle East from 1500 to present. Investigates how the world was transformed by the rise of Islam as a guiding force within some of the most powerful and stable empires, like the Ottoman and Saffavid Empires, in history. Discusses in some depth the impact of colonialism and the rise of nationalist movements. Major emphasis placed on contemporary issues: the Iranian Revolution, Iraq-Iranian War, Arab-Israeli Conflict, the Palestinian Question, and the problems of national development in the area.

Prerequisite(s): HIST 105 or HONR 122 and sophomore standing, or permission of instructor.

HIST 345 - Military History of the United States Credits: 3

Studies the military history of the United States by placing the American military within the larger context of the changing economic, technological, social, and intellectual environment of the United States of which environment the American military is a product and extension.

Prerequisite(s): HIST 105 or HONR 122 and sophomore standing or permission of instructor.

HIST 348 - The History of Ancient Rome Credits: 3

This course examines Ancient Roman society, religion, and government, looking at the development of religious, social, and political changes throughout Roman history. Emphasis will be placed on social, religious, and political institutions that have had the longest-term impact.

Prerequisite(s): HIST 105 or HONR 122 and sophomore standing, or permission of the instructor.

HIST 349 - History of Latin America Credits: 3

Surveys the history of Latin America from the pre-Columbian civilization to the present with emphasis on the social, cultural, political, and economic themes that explain the present problems and potentials of the continent.

Prerequisite(s): HIST 105 or HONR 122 and sophomore standing, or permission of instructor.

HIST 350 - History of Modern Japan Credits: 3

Deals with the evolution of traditional Japanese social, economic, and political institutions. Impact of rapid modernization on these institutions and the transformation of Japan into a world power will be the major themes of this course. Japan's re-emergence as an economic and political force in Asia since World War II examined.

Prerequisite(s): HIST 105 or HONR 122 and sophomore standing, or permission of instructor.

HIST 351 - World History since 1945 Credits: 3

Examines the major events and key developments that have occurred since World War II. Course is global in scope and particular emphasis is placed on the interrelationships that have come to characterize the entire world's events and institutions since 1945.

Prerequisite(s): HIST 105 or HONR 122 and sophomore standing, or permission of instructor.

HIST 352 - The US and Vietnam Credits: 3

Begins with an overview of pre-colonial Vietnam, examines the motives and consequences of 19th and 20th century French colonialism to 1954, and finally analyzes the American war in Vietnam and its impact on both Vietnam and the United States.

Prerequisite(s): HIST 105 or HONR 122 and sophomore standing, or permission of instructor.

HIST 353 - Modern Southeast Asia Credits: 3

Provides an understanding of modern Southeast Asian history from the early 1500s through the post-colonial period. After a brief introduction to Southeast Asia's early history, the main themes explored are nature and impact European colonization, growth of nationalist resistance movements and the subsequent emergence of modern nation states. Concludes by addressing the main issues confronting post-colonial Southeast Asia.

Prerequisite(s): HIST 105 or HONR 122 and sophomore standing or permission of instructor.

HIST 354 - Traditional China Credits: 3

Surveys China's history from ancient to early modern times (ca. 1600) by investigating major developments in Chinese society, political systems, economy, and culture.

Prerequisite(s): HIST 105 or HONR 122 and sophomore standing, or permission of instructor.

HIST 355 - History of Modern China Credits: 3

Concerned with the evolution of traditional Chinese institutions and philosophies. Decline of the imperial system examined from the point of view of internal disintegration and external aggression. Course then traces development of nationalist movements in China since 1911 and describe the impact of the KMT-CCP Civil War to 1950. China's emergence as a world power examined.

Prerequisite(s): HIST 105 or HONR 122 and sophomore standing, or permission of instructor.

HIST 356 - History of 19th Century Europe Credits: 3

Examines the major political, social, economic, and cultural developments that shaped Europe during the "long" 19th century between 1789 (the French Revolution) and 1914 (the outbreak of WWI). Particular emphasis is placed on the

causes and effects of the French and Industrial Revolutions. Traces new movements and ideologies such as liberalism, nationalism, socialism, Darwinism, feminism, imperialism, and militarism.

Prerequisite(s): HIST 105 or HONR 122 and sophomore standing, or permission of instructor

HIST 357 - History of Holocaust Credits: 3

Examines the background, perpetration, and memory of the systematic destruction of Europe's Jews and other minorities during the Second World War, commonly known as the Holocaust. Particular emphasis is placed on the history of Antisemitism in Europe, Social Darwinism, the rise of the Nazi Party in Germany, Nazi ideology, the carrying out of the murder of Europe's Jews, and the legacy of the Holocaust.

Prerequisite(s): HIST 105 or HONR 122 and sophomore standing, or permission of instructor.

HIST 358 - American Environmental History Credits: 3

Analyzes growth of the American economy from the pre-colonial era. Deals with the interaction between humans and the natural world in the United States from the pre-colonial era to the present. Explores such topics as the impact of industrialization and urban growth on the American environment, the emergence of ecological consciousness and green politics, and the creation of the idea of "Nature" in American culture.

Prerequisite(s): HIST 105 or HONR 122 and sophomore standing, or permission of instructor.

HIST 359 - History of Western Political Thought, 1500-1800 Credits: 3

In 1500, most European governments were monarchies. By 1800, there had been successful revolutions in Britain, France, and America. The result of these revolutions was a dramatic increase in popular participation in government. There was also a revolution in thinking about politics- most intellectuals now hoped and expected that democracy would spread. This course, focusing on primary sources, examines the major political thinkers of the era- including Machiavelli, Hobbes, Locke, and Rousseau- to understand how this crucial intellectual change came about.

Prerequisite(s): HIST 105 or HONR 122 and sophomore standing, or permission of the instructor.

HIST 360 - History of Mexico Credits: 3

Surveys Mexican history from pre-conquest to the present. Major topics include the Spanish Colonialism, the Mexican Revolution, and Mexico's present cultural and economic influence within Latin America.

Prerequisite(s): HIST 105 or HONR 122 and sophomore standing, or permission of instructor.

HIST 361 - History of 20th Century Europe Credits: 3

This course traces the political, economic, social, and cultural development of Europe from the beginning of the 20th century through the early 21st century. Particular focus is given to the causes and impact of World War I, the Russian Revolution and Stalinism, the rise of fascist regimes, World War II and the Holocaust, the Cold War division and postwar reconstruction of Europe, the end of the Cold War, European integration, and contemporary challenges facing Europe.

Prerequisite(s): HIST 105 or HONR 122 and sophomore standing, or permission of instructor.

HIST 362 - Europe 1450-1715: The Era of the Renaissance and Reformation Credits: 3

Europe in the sixteenth and seventeenth centuries developed many features that we recognize as modern: large standing armies, prime ministers and governments who had to command a majority in parliament, religious pluralism, central banks and stock exchanges, and a culture of scientific experiment. This course tries to explain the causes of these major changes using primary and secondary sources.

Prerequisite(s): HIST 105 or HONR 122 and sophomore standing, or permission of instructor.

HIST 363 - History of U.S. and World War II Credits: 3

This course will provide an intensive examination of some of the major social, political, economic, diplomatic and military issues of United States history during the era of the Second World War. Special attention will be paid to the impact the war had on American society, gender, and race relations; the way the war transformed the U.S. role in international relations; the impact of the war on American society and foreign relations in the postwar era; the changing place of the war in American historical memory; and the ways the war has been portrayed over time by Hollywood.

Prerequisite(s): HIST 105 or HONR 122 and sophomore standing, or permission of instructor.

HIST 366 - History of Brazil Credits: 3

Surveys Brazilian development from the Colonial to the Modern era including an examination of Portuguese conquest and control, the monarchy, industrialization, the influence of minorities, and the literature and arts.

Prerequisite(s): HIST 105 or HONR 122 and sophomore standing, or permission of instructor.

HIST 374 - America Since Watergate, 1974-2008 Credits: 3

This course examines the history of the United States from the presidency of Richard Nixon through the election of Barack Obama in 2008. Topics include the evolution and end of the Cold War and the subsequent redefinition of the United States' role in international affairs; economic changes and their impact on American society; the persistence of issues of race and ethnicity; changes in the role of women and gender relations; changing popular culture; and political behavior and the increasing divisiveness of politics in American society.

Corequisite(s): HIST 105 or HONR 122 and sophomore standing, or permission of the instructor.

HIST 379 - History of Science Credits: 3

Science is the attempt to figure out how the physical world works, and this course is intended as an overview to its history. The course will examine the history of science from two directions: topically, as various fields developed over time; and culturally, as we examine the relationship between specific cultures and the ways they developed theoretical models explaining how the universe operates. Throughout the course, we shall be reading secondary and primary sources that illustrate these two approaches.

HIST 382 - Selected Topics in History Credits: 1-3

Opportunity to offer courses in areas of departmental major interest not covered by the regular courses.

HIST 383 - Selected Topics in History Credits: 1-3

Opportunity to offer courses in areas of departmental major interest not covered by the regular courses.

HIST 384 - Selected Topics in History Credits: 1-3

Opportunity to offer courses in areas of departmental major interest not covered by the regular courses.

HIST 385 - Selected Topics in History Credits: 3

Opportunity to offer courses in areas of departmental major interest not covered by the regular courses.

HIST 386 - History Research Seminar Credits: 3

Focuses on the critical analysis of primary and secondary sources centered on the production of a research project of significant scholarly value. Students will choose a topic, analyze the relevant secondary source literature and conduct original scholarly research using archival, oral, manuscript and/or other primary sources. Assigned readings will provide practical advice on the art of historical research and writing. Students will also be encouraged to submit their research for presentation at a professional conference or publication in a scholarly journal. P

Prerequisite(s): HIST 105 or HONR 122 and sophomore standing, or permission of instructor.

HIST 387 - History Internship Credits: 3

Contact the department for further information on internships.

HIST 388 - Selected Topics in History Credits: 3

Opportunity to offer courses in areas of departmental major interest not covered by the regular courses.

HIST 389 - History Internship Credits: 1-3

Contact the department for further information on internships.

HIST 390 - Selected Topics in History Credits: 3

Opportunity to offer courses in areas of departmental major interest not covered by the regular courses.

HIST 391 - History Internship Credits: 3-6

Contact the department for further information on internships.

HIST 393 - Selected Topics in History Credits: 1-3

Opportunity to offer courses in areas of departmental major interest not covered by the regular courses.

HIST 394 - Selected Topics in History Credits: 3

Opportunity to offer courses in areas of departmental major interest not covered by the regular courses.

HIST 397 - Seminar in Comparative History Credits: 3

Examines themes common across world civilizations from c. 1000 to the present and considers their development in specific cultural settings. Although specific states or world regions may be considered, readings are broadly comparative and intended to form a synthesis of discrete national or regional histories. Includes a writing requirement. Usually taken during the senior year. Must be senior standing to enroll or permission of instructor.

Prerequisite(s): (HIST 105 or HONR 122) and HIST 203

HIST 398 - Independent Study I in History Credits: 3

Independent study affords students the opportunity to engage in independent study related to their major field, a supporting area, or specialized interest.

HIST 399 - Independent Study II in History Credits: 3

Independent study affords students the opportunity to engage in independent study related to their major field, a supporting area, or specialized interest.

HIST 402 - Revolutionary America Credits: 3

Explores the fundamental changes in American life during the 18th century and their culmination in the American Revolution. Analyzes those themes within the conceptual framework of the modernization of traditional societies and in the context of broader Western and American developments.

Prerequisite(s): HIST 105 or HONR 122 and junior standing, or permission of instructor.
Graduate Credit: This course is available for graduate credit.

HIST 407 - Women in Comparative Perspective Credits: 3

Topical exploration of female experiences in selected global cultures. How different societies have constructed gender (or defined the social meaning of being a woman) over time explored in a comparative perspective. Intellectual discourses of religion, education, and politics structure cultural comparisons of women's work, their position within the family, attitudes toward sexuality, civil rights, and access to public power. Through readings, discussions, films, and occasional lectures the class examines the historical development of modern gender conventions in various world regions and of controversies about the human rights of women.

Prerequisite(s): HIST 105 or HONR 122 and junior standing, or permission of instructor.
Graduate Credit: This course is available for graduate credit.

HIST 413 - Pennsylvania History Credits: 3

Deals with development of Pennsylvania from the eve of European settlement to the present. Attention given to political, economic, and social trends and institutions from the 17th through the 20th centuries. Pennsylvania's role in national and international history also studied.

Prerequisite(s): HIST 105 or HONR 122 and junior standing, or permission of instructor.
Graduate Credit: This course is available for graduate credit.

HIST 423 - Issues in 20th-Century Europe Credits: 3

Chronological and topical study of political, economic, social, and intellectual trends of our era. Modern wars, the struggle between authoritarianism and democracy, the East-West split, and the European economic community are

major themes.

Prerequisite(s): HIST 105 or HONR 122 and junior standing or permission of instructor.
Graduate Credit: This course is available for graduate credit.

HIST 428 - Issues in the Gilded Age and Progressive Era Credits: 3

Covers political, economic, social, and intellectual aspects of the Progressive Movement, tracing its origins in the 19th century and showing how progressivism was a part of the background of the New Deal. Special attention given to the all-important transition of the concept of liberalism from laissez-faire individualism to state regulation. Emphasis placed upon the differing interpretations of the Progressive Movement, which have been developed by various historians.

Prerequisite(s): HIST 105 or HONR 122 and junior standing or permission of instructor.
Graduate Credit: This course is available for graduate credit.

HIST 430 - U.S. Cultural History Credits: 3

Focuses upon significant cultural developments in American History, and upon the importance of culture to major trends and events in the U.S. past. Course addresses cultural theory, definitions of culture, multiculturalism in history, and the roles of culture and communication in the interpretation of history. Individual subjects covered each semester will include some combination of the following: mass media (including radio, television, print), folklore, religion, material culture, and performance culture.

Prerequisite(s): HIST 105 or HONR 122 and junior standing or permission of instructor.
Graduate Credit: This course is available for graduate credit.

HIST 433 - Oral History Credits: 3

Introduces students to methods and uses of oral history. Students learn to analyze and use oral history sources, and will practice oral history protocols including the conduct of recorded interviews, the storage of oral history recordings, and the transcription of oral history interviews. Students will also be introduced to alternative uses for oral history including audio and video documentary, and digital methods of exhibition.

Prerequisite(s): HIST 105 or HONR 122 and junior standing or permission of instructor.
Graduate Credit: This course is available for graduate credit.

HIST 444 - History of Women in Latin America Credits: 3

Surveys history of women in Latin America from pre-conquest to the present. Major topics include prescribed gender roles, how race and class have shaped one's ability to live up to these roles, and women's participation in work, politics, religion, the economy, intellectual movements, and cultural practices. This class is available for graduate credit.

Prerequisite(s): HIST 105 or HONR 122 and junior standing or permission of instructor.
Graduate Credit: This course is available for graduate credit.

HIST 445 - History of Saudi Arabia Credits: 3

This course will examine the history of Saudi Arabia from the beginnings of the first Saudi state in the 1700's until the present. Key topics will include the branch of Islam founded by Muhammad b. Abd al-Wahhab, the kingdom's regional diversity, policies of the ruling House of Saud, the growth and impact of the oil industry, and relations with

foreign powers, especially the United States.

Prerequisite(s): For undergraduates, course requires a C in HIS 105 and junior standing or permission of instructor
Graduate Credit: This course is available for graduate credit

HIST 454 - China and the Outside World Credits: 3

Investigates China's relations with the outside world during its pre-modern history. Since China is somewhat geographically isolated from the rest of Eurasia, historians have tended to assume Chinese civilization is mostly the product of indigenous developments. The course challenges this assumption by looking at how China and people outside of its borders have influenced each other.

Prerequisite(s): HIST 105 or HONR 122 and junior standing or permission of instructor.
Graduate Credit: This course is available for graduate credit.

HIST 460 - Archives and Public History Credits: 3

Course examines the relationship between archives and the theory and practice of public history. The course will survey the best practices for the care and preservation of archival materials, as well as the application of archival techniques to the care and preservation of electronic records. Special attention will be paid to the ways that public historians and archivists can use archival materials, online archival resources, and public archival programs to help the public learn about the past and appreciate the value of historical records. Students enrolled in the class will be required to visit archival institutions and to undertake hands-on projects with archival materials.

Prerequisite(s): HIST 105 or HONR 122 and junior standing or permission of instructor.
Graduate Credit: This course is available for graduate credit.

HIST 482 - Selected Topics in History Credits: 3

Opportunity to offer courses in areas of departmental major interest not covered by the regular courses.

Graduate Credit: This course is available for graduate credit.

HIST 483 - Selected Topics in History Credits: 3

Opportunity to offer courses in areas of departmental major interest not covered by the regular courses.

Graduate Credit: This course is available for graduate credit.

HIST 484 - Selected Topics in History Credits: 3

Opportunity to offer courses in areas of departmental major interest not covered by the regular courses.

Graduate Credit: This course is available for graduate credit.

HIST 490 - Selected Topics in History Credits: 1-3

Opportunity to offer courses in areas of departmental major interest not covered by the regular courses.

Graduate Credit: This course is available for graduate credit.

HIST 492 - Selected Topics in History Credits: 3

Opportunity to offer courses in areas of departmental major interest not covered by the regular courses.

Graduate Credit: This course is available for graduate credit.

HIST 493 - Selected Topics in History Credits: 3

Opportunity to offer courses in areas of departmental major interest not covered by the regular courses.

Graduate Credit: This course is available for graduate credit.

HIST 496 - Select Topics in Public History Credits: 3

Opportunity to offer courses in areas of departmental major interest not covered by the regular courses.

Graduate Credit: This course is available for graduate credit.

HONR 100 - Honors: Introduction to Human Communication Credits: 3

See course description for COST 100.

Category: Foundations - O

HONR 101 - Honors: Introduction to the Theatre Credits: 3

See course description for THAR 121.

Category: Creativity & Expression - L

HONR 102 - Honors: Introduction to Women's Studies Credits: 3

See course description for WMST 100.

Category: Interconnections - D

HONR 105 - Honors: Ethical Theories and Problems Credits: 3

See course description for PHIL 105.

Category: Citizenship & Responsibility - E

HONR 106 - Honors: Academic Writing Credits: 3

See course description for ENGL 114.

Category: Foundations - W

HONR 108 - Honors: Astronomy Credits: 3

See course description for PHYS 108.

Category: Natural World & Technology - N

HONR 111 - Honors: Introduction to Interdisciplinary Arts Credits: 3

See course description for INST 111.

Category: Creativity & Expression - A

HONR 113 - Honors: Shippensburg University First Year Seminar Credits: 3

See course description for UNIV 101.

Category: Foundations - U

HONR 114 - Introduction to Honors Credits: 1

HON 114 will introduce students to opportunities that are central to the Wood Honors College experience, including research, mentorship, internship, study away, national scholarship, and conference opportunities and Honors, campus, and community service organizations. As you learn about and reflect on these opportunities, you will integrate them into your Honors Scholar Development Plan. Your Honors Scholar Development Plan is a comprehensive planning tool that you will construct in HON 114 and revise throughout your undergraduate career. In your plan, you will map your future in terms of your big dreams and professional and academic goals. The purpose is to think strategically and creatively about your choices as you plan for your future.

Prerequisite(s): Restricted to Honors College.

HONR 122 - Honors: Historical Foundations of Global Cultures Credits: 3

See course description for HIST 105.

Category: Foundations - H

HONR 123 - Honors: Modern World History Credits: 3

See course description for HIST 106 .

Category: Interconnections - G

HONR 130 - Honors: Introduction to Philosophy Credits: 3

See course description for PHIL 101.

Category: Citizenship & Responsibility - R

HONR 135 - Honors: Art History III Credits: 3

See course description for ART 233.

Category: Creativity & Expression - A

HONR 140 - Honors: Geography of the United States and Canada Credits: 3

See course description for GEOG 103.

Category: Citizenship & Responsibility - R

HONR 141 - Honors: World Geography Credits: 3

See course description for GEOG 101.

Category: Interconnections - G

HONR 142 - Honors: Introduction to Weather and Climate Credits: 3

See course description for ESSC 111.

Category: Natural World & Technology - N

HONR 145 - Honors: Environmental Biology Credits: 3

See course description for BIOL 145.

Category: Natural World & Technology - N

HONR 151 - Honors: General Psychology Credits: 3

See course description for PSYC 101.

Category: Interconnections - D

HONR 159 - Honors: Physical Anthropology Credits: 3

See course description for ANTH 121.

Category: Natural World & Technology - N

HONR 160 - Honors: Cultural Anthropology Credits: 3

See course description for ANTH 111.

Category: Interconnections - G

HONR 161 - Honors: Introduction to Sociology: Society and Diversity Credits: 3

See course description for SOCI 101.

Category: Citizenship & Responsibility - R

HONR 162 - Honors: Contemporary Social Problems Credits: 3

See course description for SOC241.

HONR 163 - Honors: Introduction to Archaeology Credits: 3

See course description for ANTH 205.

HONR 165 - Honors: Principles of Macroeconomics Credits: 3

See course description for ECON 101.

Category: Interconnections - G

HONR 166 - Honors: Principles of Microeconomics Credits: 3

See course description for ECON 102.

Category: Natural World & Technology - T

HONR 180 - Honors: Physics for Society Credits: 3

See course description for PHYS 110.

Category: Natural World & Technology - N

HONR 186 - Honors: Human Biology Credits: 3

See course description for BIOL 150.

Category: Natural World & Technology - N

HONR 187 - Honors Contemporary Issues in Biology Credits: 3

Opportunity to explore topics not covered by the regular courses.

HONR 190 - Honors: General Education Selected Topics Credits: 3

Opportunity to offer courses in areas of departmental general education interest not covered by the regular general education courses.

HONR 196 - Honors: A Cultural Approach Credits: 3

See course description for CHEM 103.

Category: Natural World & Technology - N

HONR 210 - Honors: Introduction to Music Credits: 3

See course description for MUSI 121.

Category: Creativity & Expression - A

HONR 224 - Honors: The Art of the Film Credits: 3

See course description for ENGL 243.

Category: Creativity & Expression - L

HONR 244 - Honors: Introduction to Geology Credits: 3

See course description for ESSC 110.

Category: Natural World & Technology - N

HONR 249 - Honors: Literature and Society Credits: 3

See course description for ENGL 250.

Category: Creativity & Expression - L

HONR 252 - Honors: Selected Topics in Psychology Credits: 3

Opportunity to offer courses in areas of departmental major interest not covered by the regular courses.

HONR 261 - Honors: World Music Credits: 3

See course description for MUSI 261.

Category: Creativity & Expression - A

HONR 262 - Honors: Selected Topics in Sociology Credits: 3

Opportunity to offer courses in areas of departmental major interest not covered by the regular courses.

HONR 269 - Honors: Sociology of the Arts Credits: 3

See course description for SOCI 370.

HONR 274 - Honors: Introduction to International Politics Credits: 3

See course description for POLI 141.

Category: Interconnections - G

HONR 279 - Honors: U.S. Government and Politics Credits: 3

See course description for POLI 100.

Category: Citizenship & Responsibility - S

HONR 350 - Honors: Selected Topics in Political Science Credits: 3

Opportunity to offer courses in areas of departmental major interest not covered by the regular courses.

HONR 363 - Honors Colloquium Credits: 2

Exploration of topics of special interest to Honors students.

HONR 388 - Honors Service-Learning Seminar: Reach Out Credits: 3

In this interdisciplinary course, students will contribute to the Reach Out service-learning project that supports education in the Dominican Republic and complete a Dominican-themed research project. They will also learn about Dominican history, culture, and literature, and practice Spanish-language skills.

HONR 389 - Honors Capstone Project Proposal Preparation Credits: 1

Taken in the junior year, HON 389 provides an in-depth orientation to the Honors capstone project. The course will guide and support students as they select a topic, identify a faculty advisor, and prepare their Honors capstone project proposals. The course provides a framework for Honors students to work individually and collaboratively as they pursue the common objective of preparing a viable capstone project proposal by the end of the semester. They will form a community of scholars as they tackle common challenges and identify possible solutions.

Prerequisite(s): Restricted to Honors College.

HONR 393 - Honors Seminar Credits: 3

Focus on interdisciplinary explorations of specific topics, and emphasize interdisciplinary analysis and problem-solving.

HONR 394 - Honors: Selected Topics Credits: 3

Opportunity to offer courses in areas of departmental major interest not covered by the regular courses.

HONR 395 - Honors: Selected Topics Credits: 3

Opportunity to offer courses in areas of departmental major interest not covered by the regular courses.

HONR 396 - University Honors Colloquium Credits: 3

Capstone course for the University Honors Program. Utilizes an interdisciplinary approach to explore a theme. Students complete research and service learning projects on the theme from the perspective of their discipline. Students present their projects at the University Honors Symposium.

HONR 397 - Honors: Selected Topics Credits: 3

Opportunity to offer courses in areas of departmental major interest not covered by the regular courses.

HONR 398 - Honors: Selected Topics Credits: 3

Opportunity to offer courses in areas of departmental major interest not covered by the regular courses.

HONR 399 - Honors: Independent Study Credits: 3

Independent study affords students the opportunity to engage in independent study related to their major field, a supporting area, or specialized interest.

HONR 411 - Honors: Introduction to Exceptionalities: Understanding Diverse Learners Credits: 3

See course description for SPEE 273.

Graduate Credit: This course is not available for graduate credit.

HONR 440 - Honors: Business and Society Credits: 3

See course description for MGMT 447.

Graduate Credit: This course is not available for graduate credit.

HONR 442 - Selected Topics in Honors Credits: 3

Opportunity to offer courses in areas of departmental major interest not covered by the regular courses.

Graduate Credit: This course is not available for graduate credit.

HONR 497 - Honors: Strategic Management Credits: 3

See course description for MGMT 497.

Graduate Credit: This course is not available for graduate credit.

INST 111 - Introduction to Interdisciplinary Arts Credits: 3

Introduces the variety of the creative and performing arts theater, music, painting, sculpture, dance, photography, literature, and film and demonstrates the ways in which these arts can influence and enhance one another. Through class discussion, guest lectures by arts faculty, and attendance at campus arts events, students learn how to better appreciate and respond to the different artistic media by exploring the ways in which a creation in one art form can inspire re-creation in another. This course is a introductory course for the Interdisciplinary Arts major.

Category: Creativity & Expression - A

INST 190 - General Education Special Topics Credits: 3

Opportunity to offer courses in areas of departmental general education interest not covered by the regular general education courses.

INST 390 - Interdisciplinary Arts - Special Topics Credits: 3

This course offers an opportunity to offer upper-level content as special topic choices, choices not currently available through the Program's repeated course offerings.

INST 399 - Independent Study in Interdisciplinary Arts Program Credits: 3

Independent study affords students the opportunity to engage in independent study related to their major field, a supporting area, or specialized interest.

INST 449 - Interdisciplinary Arts Senior Thesis Credits: 3

Capstone course required for IA majors in the first semester of their senior year. Working collaboratively under the guidance of the course instructor, students conduct individual research projects resulting in either a substantive work of creative writing or a documented thesis paper with an interdisciplinary approach to the arts.

Prerequisite(s): INST 111 or HONR 111
Graduate Credit: This course is not available for graduate credit.

INST 451 - Interdisciplinary Arts Showcase Credits: 3

Provides IA majors with opportunity to design, prepare, and present a public exhibition of their work in the form of an illustrated lecture, a performance piece, a multimedia presentation, a dramatic reading, or a work of film, video, or computer animation.

Prerequisite(s): (INST 111 or HONR 111) and INST 449
Graduate Credit: This course is not available for graduate credit.

INST 452 - Interdisciplinary Arts Internship Credits: 3

Offers IA majors the opportunity for full- or part-time work in an arts-related profession. All work programs must be reviewed and given prior approval by the program director and the dean, and supervised by a Shippensburg University faculty member.

Prerequisite(s): (INST 111 or HONR 111) and INST 449
Graduate Credit: This course is not available for graduate credit.

INST 453 - Interdisciplinary Arts Internship Credits: 3

Offers IA majors the opportunity for further full or part-time work in an arts-related profession. All work programs must be reviewed and given prior approval by the program director and the dean and supervised by a Shippensburg University faculty member.

Prerequisite(s): INST 111 and INST 452
Graduate Credit: This course is not available for graduate credit.

INTL 190 - General Education Special Topics Credits: 3

Opportunity to offer courses in areas of departmental general education interest not covered by the regular general education courses.

INTL 200 - Introduction to International Studies Concepts and Methods Credits: 3

Introductory course for the International Studies Major and Minor, International Development Minor and Area Studies Certificates. Uses an interdisciplinary approach to assist in understanding other cultures, countries, and world regions, and the global forces that link them together. Teaches research and problem-solving to mitigate tensions in cross-cultural encounters, international relations and globalization.

Corequisite(s): ENGL 114 or ENGL 115 or HONR 106 or Permission of Instructor

INTL 252 - Costa Rica: Politics, Economy, & Society Credits: 3

This course explores Costa Rican Politics, Economy and Society through a short-term study abroad experience. Course topics include an overview of linguistic, historical, socio-economic, political, and/or cultural themes of the areas visited. The major goal of the class is to enhance students' awareness and ability to evaluate the diversity of the interconnecting human experience.

Category: Interconnections - D

INTL 280 - Selected Topics in International Studies: Comparative & Global Cultures Credits: 3-6

Opportunity to offer interdisciplinary international studies courses not covered by the regular courses.

INTL 281 - Selected Topics in International Studies: Global Political Relations Credits: 3-6

Opportunity to offer interdisciplinary international studies courses not covered by the regular courses.

INTL 282 - Selected Topics in International Studies Global Business & Economics Credits: 3-6

Opportunity to offer interdisciplinary international studies courses not covered by the regular courses.

INTL 283 - Selected Topics in International Studies Africa & Middle East Studies Credits: 3-6

Opportunity to offer interdisciplinary international studies courses not covered by the regular courses.

INTL 284 - Selected Topics International Studies Asian Studies Credits: 3-6

Opportunity to offer interdisciplinary international studies courses not covered by the regular courses.

INTL 285 - Selected Topics in International Studies European Studies Credits: 3-6

Opportunity to offer interdisciplinary international studies courses not covered by the regular courses.

INTL 286 - Selected Topics in International Studies Latin American & Caribbean Studies Credits: 3-6

Opportunity to offer interdisciplinary international studies courses not covered by the regular courses.

INTL 300 - International Studies Seminar Credits: 3

Capstone course for the International Studies Major and Minor. Uses an interdisciplinary approach to investigate a global topic. Past topics have included Globalization, Global Environment, Human Rights, and Imperialism. Involves seminar discussions of readings and audiovisual media, and a research project related to the course topic.

Prerequisite(s): INTL 200 or permission of instructor.

INTL 358 - Global Political Economy & Security Credits: 3

This is a study abroad course that features an in-depth focus on global politics, history, and economics, focusing on governmental and non-governmental decision-making and organizations, both from a contemporary and historical perspective. A major focus will be on understanding the workings of international institutions such as NATO, European Union, Red Cross, Organisation for the Prevention of Chemical Weapons and International Criminal Court. The course also examines Europe in the context of trends of globalization, localization and human rights in the modern era. This course meets in Europe and has a substantial online component.

Category: Interconnections - G

INTL 380 - Selected Topics in International Studies Comparative & Global Cultures Credits: 3-6

Opportunity to offer interdisciplinary international studies courses not covered by the regular courses.

INTL 381 - Selected Topics in International Studies Global Political Relations Credits: 3-6

Opportunity to offer interdisciplinary international studies courses not covered by the regular courses.

INTL 382 - Selected Topics in International Studies Global Business & Economics Credits: 3-6

Opportunity to offer interdisciplinary international studies courses not covered by the regular courses.

INTL 383 - Selected Topics in International Studies Africa & Middle East Studies Credits: 3-6

Opportunity to offer interdisciplinary international studies courses not covered by the regular courses.

INTL 384 - Selected Topics in International Studies Asian Studies Credits: 3-6

Opportunity to offer interdisciplinary international studies courses not covered by the regular courses.

INTL 385 - Selected Topics in International Studies European Studies Credits: 3-6

Opportunity to offer interdisciplinary international studies courses not covered by the regular courses.

INTL 386 - Selected Topics in International Studies Latin American & Caribbean Studies Credits: 3-6

Opportunity to offer interdisciplinary international studies courses not covered by the regular courses.

INTL 390 - International Studies Internship - Comparative & Global Cultures Credits: 3-6

Opportunity to apply knowledge of international studies to practical applications at an internship site.

Prerequisite(s): INTL 200 and 6 additional credits of International Studies courses or permission of the Director of International Studies.

INTL 391 - International Studies Internship - Global Political Relations Credits: 3-6

Opportunity to apply knowledge of international studies to practical applications at an internship site.

Prerequisite(s): INTL 200 and 6 additional credits of International Studies courses or permission of the Director of International Studies.

INTL 392 - International Studies Internship - Global Business & Economics Credits: 3-6

Opportunity to apply knowledge of international studies to practical applications at an internship site.

Prerequisite(s): INTL 200 and 6 additional credits of International Studies courses or permission of the Director of International Studies.

INTL 393 - International Studies Internship - African & Middle Eastern Studies Credits: 3-6

Opportunity to apply knowledge of international studies to practical applications at an internship site.

Prerequisite(s): INTL 200 and 6 additional credits of International Studies courses or permission of the Director of International Studies.

INTL 394 - International Studies Internship - Asian Studies Credits: 3-6

Opportunity to apply knowledge of international studies to practical applications at an internship site.

Prerequisite(s): INTL 200 and 6 additional credits of International Studies courses or permission of the Director of International Studies.

INTL 395 - International Studies Internship - European Studies Credits: 3-6

Opportunity to apply knowledge of international studies to practical applications at an internship site.

Prerequisite(s): INTL 200 and 6 additional credits of International Studies courses or permission of the Director of International Studies.

INTL 396 - International Studies Internship - Latin American & Caribbean Studies Credits: 3-6

Opportunity to apply knowledge of international studies to practical applications at an internship site.

Prerequisite(s): INTL 200 and 6 additional credits of International Studies courses or permission of the Director of International Studies.

MATH 050 - Developmental Mathematics Credits: 3

Studies real operations, factoring, rational expressions, exponents, roots, radicals, quadratic equations, simultaneous equations, word problems, formula manipulations. Emphasis on drill in computational algebra. Students exempted from, or placed in, this on the basis of an examination. Open only to students with level 1 or level 2 mathematics placement. Students must earn a C or better in MAT 050 to be eligible to take a college-level mathematics class. Developmental course credits do not count toward the total number of credits required for graduation.

Prerequisite(s): Math placement level of 1

MATH 100 - Introductory Algebra Credits: 3

This course studies arithmetic for both integers and fractions, exponents, roots, linear and quadratic equations, factoring, rational expressions, modeling problems, and formula manipulations. Emphasis is on drill in computational algebra. The purpose of this course is to prepare students in math-intensive majors for further studies in college algebra, trigonometry, or calculus. Not open to students who have a math placement level of 4 or higher (whether by testing or successful completion of prior coursework).

MATH 105 - Mathematics for Liberal Studies Credits: 3

Examines mathematical structures and applications in a way designed to emphasize the creative and cultural aspects of mathematics. Topics may include voting systems, fair division problems, game theory, coding, networks, critical paths, linear programming, symmetry and patterns. Not open to math majors.

Prerequisite(s): Math placement level of 2 or Sophomore standing and Math placement level of 1.
Category: Foundations - Q

MATH 107 - Mathematical Models Applied to Money Credits: 3

An introductory level course designed to cover deriving mathematical formulas arising in Finance and Economics. Mathematical models are constructed and used to calculate simple and compound interest, annuities and payments calculations, amortization, sinking funds, perpetuities, installment buying, calculation of premiums of life annuities and life insurance, and the time value of money. Not open to math majors.

Prerequisite(s): PLML >=2 or passing grade in MATH 100
Category: Foundations - Q

MATH 110 - Fundamentals of Mathematics I Credits: 3

Designed to satisfy the mathematical needs of students in elementary education and related curricula. Topics covered include a study of problem solving strategies, mathematical reasoning, elementary set theory, number systems other than base 10, elementary number theory, and an axiomatic development of the real number system. Students solve mathematical problems using hands-on materials and electronic technologies. Emphasizes goals and procedures addressed in current state and national standards for school mathematics.

Prerequisite(s): Math Placement Level of 2 or higher OR MATH 100

MATH 111 - Fundamentals of Mathematics II Credits: 3

Designed to strengthen mathematical content knowledge of students majoring in elementary education. Focus on topics such as proportional reasoning, data analysis and probability, geometry, measurement, and algebraic reasoning. Students solve mathematical problems using hands-on materials and electronic technologies. Emphasizes goals and procedures addressed in current state and national standards for school mathematics.

Prerequisite(s): MATH 110 or Math Placement Level 5.
Category: Foundations - Q

MATH 117 - Applied Statistics Credits: 3

A first course in the concepts and methods of statistics with illustrations from across the humanities and the social, behavioral, and biological sciences. Specific topics include numerical and graphical descriptions of data, association between two variables, normal distribution, correlation and simple linear regression, and inference methods such as confidence intervals and hypothesis tests for one sample mean and one sample proportion, chi-squared test of independence, and ANOVA. Recommended as a general education statistics course for students majoring in social and life sciences, but not limited to students in those majors. Not open to students who have passed SCMG 200, MATH 217 or MATH 375 ; or math majors.

Prerequisite(s): Math placement level of 3
Category: Foundations - Q

MATH 140 - College Algebra Credits: 3

Provides algebraic background knowledge necessary for success in MATH 175 - Precalculus Credits: 3 or MATH 181 - Applied Calculus Credits: 3. Studies algebraic expressions; linear and quadratic equations, functions and graphs; polynomial functions; rational functions; exponential and logarithmic functions; and systems of equations. Not open to students who have successfully (C or better) completed MATH 175, MATH 181 or MATH 211.

Prerequisite(s): C or better in MATH 100 or a Math placement level of 4
Category: Foundations - Q

MATH 175 - Precalculus Credits: 3

Designed to prepare students for MATH 211. Provides intense study of the topics which are fundamental to the study of calculus. Emphasis placed on functions and their graphs with special attention to polynomial, rational, exponential, logarithmic and trigonometric functions, and analytic trigonometry. Upon completion, students should be able to solve practical problems and use appropriate models for analysis and prediction. Not open to students who have successfully (C or better) completed MATH 211.

Prerequisite(s): MATH 140 with minimum grade of C or math placement level of 5
Category: Foundations - Q

MATH 181 - Applied Calculus Credits: 3

Topics include differentiation and integration of a single variable functions, an introduction to multi-variable functions and partial differentiation, and applications including graphing and simple optimization. Course not open to students who have successfully (C or better) completed MATH 211.

Prerequisite(s): MATH 140 with minimum grade of C or MATH 175 with minimum grade of C or math placement level of 5
Category: Foundations - Q

MATH 185 - First Year Mathematics Seminar Credits: 1

This course will provide a cohort experience for new majors in the mathematics department and will include exploration of diverse areas of mathematics and related fields; focused building of problem-solving skills; and demonstrated mastery of pre-college mathematics.

Prerequisite(s): Math placement level of 5

MATH 190 - General Education Special Topics Credits: 3

Opportunity to offer courses in areas of departmental general education interest not covered by the regular general education courses.

MATH 191 - General Education Special Topics Credits: 3

Opportunity to offer courses in areas of departmental general education interest not covered by the regular general education courses.

MATH 201 - Field Immersion Experience Credits: 1

Covers theories of learning mathematics, state standards, and educational issues related to teaching and learning mathematics. Students will spend an average of 2 to 3 hours each week in a public-school mathematics classroom - half the semester in a middle school and the second half in a high school; will include urban and suburban or rural locations with students having diverse learning needs. Activities in the field will include tutoring, interviewing, and helping the cooperating teacher with a variety of classroom tasks.

Prerequisite(s): Minimum of 12 completed credits.

MATH 211 - Calculus I Credits: 4

Introduction to study of differential and integral calculus from algebraic, numerical, and graphical points of view. Concept of limit and applications of derivatives will be covered.

Prerequisite(s): MATH 175 with minimum grade of C or math placement level of 6
Category: Foundations - Q

MATH 212 - Calculus II Credits: 4

Continuation of Calculus I. Will include methods of integration, applications and infinite series.

Prerequisite(s): MATH 211 with minimum grade of C

MATH 213 - Calculus III Credits: 4

Generalization of single-variable calculus to higher dimensions. Parametric curves and applications covered.

Prerequisite(s): MATH 212

MATH 217 - Statistics I Credits: 4

Topics include exploratory data analysis, basic probability, the Central Limit Theorem, confidence intervals, hypothesis testing, linear regression, experimental design, analysis of variance and goodness of fit tests. A statistical software package will be utilized throughout course. This class is NOT OPEN to students who have successfully passed SCMG 200 or MATH 375 .

Prerequisite(s): MATH 175 Precalculus or Math placement level of 5
Category: Foundations - Q

MATH 219 - Data Science I Credits: 3

This is the first semester of a two-semester sequence in Data Science. Using real-world examples of wide interest and a popular programming language such as R or Python, we introduce methods for key facets of a data-driven investigation. These include obtaining data from a variety of sources, wrangling the data to get a manageable data set, exploratory data analysis to generate hypotheses and intuition about the data, and communication of results through interpretable summaries that are both transparent and reproducible.

Prerequisite(s): (CMSC 104 or CMSC 110 or ITAN 240 or ENGR 110 or ENGR 120 or SWEN 100) and (MATH 117 with minimum grade of C or MATH 217 with minimum grade of C or SCMG 200 with minimum grade of C or MATH 375 with a minimum grade of C)
Category: Natural World & Technology - T

MATH 225 - Discrete Mathematics Credits: 4

Study of topics usually associated with analysis of discrete and/or finite mathematical models. Topics from logic, set theory, Boolean algebra, mathematical proof, recursion, induction, combinatorics, discrete probability, matrices and graph theory covered.

Prerequisite(s): Math placement level of 4 or MATH 140 or MATH 175 or MATH 211 or MATH 181
Category: Citizenship & Responsibility - R

MATH 317 - Statistics II Credits: 3

Study of statistical methods and their application to various data sets. The entire statistical process of data collection, fitting data to a model, analysis of the model, verification of the model, and inference will be covered. Topics include non-parametric statistics, multiple linear regression, ANOVA, experimental designs, categorical data analysis, logistic regression, time series, and survival analysis. Examples taken from a variety of disciplines. Concepts reinforced through class projects. A statistical software package will be utilized throughout the course.

Prerequisite(s): MATH 217 with minimum grade of C or MATH 375 with a minimum grade of C.

MATH 318 - Elementary Linear Algebra Credits: 3

Introduction to the study of matrices, linear systems, determinants, eigenvalues, and the geometry of linear operators. Topics from Euclidean n-space include linear transformations, linear independence, span, bases, inner product, and vector spaces. An introduction to structural proof techniques will be a part of the key concepts for the course.

Prerequisite(s): MATH 212 with minimum grade of C or MATH 225 with minimum grade of C

MATH 319 - Data Science II Credits: 3

This is the second semester of a two-semester sequence in Data Science. Using real-world examples of wide interest and a popular programming language such as R or Python, we introduce methods for key facets of a data-driven investigation. These may include using statistical inference to infer properties of a population, using regression analysis to estimate the relationship among variables, using machine learning to make predictions, and creating interactive data products.

Prerequisite(s): MATH 219 with minimum grade of C

MATH 320 - Introduction to Abstract Algebra Credits: 3

Introduction to abstract algebraic structures and formal mathematical proof. Structures may include groups, rings, or fields. Prerequisite(s): MATH 225 with minimum grade of C

Prerequisite(s): MATH 225 with minimum grade of C

MATH 322 - Differential Equations Credits: 3

Study of first order differential equations. Topics include modeling with differential equations, initial value problems, first and second order linear differential equations, systems of linear differential equations and numerical methods, as well as material chosen from the following topics: Laplace transforms, advanced numerical methods, and partial differential equations.

Prerequisite(s): MATH 212 with minimum grade of C

MATH 326 - Mathematical Modeling Credits: 3

Study of construction of mathematical models to solve real world problems. Entire modeling process from construction of the model, fitting data to the model, analysis, and verification of the model covered. Both continuous and discrete models examined. Examples taken from a variety of disciplines.

Prerequisite(s): MATH 212 or MATH 318

MATH 333 - Geometry Credits: 3

Rigorous treatment of foundations of Euclidean geometry and an introduction to spherical and hyperbolic geometries. Topics may include transformational geometry, coordinate geometry, congruence, similarity and constructions. Also provides an historical development of attempts made through the centuries to clarify and expand upon the geometric axioms.

Prerequisite(s): MATH 225

MATH 375 - Probability and Statistics for Engineers Credits: 4

Course topics will include basic probability rules, conditional probability and independence, Bayes' rule, discrete and continuous random variables, joint distributions, expectation and variance, probability distributions to include binomial, geometric, hypergeometric, Poisson, Gaussian, exponential, lognormal, t, F, and Chi-square, correlation and covariance, Central Limit Theorem and sampling distributions, simple linear regression, and inference procedures for means and proportions. A statistical software package will be used throughout the course. This class is NOT OPEN to students who have successfully passed MATH 217 .

Prerequisite(s): MATH 211

Prerequisite(s): MATH 211

MATH 393 - Selected Topics in Mathematics Credits: 1-3

Opportunity to offer courses in areas of departmental major interest not covered by the regular courses.

MATH 395 - Mathematics Internship Credits: 3

Contact the department for further information on internships.

MATH 396 - Mathematics Internship Credits: 3

Contact the department for further information on internships.

MATH 399 - Independent Study in Mathematics Credits: 3

Independent study affords students the opportunity to engage in independent study related to their major field, a supporting area, or specialized interest.

MATH 400 - History of Mathematics Credits: 3

Focuses on the development of mathematical ideas relevant to K-12 mathematics. Some examples include episodes in the development of number systems, algebra, geometry, trigonometry, number theory, and analytic geometry. Some time spent on multicultural issues, sometimes referred to as 'ethnomathematics'. Must be at least junior standing to enroll.

Prerequisite(s): MATH 212 - Calculus II and junior level standing
Graduate Credit: This course is available for graduate credit.

MATH 410 - Numerical Analysis Credits: 3

Primarily methods of numerical approximation to the value of functions, polynomials, and systems of equations. Topics include accuracy of approximate calculations, interpolation and interpolating polynomials, solution of algebraic and transcendental equations. Numerical solution of simultaneous linear and nonlinear equations, principle of least squares, difference equations, and quadrature formulas are studied.

Prerequisite(s): MATH 212 and (CMSC 110 or SWEN 100)
Graduate Credit: This course is available for graduate credit.

MATH 421 - Number Theory and Cryptography Credits: 3

Introduction to a selection of topics from the related fields of Number Theory and Cryptography. Topics may include congruence arithmetic, primitive roots, quadratic residues, perfect numbers, Pythagorean triples, sums of squares, Fermat's Last Theorem, and primality testing, various substitution ciphers including affine, Vigenere, and Hill ciphers and the RSA public key encryption system with several variations. Algorithms for each encryption scheme discussed will be introduced and implemented.

Prerequisite(s): MATH 320
Graduate Credit: This course is available for graduate credit.

MATH 422 - Partial Differential Equations Credits: 3

Introduction to Partial Differential Equations, a fundamental branch of applied mathematics. Three classical equations from mathematical physics are discussed: the wave equation, the heat equation and Laplace's equation. Techniques which include separation of variables, Fourier series and fundamental solutions are introduced to address these equations. An introduction to numerical methods is also included.

Prerequisite(s): MATH 213 and MATH 322
Graduate Credit: This course is available for graduate credit.

MATH 425 - Advanced Algebraic Structures Credits: 3

Detailed study of one or more of the higher level algebraic structures such as groups, rings, fields, or abstract vector spaces. Emphasis on structure theorems such as the fundamental theorem of group homomorphisms and uses the sophistication developed in MATH 320.

Prerequisite(s): MATH 318 and MATH 320
Graduate Credit: This course is available for graduate credit.

MATH 430 - Complex Analysis Credits: 3

Introductory course in the theory of functions of a complex variable. Topics include complex numbers, analytic functions, contour integration, Cauchy's Theorem, and infinite series. Methods of a logical proof are developed and used throughout.

Prerequisite(s): MATH 213 and MATH 320
Graduate Credit: This course is available for graduate credit.

MATH 441 - Real Analysis I Credits: 3

Designed to give a fundamental understanding of the concepts used in elementary calculus. Methods of a logical proof are developed and used throughout. Topics include real numbers, sequences, limits, continuity, derivatives and the Riemann integral.

Prerequisite(s): MATH 212 and MATH 320
Graduate Credit: This course is available for graduate credit.

MATH 450 - Combinatorics Credits: 3

Concerned with computing within discrete mathematical structures and combinatorial problem solving. Topics include sets and graphs; counting and enumeration techniques including recurrence relations and generating functions; and graph theory algorithms.

Prerequisite(s): MATH 225 and junior standing
Graduate Credit: This course is available for graduate credit.

MATH 476 - Probability Credits: 3

In-depth development of probability and distribution theory. Topics include counting techniques, Bayes' Theorem, random variables, moment-generating functions, univariate and multivariate probability distributions, and the Central Limit Theorem.

Prerequisite(s): MATH 318
Corequisite(s): MATH 213
Graduate Credit: This course is available for graduate credit.

MATH 483 - Math Theory of Interest Credits: 3

Mathematical models are constructed for Theory of Interest, primarily time value of money. The models are then applied to solve mathematical problems arising in topics including simple and compound interest, annuities, bonds, amortization and sinking funds, yield rates, and duration.

Prerequisite(s): MATH 212 or permission of instructor
Graduate Credit: This class is not available for graduate credit.

MATH 486 - Mathematical Statistics Credits: 3

Continuation of MATH 476. Topics include transformations of random variables, order statistics, convergence in distribution, point and interval estimation, likelihood ratio tests, hypothesis testing, linear models, analysis of enumerative data, and analysis of variance.

Prerequisite(s): MATH 476 with minimum grade of C
Graduate Credit: This course is available for graduate credit.

MATH 490 - Selected Topics in Mathematics Credits: 3

Opportunity to offer experimental courses at the senior level in areas of mathematics not covered by regular courses. Topics such as foundations of mathematics, number theory, graph theory, cryptography, and advanced applications of mathematics are appropriate at this level.

Graduate Credit: This course is available for graduate credit.

MATH 491 - Topics in Applied Mathematics Credits: 3

Opportunity to offer experimental courses at the senior level of mathematics not covered regularly in the applied mathematics curriculum. Topics such as Mathematical Biology, Linear Programming, Computational Mathematics and Computational Modeling are appropriate at this level.

Prerequisite(s): MATH 212 and MATH 318
Graduate Credit: This course is available for graduate credit.

MATH 492 - Selected Topics in Statistics Credits: 3

Opportunity to offer experimental courses at the senior level in areas of statistics not covered by regular courses. Topics such as time series analysis, categorical data analysis, Bayesian data analysis, biostatistics, and computational statistics are appropriate at this level.

Prerequisite(s): MATH 217
Graduate Credit: This course is not available for graduate credit.

MATH 499 - Independent Study in Mathematics Credits: 3

Independent study affords students the opportunity to engage in independent study related to their major field, a supporting area, or specialized interest.

Graduate Credit: This course is available for graduate credit.

MCAE 100 - Engineering Graphics Credits: 3

This course teaches that engineering design is a creative process by requiring the students to develop an artistic imagination, and to articulate and express their design concepts and ideas in precise details using engineering graphics. The students are encouraged that while using their imaginations to develop a product, the must remain be conscientious of the context and limitations imposed by the nature thus steer their design concepts in a direction that is in harmony with nature. The students are subsequently taught that proper vocabulary is required to cultivate and validate their design ideas through graphic expression. The students learn that free expression is not an unclear expression; it requires attention to the proper techniques to make it comprehensible and useful to the larger audience. Thus, a great deal of emphasis is placed on freehand and computer aided drawing to translate conceptual ideas to design drawings following proper techniques of delineation, layouts, projections, views, sizing and fits. Finally, students learn that a design, unless it encompasses all the essential elements that fit together, is not viable.

Category: Creativity & Expression - C

MCAE 200 - Statics Credits: 3

Statics is the analysis of forces acting on physical systems that remain at rest. Students will extend their knowledge of classical mechanics and calculus to two and three dimensional systems of particles and rigid bodies. The goal of this course is to study mechanical systems that must hold their shape or position under some sort of load, such as frames, structures, beams, trusses, and cables.

Prerequisite(s): MATH 212 with minimum grade of C or PHYS 206 with minimum grade of C

MCAE 210 - Dynamics Credits: 4

Dynamics is the study of systems in motion. Topics include study velocity and acceleration in three dimensions, introduction to frames of reference rotation matrices, angular momentum, impact, and work-energy analysis.

Prerequisite(s): MCAE 200 with minimum grade of C

MCAE 220 - Fluids Credits: 4

Fluid Mechanics is the study of the flow of fluids. This course extends the topics of statics and dynamics to fluids. Topics include dimensional analysis, density, viscosity, surface tension, control volume analysis, differential fluid flow,

laminar and turbulent flow, and a study of flow in pipes.

Prerequisite(s): MCAE 210 with minimum grade of C and MATH 322 with minimum grade of C

MCAE 230 - Mechanics of Materials Credits: 4

After learning the basic concepts of stress and strain, this course examines how machines and frames perform under various modes of loading and deformation, such as, axial, bending, torsion, buckling; as well as, combined loading commonly encountered in machine elements. Topics also include plane stress analysis, statically indeterminate structures, pressure vessels, stress intensity factor, temperature effect, fatigue and creep loading. Emphasis then shifts to failure modes and theories applicable to machine design. Students are encouraged to implement computer simulations to analyze the machine components under complex loading scenarios that may be difficult to solve by hand. MCAE 200

Prerequisite(s): MCAE 100 (Engineering Graphics) and MCAE 200 (Statics) with C or better

MCAE 300 - Engineering Materials Credits: 3

The course offers knowledge of a broad-based knowledge of materials commonly used in mechanical engineering applications. It is equally divided among (i) microscope considerations (atomic and lattice structure, dislocations, strengthening mechanisms), (ii) macroscopic considerations (physical properties of materials, failure mechanisms under static, dynamics and fatigue loading conditions, environmental effects) and (iii) selection and classifications of materials to meet optimal design specifications. Although, polymers, ceramics, and composite materials are considered, an overwhelming emphasis of this course is metals and alloys as they continue to dominate mechanical engineering.

Prerequisite(s): MCAE 200 with minimum grade of C

MCAE 310 - Manufacturing Processes Credits: 4

Introduces the fundamental processes for manufacturing parts. This includes forming, forging, cutting, welding, joining, gluing, casting of materials including metals, plastics, and other materials. Other topics include rapid prototyping methods, including CNC machines, 3D printing technologies, and composite materials.

Prerequisite(s): MCAE 300 with minimum grade of C

MCAE 320 - Machine Dynamics Credits: 4

This course is divided into two intimately related topics that are most relevant to machine design, namely, vibrations and dynamic balancing. Students will learn about various sources of vibrations; analyze single and multiple degrees of freedom vibration; perform analytical and experimental analysis leading to natural frequencies and associated mode shapes; analyze free and forced as well as damped and undamped vibration; and study various vibration isolation methodologies relevant to machines. Finally, concepts, such as, static and dynamic unbalance and dynamic balancing of linkages, machines and engines will be elucidated.

Prerequisite(s): MCAE 210 (Dynamics) and MCAE 230 (Mechanics of Materials) with C or better

MCAE 400 - Design Methods Credits: 4

This course is designed to provide a mechanical design experience, moving from general product ideas to completed product. The course is structured around a series of design experiences, moving from user descriptions through design

documents, actual design and simulation, user-acceptance, production plans, and final delivery. Students will learn about the different phases of the design process, how to select materials for a project, differences between developing a prototype versus preparing for efficient mass-production, how test and verify the component complies with its design specifications.

Prerequisite(s): MCAE 300 with minimum grade of C and MATH 322 with minimum grade of C
Graduate Credit: This course is not available for graduate credit.

MCAE 410 - Thermodynamics and Heat Transfer Credits: 4

This course is a study of the relationship between machines and thermodynamics. The course reviews the basic thermodynamic concepts and provides an emphasis on the relationships between work, energy, and efficiency. Students will model various mechanical devices and develop heat transfer models. Students will study nozzles, diffusers, throttles, engines, heat exchangers, pistons, refrigeration, compressors, and chemical thermodynamics.

Prerequisite(s): MCAE 220 (Fluids) with minimum grade of C
Graduate Credit: This course is not available for graduate credit.

MCAE 420 - Machine Design Credits: 3

This course is focused on the analysis and design of machine elements, such as, fasteners, springs, shafts, bearings, brakes, clutches, gears, belts, chains and pulleys, etc. The general analysis and design guidelines and procedures are elucidated. The inverse iterative processes in design are emphasized. Computer simulations are implemented in various phases of the design process. Students also learn that design is an affair regulated by the industry and state sponsored engineering standards; thus, each product design must end with ensuring compliance with the manufacturer guidelines and design codes.

Prerequisite(s): MCAE 320 (Machine Dynamics) with minimum grade of C and MCAE 300 (Engineering Materials) with minimum grade of C
Graduate Credit: This course is not available for graduate credit.

MCAE 450 - Thermal System Design Credits: 3

This course combines thermofluid concepts to analyze and design valves, nozzles, diffusors, pumps, fans, piping system, heat exchangers, and heating and cooling systems. An introduction is also made to the power and energy management systems. Following theoretical analysis; emphasis is placed on computer simulation and computer aided design using appropriate software. This course also introduces optimization techniques and how they are incorporated into the thermal design process.

Prerequisite(s): MCAE 410 (Thermodynamics and Heat Transfer) with C or better

MGMT 305 - Organizational Behavior Credits: 3

Emphasizes contributions of many disciplines to management practices considering the interrelationship among individual, group, and organization with an international focus added. Examines analytical and behavioral skills necessary to enhance managerial potential and facilitate individual contributions to organizational effectiveness. Applies concepts of learning, motivation, intra- and inter-group behavior, leadership, decision making, power, conflict, and politics to an understanding of teamwork and the issues of quality within and among organizations. Must be junior standing to enroll or departmental permission.

MGMT 331 - Principles of Management Credits: 3

Provides the student with a basic background of the field of management in the private sector. Emphasis is placed on the evolution of management thought, identification and analysis of the major managerial functions and the use of managerial techniques in decision-making. Also introduces the student to the application of behavioral science concepts in management.

MGMT 340 - Human Resource Management Credits: 3

Investigates the role of organization as it pertains to the attraction, selection and retention of human resources. Human resource strategies, methods, techniques, and procedures are examined with emphasis on job analysis, human resource planning and forecasting, recruitment, selection, training and development, compensation, and benefits. Impact of state and federal legislation on human resource techniques discussed.

MGMT 342 - Labor Relations and Collective Bargaining Credits: 3

Introduction to employee-management organizational relations in the private and public sectors in both union and non-union settings. Topics such as negotiation, administration and content of labor agreements, dispute resolution, and organizational relations abroad may be included. Must be upper division standing to enroll or departmental permission.

MGMT 346 - Employment Law Credits: 3

Investigates in-depth federal and state legislative, judicial, and administrative regulation of the employer/employee relationship in the private sector. Presents overview of labor law. Topical coverage may include equal employment opportunity, affirmative action, wage-hour law, employee pension and benefits, workers' compensation, unemployment compensation, privacy, occupational health and safety, and legal basis for collective bargaining.

Prerequisite(s): BLAW 261 or permission of department.

MGMT 349 - International Human Resource Management Credits: 3

Examines major social, legal, political, and economic forces impacting the international human resource administration. Emphasis placed on the response of the international human resource specialist to these forces. Discussion, cases, and outside readings among the course materials used.

MGMT 370 - International Business Credits: 3

Overview of the issues facing managers of import-export firms, trading companies, international service companies, and multinational corporations. Topics include international trade, exchange rates, government relations, international organization, economic integration, and the impact of culture on the various functions of management. Must be junior standing to enroll or departmental permission.

MGMT 393 - Selected Topics in Management Credits: 3

Opportunity to offer courses in areas of departmental major interest not covered by the regular courses.

MGMT 394 - Leadership for Business Credits: 3

Designed to provide a theoretical and conceptual understanding of leadership for business develop a knowledge framework of leadership for business that will contribute to growth as a management professional; and develop the skills necessary to be an effective leader for business.

Prerequisite(s): MGMT 305

MGMT 447 - Business and Society Credits: 3

Examines role of business in a social system including interrelationships with government, the community, employees, and other major publics. A major focus is social responsibility of business. Consideration given to such areas as international business, business ethics, pollution, and impact of governmental regulations. Requires senior standing to enroll or permission of department.

Graduate Credit: This course is not available for graduate credit.

MGMT 448 - Compensation Administration Credits: 3

This course examines the strategic use of compensation practices to attract, motivate, retain, and reward employee performance and drive organizational success. The course focuses on compensation practices used to implement a firm's compensation strategy. Topics include compensation strategies, total rewards, pay equity, pay differentials, legal issues in compensation, job evaluation methods, pay structure and design, pay-for-performance, benefits, and executive compensation.

Prerequisite(s): MGMT 340 or permission of department.
Graduate Credit: This class is available for graduate credit.

MGMT 449 - Socially Sustainable Business Solutions Credits: 3

Current business practices have and continue to contribute to the destruction of the Earth's climate and habitability as well as the destruction of communities, workers and society. This course will explore the definition of socially sustainable business practices. Students will explore the ideas of scholars concerning what is required to be socially sustainable, as well as the path to implementing those ideas. From those ideas, students will engage in critical thinking to put together their own paths to socially sustainable business.

Graduate Credit: This course is not available for graduate credit

MGMT 450 - Negotiation Credits: 3

Course is designed to provide students with skills needed to approach negotiation and bargaining situations with confidence. This includes providing frameworks for the analysis conflict and its origins, knowledge about one's own tendencies in negotiation, and a chance to experiment with negotiating techniques in a variety of contexts. Topics include: integrative and distributive negotiations, individual differences in bargaining styles, coalitions, team negotiations, negotiating through agents, and ethical issues in negotiation. Course content is delivered through readings, cases, and lecture, however, considerable emphasis is placed on inside and outside class negotiation simulations and subsequent classroom discussion.

Prerequisite(s): (MKTG 205 and FINA 311 and MGMT 305) and senior standing.
Graduate Credit: This course is available for graduate credit.

MGMT 470 - International Management Credits: 3

Study of the unique problems associated with the management of firms operating in an international environment. Focus on the strategic and comparative issues.

Prerequisite(s): MGMT 370 or permission of department.
Graduate Credit: This course is not available for graduate credit.

MGMT 490 - Selected Topics in Management Credits: 1-3

Opportunity to offer courses in areas of departmental major interest not covered by the regular courses.

Graduate Credit: This course is not available for graduate credit.

MGMT 491 - Selected Topics in Management Credits: 3

Opportunity to offer courses in areas of departmental major interest not covered by the regular courses.

Graduate Credit: This course is not available for graduate credit.

MGMT 497 - Strategic Management Credits: 3

Examines strategic decision making under conditions of dynamic uncertainty, with focus on integrating the domains of the various majors in the college to facilitate understanding of each employee's and each discipline's role in the total organization. Importance of achieving a fit between the internal and external environment for organizational survival and success is a central issue. Consideration given to influence of social, demographic, technological, political/legal, economic, and global environments, as well as industry environment of competitors, buyers, suppliers, and substitutes. Course is cross-functional capstone course for all business majors. All students expected to participate in designated AACSB International student learning outcome assessments. Must be senior standing to enroll.

Prerequisite(s): MKTG 205 and FINA 311 and SCMG 330 and MGMT 305
Graduate Credit: This course is not available for graduate credit.

MGMT 498 - Business Planning and Implementation Credits: 3

Examines the challenges of implementing strategies in multinational firms (MNEs). Successful firms today are distinguished not by those whose planning is stellar but those who are able to implement a stellar plan. This course is designed to provide students with a more detailed application of strategy concepts and organizational challenges that impact the implementation process. Course is cross-functional capstone course for business management major students. Must be senior standing to enroll.

Prerequisite(s): MKTG 205 and FINA 311 and SCMG 330 and MGMT 305 and MGMT 497 (may be taken concurrently)
Graduate Credit: This course is not available for graduate credit.

MLSC 115 - Army Physical Fitness Training Credits: 1

The course follows the U.S. Army's Holistic Health and Fitness Training Program as outlined in Army Training Publication (ATP) 7-22.01 and 7-22.02. The course consists of a systematic increase in the intensity or duration of physical activities that will train individuals in each phase to improve overall physical fitness performance. Throughout the course, students will measure their physical fitness progression through increased resistance (weight), number of sets, and/or number of repetitions. During the semester each student will be required to plan and conduct at least one physical fitness session for their peers, receiving feedback from the ROTC Cadre. A maximum of three credits earned in this course can be counted towards graduation.

Corequisite(s): Mandatory registration for MLSC 331, MLSC 332, MLSC 431, or MLSC 432. Exceptions to this requirement are through the Department Chair, Military Science Department.

MLSC 131 - Introduction to Leadership and ROTC Credits: 2

Introduces basic military skills such as marching, formations, military first aid, and land navigation. MSI cadets will learn to operate in a team environment with their peers to accomplish everyday military tasks. Meets one hour per week for classroom instruction, one hour per week for physical training, and once a week for a leadership lab.

MLSC 132 - Leadership and Squad Tactics Credits: 2

This course introduces a sound military leader's leadership techniques and qualities while expanding on the military knowledge and team-building techniques introduced in MLSC 131. Meets one hour per week for classroom instruction, one hour per week for physical training, and once a week for a leadership lab.

MLSC 231 - Introduction to Army Leadership and Ethics Credits: 2

Provides instruction in basic military skills (land navigation, first aid, and tactical communications) with the primary focus on self-development in leadership and ethics. Highlights various leadership skills and styles necessary to overcome management challenges and increase team performance. Meets two hours per week each semester. Has associated lab that meets once a week for two hours that focuses on the application of small unit tactics. Students are also required to attend two physical fitness training sessions per week.

MLSC 232 - Fundamentals of Small Unit Tactics Credits: 2

Provides instruction in the fundamentals of military small unit tactics. Course instructs students how to apply troop leading procedures and military analysis to formulate tactical decisions. Students will learn problem solving skills to formulate tactical solutions in mock battlefield scenarios. Meets two hours per week each semester. Has associated lab that meets once a week for two hours that focuses on the application of small unit tactics. Students are also required to attend two physical fitness training sessions per week.

MLSC 331 - Introduction to Collective Training Credits: 3

Emphasizes individual military skills leadership and managerial development. MS III Cadets set well-defined goals and develop procedures for goal attainment. Cadets learn to plan, coordinate and execute military tactics in preparation for Cadet Summer Training, which fine-tunes and hones their skills and proficiencies to become Commissioned Officers in the United States Army. Meets three hours per week plus a two hour lab on Thursdays, and one weekend field training exercise. Requires concurrent enrollment in MLSC 115, Army Physical Fitness Training. Offers a wide range of Military tactics and technique training opportunities, both on and off-campus.

Corequisite(s): MLSC 115

MLSC 332 - Military Organizational Leadership Credits: 3

Expands on military leadership and managerial skills development and sets the conditions for cadets to lead at a small organizational level. MS III Cadets assess their goals, adapt and refine procedures for goal attainment. Cadets learn to plan, coordinate and execute military tactics in preparation for Cadet Summer Training, which fine-tunes and hones their skills and proficiencies to become Commissioned Officers in the United States Army. Meets three hours per week plus a two hour lab on Thursdays, and one weekend field training exercise. Requires concurrent enrollment in MLSC 115, Army Physical Fitness Training. Offers a wide range of Military tactics and technique training opportunities, both on and off-campus.

Corequisite(s): MLSC 115

MLSC 398 - Selected Topics in Military Science Credits: 3

Opportunity to offer courses in areas of department's interest not covered by the regular courses.

MLSC 399 - Selected Topics in Military Science Credits: 3

Opportunity to offer courses in areas of department's interest not covered by the regular courses.

MLSC 431 - The Army Officer Credits: 3

Enables cadets to further advance their leadership and managerial skills. Focuses on developing cadet proficiency in planning, preparing, executing, and assessing complex operations; functioning as a member of an organizational staff; and providing performance feedback to subordinates. MSIV cadets will be given situational opportunities to assess risk, make ethical decisions, and lead fellow cadets at the MS I-III level. Meets for three hours per week, plus a two-hour weekly leadership lab.

Corequisite(s): Requires concurrent enrollment in MLSC 115
Graduate Credit: This course is available for graduate credit

MLSC 432 - Company Grade Leadership Credits: 3

Emphasizes the role of the Army during offensive, defensive, stability, and defense support of civilian authority operations in a complex global environment. Significant emphasis is placed on preparing cadets for their first assignment as a company grade officer through completion of situational opportunities to assess risk, make ethical decisions, and lead fellow cadets at the MS I-III level. Meets for three hours per week, plus a two-hour weekly leadership lab.

Corequisite(s): Requires concurrent enrollment in MLSC 115 .
Graduate Credit: This course is available for graduate credit.

ITAN 142 - Business Computer Systems Credits: 3

Examines role of information systems within the functional areas of an organization. Characteristics of the different types of business information systems, such as transaction processing, management reporting, division support, etc., will be discussed. Software exposure will include selected features of the Windows operating system and selected applications software packages.

ITAN 240 - Python Programming for Business and Analytics Credits: 3

Covers application development for business and analytics through exploration of application development life cycle, programming logic and data structures, programming syntax, and business data analytics. Students will develop multiple Python programs to solve business and analytics problems. Python is one of the most popular programming languages for systems development and analytics. Additional topics include lists, arrays, data base interfacing, data processing, characteristics of object vs. non-object orientation.

Prerequisite(s): ITAN 142 with minimum grade of D.

ITAN 300 - Information Technology and Business Operations Credits: 3

Designed to address the challenging role of information technology and management information systems in today's global organizations. Deals with planning and developing databases, data privacy/security, and business analytics.

Category: Natural World & Technology - T

ITAN 340 - Business Programming for Analytics Credits: 3

This course equips students with necessary knowledge and skills in using Python and Python packages for data analytics. It provides students with opportunities to practice with datasets taken from industries and solve mini business problems. Topics include Python basics, data structure, data type, plotting, data assembly, missing data, tidy data, and text data.

Prerequisite(s): ITAN 240 or permission of the instructor.

ITAN 342 - 9:00 to 9:30 AM on August 12 Credits: 3

AI stands at the forefront of technological revolution. The evolution of AI technologies presents multiple opportunities and challenges for businesses and society at large. Students in this course explore Artificial Intelligence (AI) from applied business and technology management perspectives, blending theoretical foundations with hands-on practical applications. The course covers technological foundations of AI technologies, including technological evolution trends, machine learning, algorithms, natural language processing, and generative AI, etc. The course utilizes strategic management, technology and innovation management frameworks to examine how AI-enabled innovations help businesses. Students will utilize provided AI platforms to build AI-enabled products/services. The course also examines concerns related to AI in business alongside the future of AI.
By the end of taking the course, students will be equipped with the knowledge and skills to design and implement AI-driven strategies, preparing them to navigate and lead in the AI-powered business and technology landscape.

ITAN 344 - Business Systems Analysis and Design Credits: 3

Provides an in-depth study of the tools and techniques of systems analysis, including feasibility, preliminary and detail systems investigations. Provides the framework necessary for design, development, and implementation of a business information system. Must be upper division standing to enroll.

ITAN 355 - Data Management and Analytics Credits: 3

This course focuses on how to organize, manage, and explore data. It introduces the basic concepts of database, including ER modeling and normalization, and focuses on using Structured Query Language (SQL) to define and manipulate data. Other topics include emerging data technologies (e.g., Big Data and NoSQL database), windows functions, exploratory data analysis, analytical reporting, machine learning datasets, and analytical dataset development.

ITAN 393 - Selected Topics in Business Information Systems Credits: 3

Opportunity to offer courses in areas of departmental major interest not covered by the regular courses.

ITAN 399 - Information Security Credits: 3

The primary goal of this course is to provide students with a broad view of information security. Managerial, technical, and practical aspects of information security are integral to the course. Students will develop an understanding of how information security fits into their personal lives, business enterprises, and society. Real-world scenarios and hands-on activities are used extensively to explore tools and techniques used in cyberattacks and for defending systems against attacks.

ITAN 420 - Telecommunication and Distributed Systems Credits: 3

Designed to introduce the principles of data communications that form the core of telecommunications and distributed systems. Topics include networking hardware/software, digital data transmission, network architectures, protocols, design, configuration and security. Hands-on exercises cover administrative and security utilities using various networking operating systems.

Prerequisite(s): ITAN 240 or ITAN 340 with a grade of C or permission of instructor
Graduate Credit: This course is available for graduate credit.

ITAN 425 - Analytics and Technology Integration Credits: 3

This course is designed to address the challenge of generating, displaying and integrating information resulting from the systematic analysis of data. To that end this course applies analytics software statistical computing and graphics. Today, millions of analysts, researchers, and organizations are using analytics software to solve complex issues. These types of applications are not limited to just one sector but are currently being employed in banking, e-commerce, finance, and many more sectors.

Prerequisite(s): ITAN 240 with a minimum grade of C or permission from the instructor.
Graduate Credit: This course is not available for graduate credit

ITAN 442 - Electronic Commerce Application Development Credits: 3

Covers the Internet and electronic commerce concepts related to three specific areas: business operations and management, technology utilization, and data-driven applications development. Class lectures and hands-on application development will be applied to the examination of business and technical issues involved in designing, implementing, and managing business operations and commerce via the internet technologies.

Prerequisite(s): ITAN 240 or ITAN 340 with a B or better or permission of instructor
Graduate Credit: This course is available for graduate credit.

ITAN 446 - Applied Project Management Credits: 3

This senior capstone course provides an in-depth coverage of the analysis, design, and development of projects within the various environments including business. Cooperative project teams will propose, design and build solutions for selected academic or business applications. Coverage includes: analysis of current project requirements, management of project activities; design of proposed solution; activity scheduling; establishment of practical quality controls; publication of project documentation; project delivery and closure. Project management concepts, earned value management, and brainstorming techniques will be covered with related software introduced.

Prerequisite(s): Requires senior standing.
Graduate Credit: This course is not available for graduate credit.

ITAN 490 - Selected Topics in Business Information Systems Credits: 3

Opportunity to offer courses in areas of departmental major interest not covered by the regular courses.

Graduate Credit: This course is not available for graduate credit.

MKTG 205 - Principles of Marketing Credits: 3

Introduction to language and issues of marketing with emphasis on learning to develop responsive marketing strategies to meet consumer needs. Topics include market segmentation, product development, promotion, distribution, and pricing. Introduction to such topics as the external environment, marketing research, international marketing, ethics, and careers in marketing may be included. Must be a business major with upper division standing to enroll.

Prerequisite(s): ECON 102 or ECON 113 or HONR 166
Restricted to BSBA majors & business minors, including the marketing and entrepreneurship minors. Restricted to minimum 30 credits earned.

MKTG 206 - Consumer Behavior Credits: 3

Applied study of the cognitive, affective, behavioral, and environmental factors that influence decision-making in the marketplace. Students will explore theoretical concepts and learn how the consumer engages in the buyer-seller relationship. The psychological factors that influence and shape consumer behavior will also be explored.

Prerequisite(s): MKTG 205 with minimum grade of C.

MKTG 310 - Personal Selling Credits: 3

The course is an introduction to the concepts and best practices of personal selling. The personal selling process and its applications, understanding, and communicating with customers, and achieving success in personal selling are emphasized.

Prerequisite(s): MKTG 205 or departmental permission

MKTG 315 - Sales Management Credits: 3

Emphasis on all aspects of managing a sales force. Topical coverage includes the sales process, recruiting, selection, compensation, training, and evaluation of salespeople. Other topics may include sales forecasting, sales quotes, number of sales territories needed, routing, and analysis of sales volume. Students exposed to sales careers they can pursue.

Prerequisite(s): MKTG 205 or departmental permission

MKTG 325 - Advertising and Promotional Strategy Credits: 3

Studies the increasing importance of this marketing communication activity in contemporary society. Students consider persuasive communications efforts beyond advertising and become involved in real-life projects to experience and understand the relationship between theory and practice.

Prerequisite(s): MKTG 205 or departmental permission

MKTG 331 - Marketing Analytics I Credits: 3

In this course, you will go deeper into concepts covered in Principles of Marketing. You will learn how to analyze marketing data to help make decisions about market segmentation and target market selection, new product and service

development, product positioning, and allocation of marketing mix expenditures, to accomplish strategic marketing objectives.

Prerequisite(s): SCMG 200 and MKTG 205 with minimum grade of C.

MKTG 335 - Digital Marketing Credits: 3

Applied study of the state of digital marketing, best practices in online marketing efforts, and current advancements in online customer relationship management and customer engagement. Students will learn about and gain experience with on-site and off-site search engine optimization, website design, web analytics, landing page design and testing, paid search marketing, online advertising, email marketing, and social media marketing.

Prerequisite(s): MKTG 205 or departmental permission

MKTG 339 - Social Media Marketing Credits: 3

This course engages students in the application of social media and other emerging online marketing mediums. Learning in this course includes social media planning, social media key performance indicators and objective setting, social media analytics, and social media integration into the larger scope of marketing. The class includes hands-on development of social media tactics and channels. This may require students to set up individual social media accounts.

Prerequisite(s): MKTG 205 with a minimum grade of C.

MKTG 340 - Tourism and Events Planning Credits: 3

The course will provide an introduction to marketing tourism and events planning. Students will investigate basic elements of good marketing in the tourism industry through reading, discussions, and hands-on experience. Students will study and practice the basics of events planning.

Prerequisite(s): MKTG 205 or departmental permission

MKTG 352 - Principles of Retailing Credits: 3

In-depth analysis of store operation and management, merchandising techniques, methods for promotion, advertising and selling, pricing methods, and ways of controlling inventories. Examines current trends in retailing.

Prerequisite(s): MKTG 205 or departmental permission

MKTG 360 - International Marketing Credits: 3

The socio-political-legal-economic environment of international marketing operations, which may include cross-cultural consumer behavior, international marketing research, forms of regional market agreements, international product, pricing, distribution and promotion policies, multinational corporations, and world trade patterns.

Prerequisite(s): MKTG 205 or departmental permission

MKTG 365 - Relationship Marketing Credits: 3

An introduction to the theoretical and applied perspectives of relationship marketing. Focuses on the driving forces that cultivate relationships between customer and company. Relationship marketing topics include (but are not limited to) brand and supplier loyalty/commitment, relationship-based buying, psychological relationship theory (with emphasis

on applying such theory to marketing practices), and applications of customer relationship management (CRM).

Prerequisite(s): MKTG 205 or departmental permission

MKTG 370 - Services Marketing Credits: 3

Examines marketing theory and methods applied to profit and nonprofit service industries such as health care, finance, transportation, retailing, tourism, sports, arts and consulting. Conceptual understanding of services and the analytical tools used in solving services marketing problems are discussed.

Prerequisite(s): MKTG 205 or departmental permission

MKTG 380 - Sports Marketing Credits: 3

Analysis of sports, especially as marketing tools affect the performance, participants, spectators and society in general. Internal and external factors analyzed as they affect marketing and management actions.

Prerequisite(s): MKTG 205 or departmental permission

MKTG 390 - Selected Topics in Marketing Credits: 1-3

Opportunity to offer courses in areas of departmental major interest not covered by the regular courses.

Prerequisite(s): Requires senior standing.

MKTG 391 - Selected Topics in Marketing Credits: 3

Opportunity to offer courses in areas of departmental major interest not covered by the regular courses.

MKTG 393 - Selected Topics in Marketing Credits: 3

Opportunity to offer courses in areas of departmental major interest not covered by the regular courses.

MKTG 399 - Independent Study in Marketing Credits: 3

Independent study affords students the opportunity to engage in independent study related to their major field, a supporting area, or specialized interest.

MKTG 430 - Marketing Research Credits: 3

In-depth study of the tools of marketing research, including methodology and techniques used in measuring characteristics of markets for products and services. Topics include the research process, data collection, sampling, data analysis, and presentation of results. Contains hands-on development of capabilities to study characteristics of the marketplace.

Prerequisite(s): MKTG 205 and MKTG 206 and (SCMG 200 or MATH 117) or departmental permission
Graduate Credit: This course is not available for graduate credit.

MKTG 451 - Marketing Analytics II Credits: 3

This course is designed as an experiential learning capstone course for the digital marketing & analytics concentration/major. Students will design and run their own set of studies in order to run selected statistical procedures and models that they were exposed to on conceptual and cased-based levels in MKTG 331 Marketing Analytics I . Emphasis will be centered around gaining practical experience designing, running, and reporting students' own marketing analytic studies.

Prerequisite(s): MKTG 331 with minimum grade of C.
Graduate Credit: This course is not available for graduate credits.

MKTG 490 - Selected Topics in Marketing Credits: 1-3

Opportunity to offer courses in areas of departmental major interest not covered by the regular courses.

Prerequisite(s): Requires senior standing.
Graduate Credit: This course is not available for graduate credit.

MKTG 493 - Selected Topics in Marketing Credits: 3

Opportunity to offer courses in areas of departmental major interest not covered by the regular courses.

Graduate Credit: This course is not available for graduate credit.

MKTG 495 - Marketing Management Credits: 3

Capstone synthesis course for marketing majors. Requires students to apply information and skills learned in business core and marketing courses to case situations and research projects. Critical thinking, use of marketing research, and strategic decision making are stressed. Emphasizes the use of written and oral communication skills as part of the marketing core requirements.

Prerequisite(s): MKTG 205 with a minimum C grade.
Graduate Credit: This course is not available for graduate credit.

MUSI 101 - Brass Ensemble Credits: 1

Select group of brass instrumentalists who perform in concert and on tour.

MUSI 103 - Marching Band Credits: 1

The SUMB are students who want to continue or begin their marching experience as a musician, color guard and majorettes who perform at all home football games, several away games, parades, and exhibitions.

MUSI 104 - Concert Band Credits: 1

Select group of wind and percussion instrumentalists who perform several concerts on campus and throughout the mid-Atlantic region.

MUSI 105 - Concert Choir Credits: 1

Mixed vocal ensemble of 80-90 voices who perform a variety of literature from the different periods of music history. Activities include on-campus concerts and an annual tour.

MUSI 109 - String Ensemble Credits: 1

String Ensemble is primarily made up of students who play instruments of the bowed string family: violin, viola, cello, and bass. Students who play instruments other than bowed strings and who are able to collaborate with string instruments, particularly pianists, are also welcome to participate in the string ensemble. The course is intended to be both instructional and recreational. Students will develop technique while learning music together in preparation for performances. Repertoire will range from chamber orchestra pieces for the entire ensemble to chamber music, such as duets, trios, and quartets. Styles of music learned may range from standard classical repertoire to contemporary popular genres.

Prerequisite(s): Strings Class or permission of instructor.

MUSI 113 - Jazz Ensemble Credits: 1

Group provides performing opportunities for students interested in jazz literature from the big band era to present. Several concerts on campus and in the mid-Atlantic region are performed each year.

MUSI 117 - Madrigal Singers Credits: 1

Select vocal ensemble comprised of mixed voices. Ensemble performs music of the renaissance as well as works for chamber choir from various periods. They perform a holiday Madrigal dinner, two campus concerts, and an annual spring tour.

MUSI 121 - Introduction to Music Credits: 3

Assists the non-music major in developing an aesthetic sensitivity toward music. Objectives are to assist the student in becoming perceptively aware of the components of music and musical form; and to acquaint the student with great musical literature that makes up the nucleus of our Western heritage. Listening to music and developing listening skills emphasized. May have a concert attendance requirement.

Category: Creativity & Expression - A

MUSI 129 - American Popular Music Credits: 3

This course is a survey of American Popular Music of the 20th century and the early 21st century. A particular emphasis will be placed on following the threads from styles such as blues, country, jazz, and rock and roll as they grow and develop through the 20th century and are affected by the growth of sound technology and ever more sophisticated forms of mass communication.

Category: Creativity & Expression - A

MUSI 132 - University-Community Orchestra Credits: 1

Group introduces members to significant masterworks of the western orchestral literature. The ensemble offers two or three concerts per year.

MUSI 140 - Class Piano, Level I Credits: 3

Group instruction and guided practice at the piano for students who have not studied piano, or who have studied less than one year. Students develop beginning skills in reading, technique, accompanying, and applying theoretical

principles to the piano (harmonization, transposition, improvisation), and perform solo and ensemble works.

Prerequisite(s): Requires permission of instructor.

MUSI 150 - Basic Guitar Credits: 3

Involves study of fundamental techniques of guitar performance with a focus on reading music notation and fret board knowledge. Students learn chords and scales, as well as physical approaches to the instrument such as posture, left hand position, and use of the pick. Students will read music that is on an easy to intermediate level from folk, classical, and popular styles of music and will also be introduced to techniques of improvisation that will help improve technique and creativity. Students will be divided into small groups for focused instruction and performance projects. Prospective students need to show ability to progress based on either a prior experience playing guitar or music reading skills apart from the guitar and should own an acoustic (steel or nylon string) guitar.

Prerequisite(s): Requires permission of instructor.

MUSI 158 - Woodwind Ensemble Credits: 1

Group is comprised of woodwind instrumentalists who perform in concert on campus and throughout the mid-Atlantic region.

MUSI 190 - General Education Special Topics Credits: 3

Opportunity to offer courses in areas of departmental general education interest not covered by the regular general education courses.

MUSI 212 - Music Theory I Credits: 3

A first course for the student who wishes to increase knowledge of the elements of music: melody, harmony, rhythm, texture, and form. Designed to give students basic skills in the use of these elements through written and aural exercises, sight-singing, keyboard musicianship, analysis of short works, and simple composition.

Prerequisite(s): Requires permission of instructor.

MUSI 216 - Music & Film Credits: 3

This course explores the structure, history, and aesthetics of music in film. In the first weeks, we will discuss the different concepts and approaches used to analyze film music. Then, the course will concentrate on the various historical, artistic and production perspectives. We will watch clips from silent films to the most current and discuss how music functions within films throughout history. Student projects emphasize analysis and the relationship between music and film.

Category: Creativity & Expression - A

MUSI 227 - Opera and Music Theatre Credits: 3

Explores major points in the development of music drama from grand opera to musical comedy. When scheduling permits, class will attend a live production of an opera or musical comedy, either on campus or in a nearby city.

Category: Creativity & Expression - A

MUSI 260 - Voice Class, Level I Credits: 3

Studies the human voice in artistic singing, with practical application of the basic principles needed to prepare and perform: an understanding of the anatomy of the voice, proper breath support, tone quality, diction, and interpretation of solo vocal music of varied styles. Students identify and begin to develop a repertoire suitable for their voice types while they apply this knowledge of the fundamental principles through singing experiences in class. Music of the art song, folk and musical theater repertories emphasized, along with general care of the voice in all styles of singing.

Prerequisite(s): Requires permission of instructor.

MUSI 261 - World Music Credits: 3

Develops an understanding of music in the culture of selected countries. A wide range of videos and recordings assist in the analysis of musical styles, forms, and practices.

Category: Creativity & Expression - A

MUSI 270 - Brass Instrument Class Credits: 3

Opportunity for guided practice and study of the performance characteristics of the five brass instruments. Emphasizes perfecting performance skills while gaining some repertoire as appropriate to serve university and community music organizations. Examines various instruction books, teaching methods, and diagnostic techniques.

Prerequisite(s): Requires permission of instructor.

MUSI 272 - Strings Class Credits: 3

An opportunity for guided practice and study of the performance characteristics of the four string instruments. Each student will study only one instrument during the semester and will observe students who play the others. Emphasizes perfecting performance skills while gaining some repertoire as appropriate to serve university and community music organizations. Students will examine various instruction books, teaching methods, and diagnostic techniques.

MUSI 312 - Music Theory II Credits: 3

Builds upon the knowledge and skills developed in Music Theory I. Includes work in advanced harmony, form and analysis and beginning counterpoint through aural and written exercises, composition, and analysis of larger works.

Prerequisite(s): MUSI 212

MUSI 315 - Music in the United States Credits: 3

Presents major genres of American music from the colonial period to present. Presents a balanced perspective of the origins, culture and the development of American music. Unique American contributions such as minstrel music, Tin Pan Alley, musical theater, ragtime, blues, jazz, country, rock and art music are presented along with the music of Billings, Gottschalk, MacDowell, Ives, Copland, Bernstein, and others.

Prerequisite(s): MUSI 121 or permission of instructor.

MUSI 320 - Masterpieces of Music Credits: 3

Masterpieces of Music introduces students to the great music that have been composed throughout the centuries. Using selected works from each period as examples, compositional trends can be examined by observing similarities and differences in compositional techniques, which occur from era to era.

Prerequisite(s): MUSI 121 and MUSI 212

MUSI 340 - Class Piano, Level II Credits: 3

Builds upon skills developed in Class Piano I. Emphasizes more advanced solo and ensemble performance and advance skills in sight reading, harmonization (through an increased harmonic vocabulary), transposition, improvisation, and accompaniment.

MUSI 360 - Voice Class II Credits: 3

Students must have successfully completed Voice Class I (MUSI 260) to be admitted to this course and must be actively involved in vocal performance groups / activities on campus and / or in the community. Students in MUS 360 will be meeting with the instructor in an applied lesson setting once a week as well as group master classes throughout the semester. Students will explore and perform various genres of repertoire as applicable to voice type and ability.

Prerequisite(s): MUSI 260 with a grade of C or better.

MUSI 380 - Basic Conducting Credits: 3

Presents fundamental procedures of directing vocal and instrumental ensembles. Includes studies in score reading and audiation, meter and beat patterns, tempo and mood as they all relate to conducting gestures.

Prerequisite(s): Requires permission of instructor.

MUSI 393 - Selected Topics in Music Credits: 1-3

Opportunity to offer courses in areas of departmental major interest not covered by the regular offerings.

MUSI 399 - Selected Topics in Music/Theater Arts Credits: 3

Independent study affords students the opportunity to engage in independent study related to their major field, a supporting area, or specialized interest.

MUSI 490 - Selected Topics in Music Credits: 1-3

Provides the opportunity for the department to offer courses in areas of departmental major interest not covered by the regular courses.

Graduate Credit: This course is available for graduate credit.

PHIL 101 - Introduction to Philosophy Credits: 3

Acquaints student with range of subject matter and some of the methods employed in philosophy. Some basic questions concerning the nature of reality, knowledge, and morality are raised and alternative answers philosophers have given are analyzed and evaluated.

Category: Citizenship & Responsibility - R

PHIL 102 - Critical Thinking Credits: 3

Course in informal logic aimed at developing the ability to analyze and evaluate short argumentative passages as well as entire articles. Arguments are found in a wide range of contexts while the articles are those typically appearing in philosophical periodicals and anthologies.

Category: Citizenship & Responsibility - R

PHIL 105 - Ethical Theories and Problems Credits: 3

Examines and assesses theories of right and wrong, good and bad; and attempts to apply such theories to some contemporary moral issues. Overall aims at developing the ability to formulate, analyze, and evaluate moral arguments and to work out a consistent reasoned moral personal viewpoint.

Category: Citizenship & Responsibility - E

PHIL 190 - General Education Special Topics Credits: 3

Opportunity to offer courses in areas of departmental general education interest not covered by the regular general education courses.

PHIL 230 - The Ethics of War and Terrorism Credits: 3

Examines some basic ethical concepts and the natures of war and terrorism. The concepts are applied to some cases or examples of wars and terrorism. The course investigates whether there can be such a thing as an ethical war or act of terrorism.

PHIL 240 - Ethical Issues and the Media Credits: 3

This course examines several approaches to ethics and applies them to some issues connected to the media (newspapers, magazines, television, radio, movies, and the internet) and society. Some of the specific issues investigated relate to truth, objectivity, advertising, privacy, and public relations. The main course objectives are developing the student's ability to understand and morally evaluate media cases and working out a consistent, reasoned moral viewpoint related to the media.

PHIL 248 - History of Ancient and Medieval Philosophy Credits: 3

Examines the important philosophical themes up to approximately 1500. Among the philosophers examined are Parmenides, Plato, Aristotle, Epicurus, Augustine, and Anselm. Goal is to appreciate the historical environment of these philosophers and to understand how their radically different world views relate to their environments.

PHIL 249 - History of Modern Philosophy Credits: 3

Examines important philosophical themes since approximately 1500. Among the philosophers studied are Descartes, Locke, Berkeley, Hume, and Kant. Focus on how philosophical skepticism, humanism, idealism, empiricism, and rationalism affected, and were effects of, the prevailing political, religious, and scientific elements of the times.

PHIL 285 - Philosophy of Science Credits: 3

Careful examination of concepts and methods used in the sciences with a view to their proper place in the structure of human knowledge. Examination encompasses both the rapidly developing fields of behavioral sciences and the more established physical sciences.

PHIL 295 - Comparative Religions Credits: 3

Considers the great religions of the world and their relationship to the cultures and civilizations of which they are a part, including a look at their position in the contemporary world. Study is made of the philosophy, theology, and ethical systems of these great faiths and of the lives of the great leaders and scholars of these religions. Investigates the literature they have produced.

PHIL 301 - Formal Logic Credits: 3

Deals with the study of argumentation and presenting of evidence by means of formal deductive systems such as propositional logic and predicate logic. Application of formal methods is supplemented by the study of philosophical problems about their effectiveness and limitations.

PHIL 336 - Concepts in Buddhism Credits: 3

Investigates the religion of Buddhism and some of its essential concepts. History, development, nature, and contemporary relevance of these essential concepts are examined. Concepts are considered from the perspective of the different forms of Buddhism, such as Zen, Theravada, and Mahayana. Included are avidya (spiritual ignorance), anatta (no-self), anicca (impermanence), dukkha (suffering), and nirvana (extinction, enlightenment).

PHIL 337 - Existentialism Credits: 3

Aims to understand and appreciate contemporary expressions of existentialism. Examines historical sources of this world view, including Nietzsche, Kierkegaard, and Husserl. Within this framework, the richly rewarding works of Sartre and others can be developed meaningfully. Given the nontraditional tone of existentialism, looks beyond theoretical writings to the existential fiction of Kafka, de Maupassant, de Beauvoir, Hemingway, and Camus.

PHIL 340 - Contemporary Ethics Credits: 3

Examines and assesses some recent approaches to ethics, including ethical theories and anti-theoretical viewpoints. Investigation of relation between recent ethical discourse and some contemporary moral issues included.

Prerequisite(s): PHIL 105 or permission of instructor.

PHIL 391 - Selected Topics in Philosophy Credits: 3

Provides the opportunity for the department to offer courses in areas of departmental major interest not covered by the regular courses.

PHIL 393 - Selected Topics in Philosophy Credits: 1-3

Opportunity to offer courses in areas of departmental major interest not covered by the regular courses.

Prerequisite(s): Vary depending on topic.

PHIL 394 - Selected Topics in Philosophy Credits: 3

Provides the opportunity for the department to offer courses in areas of departmental major interest not covered by the regular courses.

PHIL 399 - Independent Study in Philosophy Credits: 3

Independent study affords students the opportunity to engage in independent study related to their major field, a supporting area, or specialized interest.

PHIL 490 - Selected Topics in Philosophy Credits: 1-3

Provides the opportunity for the department to offer courses in areas of departmental major interest not covered by the regular courses.

Graduate Credit: This course is available for graduate credit.

PHYS 107 - 1st Year Seminar for Physics Majors Credits: 2

Intended for 1st year physics majors. Offers an overview of major sub-fields of physics; develops some of the problem solving skills necessary to start a rigorous Physics curriculum; and encourages students to develop and refine career and education goals, including researching and securing internships.

Prerequisite(s): MATH 175 (may be taken concurrently) or MATH 211 (may be taken concurrently) or MATH 212 (may be taken concurrently)

PHYS 108 - Astronomy Credits: 3

Introductory, non-mathematical course on astronomy and astrophysics. Main goal is to provide a qualitative but extensive survey of what is known about planets, stars, galaxies, black holes, pulsars, quasars, and the origin of the universe. Topics such as Newton's laws of motion, gravitation, radiation spectra, and thermodynamics are discussed and treated quantitatively.

Category: Natural World & Technology - N

PHYS 110 - Physics for Society Credits: 3

Introductory non-mathematical course about modern physics with emphasis on those topics having great influence upon our present society. Topics typically covered include space travel, Einstein's relativity, radioactivity, nuclear energy, elementary particles of matter, solid state properties of matter, lasers, and low temperature phenomena.

Category: Natural World & Technology - N

PHYS 121 - Introductory Physics I - Lecture Credits: 3

Introductory course in classical mechanics. Some of the topics introduced are the description of motion, Newton's laws of motion, equilibrium conditions, concepts of work and energy, momentum, periodic phenomena, and rotational motion. Additional topics may include the concepts of heat and temperature, kinetic theory of gases, and the behavior of real and ideal gases. Origin, characteristics, transmission, and detection of sound may also be studied. Recommended students take concurrently PHYS 123.

Prerequisite(s): MATH 117 (may be taken concurrently) or math placement level of 3
Category: Natural World & Technology - N

PHYS 122 - Introductory Physics II - Lecture Credits: 3

Introductory course in electricity, magnetism, and optics. Topics introduced include the behavior of electric charges, the electric field, D.C. circuits resistance, capacitance, inductance, electromagnetic induction, geometric and physical optics, wave and particle analysis of light. Additional topics may include optical spectra, X-rays, atomic structure, and radioactivity. Recommended students take concurrently PHYS 125.

Prerequisite(s): PHYS 121 and (MATH 117 (may be taken concurrently) or math placement level of 3)
Category: Natural World & Technology - N

PHYS 123 - Physics Ia Laboratory Credits: 1

Provides an experimental approach to concepts developed in its lecture counterpart PHYS 121. Two periods/week.

Corequisite(s): PHYS 121

PHYS 124 - Physics Ib Laboratory Credits: 1

Provides an experimental approach to concepts developed in its lecture counterpart PHY 205. Two periods/week.

Prerequisite(s): PHYS 205 (can be taken concurrently)

PHYS 125 - Physics IIa Laboratory Credits: 1

Provides an experimental approach to concepts developed in its lecture counterpart PHYS 122. Two periods/week.

Prerequisite(s): PHYS 122 (may be taken concurrently)

PHYS 126 - Physics IIb Laboratory Credits: 1

Provides an experimental approach to concepts developed in its counterpart PHY 206. Two periods/week.

Prerequisite(s): PHYS 206 (can be taken concurrently)

PHYS 127 - Physics IIIb Laboratory Credits: 1

Provides an experimental approach to concepts developed in its counterpart PHY 207. Two periods/week.

Prerequisite(s): PHYS 207 (can be taken concurrently)

PHYS 190 - General Education Special Topics Credits: 3

Opportunity to offer courses in areas of departmental general education interest not covered by the regular general education courses.

PHYS 205 - Intermediate Physics I Credits: 3

Introductory study of the laws of mechanics governing motion of objects acted upon by forces. Beginning spent on kinematics (the study of motion in terms of position, velocity, and acceleration). Newton's laws, which determine how forces generate motion, studied next. Remainder spent on direct applications of Newton's laws. These include the description of motion in terms of energy, the description of collisions and a brief study of rotational dynamics. Also presents a brief introduction to some of the elementary concepts involved in theories of special and general relativity. Vectors and differential calculus used.

Prerequisite(s): MATH 211 (may be taken concurrently)
Category: Natural World & Technology - N

PHYS 206 - Intermediate Physics II Credits: 3

Introduces the study of electricity and magnetism. Also provides an introduction to optics. Topics covered include: electricity: electric force, E-field, Gauss' law, conductors, E- potential, capacitors and dielectrics; currents and circuits: resistance and Ohm's Law, e.m.f's, RC circuits; magnetism: magnetic force, Ampere's Law, solenoids, Biot-Savart Law, motion in magnetic fields; electromagnetic induction: e.m.f's, Faraday's Law, inductance, RL circuits, AC Circuits; EM waves: Maxwell's equations, EM waves and the EM spectrum; and optics: reflection, refraction, interference and diffraction of light.

Prerequisite(s): PHYS 205 and MATH 211
Corequisite(s): PHYS 126

PHYS 207 - Intermediate Physics III Credits: 3

Introduction to rotational motion, oscillations and wave motion, fluid physics, and heat and thermodynamics. Newton's laws for rotation of solid objects are investigated. Matter waves are studied with applications to the science of sound. Study of incompressible fluids in equilibrium extends Newtonian mechanics to more complex systems. Concludes with a study of heat, temperature, the kinetic theory of gases, and the laws of thermodynamics. Three periods lecture per week.

Prerequisite(s): PHYS 205 (or its equivalent) and MATH 211

PHYS 221 - Fundamentals of Physics I Credits: 5

An introductory study of the laws of Mechanics. Topics covered include: Kinematics; Newton's laws; Energy: The Work-energy theorem, Potential Energy, Power, conservation of Energy; Momentum: Center of Mass, Collisions, Momentum Conservation; Rotational Dynamics; Fluids; Oscillations (Simple Harmonic Oscillator) and Waves. Four hours lecture/two hours lab/week.

Prerequisite(s): MATH 211 (may be taken concurrently)

PHYS 222 - Fundamentals of Physics II Credits: 5

Second course in a required series for physics majors. An introductory study of electricity and magnetism. Topics covered include: electric force, E-field, Gauss' law, E-potential; currents and circuits, capacitors, RC circuits; magnetic fields, inductance; AC circuits; EM waves; interference and diffraction of light; geometrical optics: Snell's law,

refracting lenses, mirrors. Four hours lecture/two hours lab/week.

Prerequisite(s): MATH 211 (may be taken concurrently) and PHYS 221 (may be taken concurrently)

PHYS 301 - Mathematical and Numerical Techniques in the Sciences Credits: 4

Introduces common mathematical and computational tools used extensively in the undergraduate physics curriculum, including: linear algebra; vector analysis; Fourier series; differential and partial differential equations and their solutions; numerical integration and solutions to ordinary and partial differential equations; and Introduction to chaos. Four hours lecture/four hours lab/week.

Prerequisite(s): PHYS 221 and PHYS 222 and MATH 322 (may be taken concurrently)

PHYS 311 - Quantum I Credits: 4

First of two courses aimed at providing students with a solid grounding in quantum mechanics. Follows a historical approach to the development of QM at the beginning of the 20th century. Topics include: Blackbody Radiation: classical and Plank's law; waves as particles: photoelectric effect, particle nature of wave; particles as waves: electron diffraction, deBroglie's relation; Bohr model; Schrodinger's equation and simple potentials, including tunneling; Nuclear physics and nuclear decays; fission and fusion reaction; Overview of elementary particles. Three hours lecture/week, two hours lab/biweekly. Recommended co-requisite for physics and applied physics majors: PHYS 301

Prerequisite(s): PHYS 221 and PHYS 222 and MATH 322 (may be taken concurrently)

PHYS 321 - Electricity and Magnetism I Credits: 4

First of two courses aimed at providing a solid grounding in electricity and magnetism. Topics include: electrostatics: Coulomb's law, Gauss' law, electric potential, energy and conductors. Electric fields in matter; magnetostatics: Lorentz force, Biot-Savart law, magnetic fields in matter; Maxwell's equations; radiation by charges. Three hours lecture/week, two hours lab/biweekly. Recommended co-requisite for physics majors: PHYS 331.

Prerequisite(s): PHYS 221 and PHYS 222 and (PHYS 301 with minimum grade of C or ELEN 310 with minimum grade of C)

PHYS 325 - Semiconductor Devices Credits: 4

Lecture/Lab course covers modern topics in Solid State Physics with an emphasis on semiconductor devices and device fabrication. Topics covered include the free electron gas, carrier modeling, the band model, pn-junction diodes, bipolar junction transistors, field effect transistors and optoelectronic devices. The techniques for fabricating and characterizing semiconductor devices are also covered in both the lecture and the laboratory.

Prerequisite(s): (PHYS 311 and MATH 322) or (CHEM 363 and PHYS 461) or permission of instructor

PHYS 331 - Mechanics I Credits: 4

First of two courses aimed at providing students with a solid grounding in classical mechanics. Topics include: rotational dynamics: angular variables in 3d, =I, fixed and CM axis dynamics, angular momentum, moments of Inertia, rotational kinetic energy; simple harmonic oscillator including driven and driven-damped oscillators; resonance and chaos; central force motion, planetary orbits, Kepler's laws; non-inertial coordinate system including the Coriolis force; and special relativity (SR): Invariant interval, 4-vectors, 4-velocity, energy-momentum 4-vector, Lorentz transforms, SR paradoxes. Three hours of lecture/week, two hours lab/biweekly.

Prerequisite(s): PHYS 221 and PHYS 222 and PHYS 301 (may be taken concurrently) and MATH 322 (may be taken concurrently)

PHYS 341 - Classical and Statistical Thermodynamics Credits: 4

Covers the traditional approach to thermodynamics as well as a more fundamental introduction to the subject using statistical mechanics. Topics include: ideal gases, equation of state; 1st Law, various thermo processes calculation of work; 2nd Law Cycles, engines and refrigerators. Reversible and irreversible processes; thermodynamic potentials; kinetic theory; statistical thermo: micro and macro states, entropy, quantum description of the ideal gas; heat capacities, paramagnetism; Boltzmann statistics; quantum statistics. Three hours lecture/week, two hours lab/biweekly.

Prerequisite(s): PHYS 221 and PHYS 222 and PHYS 301 (may be taken concurrently)

PHYS 355 - Electronics Credits: 4

Provides an introduction to electronics with an emphasis on practical knowledge required for modern experimental work. Topics include: electrical quantities and their measurement; linear components and circuit theory; diodes and simple transistors, FET circuits; signal conditioning with Op-amps; Instrumentation amplifiers; transducers: e.g. PIN photodiodes; regulated power supplies; other analog integrated circuits (e.g. multipliers); and A/D conversion and computer interfacing: microcontrollers. Three hours lecture, two hours lab/week.

Prerequisite(s): PHYS 222 and MATH 212

PHYS 390 - Internship Physics I Credits: 3

Contact the department for further information on internships.

PHYS 393 - Selected Topics in Physics Credits: 1-3

Opportunity to offer courses in areas of departmental major interest not covered by the regular courses.

PHYS 395 - Internship II Credits: 3

Contact the department for further information on internships.

PHYS 397 - Intro to Research Credits: 3

Students of junior or senior status engage in a research project under the supervision of a faculty member of the Physics department. Credit hours are to be arranged between the student and the research supervisor, according to the amount of work required by the research project.

PHYS 398 - Research II Credits: 3

Students of senior status engage in a research project under the supervision of a faculty member of the Physics department. Credit hours are to be arranged between the student and the research supervisor, according to the amount of work required by the research project.

PHYS 399 - Independent Study in Physics Credits: 3

Independent study affords students the opportunity to engage in independent study related to their major field, a supporting area, or specialized interest.

PHYS 411 - Quantum II Credits: 3

Introduction to physical concepts and mathematical formulations of nonrelativistic quantum mechanics. Enables a detailed study of the Schrodinger Equation and its properties. The Schrodinger Equation is solved exactly for the particle in a square well potential, the simple harmonic oscillator, and the hydrogen atom. Both perturbation theory and variational calculation are developed as methods for handling more complicated systems. Spin is introduced as an ad hoc concept and the properties of simple magnetic systems studied. Heavy emphasis on applications to simple systems. Three periods lecture/week.

Prerequisite(s): PHYS 311 and MATH 318 and MATH 322 (may be taken concurrently)
Graduate Credit: This course is not available for graduate credit.

PHYS 421 - Electricity and Magnetism II Credits: 3

A continuation of Electricity and Magnetism I, treating some of the same topics but with an increased sophistication. Provides a solid foundation in one of the core subjects of the discipline. Topics include: electrodynamics and Maxwell' s equations; conservation laws; electromagnetic waves and relativistic electrodynamics; electromagnetic waves; potentials and fields of moving charges; radiation by moving charges; special relativistic treatment of electrodynamics; electromagnetic radiation by a point charge.

Prerequisite(s): PHYS 321 and MATH 322
Graduate Credit: This course is not available for graduate credit.

PHYS 431 - Mechanics II Credits: 3

Intermediate course in the treatment of Newton's laws of motion, vector analysis, and rectilinear and curvilinear motion in a plane, as well as study in areas of statics and dynamics, including concurrent and non-concurrent forces, movements and torques, energy, rotational motion, moments of inertia and oscillatory motion. Three periods of lecture/week.

Prerequisite(s): PHYS 331 and MATH 213 and MATH 318 and MATH 322 (may be taken concurrently)
Graduate Credit: This course is not available for graduate credit.

PHYS 450 - Quantum Materials Credits: 4

Lecture/lab course covers material topics in modern solid state physics with an emphasis on applications to nanotechnology. Topics covered include carbon nanotubes, organic conductors and semiconductors, photonic crystals and microfluidies. Topics in Biological and self-assembled systems including, biomolecular motors, motor proteins and the organic-to silicone interface are also covered. Techniques for manipulating and characterizing materials at the nanoscale are also covered in both the lecture and the laboratory.

Prerequisite(s): (PHYS 311 and MATH 322) or (CHEM 363 and PHYS 461) or permission of instructor
Graduate Credit: This course is not available for graduate credit.

PHYS 461 - Mathematical Physics Credits: 3

Introduces some of the many mathematical concepts used routinely by theoretical physicists. Specific topics are left to the discretion of the instructor but can include such subjects as elements of differential geometry, complex analysis, or

methods for solving integral and differential equations.

Prerequisite(s): PHYS 301
Graduate Credit: This course is not available for graduate credit.

PHYS 471 - Computational Physics Credits: 4

Introduces the use of sophisticated numerical techniques to solve physical problems. Topics include: approximation methods; numerical integration; ordinary and partial differential equations; random processes; spectral analysis; and Monte Carlo methods.

Prerequisite(s): PHYS 301 and CMSC 110 and MATH 322
Graduate Credit: This course is not available for graduate credit.

PHYS 481 - Atoms and Photons Credits: 3

Investigates the structure of matter at the atomic level, the free photon field and their mutual interaction. Possible topics are: hydrogen atom review; generalized angular momentum theory; radial wave functions and self-consistent field solutions; coupling schemes and atomic eigenstates; general excitation and decay dynamics; quantization of the free EM field; coherent and incoherent states of the photon field; atom-photon interaction terms, gauge representations; 1st order process: e.g. absorption and emission; and higher order processes: e.g. 2-photon decay.

Prerequisite(s): PHYS 301 and PHYS 311 and PHYS 321
Graduate Credit: This course is not available for graduate credit.

PHYS 485 - Optics Credits: 4

Both geometrical and physical optics and applications. Optical instruments, wave propagation, interference diffraction, polarization, and atomic molecular spectra are studied. Spectrascopes, spectrometers, polariscopes, photometers, and interferometers are some of the instruments used. Three periods lecture and two periods lab/week.

Prerequisite(s): MATH 213 and MATH 318 and MATH 322 and PHYS 321
Graduate Credit: This course is not available for graduate credit.

PHYS 491 - Selected Topics in Physics Credits: 3

Opportunity to offer courses in areas of departmental major interest not covered by the regular courses.

Graduate Credit: This course is not available for graduate credit.

PHYS 493 - Selected Topics in Physics Credits: 3

Opportunity to offer courses in areas of departmental major interest not covered by the regular courses.

Graduate Credit: This course is not available for graduate credit.

PHYS 495 - Independent Study in Physics Credits: 2

Independent study affords students the opportunity to engage in independent study related to their major field, a supporting area, or specialized interest.

Graduate Credit: This course is not available for graduate credit.

POLI 100 - U.S. Government and Politics Credits: 3

Foundation for understanding the philosophical heritage, constitutional principles, civil rights and liberties, and the formal and informal institutions that form the U.S. government. Focus on political factors and dynamics of democracy, the Constitution, political parties, interest groups, the media, elections, and the branches of U.S. government.

Category: Citizenship & Responsibility - S

POLI 141 - World Politics Credits: 3

Deals with the nation state, international institutions, global issues and the international political system in a contemporary context. Attention given to the formulation and execution of foreign policy; political, economic, military and cultural interactions among states; and the organization and maintenance of the international community.

Category: Interconnections - G

POLI 190 - General Education Special Topics Credits: 3

Opportunity to offer courses in areas of departmental general education interest not covered by the regular general education courses.

POLI 201 - Foundations of Political Science: Concepts and Critical Analysis Credits: 3

Examines the philosophical foundation of the discipline of political science. Examines the theoretical foundations of contemporary political regimes. Introduces political science theories and theory building. Introduces students to the tools to conduct critical literature reviews, access professional-level information, assess political arguments using systematic logical analysis, and use the analytical tools to develop independent research.

POLI 202 - Applications in Public Affairs Credits: 3

The objectives of this course are to provide students with the opportunity to develop information literacy, to develop the ability to properly apply information to answer open-ended and/or controversial questions, to organize that information in such a way that convincingly answers open-ended or controversial questions, to develop oral communication skills so as to gain confidence and rhetorical power when delivering a speech or engaging in vigorous deliberation. An additional set of objectives of the course are to facilitate the professionalization of students through career counseling, creation of resumes, post-college planning, among others.

Prerequisite(s): POLI 100 or HONR 279

POLI 204 - Introduction to Public Policy Credits: 3

Examines the policy making process and reviews the application of the policy process to contemporary public policy areas. Focuses upon the role of governance and its effects on policy preferences.

POLI 231 - State and Local Government Credits: 3

Study of the organization and functions of government at the state, county, township, and city levels. State-local and national-local relations are stressed.

Prerequisite(s): POLI 100 or HONR 279 or permission of Instructor

POLI 251 - Introduction to Comparative Politics Credits: 3

Cross-national study of the principles, forms, and functions of democratic, fascist, and communist governments. Political parties and electoral systems, legislative representation, federalism, constitutional order, bureaucracy, and dictatorship are examined in the functional and comparative manner.

Prerequisite(s): POLI 100 or HONR 279 or permission of Instructor

POLI 271 - Introduction to Public Administration Credits: 3

Basic introductory course in field of management in governmental offices. Includes organization of executive offices, controls over administration, budgeting and personnel procedures and methods to achieve administrative objectives.

Prerequisite(s): POLI 100 or HONR 279 or permission of instructor

POLI 291 - Contemporary Issues Credits: 3

Focuses on political or policy issues. Covers background of the issues, current developments, and prospects for change. Topics vary from semester to semester.

Prerequisite(s): POLI 100 or HONR 279 or permission of instructor

POLI 300 - Advanced American Government and Public Policy Credits: 3

In-depth description of the structure, functions, and public policy making involvement of U.S. governmental institutions. Focuses on legislative, executive, administrative, and judicial institutions and process, the impact of interest groups, political parties, public opinion, and federalism. Examines the policy-making process, both in general and with reference to specific types of public policies.

Prerequisite(s): POLI 100 or HONR 279

POLI 301 - Political Science Research Methods Credits: 3

Evaluates the process of research in political science, focusing on research design; discusses ethical issues in research; trains students in techniques of data collection and processing; provides computer-based training in quantitative analysis and interpretation of statistics.

Prerequisite(s): POLI 202 or POLI 201 or POLI 271

POLI 302 - Public Policy Analysis Credits: 3

Examines the policy making process(es) and implications for the conduct of policy analysis. Reviews the policy implementation process(es) and implications for the conduct of policy analysis. Focuses upon specific quantitative and qualitative policy analysis/program evaluation techniques.

Prerequisite(s): POLI 301

POLI 307 - Applied Research in Political Science Credits: 1-3

This course provides Political Science majors with the opportunity to engage in an independent research project. The topic chosen with the consultation of a department faculty member. Each credit should reflect a minimum of 40 hours of research. Students are expected to present their research finding in writing and orally in an appropriate professional setting.

Prerequisite(s): POLI 301 or permission of instructor.

POLI 311 - The Legislative Process Credits: 3

Analyzes the powers and rules of legislatures and legislators in modern democracies with special reference to the American Congress. Emphasis placed on the decision-making process, including internal and external pressures upon legislators.

Prerequisite(s): POLI 100 or HONR 279 or permission of instructor

POLI 312 - The American Presidency Credits: 3

Analyzes the structure and functions of the American institutionalized presidency, including an examination of the power and roles of the president and the decision-making process.

Prerequisite(s): POLI 100 or HONR 279 or permission of instructor

POLI 313 - The Judicial Process Credits: 3

Describes the operation of the federal and state court systems; evaluates the processing of cases; examines the mechanisms of judicial recruitment; discusses the impact of decisions on the political process.

POLI 321 - Public Opinion and Political Media Credits: 3

Deals with the nature of public opinion and its role in the political process. Explores how the American political system operates in an age of mass communication, how citizens and politicians are affected by the media, and how the media influences the political process.

Prerequisite(s): POLI 100 or HONR 279 or permission of instructor

POLI 322 - Interest Groups in American Society Credits: 3

Studies the origins, organizations, opportunities, tactics of interest groups (pressure groups) and an assessment of the legitimacy of their role in democratic and quasi-democratic politics. Investigates problems connected with the existing incentive to join groups, the iron law of oligarchy, access points to government decision-making functions to private interest pressure groups.

Prerequisite(s): POLI 100 or HONR 279 or permission of instructor

POLI 323 - Campaigns, Elections & Political Parties Credits: 3

Explores operation of the electoral system both theoretically and practically, and examines the roles of citizens in the electoral process. Reviews the development and status of political parties in American society.

Prerequisite(s): POLI 100 or HONR 279 or permission of instructor

POLI 324 - Women in American Politics Credits: 3

Intended and designed for males and females, examines the changing political role of women in the United States and compares women across American subcultures. Investigates political attitudes and values, voting behavior, and recruitment of women for political leadership.

POLI 325 - African American Politics Credits: 3

Examines the relationship between African American citizens and the American political system in order to gain a broader prospective of the American political process. Representation and strategies for empowerment discussed. Provide consideration of the behavior of African Americans within the political institutional settings and at various levels of government. Also addresses the positive and negative impact of the Civil Rights Movement, the Supreme Court, and Affirmative Action as it relates to the integration of African Americans in the American political system.

Prerequisite(s): POLI 100 or ETHS 101 or HONR 279

POLI 326 - Politics and Popular Culture Credits: 3

This course uses film to demonstrate how popular culture reflects and attempts to shape political debates and understandings. It defines popular culture as "a form of entertainment that is mass produced or is made available to large numbers of people" and provides an opportunity to be enjoyed by many people with no social barriers or special knowledge required (Street 1997). The instructor will utilize different types of popular culture, based upon their expertise, to illustrate how political messages are sent, received, and interpreted. The course uses a seminar format to facilitate discussions about the effects of popular culture and multiple, competing understandings of current problems and phenomena in politics broadly. As a part of the seminar format, students will regularly engage in discussions about interpretations and the effectiveness of popular culture examples.
This course will have different subtitles depending on which faculty member is teaching the course, their methods, and interests. Thus the subtitle of the course might be, for example, "World Politics and Film," "American Political Thought through Popular Novels," or "American Politics and Hip Hop Music."

POLI 333 - Applications in State and Local Public Policy Credits: 3

This course features a hands-on approach which maximizes experiential learning and student participation. This course provides an in-depth professional experience that involves research and writing on public policy topics, and interacting with General Assembly, Commonwealth agency and judiciary staff, and advocacy organizations such as associations, including visits to public officials? offices. Students will study concepts in public policy, apply them in practical situations, and discuss public policy matters with public officials, including conducting interviews and writing public policy papers. Pre-requisite: POLI 100.

Prerequisite(s): POLI 100 or HONR 279

POLI 341 - International Law and Organization Credits: 3

Analyzes the role and dynamics of international law and organizational political system. Includes the scope and nature of international law and organization, the concepts and procedures for maintaining international peace and security, substantive rules, and international law and the function of the United Nations and regional organizations.

Prerequisite(s): POLI 141 or HONR 274 or permission of instructor

POLI 342 - American Foreign Policy Credits: 3

Study of the principles of American foreign policy including process and policy formulation and execution. Roles of the president, Congress and the State Department and other governmental agencies are investigated.

Prerequisite(s): POLI 100 or POLI 141 or HONR 279 or HONR 274 or permission of instructor

POLI 343 - Global Economic and Political Conflict Credits: 3

This course is designed to provide students with an understanding of global political, economic, security and social relationships. The key focus of the course is contemporary global cooperation and conflict.

POLI 344 - Sport in Comparative Political Perspective Credits: 3

This course is a research seminar centering on an in-depth examination of the role sports plays in the political life of countries around the world. We will examine the intersection of sports with subjects such as race, gender, religion, social class, and economics.

Prerequisite(s): POLI 100 (C or higher)

POLI 347 - Applied Diplomacy Credits: 3

Uses an off-campus education experience to facilitate learning about international organizations, diplomacy, negotiations, and the politics of a region of the world. Students will represent a country at a regional, national or international simulation such as the Model United Nations, Model Organization of American States or Model European Union. Students may be responsible for additional expenses associated with off-campus travel and activities. Permission of the instructor is required.

Prerequisite(s): Requires permission of instructor.

POLI 348 - Applied Diplomacy Credits: 3

Uses an off-campus education experience to facilitate learning about international organizations, diplomacy, negotiations, and the politics of a region of the world. Students will represent a country at a regional, national or international simulation such as the Model United Nations, Model Organization of American States or Model European Union. Students may be responsible for additional expenses associated with off-campus travel and activities.

Prerequisite(s): Requires permission of instructor.

POLI 351 - European Politics Credits: 3

Examines the politics, institutions, and political culture of European countries. The course focuses both on the internal dynamics of European societies as well as integration of the continent.

POLI 356 - Politics of Developing Regions Credits: 3

Examines the forces that shaped and continue to impact the governments and politics of the Third World. Emphasizes two lines of inquiry: colonialism and patterns of post-colonial relations between north and south; and the challenges faced by Third World nations in their efforts for political, economic and social advancement in an increasingly integrated world.

Prerequisite(s): POLI 141 or HONR 274

POLI 357 - Comparative Revolutions Credits: 3

The course examines the theory and practice of revolution over time and across the world. Close focus is maintained on the conditions, causes, strategies, mobilizing techniques, and ideologies of revolution with particular attention on the strategies each employs in establishing and maintaining legitimacy as the `true voice' of the people.

Prerequisite(s): POLI 100 or HONR 279

POLI 359 - European Political Culture & Identity Credits: 3

The primary theme of the course is how citizens and government interact to bring about change. The course provides a historical and contemporary analysis of how European governments try to both control and satisfy citizen demands and how citizens try to influence governments at the local, national and European Union levels. Particular attention is given to the rights of minority groups and non-citizens such immigrants and refugees.

Category: Citizenship & Responsibility - S

POLI 362 - Contemporary Political Ideologies Credits: 3

Explores some of the most important concepts of political science taken up by contemporary philosophers. Course content can range from theories of justice, power, punishment, and leadership to representation, human rights, and democracy.

Prerequisite(s): POLI 100 or HONR 279

POLI 363 - American Political Thought Credits: 3

Critical study of the political ideas underlying and associated with personalities and institutions in the United States from colonial times.

POLI 365 - Constitutional Law: The Federal System Credits: 3

Analyzes leading American constitutional decisions relating to national legislative, executive, and judicial powers and to the position of the states.

Prerequisite(s): POLI 100 or HONR 279 or permission of instructor

POLI 366 - Constitutional Law: First Amendment Freedoms Credits: 3

Examines body of constitutional law associated with the First Amendment including establishment and free exercise of religion; and the freedom of speech, press, and assembly. Discusses issues surrounding the freedom of expression and the right to privacy.

POLI 367 - Constitutional Law: Criminal Law and Equal Protection Credits: 3

Examines body of constitutional law associated with the Fourth, Fifth, Sixth and Eighth Amendments and evaluates the protection of criminal defendants' rights in the United States today. Discusses case law surrounding the Fourteenth Amendment's Equal Protection Clause.

POLI 371 - Public Management Credits: 3

Studies the principles and functions of public managers. Covers traditional as well as new patterns of organization theory and management and the fundamentals and theory of planning.

Prerequisite(s): POLI 271 or permission of instructor

POLI 372 - Public Personnel Administration Credits: 3

Studies the development and functions of public personnel administration. Roles of various levels of management in the development and implementation of personnel policy and administration covered as well as those of the functional specialist. Impact of American culture and public policy upon public personnel administration also emphasized.

Prerequisite(s): POLI 271 or permission of instructor

POLI 373 - Public Financial Administration Credits: 3

Deals with fiscal policy determination, accountability, and management of financial resources. Administrative and political aspects of the budgetary process covered. Appropriate references made to the impact of federal programs upon state and local governments and the fiscal relations existing between various levels of government.

Prerequisite(s): POLI 271 or permission of instructor

POLI 374 - Public Service Ethics Credits: 3

Explores the historical and specific contemporary issues concerning ethics in the public sector. Ethical problems and their relationship to politics surveyed. Emphasizes ethical questions encountered by individuals who enter public service and will evaluate attempts to enforce ethical conduct among public servants by statutes and codes of conduct.

Prerequisite(s): Nine hours in political science or permission of instructor. PHIL 105 and/or PHL210 recommended.

POLI 389 - Selected Topics in Public Administration Credits: 3

Opportunity to offer regular classes in Public Administration in areas of department major interest not covered by regular courses.

Prerequisite(s): POLI 100

POLI 390 - Selected Topics in Political Science Credits: 3

Opportunity to offer courses in areas of departmental major interest not covered by the regular courses.

POLI 391 - Selected Topics in Political Science Credits: 1-3

Opportunity to offer courses in areas of departmental major interest not covered by the regular courses.

POLI 392 - Selected Topics in Political Science Credits: 3

Opportunity to offer courses in areas of departmental major interest not covered by the regular courses.

POLI 393 - Selected Topics in Political Science Credits: 3

Opportunity to offer courses in areas of departmental major interest not covered by the regular courses.

POLI 394 - Selected Topics in International Politics Credits: 3

Opportunity to offer regular classes in International Politics in areas of department major interest not covered by regular courses.

POLI 395 - Internship I Credits: 3

Contact the department for further information on internships.

POLI 396 - Internship II Credits: 3

Contact the department for further information on internships.

POLI 397 - Internship III Credits: 3-6

Contact the department for further information on internships.

POLI 398 - Independent Study in Political Science Credits: 3

Opportunity to offer courses in areas of departmental major interest not covered by the regular courses.

POLI 399 - Senior Seminar Credits: 3

Required senior capstone course. Students complete an independent research project that integrates knowledge of the content and methods specific to the study of political systems and processes. Evaluation includes a senior thesis, oral presentation, and career development statement with resume.

Prerequisite(s): (POLI 100 or HONR 279) and POLI 141 and POLI 201 and POLI 202 and POLI 300 and POLI 301 . In addition, students must demonstrate that they have enrolled in at least one Political Science elective class that emphasizes each of these three skill-sets: oral communication, written communication and problem solving.

POLI 431 - Pennsylvania Local Government Credits: 3

Concerns the structure and administrative functions of local governments in Pennsylvania. Extensive emphasis placed on analyzing local governmental functions and problems emanating from the jurisdictions' political, social, and economic environments.

Prerequisite(s): 9 hours in political science or permission of instructor.
Graduate Credit: This course is available for graduate credit.

POLI 490 - Selected Topics in Political Science Credits: 3

Opportunity to offer courses in areas of departmental major interest not covered by the regular courses.

Graduate Credit: This course is available for graduate credit.

POLI 491 - Selected Topics in Political Science Credits: 3

Opportunity to offer courses in areas of departmental major interest not covered by the regular courses.

Graduate Credit: This course is available for graduate credit.

POLI 492 - Selected Topics in Political Science Credits: 3

Opportunity to offer courses in areas of departmental major interest not covered by the regular courses.

Graduate Credit: This course is available for graduate credit.

PRST 400 - Professional Studies Internship Credits: 1-12

This course is a guided professional practicum involving an internship suitable for the student's courses and professional plans as indicated by the student's program of study in the Professional Studies B.S. for either the Professional Leadership Studies or Integrative Studies concentration. It is the first of two professionalization courses in the major and should be completed before the required capstone course. Students will locate and apply for an internship, complete various academic tasks in addition to their workplace requirements, and begin to create artifacts that can be placed in a required e-portfolio.

Prerequisite(s): As for all internships, at least 60 credits and 2.0 GPA. It is intended to be a "pre-capstone" so ideally the internship comes early in the last year of study or the end of the student's junior year. However, there is no course that must be taken before the internship.
Graduate Credit: This course is not available for graduate credit.

PRST 450 - Professional Practices in Integrative Studies Credits: 3

This capstone course for all Integrative Studies concentrators in the Professional Studies major is focused on the integration of knowledge and skills gained from their program for the effective transition into chosen professions. This is a writing intensive course that requires students to demonstrate proficiency in writing for the specific career they intend to enter.

Prerequisite(s): 75 credits earned.
Graduate Credit: This course is not available for graduate credit.

PSYC 101 - General Psychology Credits: 3

Survey of major principles, research results, and applications of contemporary psychology. Topics traditionally covered include learning, memory, perception, motivation, personality and social behavior.

Category: Natural World & Technology - N

PSYC 104 - Research Methods in Psychology Credits: 3

The course is an overview of the methods used in the study of psychology. Topics include: literature searches for published articles, APA writing style, basic principles of research design, current research methods across psychology

subfields, data collection, producing and interpreting tables and graphs, and descriptive data analyses.

Prerequisite(s): PSY 101 minimum grade D

PSYC 105 - Research Design and Statistics for the Behavioral Sciences I Credits: 3

The second course in the three-semester sequence in the **Graduate School/Technical Field Preparation Track**. This course focuses on research design and statistics related to methodologies in the behavioral sciences. Topics include background research skills, hypothesis development and testing, research methodology, descriptive statistics (using a calculator and computer), introduction to probability, statistical significance, and inferential statistics.

Prerequisite(s): Restricted to psychology majors or B.S.Ed. majors. PSYC 104 with a minimum grade of C and PSYC 101 (or HONR 151)

PSYC 205 - Research Design and Statistics for the Behavioral Sciences II Credits: 3

The third course in the three-semester sequence in the **Graduate School/Technical Field Preparation Track**. This course focuses on applying research design and statistics related to methodologies in the behavioral sciences. Topics include a continuation of statistical significance, hypothesis testing and inferential statistics, measurement, planning, designing, writing, and evaluating research studies and experiments. A research project in an area of psychology will be conducted.

Prerequisite(s): Restricted to psychology majors. PSYC 105 with minimum grade of C and PSYC 101 (or HONR 151) or permission of instructor.

PSYC 235 - Conditioning and Learning Credits: 3

Designed to teach the basic principles of conditioning and learning. Emphasis on classical and operant conditioning in laboratory research and applied situations.

Prerequisite(s): PSYC 101 or HONR 151

PSYC 240 - Psychology of Personality Credits: 3

Basic theories concerning the structure, dynamics, and development of personality are discussed. Viewpoints covered may include psychodynamic, cognitive, humanistic, trait, biological, evolutionary, and behavioral approaches to understanding personality.

Prerequisite(s): PSYC 101 or HONR 151

PSYC 250 - Psychology of Life Span Development Credits: 3

Students in this course will learn about development across the lifespan. Students will be introduced to the basic theories, milestones and applications in life span development. Please note that credits earned in this course will count as only free electives for psychology majors or minors. This course is recommended for pre-health professions, exercise science students, and other students who are interested in a general overview of life span development. (Offered winter and summer terms).

Prerequisite(s): PSYC 101 or HONR 151

PSYC 265 - Childhood and Adolescence Credits: 3

Students in this course will learn about how children grow and develop from infancy through adolescence. Students will be introduced to the basic theories, research, and applications in child and adolescent development. Topics covered in this course include understanding the contexts of child development, physical development, cognitive development, and socioemotional development. This course will also highlight the impact of socioeconomic, gender, ethnic, and racial diversity on key developmental issues.

Prerequisite(s): PSYC 101 or HONR 151

PSYC 270 - Social Psychology Credits: 3

Examines concepts, theories, and methods related to social attitudes, behaviors, thoughts, and emotions. Topics may include what factors influence our judgments of ourselves and others (social cognition), the self, attitudes (e.g., prejudice), stereotyping, discrimination, persuasion, conformity, obedience, interpersonal attraction, relationships, cooperation, competition, and aggression.

Prerequisite(s): PSYC 101 or HONR 151

PSYC 301 - Experimental Psychology Credits: 3

Introduction to the execution of planned laboratory experiments following accepted scientific principles. Deals with problems in ethical considerations, designing experiments, data collection and analysis, and the writing of research reports using APA style. Experiments in an area of psychology may be conducted.

Prerequisite(s): Restricted to psychology majors. PSYC 205 with minimum grade of C or permission of instructor.

PSYC 301 - Research Methods in Psychology Credits: 3

The course is an overview of the methods used in the study of psychology. Topics include: literature searches for published articles, APA writing style, basic principles of research design, current research methods across psychology sub-fields, data collection, producing and interpreting tables and graphs, and descriptive data analyses.

Prerequisite(s): PSYC 101 minimum grade D

PSYC 311 - Applied Behavior Analysis Credits: 3

The course is an overview of applied techniques for assessing and modifying behavior known as ABA (applied behavior analysis). Techniques examined within the course will include descriptive and functional assessment, functional analysis, differential reinforcement, response prevention, environmental enrichment, punishment, extinction, and stimulus control.

Prerequisite(s): PSYC 235 with minimum grade of C

PSYC 315 - Psychology of Prejudice and the Minority Experience Credits: 3

Examines the psychological roots of prejudice and discrimination in modern society, including the nature, prevalence, causes, and consequences of discriminatory behavior. Specifically, the course addresses the underlying psychological processes that influence prejudice towards underrepresented groups. Topics include racism, sexism, heterosexism, ageism, weight bias, and other forms of prejudiced attitudes and discriminatory behaviors.

Prerequisite(s): PSYC 101 or HONR 151

PSYC 320 - Behavioral Neuroscience Credits: 3

Explores the relationship between biological and psychological processes by examining nervous system anatomy and physiology as it relates to problems of emotion, motivation, cognition, perception, and mental illness.

Prerequisite(s): PSYC 101 or HONR 151 or permission of instructor.

PSYC 323 - Sensation and Perception Credits: 3

The study of human senses, sensory coding, neurological basis of sensation, perceptual processes across different senses, theories of perceptual experience, and the physiological and cognitive basis of perception.Numerous demonstrations will assist in elucidating concepts and experiences in sensation and perception.

PSYC 325 - Psychology of Human Cognition Credits: 3

This course explores different aspects of Cognitive Psychology - the scientific study of the mind. It is designed to provide students with a comprehensive understanding of basic concepts, theories, and scientific approaches that constitute modern cognitive psychology. The first half of the course will focus on the role of attention, perception, and memory systems (e.g., how does the brain select and process information; what influences our perception; how do we store information into memory, etc.), as well as the manner in which these processes are integrated. The second half of the course will focus on topics including knowledge, language, reasoning, problem solving, and decision-making.

Prerequisite(s): PSYC 101 or HONR 151

PSYC 330 - Adult Psychopathology Credits: 3

Characteristics, causes, and treatment of major psychological disorders will be discussed. Topics will include primary theories of how disorders develop, current mental disorder classification, and contemporary forms of treatment.

Prerequisite(s): PSYC 101 or HONR 151

PSYC 333 - Psychology of Attention and Consciousness (Effective Fall 2020) Credits: 3

Psychology of Attention and Consciousness addresses both the "hard" and "easy" problems of consciousness. The "easy" problem involves determining which brain area(s) associate with different psychological processes. Famous neuroscientists Francis Crick (co-discoverer of DNA double-helix structure) and Christoff Koch illustrate this in an approach called the neurophysiological correlates of consciousness (NCC's). The "hard" problem addresses how physiological brain events produce subjective experience (consciousness). While the majority of scientists agree that consciousness arises from neurophysiological events, a major challenge has been to explain how these events produce subjective experience (e.g., what it is like to have the experience of pain or the experience of seeing a beautiful sunset). The course will survey cutting-edge research and theories in the areas of attention and consciousness. Content will also include applied topics such as the training of attention and the influence of sleep and sleep deprivation on these processes.

Prerequisite(s): PSYC 101 or HONR 151
Restricted to Psychology majors and minors

PSYC 335 - Psychology of Social Influence Credits: 3

Social Influence involves one's intentional or accidental persuasion of another resulting in changes to beliefs, attitudes, and/or behaviors. We will examine aspects of social influence related to advertising, marketing, propaganda, and indoctrination, as well as compliance, group initiation, and obedience, etc., as they relate to interpersonal and professional relationships.

Prerequisite(s): PSYC 270 with minimum grade of C or permission of instructor.

PSYC 340 - Introduction to Clinical Psychology Credits: 3

This course will involve discussion of the various forms of graduate training and professional activities of clinical psychologists. Students will acquire knowledge regarding the processes of clinical assessment, diagnosis, conceptualization, and psychotherapy for psychological disorders.

Prerequisite(s): PSYC 240 with minimum grade of C and PSYC 330 with minimum grade of C
Effective Spring 2020: or permission of instructor

PSYC 345 - Psychiatric Rehabilitation Credits: 3

Students in this course will learn about a variety of evidence-based services to help individuals with serious mental illness lead meaningful, self-directed lives. The nature of serious mental illness, the guiding principles of Psychiatric Rehabilitation, relevant psychological theory and research, and career options in the field of Psychiatric Rehabilitation will be reviewed.

Prerequisite(s): PSYC 101 with a minimum grade of D.

PSYC 350 - Psychology of Sustainability Credits: 3

This course will highlight examples of how psychology makes contributions to the sustainability field through a variety of perspectives (behavioral, cognitive, social). We will read and discuss primary source articles that discuss intersections between psychology and sustainability. In addition, students will gain hands-on experience with sustainability initiatives through a Research/Service project.

Prerequisite(s): PSYC 101 or HONR 151

PSYC 352 - Adulthood and Aging Credits: 3

Providing the student with an understanding of the main developmental processes occurring during the stages of adulthood and old age. Discusses theories of aging, social implications of the recent extensions in longevity, age-related physiological processes and their implications in terms of physical and mental health, changes in cognition, personality, and psychopathology. Also discusses the impact of important life events and developmental tasks on the individual. Thus, marriage and divorce, work and retirement, and finally death, dying, and bereavement, will be discussed, and major empirical results will be presented and analyzed.

Prerequisite(s): PSYC 101 or HONR 151

PSYC 355 - Child and Adolescent Psychopathology Credits: 3

Students in this course will learn about developmental psychopathology in children and adolescents. Students will learn how disorders in children and adolescents affect the child, family, school, and other contexts. In addition, students will examine the clinical methods for examining and treating disorders in children and adolescents.

Prerequisite(s): PSYC 101 or HONR 151

PSYC 361 - Psychology of Group Interaction Credits: 3

Surveys and analyzes the psychological constructs, research, and principles of small group interaction. Through participation and observation of face-to-face and electronic groups, we will examine the motivational, behavioral, social, and cognitive aspects of groups and their dynamics. This course will primarily focus on issues affecting groups in an organizational setting like leadership, cohesion, performance, decision-making, and conflict.

Prerequisite(s): *Effective until Spring 2020:* (PSYC 101 or HONR 151 and junior standing) or permission of instructor.
Effective Spring 2020: PSYC 101 or HONR 151

PSYC 365 - Multicultural Psychology Credits: 3

Focuses on recent psychological research on the commonalities and differences in the way cultural groups think, feel, and behave. May include discussion of psychological issues concerning race/ethnicity, gender, social class, sexuality, disability, and religion, as well as cultural values, individualism-collectivism, cultural identities and group conflict, environmental ecology, development, communication and relationships, privilege and prejudice. Discussions are geared toward promoting an understanding of human experience in a multicultural context.

Prerequisite(s): PSYC 101 or HONR 151

PSYC 374 - Advanced Research in Psychology I Credits: 3

Students are provided with an opportunity to engage in a research project with a faculty member of the psychology department. Usually, this includes the student working on some or all of the following: selection of a topic, background literature search, writing a research proposal, gathering data, conducting appropriate statistical analysis, writing a report, and/or presenting results at local, regional, or national conferences. Offered fall semesters only.

Prerequisite(s): PSYC 301 with minimum grade of C and permission of

PSYC 375 - Advanced Research in Psychology II Credits: 3

Students are provided with an opportunity to engage in a research project with a faculty member of the psychology department. Usually, this includes the student working on some or all of the following: selection of a topic, background literature search, writing a research proposal, gathering data, conducting appropriate statistical analysis, writing a report, and/or presenting results at local, regional, or national conferences. Offered spring semesters only.

Prerequisite(s): PSYC 301 with a minimum grade of C and permission of instructor.

PSYC 379 - Capstone Seminar in Psychology Credits: 3

Capstone seminar designed to allow students to apply a number of theoretical approaches and models to real-life examples and to familiarize students with some of the current debates in the field of psychology. Based in large part on group work that will be conducted by students in an attempt to explore in more depth issues and topics originally discussed in class in relatively broad terms. Short papers and oral presentations provide opportunity for integration, application and polishing of writing and oral communication skills. Must be at least junior standing to enroll.

Prerequisite(s): At least 15 credits from psychology courses.

PSYC 383 - Social Learning in Infants and Children Credits: 3

This course will explore children's developing understanding of the social world. Empirical research related to how children learn from others and how they learn about themselves and others will be examined. Topics include various forms of social learning, knowledge of the self, perceptions of others' thoughts and predictions of others' behaviors, and prosocial behavior. In addition, factors that impact children's understanding of the social world will be examined.

Prerequisite(s): PSYC 101 or HONR 151

PSYC 384 - Helping Skills for Human Services Credits: 3

Course will focus on the development of basic helping skills. Topics will include helping responses and specific skill development, relevant ethical issues, and the importance of understanding diversity. Skill enhancing activities will include role playing and small group exercises.

Prerequisite(s): Restricted to psychology majors only.
PSYC 101 or HONR 151

PSYC 385 - Internship in Psychology Credits: 1-4

Provides a variety of internship experiences that provide opportunity to broaden the psychology major's preparatory background. Contact the internship coordinator of the department for further information.

PSYC 386 - Internship in Psychology Credits: 3

Provides a variety of internship experiences that provide opportunity to broaden the psychology major's preparatory background. Contact the internship coordinator of the department for further information.

PSYC 389 - Internship in Psychology III Credits: 3

Provides a variety of internship experiences that provide opportunity to broaden the psychology major's preparatory background. Contact the internship coordinator of the department for further information.

PSYC 393 - Selected Topics in Psychology Credits: 1-3

Opportunity to offer courses in areas of departmental major interest not covered by the regular courses.

PSYC 394 - Seminar in Selected Topics I Credits: 3

Studies concepts and research in areas of psychology not covered by the regular courses of study. Areas covered will be those in which instructors have special expertise and there is a special student request.

PSYC 395 - Seminar in Selected Topics Credits: 3

Studies concepts and research in areas of psychology not covered by the regular courses of study. Areas covered will be those in which instructors have special expertise and there is a special student request.

Prerequisite(s): PSYC 101 or HONR 151 and senior standing and permission of instructor.

PSYC 398 - Independent Study in Psychology Credits: 3

Independent study affords students the opportunity to engage in independent study related to their major field, a supporting area, or specialized interest.

PSYC 399 - Independent Study in Psychology Credits: 3

Independent study affords students the opportunity to engage in independent study related to their major field, a supporting area, or specialized interest.

PSYC 410 - Psychology and Women (Effective Spring 2020: Psychology of Women and Gender) Credits: 3

Focus on views about women in early psychology, then turns to an in-depth analysis of psychological issues affecting women and girls. Topics may include historical and current theories of gender, power, gender similarities/differences, gender development, gender identity, sexual orientation, sexuality, marriage, mothering, work/achievement, aging, gender violence, mental health, and feminist therapy.

Prerequisite(s): Requires at least junior standing.
PSYC 101 or HONR 151 or permission of instructor
Graduate Credit: This course is not available for graduate credit.

PSYC 415 - Psychology of Addiction & Recovery Credits: 3

The course provides an overview of basic concepts relevant to understanding the etiology, diagnosis, and treatment of substance use disorders and process/behavioral addictions (e.g., gambling, sex addiction) from an integrative, strengths-based, biopsychosocial perspective.

Prerequisite(s): PSYC 101 , minimum grade D and PSYC 330 , C or better OR PSYC 355 , C or better, OR permission of the Instructor.

Graduate Credit: This course is not available for graduate credit

PSYC 420 - Health Psychology Credits: 3

Course will discuss the relationships among mental processes, physiological processes, behavior, and health; put more simply: the mind-body connection. The interaction of these factors will be explored from scientific and applied perspectives and students will learn to conceptualize health through a biopsychosocial lens. Topics will include stress, sleep, depression, major medical disorders, the health behavior change process, and relevant developmental aspects of health. Course will also review the various roles of health psychologists and examine how health psychologists interact with other disciplines to treat health conditions and promote wellness.

Prerequisite(s): Requires at least junior standing.
PSYC 101 or HONR 151
Graduate Credit: This course is not available for graduate credit.

PSYC 432 - The Psychology of Computers and the Internet Credits: 3

Examines the psychological implications of computers and their related internet technologies on social interactions and behaviors. Topics include the influence of technology on our self-concept and identities, interpersonal relationships, attitudes towards privacy, and impressions of others. Specifically we will focus on the psychological consequences of

the use of cellphones, social networks, video games, and online dating applications. The course is taught in a student-led seminar format using recent research (i.e. journal articles) from the field of Psyberpsychology.

Prerequisite(s): Requires at least junior standing.
PSYC 101 or HONR 151
Graduate Credit: This course is not available for graduate credit.

PSYC 440 - History and Systems of Psychology Credits: 3

Explores the history of psychology ranging from early philosophy to more modern scientific developments. This course will examine some of the major issues, debates, and schools of thought that have and still dominate the field of psychology. The course will also include a discussion of future directions for the field of psychology. This course may be used to satisfy the Capstone Requirement in Psychology.

Prerequisite(s): Requires at least junior standing.
PSYC 101 or HONR 151
Graduate Credit: This course is not available for graduate credit.

PSYC 470 - Forensic and Legal Psychology Credits: 3

The focus of this course is an examination of the interaction between the discipline of psychology and different facets of the legal/criminal justice system. It examines the aspects of human behavior related to legal issues such as insanity/competency, sexual violence, jury decision making, and criminal behavior.Perspectives from victims, perpetrators, law enforcement, and treatment providers will be covered.

Prerequisite(s): Requires at least junior standing.
PSYC 101 or HONR 151
Graduate Credit: This course is not available for graduate credit.

PSYC 475 - Industrial and Organizational Psychology Credits: 3

Surveys theoretical and empirical research relevant to the behaviors and experiences of individuals in relation to the human constructs called organizations and the economic activities called work.

Prerequisite(s): PSYC 101 or HONR 151 or permission of instructor. Requires at least junior standing.
Graduate Credit: This course is not available for graduate credit.

PSYC 490 - Selected Topics in Psychology Credits: 1-3

Opportunity to offer courses in areas of departmental major interest not covered by the regular courses.

Prerequisite(s): Requires at least junior standing.
Graduate Credit: This course is not available for graduate credit.

PSYC 491 - Selected Topics in Psychology Credits: 3

Opportunity to offer courses in areas of departmental major interest not covered by the regular courses.

Prerequisite(s): Requires at least junior standing.
Graduate Credit: This course is not available for graduate credit.

PSYC 492 - Selected Topics in Psychology Credits: 3

Opportunity to offer courses in areas of departmental major interest not covered by the regular courses.

Prerequisite(s): Requires at least junior standing.
Graduate Credit: This course is not available for graduate credit.

PSYC 493 - Selected Topics in Psychology Credits: 3

Opportunity to offer courses in areas of departmental major interest not covered by the regular courses.

Prerequisite(s): Requires at least junior standing.
Graduate Credit: This course is not available for graduate credit.

PBHL 100 - Introduction to Public Health Credits: 3

Public Health is the science of promoting health through evidence-based social policy, community organization and support, and informed individual choice. Introduction to Public Health is a survey course that provides an overview of the field, focusing on the ecological nature of public health, macro analysis of the ways that social systems effect population health, mezzo-level group analysis of particular populations and their health experiences and needs, and micro approaches to individual decision making and the social factors that shape individual health decisions. Historical and current public health events and campaigns will be used as case studies throughout to enable students to engage in critical thinking, application of concepts, and to build their own public health campaign.

Category: Citizenship & Responsibility - R

PBHL 205 - Health Policy Credits: 3

To work in public health in the U.S. it is crucial to understand not only the American health care system and the vast collection of health care policies that exist in the U.S., but also the populations they serve. Focusing on these populations includes attention not only to their specific needs but the various social forces beyond health care systems and policies which impact public health. Students in this course will learn how the American health care system is organized, delivered, and financed. They will learn about the various health care policies that are currently on the books at the federal, state, and local levels, including the policy-making process itself, the content of current policies, and the impact of these policies. And they will examine various populations in need and how their health might be best promoted.

PBHL 301 - Fundamentals of Epidemiology Credits: 3

This course will introduce students to the fundamental principles and major applications of epidemiology. Students will learn central concepts and methods in the study of public health problems in populations. The course will center on how to interpret and assess epidemiologic research, and how to apply it in public health practice.

Corequisite(s): Both courses can be pre- or co-requisite:
SOCI 385

MATH 117

PBHL 400 - Internship in Public Health Credits: 3

Internship in Public Health is designed for students to gain skills in public health leadership, management, ethics, and professionalism through the application of public health coursework in community work sites.

Prerequisite(s): PBHL 100
Graduate Credit: This course is not available for graduate credit.

SOCI 365 - Globalization and Health Credits: 3

Health is critical to the continuation of humankind. Living in a globalized world, we have to develop a good understanding of how the global social, cultural, economic, and political order affects people's access to health and quality health care. Together, we will study how a variety of global factors contribute to people's wellness and risk of illness. International travel and migration contribute to the spread of infectious diseases and shape a growing international labor market in health care. International and global economic policies such as patent law and trade agreements affect people's life quality and their access to healthy food, medicine, and health service and providers. As a result, we have witnessed significant global, national, regional, racial, and gender inequities in health outcomes. Climate change also impacts the availability of food and water and increases the prevalence of certain diseases and hazards such as heat waves and floods. By the end of this class, the students will gain familiarity with global perspectives and influences on human health that are relevant to careers in health care and other fields.

READ 050 - Developmental Reading and Study Skills Credits: 3

Designed to aid in mastery of reading and study skills necessary for success in nearly all academic fields. Individual attention given to areas needing improvement in reading efficiency and flexibility, vocabulary, comprehension of specific types of content materials, outlining, test-taking, note-taking and allied activities. All work based on careful diagnosis of strengths and weakness.

READ 232 - Reading in the Elementary School Credits: 3

Emphasizes nature of the reading process, general principles of instruction and learning theory into sound classroom practice in a Middle Level (Grades 4-8) classroom. Instructional principles include instruction embedded in content-area text. Participation in an educational field experience required.

READ 323 - Processes of Word/Text/Comprehension in Grades 1-4 Credits: 3

Focuses on reading development as it pertains to work and text comprehension for emergent to fluent readers. Pre-service teachers will learn effective and research-based literacy strategies for planning and implementing literacy lessons in grades 1-4. Participation in an education field experience will be required.

READ 327 - Literacy Assessment in PreK-4 Classrooms Credits: 3

In this course, students will learn and practice current practices in assessing literacy development with PreK-4 grade children. Also, students will learn to analyze the data collected from literacy assessments and how to use that data to instruct. Also, emphasis will be placed on interactive procedures to determine and facilitate the development of literacy processing for individual children.

READ 329 - Reading in the Content Areas Credits: 3

Opportunity to view reading instruction as it applies to content areas. Specifically, course will deal with: vocabulary development, development of cognitive skills, application of the D.R.A./D.R.T.A., application of reading/study skills, test administration, interpretation and evaluation, application of research findings to reading methodology, readiness as applied to reading in the content areas.

READ 330 - Content Area Reading in the Primary Grades Credits: 3

Content Area Reading in the Primary Grades offers students the opportunity to view reading instruction as it applies to the content areas in grades 2-4. This course will deal with reading and comprehending text, developing vocabulary, developing cognitive skills, applying reading and study skills, assessing and evaluating textbooks, and applying research findings to reading methodology in the intermediate grades 2-4. This course will focus on the development of instructional strategies, concepts, and techniques for teaching reading in the various content areas. The application of reading, writing, speaking, listening, viewing, and visual representation across the curriculum will be the focus for this course. Also, the use of a wide variety of picture books and trade books for teaching content area reading will be addressed.

Prerequisite(s): READ 323 with minimum grade of B

READ 334 - Classroom Based Literacy Assessment Credits: 3

Explores concepts of assessment and evaluation in literacy development and their connection to instruction. Enhances awareness of current assessment strategies. Classroom experience with children required.

Prerequisite(s): READ 232 with minimum grade of C

READ 340 - Seminar in Literacy Tutoring Credits: 3

Enables students to learn and practice effective teaching techniques for helping at-risk readers and writers. College students implement classroom practices in a tutoring situation with local K-8 students.

Prerequisite(s): READ 232 with minimum grade of C

READ 345 - Teaching Language Arts in PreK-4 Classroom Credits: 3

This course presents an integrated approach to teaching language arts based on current research of best practices, tested instructional methodologies, materials, assessment techniques for language arts instruction PreK-4, and the application of contemporary media and computer technology for the elementary grades. Course content focuses on the interrelatedness of all language arts areas.

Prerequisite(s): READ 323 with minimum grade of B and READ 363 with minimum grade of B

READ 350 - Text Accessibility and Comprehension in the PK-4 Classroom Credits: 3

This course presents an integrated approach to teaching language arts based on current research of best practices, tested instructional methodologies, materials, assessment techniques for language arts instruction PreK-4, and the application of contemporary media and computer technology for the elementary grades. Course content focuses on the interrelatedness of all language arts areas.

Prerequisite(s): READ 323 with minimum grade of B and READ 363 with minimum grade of B

READ 363 - Reading and Writing in PK-4 Credits: 3

This course focuses on theoretical content knowledge and pedagogical skills necessary to plan and implement the reading and writing process and effective principles of literacy instruction in the PK-4 literacy lessons, including emphasis on a comprehensive literacy framework for reading, writing and word study. Participation in an education field experience will be required.

Prerequisite(s): READ 323 with minimum grade of C

READ 383 - English Language Learners in PK-4 Credits: 2

This course is designed to address teaching reading and writing to the grades 1-4 English language learners in a non-ESL classroom; address the concerns of teachers who encounter students in their classrooms who are learning English; explore the theories about first-and second-language acquisition; introduce classroom best practices in literacy as they relate to learners of English; and support teachers in developing an understanding of the basic principles of teaching and assessing English language learners with practical suggestions for assisting students in learning to cope in their new culture.

Prerequisite(s): READ 323 with minimum grade of C

READ 393 - Selected Topics in Reading Credits: 3

Opportunity to offer courses in areas of departmental major interest not covered by the regular courses.

READ 405 - Teaching Writing in 4-8 Classrooms Credits: 3

This course focuses writing instruction in the upper elementary grades. It examines theoretically and empirically supported practices that support students' writing development. Topics examined in this course include writing standards and assessment and writing instruction frameworks.

READ 413 - Teaching Reading to English Language Learners Credits: 3

Designed to address teaching reading and writing to the English language learner in a non-ESL classroom; address the concerns of teachers who encounter students in their classrooms who are learning English; explore theories about first- and second-language acquisition; introduce classroom best practices in literacy as they relate to learners of English; and support teachers in developing an understanding of the basic principles of teaching and assessing English language learners with practical suggestions for assisting students in learning to cope in their new culture. Course is reserved for reading minors and master's of reading students.

Graduate Credit: This course is available for graduate credit.

READ 431 - Seminar on Selected Topics in Reading Credits: 3

Focuses on a critical and in-depth analysis of topics in reading related to the following specific areas: the reading process and methodology; research findings; evaluation of materials and techniques; and practical application of theory and research to classroom procedures.

Graduate Credit: This course is not available for graduate credit.

READ 443 - Reading Measures and Interventions in PK-4 Credits: 4

Focuses on assessment methods, including observation, informal, and formal assessment measures to diagnosis and describes stages of reading development among readers, specifically prekindergarten through fourth grades. Uses

assessment data to identify and implement literacy instruction for small groups and individual learners. Participation in an education field experience will be required.

Prerequisite(s): (READ 323 and READ 363)
Graduate Credit: This course is available for graduate credit.

READ 490 - Selected Topics in Reading Credits: 1-3

Opportunity to offer courses in areas of departmental major interest not covered by the regular courses.

Graduate Credit: This course is available for graduate credit.

READ 491 - Selected Topics in Reading Credits: 1

Opportunity to offer courses in areas of departmental major interest not covered by the regular courses.

Graduate Credit: This course is available for graduate credit.

READ 492 - Selected Topics in Reading Credits: 3

Opportunity to offer courses in areas of departmental major interest not covered by the regular courses.

Graduate Credit: This course is available for graduate credit.

READ 493 - Selected Topics in Reading Credits: 1

Opportunity to offer courses in areas of departmental major interest not covered by the regular courses.

Graduate Credit: This course is available for graduate credit.

SCMG 200 - Statistical Applications in Business Credits: 3

Topical coverage includes estimation of parameters and test of hypotheses for a variety of populations based on large and small sample sizes. May include coverage of analysis of frequencies, analysis of variance, quality control, linear regression. Taught in a spreadsheet environment and emphasis placed on critical thinking and business reasoning skills. Students typically carry out projects and submit results in the form of written and oral reports.

Prerequisite(s): ITAN 142 and (MATH 140 with minimum grade of C or math placement level of 5)

SCMG 315 - Strategic Procurement Credits: 3

Designed to provide an understanding of strategic procurement issues in today's business environment. Students will learn a variety of procurement strategies, processes, and tools. Utilizes case studies to understand better both the academic and practical aspects of procurement issues.

Prerequisite(s): SCMG 330

SCMG 330 - Supply Chain and Operations Management Credits: 3

Applies knowledge the students obtain in lower division course work to managing the operations of a firm as they apply to manufacturing a product or providing a service. Deals with issues such as managing, forecasting, planning, and designing manufacturing or service facilities. In addition, strategies for their efficient operations such as production and inventory control as well as quality management are also covered. Also deals with supply chain management issues such as globalization, relationships between partners, strategies for efficient operation, and organization and management of partners.

Prerequisite(s): SCMG 200

SCMG 355 - Managing Quality and Continuous Improvement Credits: 3

Covers the basic concepts of managing quality in either a manufacturing or a service environment. The role of quality to enhance productivity and maintain a competitive position is the central focus. Principles and methodology needed to design systems that assure quality from both customer and manufacturer perspectives discussed. Managerial and technical skills and tools provide a comprehensive approach to the implementation and maintenance of quality systems. Principles of continuous improvement and their impact on quality management explored.

Prerequisite(s): SCMG 330 (may be taken concurrently)

SCMG 370 - Integrated Supply Chain Systems Credits: 3

Covers concepts in designing, planning, and operating a supply chain. Considers the role e-business plays and how role varies based on product and industry characteristics. Also discusses how firms can integrate e-business when formulating strategy and designing their supply chains to improve supply chain performance.

Prerequisite(s): SCMG 330 or permission of instructor.

SCMG 380 - Data Mining for Supply Chain Management Credits: 3

Emphasizes the process of discovering hidden patterns and relationships in large amounts of data. Topical coverage includes techniques such as data visualization, decision tree, forecasting, neural network, and Kohonen network. Covers a wide range of applications in the areas of supply chain such as fraud detection, tracking vendor performance, examining distribution network efficiency, and forecasting demands in goods.

Prerequisite(s): SCMG 330

SCMG 390 - Strategic Warehouse Management Credits: 3

Addresses warehouse operations, warehouse management systems, material handling systems, and the warehouse work force. Warehousing minimizes the effects of supply chain inefficiencies and allows product accumulation, consolidation, and customization. Students learn a variety of principles and systems inherent in world-class warehousing. Uses individual and group projects to teach the principles of warehousing.

Prerequisite(s): SCMG 330

SCMG 393 - Selected Topics in Supply Chain Management Credits: 1-3

Opportunity to offer courses in areas of departmental major interest not covered by the regular courses.

SCMG 410 - Distribution Systems in Supply Chains Credits: 3

This course introduces students to the contributions that distribution systems make to value driven supply chains, the impact of distribution systems imperatives on the strategic management of supply chains, and the integration of these systems with manufacturing and service operations. Strategies for effective and efficient decision-making and management of distribution systems that augment and support the supply chain as well as deliver customer value are explored. Models of distribution systems that minimize or reduce system wide costs are investigated. The course also explores advances in information technology and its role in distribution systems.

Prerequisite(s): SCMG 330 or permission of instructor.
Graduate Credit: This course is available for graduate credit.

SCMG 420 - Global Logistics Systems Credits: 3

Studies the impact of operations management decisions in order to fulfill demand e.g. location, production, and transportation on a global scale. Investigates how logistical systems impact operations strategies to open new markets for supply and demand. Delves into the implications of international operations and logistics strategies based on enhanced information systems and their impact on transportation costs and value added activities. This course provides participants with an examination of the preconditions of globalization and its effects on logistics operations management decisions with regard to performance measures, risk management, and organizational structures. In addition to being exposed to the theory, case studies will be used to further reinforce the material's application in practice.

Prerequisite(s): SCMG 330 or permission of instructor.
Graduate Credit: This course is available for graduate credit.

SCMG 481 - Decision Models for Supply Chain Management Credits: 3

Introduces a variety of models to aid decision making in supply chain management focusing on the integration of business processes from end user through original suppliers. Additional issues covered are concerned with the value added by the supply chain to customers from products, services, and information. Emphasis on applying tools and skills in the areas of spreadsheets, database languages, and statistics to gain insights into the integrated nature of the supply chain. Analysis will focus on optimization, risk analysis, decision analysis, forecasting, resource allocation, new product introduction and production, and inventory planning and control. Role of information systems in supply chain management also discussed.

Prerequisite(s): SCMG 330
Graduate Credit: This course is available for graduate credit.

SCMG 490 - Selected Topics in Supply Chain Management Credits: 1-3

Opportunity to offer courses in areas of departmental major interest not covered by the regular courses.

Graduate Credit: This course is available for graduate credit.

SOCI 101 - Introduction to Sociology: Society and Diversity Credits: 3

This course provides an overview of the field of sociology, concentrating on its central approaches and techniques of analysis. The core of sociology is the study of group patterns and diversity, including the ways in which opportunities, expectations, and outcomes vary for people based on their social position and identity. This course will enable students to understand the formation and characteristics of different groups, the stratification [structure of inequality] of social groups, and the causes and consequences of inequality.

Category: Interconnections - D

SOCI 190 - General Education Special Topics Credits: 3

Opportunity to offer courses in areas of departmental general education interest not covered by the regular general education courses.

SOCI 201 - Sociological Practice Credits: 3

Prepares students for the critical reading and writing skill requirements of upper division electives in sociology through the examination of major social problems. Introduces the process of using the sociological imagination to address such problems as poverty, crime, deviance, racism, and sexism. Students will practice making an evidence-based argument by investigating sociological databases and analyzing sociological research, and will build competencies in writing literature reviews. Also includes a career planning component.

Prerequisite(s): Restricted to Sociology majors and Sociology minors by permission. SOCI 101 or HONR 161

SOCI 220 - Social Inequality Credits: 3

Examines the attributes by which individuals are hierarchically ranked (stratified) in society, the extent to which these rankings inhibit or promote opportunity for success in life, and the degree to which movement between these social strata is possible. Emphasis on using current empirical data to describe and explain the role of gender, race, and class in the stratification of American society. Basis and extent of stratification in other developed and less-developed countries also explored.

Prerequisite(s): SOCI 101 or HONR 161

SOCI 243 - Race in America Credits: 3

Studies sociological principles underlying relations between dominant and subordinate groups, with a specific focus on racial inequality in the United States. The causes of the unequal power and treatment of subordinate groups will be examined, as well as the consequences of this inequality in a variety of areas of life, including education, employment, health, income and wealth, politics, etc.

Category: Interconnections Diversity - D

SOCI 244 - Criminology Credits: 3

Explores the evolution of criminological theory as a story of ideas rooted in and subject to both history and biography. Special attention is placed on the explanatory powers of structure versus agency. Process of criminalization and the prison industry are also addressed.

SOCI 245 - Juvenile Delinquency Credits: 3

Explores the history of behavior labelled as delinquent among juveniles through a socio-historical and structural perspective. The social context within which juveniles behave and society's response to this behavior, particularly the implementation and evolution of the juvenile justice system, is critically analyzed.

SOCI 255 - Environmental Sociology Credits: 3

This course introduces the basic concepts, theories, and empirical research of environmental sociology. Students will utilize the "sociological imagination" to come to a deeper understanding of the social roots of environmental issues- a

topic of vital importance in our contemporary world. The manner of which humans impact the environment, and environmental issues impact society, will be interrogated. Included in discussion will be the roles of technology, consumption and production, population trends, culture, social movements, and more in both contributing to and reacting to environmental issues. When finished with this course, students will have a much better understanding of the scope, causes, and consequences of environmental issues, as well as potential solutions.

SOCI 257 - Family in Modern Society Credits: 3

This course focuses on the family as a social institution, social process, and important social context. A variety of topics are covered, including the historical development of family, childhood socialization, marriage and divorce, balancing work and family, the impact of family on social mobility, and diversity and change in contemporary American families. Includes an emphasis on the ways in which "private" families are intricately connected to the "public issues" of the larger society. Students will explore leading empirical findings as well as apply major theoretical insights to the study of families in the U.S.

SOCI 258 - Gender, Culture, and Power Credits: 3

Gender is the most durable and universal of social divisions and remains arguably the most consequential. But what gender has meant, and how it impacts individuals' lives, has varied dramatically over time and between societies. In this course we explore gender as a matrix of cultural meanings and power relationships within which "males" and "females" are constituted. We focus on how gender identities are formed and contested, and the role played by gender in current political controversies.

SOCI 265 - Global Society Credits: 3

Globalization is profoundly reshaping social structure and transforming the lives of people in this world. Our personal lives are linked to increasingly dense networks of global interrelations, as the integration of societies, economies, and cultures fundamentally transforms human life. It is impossible to understand the world in the early 21st century without understanding globalization and its consequences. With this in mind, the objective of this course is to explore what has come to be known as globalization studies, and in particular, to survey the distinct themes sub-areas that make up the sociology of globalization.

Category: Interconnections - G

SOCI 275 - Sociology of Sport and Leisure Credits: 3

Examines the development of sport and leisure and how they reflect social life. Emphasis on socialization and social differentiation in sport and leisure.

SOCI 310 - Leading in Society Credits: 3

Course provides an overview, using a sociological framework, of leadership in both historical and contemporary contexts. Emphasis is on discovering how leader-follower interactions are socially constructed to promote systemic goals, and often reinforce dominant hegemonies. An examination of leadership across diverse cultures and social situations is included.

Prerequisite(s): Enrollment in Degree Completion Program

SOCI 320 - Sociology of Disability Credits: 3

This course explores our understandings and practices regarding ability and disability through time, especially in the United States. We emphasize how and why we construct particular bodies and bodily practices as desirable or undesirable and consider the factors that shape inclusion and exclusion of people based on ideas of ability/disability. In so doing, we discuss how disability intersects with topics such as inequality, poverty, globalization, social movements, civil rights, social policy, stigma and identity, and a broad range of social roles.

SOCI 331 - Internship I Credits: 3

Contact the department for further information on internships.

Prerequisite(s): SOCI 101 or HONR 161

SOCI 332 - Internship II Credits: 1-6

Contact the department for further information on internships.

SOCI 335 - Internship III Credits: 6

Contact the department for further information on internships.

SOCI 345 - Deviance and Social Control Credits: 3

Explores classical and contemporary theoretical and empirical works explaining the concept of deviance, deviant behavior and social stigma. Social construction of deviance and the evolution and management of deviant identities emphasized.

SOCI 346 - City and Community Credits: 3

Analysis of the process of urbanization with major emphasis upon contemporary urban society. Approach centered around urbanism as a way of life, with emphasis on people and their actions and relationships. Course also concerned with social ecology, the dynamic system of spatial patterns and relationships that make up the structure of city growth.

SOCI 354 - Social Movements and Social Change Credits: 3

Studies the nature of collective action and protest as catalysts for social change. Explores causes, tactics and achievements of specific social movements. Class will complete an active learning project on mobilizing for social change. .

SOCI 359 - Selected Topics in Sociology Credits: 3

In-depth examination of selected theoretical and research topics in sociology, with the study subject announced in advance of scheduling. Primarily for advanced students.

Prerequisite(s): Specific course prerequisites may be set by the instructor.

SOCI 363 - Growth and Change of Human Populations Credits: 3

Birth, death, migration, aging, and disease are among the most basic aspects of human existence. They also, in concert, create, shape, and transform the population within which we live. In this course, we explore dynamics of population

growth and change and introduce methods for their analysis. We identify trends in how global human populations have changed over time and discuss implications of these trends for social policy, geopolitical peace, and ecological sustainability.

SOCI 369 - Medical Sociology Credits: 3

Addresses the contributions and relationships of sociology to medical and health care. Examines such topics as: social factors involved in illness, social epidemiology, social behavior of patients and health professionals, the social organization of health care, and social policy and health care.

SOCI 370 - Sociology of Music Credits: 3

Focuses on elite and popular culture through an examination of the social and cultural aspects of music. Explores linkages with other performing and visual arts and their connection to social, economic, and political institutions.

SOCI 371 - Sociology of Aging Credits: 3

The American population is aging, and this dramatic shift entails changes in culture, social roles, political programs like Social Security, work, and family. This course will examine the processes and implications of aging from a social structural perspective. We also will use a life course approach to consider the experience of aging as it intersects with other identities such as gender, race, and disability.

SOCI 375 - Popular Culture Credits: 3

This course explores the impact of popular culture on people's lives. We will examine culture from a sociological perspective, paying particular attention to culture's ubiquity, imact on people's identities and social relationships, connection to consumerism and consumption, relationship with politics, dissemination through various forms of media, and potential to challenge or reproduce existing social hierarchies.

SOCI 380 - Social Theory Credits: 3

Provides a critical and comparative study of the classical theories significant in the development of the field of sociology. Stresses the application of classical theories to contemporary social issues, an evaluation of the theories covered, and the development of skills in writing and critical thinking. Course is writing-intensive.

Prerequisite(s): SOCI 101 or HONR 161

SOCI 385 - Elements of Social Research Credits: 3

The modern world is thick with data that can unlock the mysteries of social life - but only if you know how to use it. This course will introduce students to the concepts and skills necessary to competently gather and analyze data and present findings. Students will learn the logic of scientific inquiry with application to the social world, and will proceed to study experimentation, survey creation, sampling and statistical inference. Students will learn to use powerful compuer applications for data analysis and visualization.

Prerequisite(s): SOCI 101 or HONR 161 and MATH 117 (can be taken concurrently)

SOCI 391 - Violence: A Sociological Perspective Credits: 3

Explores social violence in communities from a socio-historical, social psychological, and structural perspective. Particular attention is given to understanding the impact violence has on individual lives.

SOCI 398 - Independent Study in Sociology I Credits: 3

Independent study affords students the opportunity to engage in independent study related to their major field, a supporting area, or specialized interest.

SOCI 399 - Independent Study in Sociology II Credits: 3

Independent study affords students the opportunity to engage in independent study related to their major field, a supporting area, or specialized interest.

SOCI 415 - Senior Seminar Credits: 3

Capstone course required for sociology majors in their senior year. In this course, students will conduct research using secondary data, write a formal report on their findings, and present their findings to the sociology faculty. Students will also explore future career options through an in-depth examination of sociological occupations, including interviewing current employees.

Prerequisite(s): SOCI 101 or HONR 161 and senior standing.
Graduate Credit: This course is not available for graduate credit.

SOCI 421 - Impact of International Migration Credits: 3

This course is a sociological survey of immigration and ethnicity, with a primary focus on originating countries of immigrants and their experiences in the contemporary United States. The causes of immigration will be studied. Various assimilation patterns will be compared and analyzed. We will examine the needs of immigrants including housing, employment, education and medical care, and what kind of impacts they will cause on receiving society.

Graduate Credit: This course is not available for graduate credit.

SOCI 435 - Gender, Organizations, and Leadership Credits: 3

Examines the dynamics of gender and leadership in broader social contexts with particular focus on organizational settings. Focuses on the larger realm of women and men working, together or otherwise, in leader-follower situations framed by organizational constraints and concerns. The course examines a wide range of survey data and literature on gender and leadership." Students will learn how to promote a workplace culture of equality, diversity, and inclusion.

Graduate Credit: This course is available for graduate credit.

SOCI 440 - Global Leadership for Global Society Credits: 3

Examines leadership across the social settings and organizational cultures embedded in differing global perspectives on leadership. Many organizations in a variety of social settings and cultural contexts have developed formal leadership expectations in response to emerging global issues. Students will analyze leadership perspectives seen at the organizational, institutional, and social structural level beyond US borders and come to understand how the discipline of leadership in social and organizational settings requires a multi-faceted approach

Graduate Credit: This course is available for graduate credit.

SOCI 490 - Selected Topics in Sociology Credits: 1-3

Opportunity to offer courses in areas of departmental major interest not covered by the regular courses.

Graduate Credit: This course is available for graduate credit.

SPAN 101 - Beginning Spanish I Credits: 3

Designed for students who have never studied the language before. Both textbook and authentic materials used to enable students to express themselves on personalized topics.

Category: Interconnections - F

SPAN 102 - Beginning Spanish II Credits: 3

Continuation of SPAN 101. Both textbook and authentic materials used to enable students to express themselves on a variety of topics concerning self, family and friends.

Prerequisite(s): SPAN 101 or departmental placement.
Category: Interconnections - F

SPAN 103 - Intermediate Spanish Credits: 3

Continuation of SPAN 102. Both textbook and authentic materials used to enable students to express themselves on a variety of topics concerning self, family, friends, and their communities. Reading, writing, listening, and speaking combined to explore the history, geography, music, arts, and film of Hispanic society.

Prerequisite(s): SPAN 102 or departmental placement
Category: Interconnections - F

SPAN 150 - Hispanic Civilization and Culture Credits: 3

This course explains the cultural history of the Hispanic world in terms of domination, exploitation, oppression, and movements toward resistance and justice. Of the many forms of oppression against which individuals and groups have found themselves obliged to struggle, racism will be considered in the greatest detail. The course is centered on the discussion of historical and literary texts as well as the analysis of various artforms. It satisfies the requirement for a Diversity course within General Education. It is taught in English.

Category: Interconnections - D

SPAN 152 - Latino Literature Credits: 3

Study of important texts by Latinos of Mexican, Cuban, Puerto Rican, and Dominican descent living in the U.S. Emphasis on the historical, political and social context of literary works. Taught in English.

Category: Creativity & Expression - L

SPAN 153 - Latino Pop Culture Credits: 3

A Latino culture course for non-Spanish majors. It addresses a series of topics pertaining to contemporary products, practices and perspectives within the Latino pop culture. The course will focus on the exploration of written and audio-visual texts to draw conclusions on the characteristics and customs of the Latino people living in the USA and in Latino America.

Category: Interconnections - G

SPAN 190 - General Education Special Topics Credits: 3

Opportunity to offer courses in areas of departmental general education interest not covered by the regular general education courses.

SPAN 202 - Intermediate Conversation Credits: 3

This course offers conversational activities that will prepare the students to interact in social situations and to handle simple transactions. The students in this course will be able to ask and answer simple questions demonstrating good control of the language and using communicative strategies. The students will be required to read, to view or to listen to authentic materials and produce oral and short written reports. This course follows the ACTFL proficiency standards and therefore, at the end the students should demonstrate proficiency at the Intermediate-Mid level through an oral interview. This course will be taught in Spanish.

Prerequisite(s): SPAN 103 or departmental placement
Category: Interconnections - F

SPAN 204 - Ideas and Cultures from the Spanish-Speaking World Credits: 3

This course is an introduction to Spanish and Latin American culture that illustrates the richness and diversity of the Hispanic cultural products, practices, and perspectives at various historical points. The students will be required to read authentic materials and produce written and oral reports. This course follows the ACTFL proficiency standards and therefore, at the end the students should demonstrate proficiency at the intermediate mid level. This course will be taught in Spanish.

Prerequisite(s): SPAN 202 (may be taken concurrently) or permission of instructor.
Category: Interconnections - G

SPAN 211 - Intermediate Contextualized Grammar Credits: 3

This course places an emphasis on the development of grammatical concepts through the analysis and interpretation of different authentic texts that will enable the students to use the language in real-life situations. This course follows the ACTFL proficiency standards and therefore, at the end the expected level of proficiency should be at the intermediate high level. This course will be taught in Spanish.

Prerequisite(s): SPAN 204 or permission of instructor.

SPAN 215 - Intermediate Spanish For Heritage and Native Speakers Credits: 3

Spanish 215 is a communicative course, which provides exercises and activities that will enable the heritage and native speakers to learn the foundations of Spanish as a language that they speak in their home and/or community, as their first language (while they have also an important level of fluency in English. We will study the Spanish grammar, linguistic structures, while reading and speaking in Spanish and practicing writing and differentiating between different levels of Spanish. We will also study different texts, movies and culture of the Spanish-speaking world. This course

will be offered online.

Prerequisite(s): Restricted to Native and/or Heritage speakers.

SPAN 302 - Advanced Spanish Conversation Credits: 3

Designed to improve and refine communicative skills, this course emphasizes listening comprehension and fluency in speaking. Provides students the opportunity to practice the language through discussion of topics of interest and exploration of a variety of authentic materials. Spanish 302 prepares students to express opinions and points of view in order to attain the ACTFL proficiency level of Advanced Low. With this goal in mind, this course will also provide exposure to other languages skills important to the development of fluency in speaking. The course is taught in Spanish.

Prerequisite(s): SPAN 202 or SPAN 204 or permission of instructor.

SPAN 309 - Spanish Phonetics Credits: 3

Presents practical study of Spanish sounds, aimed to instill proper speech habits. Individual remedial drill on accent, intonation, and stress are conducted along with readings in recent studies of Spanish phonology.

Prerequisite(s): SPAN 202 or SPAN 204 or permission of instructor.

SPAN 312 - Advanced Contextualized Grammar Credits: 3

Examines in detail the structure of the Spanish language. Extensive oral and written exercises are designed to provide the more advanced student with a mastery of those elements of Spanish which pose the greatest difficulties for the American students.

Prerequisite(s): SPAN 204 or SPAN 204 or SPAN 211 or permission of instructor.

SPAN 313 - Advanced Composition and Stylistics Credits: 3

Designed to refine and perfect the use of the Spanish language through analytical study of stylistics and syntax and through extensive practice and application of these principles in writing.

Prerequisite(s): SPAN 202 or SPAN 204 or permission of instructor.

SPAN 330 - Spanish for the Professions Credits: 3

Emphasizes communication skills in the daily world of business health professions, social work, and law enforcement. May include a study of the economic and business systems in the Hispanic world and extensive practice in using forms and expressions frequently used in correspondence of above mentioned professions. Content may be adapted to students' needs.

Prerequisite(s): SPAN 202 or SPAN 204 or permission of instructor.
Category: Interconnections - F

SPAN 343 - Introduction to Literary Studies Credits: 3

A survey course on the literature of the Spanish-speaking world, from the Middle Ages to the 21st century. Combining lectures and discussions, this course presents Spanish historical and cultural issues as a background to the study of

major literary movements and genres.

Prerequisite(s): SPAN 202 or SPAN 204 or permission of instructor.

SPAN 360 - Masterpieces of Spanish Literature Credits: 3

Designed to read and study in depth selective work of Spanish literature in all genres from the medieval period to the present day framing literature in its social and historical context. Texts will be analyzed considering socio-political and cultural trends dominant at the time the masterpieces were written and published.

Prerequisite(s): SPAN 202 or SPAN 204 or SPAN 343 or SPN 260 or permission of instructor.
Category: Creativity & Expression - L

SPAN 361 - Masterpieces of Spanish-American Literature Credits: 3

Designed to read and study in depth selective works of Spanish-American literature in all genres from the pre-colonial period to the present day framing the works in their social and historical context. The purpose is to do close readings of both the selected texts and the socio-political and other cultural trends that were dominant at the time they were written and published.

Prerequisite(s): SPN 260 or SPAN 343
Category: Creativity & Expression - L

SPAN 388 - Spanish Internship I Credits: 3

Contact the department for further information on internships.

SPAN 389 - Spanish Internship II Credits: 3

Contact the department for further information on internships.

SPAN 399 - Independent Study in Spanish Credits: 3

Independent study affords students the opportunity to engage in independent study related to their major field, a supporting area, or specialized interest.

SPAN 400 - Seminar: Advanced Studies in Spanish Language and Literature Credits: 3

Detailed examination of specific aspects of Spanish linguistics, Hispanic literature, history and culture. The seminar may be taken more than once provided that a specific topic is not repeated.

Prerequisite(s): Requires permission of instructor to enroll.
Graduate Credit: This course is not available for graduate credit.

SPAN 401 - Seminar: Advanced Studies in Spanish Language and Literature II Credits: 3

Detailed examination of specific aspects of Spanish linguistics, Hispanic literature, history and culture. The seminar may be taken more than once provided that a specific topic is not repeated.

Prerequisite(s): Requires permission of instructor to enroll.
Graduate Credit: This course is not available for graduate credit.

SPAN 406 - Seminar: Advanced Studies in Spanish Language and Literature Credits: 3

Detailed examination of specific aspects of Spanish linguistics, Hispanic literature, history and culture. The seminar may be taken more than once provided that a specific topic is not repeated.

Prerequisite(s): Requires permission of instructor to enroll.
Graduate Credit: This course is not available for graduate credit.

SPAN 410 - Internship for Students of Spanish Credits: 1

Contact the department for further information on internships.

Graduate Credit: This course is not available for graduate credit.

SPAN 420 - Theory and Practice of Translation Credits: 3

Introduces various types and tools of oral and written translation and provides extensive practice in translating in professional contexts (such as business, education, criminal justice, medicine and international politics) and in translating works of literature. A theoretical approach to the problems of translation is also applied.

Graduate Credit: This course is not available for graduate credit.

SPAN 425 - Advanced Oral Interpreting Credits: 3

Exercises in oral interpreting in situations related to international politics, business, journalism, health care, education, and social work. Students will practice translating from Spanish to English and from English to Spanish, both in-person and via recording.

Prerequisite(s): SPAN 302 with minimum grade of C or permission of instructor.
Graduate Credit: This course is not available for graduate credit.

SPAN 490 - Selected Topics in Spanish Credits: 3

Opportunity to offer courses in areas of departmental major interest not covered by the regular courses.

Graduate Credit: This course is available for graduate credit.

SPAN 491 - Selected Topics in Spanish Credits: 3

Opportunity to offer courses in areas of departmental major interest not covered by the regular courses.

Graduate Credit: This course is available for graduate credit.

SPAN 492 - Selected Topics in Spanish Credits: 3

Opportunity to offer courses in areas of departmental major interest not covered by the regular courses.

Graduate Credit: This course is available for graduate credit.

SPAN 493 - Selected Topics in Spanish Credits: 3

Opportunity to offer courses in areas of departmental major interest not covered by the regular courses.

Graduate Credit: This course is available for graduate credit.

SPAN 494 - Selected Topics in Spanish Credits: 3

Opportunity to offer courses in areas of departmental major interest not covered by the regular courses.

Graduate Credit: This course is available for graduate credit.

SPAN 495 - Selected Topics in Spanish Credits: 3

Opportunity to offer courses in areas of departmental major interest not covered by the regular courses.

Graduate Credit: This course is available for graduate credit.

SWEN 100 - Intro to Software Engineering Credits: 4

An introduction to computer programming and software engineering. Students will complete several programs with an emphasis placed on good software engineering principles and development of good programming skills. Topics include: fundamental programming techniques including algorithm design, documentation, style, and debugging; fundamental program constructs including simple data types, and control structures; fundamental object oriented techniques including classes, abstraction, polymorphism, and inheritance; and fundamental software engineering principles.

Prerequisite(s): Math Level 4 or better

SWEN 101 - Introduction to Java Credits: 1

This course is designed to introduce the Java programming language to students who have learned other languages, such as C, C++, or Python. Students completing this course will learn about the Java language, the virtual machine, object oriented programming techniques, and test-driven development. Students who have taken SWEN 100 cannot take this course for credit.

Prerequisite(s): ENGR 120 with a C or better OR CMSC 111 with a C or better

SWEN 200 - Design Patterns Credits: 4

Provides an advanced study of the concepts of object-oriented programming, with an emphasis on applying those concepts to software development. Many object design patters have emerged as proven ways to structure object-oriented solutions to a wide range of key problems. This course provides hands-on experience with using object design patterns to solve a number of problems that recur in computer science. Students will develop a number of medium to large programs individually.

Prerequisite(s): (CMSC 110 OR SWEN 100 OR SWEN 101) AND (CMSC 111 OR ENGR 120) with minimum grade of C

SWEN 300 - Crafting Quality Code Credits: 4

This course will explore the differences between code that works and good code. This will include: designing during development, characteristics of interfaces, naming conventions, defensive programming, selecting data types, organizing code, controlling loops, unusual control structures, table driven methods. Students will explore open source projects to practice evaluating the quality of code.

Prerequisite(s): ENGR 120 or CMSC 111 and SWEN 100, CMSC 110 or SWEN 101 with minimum grade of C or department approval.

SWEN 305 - Functional Data Structures Credits: 4

Immutable data structures make modern software safer and more scalable. In this course, students will learn the functional programming paradigm and how it yields immutable data structures. The data structures covered include lists, trees, and priority queues. Students will learn the operations on the data structures and understand their time complexity. Student will also apply functional solutions to real world problems such as implementing the Game of Life, Tic-Tac-Toe, and solving the Countdown Problem.

Prerequisite(s): ENGR 120 or CMSC 111 with minimum grade of C and MATH 225 with minimum grade of C.

SWEN 400 - Large Scale Architectures Credits: 4

This course will cover the issues associated with enterprise size systems including: layered and tiered architectures, view patterns, input controller patterns, concurrency, session states, distribution strategies, domain logic patterns, object-relational patterns, web presentation patterns, and distribution patterns.

Prerequisite(s): SWEN 200 with minimum grade of C and CMSC 471 with minimum grade of C
Graduate Credit: This course is available for graduate credit.

SWEN 415 - Interdisciplinary Development Credits: 4

The course is focused on building a product for a non-engineering customer. The class will be paired with another course or activity on campus which will act as the customer. The students will work with that customer initially to define a product and then throughout the semester, they will revise that definition and use agile development techniques to deliver the product to the customer.

Prerequisite(s): SWEN 300 with minimum grade of C or CMSC 471 with minimum grade of C
Graduate Credit: This course is available for graduate credit.

SWEN 420 - Extreme Programming Credits: 4

The study of testing software including test case design, automated testing, and test coverage in unit, integration and system test phases. Differences in strategies for white and black box testing. How testing fits into the traditional life cycle and how it can be used to drive the life cycle as in Extreme Programming. Through a series of testing labs, debugging techniques will be practiced. This course is a continuation of Traditional Life Cycle. The team projects started in that course will be tested and then enhanced using Extreme Programming methods. A continuation of the projects developed in CSC 490 which is required. Department approval for scheduling is required.

Prerequisite(s): SWEN 400 with minimum grade of C.
Graduate Credit: This course is not available for graduate credit.

SOWK 102 - Social Work in Social Welfare Credits: 3

Examines the social work profession within the social welfare system. Develops an understanding of contemporary social work practice by examining its history, knowledge base, values, skills, methods, and fields of practice. Introduces the generalist model for practice which serves as a base for subsequent social work courses. Provides initial understanding of the needs and issues of special populations in relation to social welfare policies and services and social work practice. Requires a volunteer experience. Provides introduction to the profession and serves as resource to make an informed decision about social work as a career.

SOWK 150 - Human Relations Lab Credits: 3

Develops effective generic interpersonal skills. Uses a laboratory design which has a variety of experiential and didactic experiences to understand components of effective interaction; develop self awareness about your own strengths and limitations; gain feedback about others' perception of you; establish personal goals for growth and development; and evaluate ongoing progress in communication competencies.

SOWK 250 - Assessing Individuals in the Social Environment Credits: 3

Focuses on assessment skills to understand human behavior of individuals in the social environment. Using conceptual and theoretical frameworks, assessments are based on knowledge of human behavior across the life course and biological, psychological, sociological, cultural and spiritual factors as well as life cycle or situational specifics that may influence behavior. Requires a volunteer experience.

SOWK 262 - Social Work Elective: Introduction to Child Welfare Practice Credits: 3

Provides knowledge and understanding of some of the primary problems in the field of child welfare. Improves students' ability to identify and assess various types of child maltreatment and neglect. Family relationships, social, cultural, legal, and other environmental influences are included in the assessment. Introduces the child welfare system and current best practices in child welfare treatment and intervention through interactive and experiential course work. Requires observation in a child-welfare related organization.

Prerequisite(s): SOWK 102 with minimum grade of C

SOWK 265 - Understanding Human Diversity for Social Justice Credits: 3

Assist students to develop tools for increased understanding of dimensions of human diversity and advocacy for social justice, which is one of the core values of social work. The dimensions of diversity are understood as the intersectionality of multiple factors. Students will begin to understand the forms and mechanisms of oppression and discrimination and recognize the extent to which a culture's structures and values, including social, economic, political, and cultural exclusions, may oppress, marginalize, alienate, or create privilege and power. Students will apply self-awareness and self-regulation to manage the influence of personal biases and values.

Category: Interconnections - D

SOWK 270 - Social Work Practice with Individuals Credits: 3

Presents entry-level social work students with basic social work principles, values and generic skills needed for work with individuals utilizing a direct-service generalist approach to social work practice. Provides the foundation of

evidence based practice skills deemed applicable to all practice contexts, i.e., individual, family, group organization and communities. Range of competencies and skills covered includes, but not limited to, the use of the ecological perspective, developing the social history, problem-solving/critical thinking, the four phases of the Interactional Approach to Helping Model and service planning. These skills are studied in the classroom and made operational via classroom and lab exercises, simulated experiences and external assignments.

Prerequisite(s): SOWK 102 with minimum grade of C and SOWK 250 with minimum grade of C and SOWK 150 with minimum grade of C (may be taken concurrently) and SOWK 265 with minimum grade of C (may be taken concurrently)

SOWK 327 - Social Work Practice with Families Credits: 3

Offers a skills foundation for generalist practice with families. As mediators with families, students learn intervention skills which enable development of family in environment processes for improving social functioning.

Prerequisite(s): SOWK 270 with minimum grade of C

SOWK 340 - Assessing Organizations and Communities in Society Credits: 3

Examines human behavior concepts in organization and community systems. Builds upon the ecological/system's framework introduced in SOWK 250 to extend this approach to larger systems in the social environment context. Considers the implications of system resources and configuration for meeting human needs. The role and function of generalist social workers to understand and advocate for system development and change is emphasized. Requires a group service learning project.

Prerequisite(s): SOWK 250 with minimum grade of C and SOWK 360 with minimum grade of C
Effective Winter 2019/2020: SOWK 360 may be taken concurrently.

SOWK 347 - Special Fields of Social Work: Behavioral Health Credits: 3

Extends and elaborates the generalist approach to social work practice to a specific field of practice. The special field is studied through the examination of curricular areas: human behavior, practice, policy and services, research and special populations. Special field courses include, but are not limited to: Behavioral Health (SWK347), Substance Abuse (SOWK 348), Aging (SOWK 351), Developmental Disabilities (SOWK 356), Health Care (SOWK 357), and Violence in Interpersonal Relationships (SOWK 359).

Prerequisite(s): SOWK 270 with minimum grade of C

SOWK 348 - Special Fields of Social Work: Substance Abuse Credits: 3

Extends and elaborates the generalist approach to social work practice to a specific field of practice. The special field is studied through the examination of curricular areas: human behavior, practice, policy and services, research and special populations. Special field courses include, but are not limited to: Behavioral Health (SOWK 347), Substance Abuse (SWK348), Aging (SOWK 351), Developmental Disabilities (SOWK 356), Health Care (SOWK 357), and Violence in Interpersonal Relationships (SOWK 359).

Prerequisite(s): SOWK 270 with minimum grade of C

SOWK 351 - Social Work Elective: Aging Credits: 3

This course introduces students to the roles, and functions, of 21st Century direct-practice, generalist social workers in the field of gerontology and the sub-fields of social gerontology and gerontological social work and to begin to prepare students for the issues, challenges and opportunities they will experience in the field of practice with older persons. This course introduces students to the social, psychological, biological, economic, cultural and spiritual factors that impact older persons and will also offer students the opportunity to become acquainted with current social work research and gerontological issues in social work practice with older persons.

Prerequisite(s): Social Work prerequiste: SOWK 270 with minimum grade of C. Gerontology minor prerequisite: GERT 100 .

SOWK 356 - Social Work Elective: Intellectual and Developmental Disabilities Credits: 3

This course introduces students to various practice settings in which they work with clients with intellectual and developmental disabilities of different age groups. Students gain knowledge about the medical, social, economic and political factors that impact the quality of life of people with intellectual and developmental disabilities and acquire competencies in various roles played by helping professionals in the context of the service provision.

Prerequisite(s): Social Work prerequiste: SOWK 270 with minimum grade of C. Disability Studies minor prerequisite: DISA 100 . Gerontology minor prerequisite: GERT 100 .

SOWK 357 - Special Fields of Social Work: Health Care Credits: 3

Extends and elaborates the generalist approach to social work practice to a specific field of practice. The special field is studied through the examination of curricular areas: human behavior, practice, policy and services, research and special populations. Special field courses include, but are not limited to: Behavioral Health (SOWK 347), Substance Abuse (SOWK 348), Aging (SOWK 351), Developmental Disabilities (SOWK 356), Health Care (SWK357), and Violence in Interpersonal Relationships (SOWK 359).

Prerequisite(s): SOWK 270 with minimum grade of C

SOWK 359 - Social Work Elective: Violence in Interpersonal Relationships Credits: 3

This course examines the issues of interpersonal violence from a generalist perspective. In this course, students learn to integrate the social work curriculum components as they apply to interpersonal violence. Our study will include the dynamics of human behavior, the policy and services factors, guidelines for practice principals, and review of the current research findings and trends.

Prerequisite(s): Social Work major prerequiste: SOWK 270 with minimum grade of C. Women's and Gender Studies minor prerequisite: WMST 100 .

SOWK 360 - Research Techniques for Social Workers Credits: 3

Introduces basic research concepts, procedures for conducting research, and their application to social work practice. Basic knowledge of scientific inquiry, the ethics that guide research, and the roles of social workers as researchers is also covered. Both qualitative and quantitative methods of collecting and analyzing data are given major attention. Students learn the procedure for developing a research proposal.

Prerequisite(s): SOWK 250 with minimum grade of C (may be taken concurrently) and MATH 117 (may be taken concurrently)

SOWK 370 - Social Work Practice with Organizations and Communities Credits: 3

Content is an essential, integral part of the generalist approach to social work practice. Extends the generic and direct service generalist frameworks learned in previous classes to practice interventions with organizations and communities, and helps students develop competencies related to engagement, planning, intervention and evaluation through the prevailing social work approaches for organization and community development and change. The theory and skills of these approaches are studied in the classroom and made operational in simulated and service learning experience.

Prerequisite(s): SOWK 270 with minimum grade of C and SOWK 340 with minimum grade of C

SOWK 375 - Social Work Skills for Working with Groups Credits: 3

Expands the assessment and intervention skills learned in SOWK 270 to working with groups. Students learn how group theories should inform their development of group leadership skills. Emphasizes the planning, facilitating, and evaluating of groups often used in social work practice. Observation of groups outside of class time is required.

Prerequisite(s): SOWK 270 with minimum grade of C

SOWK 383 - Selected Topics in Social Welfare Credits: 1-3

Opportunity to offer courses in areas of departmental major interest not covered by the regular courses.

SOWK 384 - Selected Topics in Social Work Credits: 3

Opportunity to offer courses in areas of departmental major interest not covered by the regular courses.

SOWK 385 - Selected Topics in Social Work Credits: 1

Opportunity to offer courses in areas of departmental major interest not covered by the regular courses.

SOWK 388 - Preparation for Practicum Credits: 1

Explores some professional aspects of social work. Combines new and practical information to help bridge the gap between the classroom and the field practicum experience. Offers seminars and individual consultation about the field practicum process. Includes topics about field work objectives, procedures, and roles and responsibilities of all parties involved. Addresses a wide range of practice issues related to the field practicum. All preliminary procedures for establishment of a field practicum will be met through this course. Required of all social work majors in the semester prior to registering for field practicum.

Prerequisite(s): SOWK 270 with minimum grade of C

SOWK 399 - Independent Study in Social Work Credits: 3

Independent study affords students the opportunity to engage in independent study related to their major field, a supporting area, or specialized interest.

SOWK 420 - Gender Issues for Helping Professionals Credits: 3

Examines institutionalized gender socialization, current gender issues and controversies, feminist theory for understanding behavior, and guiding principles and practices for helping professionals. Students encouraged to develop heightened self-awareness about their gender-related attitudes and values for functioning as a helping professional. May be taken for under-graduate or graduate credit.

Prerequisite(s): SOWK 270 with minimum grade of C or junior standing.
Graduate Credit: This course is available for graduate credit.

SOWK 450 - Social Welfare Policies and Services Credits: 3

Presents framework for developing and analyzing contemporary social policies and programs. Focuses on current issues and social problems by examining policy and service implications with an emphasis on realistic development and change strategies.

Prerequisite(s): SOWK 270 with minimum grade of C and POLI 100
Graduate Credit: This course is not available for graduate credit.

SOWK 460 - Field Work in Social Work I Credits: 6

Majors in social work must take all of these, (SWK460, SOWK 461 & SOWK 462) concurrently for a total of 15 credit hours. Provides experience in social work practice in a community-based agency under supervision and instruction from agency staff. Involves supporting agency services while further developing and enhancing social work practice skills by supplementing and reinforcing classroom learning. Practicum includes a minimum of 450 clock hours in placement and training. The program competencies and practice behaviors are the evaluation criteria for successful completion of the field work. Students must have earned a C or better in all required social work courses before enrolling.

Prerequisite(s): Restricted to Social Work majors. SOWK 102 with minimum grade of C and SOWK 150 with minimum grade of C and SOWK 250 with minimum grade of C and SOWK 265 with minimum grade of C and SOWK 270 with minimum grade of C and SOWK 375 with minimum grade of C and SOWK 327 with minimum grade of C and SOWK 340 with minimum grade of C and SOWK 360 with minimum grade of C and SOWK 370 with minimum grade of C and SOWK 388 with minimum grade of C and SOWK 420 with minimum grade of C and SOWK 450 with minimum grade of C and (SOWK 262 with minimum grade of C or SOWK 347 with minimum grade of C or SOWK 348 with minimum grade of C or SOWK 351 with minimum grade of C or SOWK 356 with minimum grade of C or SOWK 357 with minimum grade of C or SOWK 359 with minimum grade of C)
Graduate Credit: This course is not available for graduate credit.

SOWK 461 - Field Work in Social Work II Credits: 6

Majors in social work must take all of these, (SOWK 460, SWK461, SOWK 462) concurrently for a total of 15 credits. Provides experience in social work practice in a community-based agency under supervision and instruction from agency staff. Involves supporting agency services while further developing and enhancing social work practice skills by supplementing and reinforcing classroom learning. Practicum includes a minimum of 450 clock hours in placement and training. The program competencies and practice behaviors are the evaluation criteria for successful completion of the field work. Students must have earned a C or better in all required social work courses before enrolling.

Prerequisite(s): Restricted to Social Work majors. SOWK 102 with minimum grade of C and SOWK 150 with minimum grade of C and SOWK 250 with minimum grade of C and SOWK 265 with minimum grade of C and SOWK 270 with minimum grade of C and SOWK 375 with minimum grade of C and SOWK 327 with minimum grade of C and SOWK 340 with minimum grade of C and SOWK 360 with minimum grade of C and SOWK 370 with minimum grade of C and SOWK 388 with minimum grade of C and SOWK 420 with minimum grade of C and SOWK 450 with minimum grade of C and (SOWK 262 with minimum grade of C or SOWK 347 with minimum grade of C or SOWK 348 with minimum grade of C or SOWK 351 with minimum grade of C or SOWK 356 with minimum grade of C or SOWK 357 with minimum grade of C or SOWK 359 with minimum grade of C)
Graduate Credit: This course is not available for graduate credit.

SOWK 462 - Seminar in Social Work Methods Credits: 3

Builds on the field work experience and must be taken concurrently with Field I-II to integrate the concepts and skills of the program for entry-level social work practice. Emphasis on the generalist approach covering the basic elements of assessment and intervention as applied to field learning. In conjunction with the field experience, integrates theory with practice across systems (i.e., individual, family, group organizations and community processes). Major research project required.

Prerequisite(s): Restricted to Social Work majors. SOWK 102 with minimum grade of C and SOWK 150 with minimum grade of C and SOWK 250 with minimum grade of C and SOWK 265 with minimum grade of C and SOWK 270 with minimum grade of C and SOWK 375 with minimum grade of C) and SOWK 327 with minimum grade of C and SOWK 340 with minimum grade of C and SOWK 360 with minimum grade of C and SOWK 370 with minimum grade of C and SOWK 388 with minimum grade of C and SOWK 420 with minimum grade of C and SOWK 450 with minimum grade of C and (SOWK 262 with minimum grade of C or SOWK 347 with minimum grade of C or SOWK 348 with minimum grade of C or SOWK 351 with minimum grade of C or SOWK 356 with minimum grade of C or SOWK 357 with minimum grade of C or SOWK 359 with minimum grade of C)
Graduate Credit: This course is not available for graduate credit.

SOWK 490 - Selected Topics in Social Welfare Credits: 1-3

Provides the opportunity for a range of topics to explore issues and concerns for the helping professions. Designed for advanced undergraduate and graduate students.

Graduate Credit: This course is available for graduate credit.

SOWK 491 - Selected Topics in Social Work Credits: 3

Opportunity to offer courses in areas of departmental major interest not covered by the regular courses.

Graduate Credit: This course is available for graduate credit.

SOWK 492 - Selected Topics in Social Work Credits: 3

Opportunity to offer courses in areas of departmental major interest not covered by the regular courses.

Graduate Credit: This course is available for graduate credit.

TEED 206 - Social Foundations of Middle Level Education Credits: 3

Middle level teaching candidates will focus on historical and contemporary models of schooling for young adolescents, examining the principles, theories and research underlying the philosophical foundations of developmentally responsive middle schools. Philosophies, functions and structures that shaped the American middle level school and how these organizational components assist in making the young adolescent more successful in a developmentally safe environment will be examined. Theories, principles, and research along with practical approaches in planning, instruction, assessment and student management will be examined, observed, discussed and reflected upon as they relate to the success of young adolescents. This course will require visitation, observations, and participation in local middle level programs. (3 credits: 3 observation hours, 3 assisting hours).

TEED 207 - Organizational and Psychological Foundations in Secondary Education Credits: 3

Secondary education teacher candidates require a knowledge base and working understanding of the organizational structure of the high school in that it is central to the daily work of teachers. Students will develop an understanding of the philosophical, historical, and social foundations of the American high school as well as the diverse needs of this population. Furthermore, within this structure, a working knowledge of adolescent development is required for the successful planning and implementation of instruction. This course will also focus on historical and contemporary models of schooling for adolescents; examine the principles, theories and research underlying the developmental needs of secondary students in America including cognitive, social, sexual, emotional and moral development. This course will require visitation, observations, and participation in local secondary school programs. (3 credits: 10 stage one observation hours required as part of the course)

TEED 251 - Elements of Middle Level Instruction Credits: 3

Emphasis in this course will be on the understanding and practice of validated instructional models for the use in middle school classrooms. A variety of teaching/learning strategies that consider the developmental characteristics of young adolescents are considered. The implications of the difference in adolescent learning styles, along with the need for differentiation of instruction for ELL students and students with special needs will be explored. The interconnected nature of managing behavior, motivating students, designing activities that are exploratory in nature, the use of multiple instructional strategies, the integration of technology, and the need to meet different kinds of intelligence and higher level thinking will be part of the learning done in this course.

TEED 255 - Multicultural Issues and Strategies in Basic Education Credits: 3

Examines topics and methodologies for development of instructional strategies that promote multicultural content with existing curricula. Topics include cross-cultural communication through education, cultural influences in learning, and assessment. Techniques for teaching LEP (Limited English Proficient) and ESOL (English for Speakers of Other Languages) students also explored.

TEED 261 - Adolescent Development and Adolescent Learning Theory Credits: 3

Introduces prospective teachers to the major theory and learning principles of young adolescent development and the way these research-based concepts can be integrated with the philosophy of middle school education. Participants will examine the intellectual, social, emotional, and moral challenges faced by students in the middle grades. Outcomes include an in-depth exploration of the repertoire of teaching strategies that match the needs and diverse learning styles associated with adolescent development, an understanding of the use of assessment data to drive effective instruction, motivation theory, and principles of effective classroom management. Concurrent with their studies and as part of the requirements for the Professional Core, students will engage in six hours of observation and assisting in the middle grades to apply theory into practice and demonstrate understanding of the principles they have studied.

TEED 303 - Books and Materials for Children Credits: 3

Surveys children's literature and related materials. Evaluation, selection, and use of various materials to meet the curricular and personal needs of children with attention on materials for special groups. Study of the interests of children from preschool age to early adolescence is carried out.

TEED 322 - Teaching Middle Level Language Arts Credits: 3

Emphasizes content knowledge and pedagogical skills associated with teaching reading and writing to learners in grades four to eight. Focuses on reading comprehension in content area reading, as well as three types of writing are the curricular basis for this course. Outlines systematic and developmental instructional and assessment methods, including a conference approach to assessing readers and writers. The Pennsylvania Reading, Writing, Listening, and Speaking Standards are used to develop and implement lesson plans during a field component.

Prerequisite(s): Acceptance into Professional Semester, completion of appropriate Praxis exams, all English general education courses completed.

TEED 342 - Teaching Middle Level Mathematics Credits: 3

Covers the practical as well as the theoretical concepts of teaching middle level mathematics in grades 4-8. Planning, instruction, assessment and interventions will be aligned with the standards for PA Curriculum, the standards advocated by National Council of Teachers of Mathematics (NCTM) and the National Middle School Association (NMSA). Planning curriculum, practicing instruction, planning assessments and interventions that are connected to local, state, and national standards will be done. The relevance of mathematics for middle level students will be attained by connecting the math curriculum to students' ideas, interests, and real life experiences while also connecting the various curriculum content areas within the field of mathematics. Integration of technology, appropriate and varied assessment techniques, strategies for intervention of unsuccessful students, record keeping, and parent communication related to the subject content and student progress will be discussed. Field hours required (two days per week and full time for three successive weeks.

Prerequisite(s): Requires acceptance into Professional Seminar Semester.

TEED 345 - Assessment and Evaluation Strategies Credits: 3

Explores concepts of assessment in all areas of teaching. Specifically focuses on assessment of language/communication skills as a basis for an understanding of diagnostic processes.

TEED 348 - Teaching Middle Level Social Studies Credits: 3

Social Studies in 4-8 grades is an integrated field of social sciences which encompasses geography, history, civics/government, economics, and other social science areas to prepare students with knowledge, skills, values, and citizenship in a democracy. It explores social studies' teaching goals, content, strategies and assessments as they are aligned with PA Geography, History, Economics, and Civic and Government Standards (PA Curriculum), National Council of Social Studies Standards (NCSS), National Education Technology Standards (NETS), Shippensburg University's Conceptual Framework Standards for Those Preparing to Teach, Lead and Counsel (PA-SUCOE-CF), and the Interstate New Teacher Assessment and Support Consortium (INTASC) Standards. It surveys contemporary and traditional social studies teaching methods and emphasizes strategies that are appropriate for teaching 4-8 graders in the information age. Among teaching and assessment strategies explored are technology integration, interventions for students with special needs, data based analyses, portfolio assessment, and effective communications among stake holders. This course requires a 5-week field experience with 2 days each week at the beginning and 3 successive weeks at the end.

Prerequisite(s): Requires acceptance into Professional Semester, completion of appropriate Praxis exams, and all social studies general education courses completed.

TEED 366 - Teaching Science at the Middle Level Credits: 3

Introduces prospective teachers to the organization of middle level science including a wide range of safe and developmentally appropriate teaching strategies and materials (including instructional technology), and to a variety of assessment techniques used in science classrooms. Emphasizes combining candidates' content knowledge with specific teaching strategies in order to identify and build upon students' pre- and misconceptions about scientific concepts. Candidates will have opportunities to plan lessons using a variety of science-specific curriculum resources. There is a field component associated with this course.

Prerequisite(s): Requires acceptance into Professional Semester, completion of appropriate Praxis exams, all science general education courses completed.

TEED 393 - Selected Topics in Elementary Education Credits: 1-3

Opportunity to offer courses in areas of departmental major interest not covered by the regular courses.

TEED 395 - Internship Credits: 1

Opportunity for students to gain practical experience in their chosen career area.

TEED 399 - Independent Study in Teacher Education Credits: 2

Independent study affords students the opportunity to engage in independent study related to their major field, a supporting area, or specialized interest.

TEED 445 - Strategies for Effective Classroom Management Credits: 3

Presents historical perspective of past practices in classroom management strategies, including discipline techniques. Relates current school law to what is legal for teachers in managing classrooms. Surveys current theories and programs regarding classroom and time management strategies. Provides practical suggestions based upon research findings as to how to more effectively and efficiently develop a proactive environment conducive to instruction. Explores multicultural settings and inclusion dynamics as they relate to classroom management strategies.

Graduate Credit: This course is available for graduate credit.

TEED 490 - Selected Topics in Teacher Education Credits: 1-3

Opportunity to offer courses in areas of departmental major interest not covered by the regular courses.

Graduate Credit: This course is available for graduate credit.

TEED 491 - Selected Topics in Teacher Education Credits: 3

Opportunity to offer courses in areas of departmental major interest not covered by the regular courses.

Graduate Credit: This course is available for graduate credit.

TEED 492 - Selected Topics in Teacher Education Credits: 3

Opportunity to offer courses in areas of departmental major interest not covered by the regular courses.

Graduate Credit: This course is available for graduate credit.

TEED 493 - Selected Topics in Teacher Education Credits: 3

Opportunity to offer courses in areas of departmental major interest not covered by the regular courses.

Graduate Credit: This course is available for graduate credit.

TEED 494 - Selected Topics in Teacher Education Credits: 3

Opportunity to offer courses in areas of departmental major interest not covered by the regular courses.

Graduate Credit: This course is available for graduate credit.

TEED 495 - Selected Topics in Teacher Education Credits: 3

Opportunity to offer courses in areas of departmental major interest not covered by the regular courses.

Graduate Credit: This course is available for graduate credit.

TEED 496 - Selected Topics in Teacher Education Credits: 3

Opportunity to offer courses in areas of departmental major interest not covered by the regular courses.

Graduate Credit: This course is available for graduate credit.

TEED 497 - Selected Topics in Teacher Education Credits: 3

Opportunity to offer courses in areas of departmental major interest not covered by the regular courses.

Graduate Credit: This course is available for graduate credit.

TEED 498 - Selected Topics in Teacher Education Credits: 3

Opportunity to offer courses in areas of departmental major interest not covered by the regular courses.

Graduate Credit: This course is available for graduate credit.

TEED 499 - Selected Topics in Teacher Education Credits: 3

Opportunity to offer courses in areas of departmental major interest not covered by the regular courses.

Graduate Credit: This course is available for graduate credit.

ESL 450 - Foundations of English Language Learner Instruction a Credits: 3

This course is designed to provide a beginning foundation to the instruction of English Language Learners in a diverse classroom setting. The course will address the role of culture in education and will provide practical suggestions for assisting culturally and linguistically diverse students in learning to thrive in a classroom environment. Restriction: This course is restricted to admitted students in the TESL programs and the International Development minor.

Graduate Credit: May be counted for graduate credit.

THAR 121 - Introduction to the Theatre Credits: 3

Introduces theatre as an art form. Designed to stimulate a taste for theatre, improve standards for critical judgment, consider theatre's relation to allied arts, and provide an understanding of the part it plays in the social and cultural development of civilization.

Category: Creativity & Expression - L

THAR 122 - Acting I: Fundamentals of Acting Credits: 3

Provides an introductory experience to acting through the use of structured improvisation. Students will be conversant with the use of given circumstances and independent activity. Students will gain experience with the use of repetition exercises as well as the analytical tools of identifying tasks and shaping actions. The semester will culminate with the performance of a scripted scene.

THAR 190 - General Education Special Topics Credits: 3

Opportunity to offer courses in areas of departmental general education interest not covered by the regular general education courses.

THAR 222 - Acting II: Scene Study and Analysis Credits: 3

Designed as an intermediate acting course, Acting II focuses on the analysis of dramatic literature and the preparation and presentation of scenes from the modern and contemporary repertoire. Monologue and resume preparation will be included in an adjudicated audition presentation at the end of the semester. Success with the course requires a considerable commitment to independent and partnered rehearsal time.

Prerequisite(s): THAR 122 or permission of instructor.

THAR 322 - Voice and Movement for the Stage Credits: 3

Aimed as a theatre skills class for expanding verbal and physical expressivity. One half of the semester digs into vocal production, articulation and the conventions of standardized, American speech. The movement component examines techniques that encourage physical neutrality and plasticity. Class assignments are designed to provide a language and movement based approach to creating or interpreting performance material. Success with the course requires a considerable commitment to independent and partnered rehearsal time.

Prerequisite(s): THAR 122 or THAR 222

THAR 323 - Children's Theatre Credits: 3

The student will have the opportunity for guided practice and instruction in creating children's theatre. The class is ideal for education majors intending on using theatre in the classroom. Each student will have the opportunity to perform as an actor and create costumes/props for a final public performance. The class emphasizes perfecting ensemble skills: creativity, rehearsal techniques, and adhering to production deadlines.

Prerequisite(s): Requires permission of instructor to enroll.

THAR 324 - Theatre Practicum Credits: 3

Requires the theatre student to perform and to supervise work production areas done in conjunction with supervised campus theatre activities or with approved off-campus extracurricular activities. For each area completed the student is graded for one credit hour. Areas in which the student may engage are: directing, multimedia presentation, set construction, costume design or construction, set design, lighting, sound, front of house, theatre management, stage manager, assistant to the director, or acting.

THAR 327 - Costumes and Make-Up Credits: 3

Examines clothing history with emphasis on periods most useful to contemporary theatrical production [i.e. classical, medieval, 17th, 18th and 19th centuries] Implications regarding trends in the morality, social values and psychology of the dress will be generated to establish a fundamental basis for theatrical design. The analysis of dramatic literature and the application of visual elements in design will assist students in preparing a visual representation for a theatrical design.

THAR 329 - Theatre History Credits: 3

Survey of the history of the theatre from its roots to current times. Investigates the origins of theatre in ancient religions, the evolution of performance spaces, the development of drama, and the changing styles of performance, as well as relationships between these facets.

THAR 393 - Selected Topics in Theater Arts Credits: 3

Opportunity to offer courses in areas of departmental major interest not covered by the regular courses.

THAR 395 - Theatre Internship Credits: 3

A one semester, full or part-time position in a theatre related work environment. Work content is arranged and approved by the department, the departmental chair and the dean's office in advance. A faculty supervisor will act as a liaison between the place of employment and the student intern. On-site visits by the faculty supervisor are a part of the evaluation process.

THAR 396 - Theater Internship II Credits: 3

A one semester, full or part-time position in a theatre related work environment. Work content is arranged and approved by the department, the departmental chair and the dean's office in advance. A faculty supervisor will act as a liaison between the place of employment and the student intern. On-site visits by the faculty supervisor a part of the evaluation process.

THAR 490 - Selected Topics in Theatre Credits: 3

Opportunity to offer courses in areas of departmental interest not covered by regular course offerings.

Prerequisite(s): Requires permission of instructor to enroll.
Graduate Credit: This course is available for graduate credit.

THAR 491 - Selected Topics in Theater Arts Credits: 3

Opportunity to offer courses in areas of departmental major interest not covered by the regular courses.

Graduate Credit: This course is available for graduate credit.

UNIV 101 - Shippensburg University First Year Seminar Credits: 3

UNIV 101 is a course that helps first-year, first-semester students to achieve scholarly and academic success, to engage with the Shippensburg University community, to foster their personal development and well-being, and to promote their understanding of diversity, the shared human experience, and social responsibility. The class will be organized

around an engaging topic or theme with discussion and interactive pedagogies as the primary forms of teaching and learning.

Category: Foundations - U

WMST 100 - Introduction to Women's and Gender Studies Credits: 3

This course explores the key issues in Women's and Gender Studies scholarship, including the history of feminism in the U.S. as well as contemporary concerns facing women's lives. Topics include how gender operates in institutional and cultural contexts; how gender intersects with race, ethnicity, class, sexuality, and other categories of human difference; and how the critical analysis of these categories impacts our understanding of our world. Course fulfills the university's diversity requirement.

Category: Interconnections - D

WMST 190 - General Education Special Topics Credits: 3

Opportunity to offer courses in areas of departmental general education interest not covered by the regular general education courses.

WMST 200 - Independent Study in Women's and Gender Studies Credits: 3

Independent study project must have approval of the director of the Women's and Gender Studies minor.

WMST 300 - Seminar in Women's and Gender Studies Credits: 3

Capstone seminar for students enrolled in the Women's and Gender Studies Minor. This course will explore women's and gender issues worldwide, with topics that may include workplace and family, reproductive rights, sexuality and gender identities, international human rights, economic development, globalization, and more. We will focus on two interconnected strands, feminist activism and feminist theory, paying special attention to the ways that the practice of feminism informs theory, and vice versa. Extensive research, writing, discussion, and in-class presentations are required.

Prerequisite(s): (WMST 100 or HONR 102) and 6 elective hours in Women's and Gender Studies) or permission of instructor.

WMST 390 - Internship in Women's and Gender Studies Credits: 3-6

Internship must be approved by both the student's major department and the Women's and Gender Studies Minor director.

Faculty and Administration

University Administration

For the most current information on members of the Shippensburg University administration, please follow this link:

https://www.ship.edu/about/offices/

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