COURSE CATALOG

as of August 18, 2025

This catalog is intended for current guidance of persons applying for or considering application for admission to Ursinus College, and to assist current Ursinus students and faculty. Information given here is correct as of August 18, 2025. Revisions are made regularly online and current information can be found on the Ursinus College Web site at https://www.ursinus.edu/catalog. Links within the catalog link to the most current information on the Ursinus College Web site.

This catalog is not a contract; it presents the requirements, offerings, information, and regulations in effect at the time of publication. The college reserves the right, through its established procedures, to change any requirement or other provision at any time. Ursinus College intends to provide notice of any change. However, it is the responsibility of each individual student to become and remain aware of all applicable requirements and provisions that may apply.

Ursinus College is accredited by the Commission on Higher Education of the Middle States Association of Colleges and Schools. The Commission on Higher Education is an institutional accrediting agency recognized by the U.S. Secretary of Education and the Commission on Recognition of Postsecondary Accreditation. Ursinus is approved by the Department of Education of the Commonwealth of Pennsylvania for the certification of teachers and is certified by the American Chemical Society. The College is a member of Project Pericles, of the Centennial Conference and of The Annapolis Group.

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Core Requirements

Question 1: What should matter to me?

□ APEX-050
□ CIE 1
□ CIE 2

Question 2: How should we live together?

Three courses. One course satisfying each of the following learning goals. No more than two can be taken within a student's major department.

□ Engage diversity and inequality (DN)
□ Examine global interconnections (GN)
□ Consider obligations (O)

Question 3: How can we understand the world?

□ Linked Inquiry (LINQ)

One course satisfying each of the Ways of Asking requirements, except for the A requirement which can be fulfilled by one three- or four- credit course, or a total of four credits over multiple semesters. Although typically courses *only will have one of these designations, a single course under question 3 can fulfill multiple question 3 or a combination of question 2 and 3 requirements.*

□ Artistic/performative (A)
□ Deductive reasoning (R)
□ Humanistic inquiry (H)
□ Quantitative reasoning (Q)
□ Scientific inquiry/experimentation (S)
□ Social scientific inquiry (SS)

And two courses, both in the same language, satisfying the requirement:

□ Understanding the world through foreign language 1 (L)
□ Understanding the world through foreign language 2 (L)

Question 4: What will I do?

□ APEX-051
□ Experiential Learning Project (XLP)
□ Core Capstone (CCAP)

Linked Inquiry requirement:

Satisfied by completing one of the following:

- Team-taught course
- Paired courses (where a student takes both courses)
- Sibling courses (where a student takes one of two courses linked together)
- Community link (a course with one primary instructor and links to on and/or off campus partners/faculty
- Successful completion of one of the following interdisciplinary majors or minors:

Africana and African American Studies
Animal Behavior
Applied Sustainability
Biostatistics
Data Analytics
Digital Studies
Educational Studies (major or minor)
Environment and Sustainability (major or minor)
Film Studies
Food Studies
Gender, Women's, and Sexuality Studies
Health and Society (major or minor)
International Relations (major or minor)
Latin American Studies
Management Studies
Museum Studies
Neuroscience (major or minor)
Peace and Social Justice
Performing and Visual Arts Design and Technology (major or minor)
Science and the Common Good

Experiential Learning requirement:

Students explore the question: *What will I do?* in the Experiential Learning Project (XLP) by completing an immersive experience in one of the following categories:

- an independent research program or a creative program, including but not limited to honors or Summer Fellows;
- an internship;
- a co-op;
- an approved study abroad program;
- student teaching;
- civic engagement;
- for pre-engineering students, successful completion of the first of two years at the engineering school.
- other courses designated in the catalog as fulfilling the XLP requirement.

A required component of the XLP is structured, intentional reflection on the students' personal, professional, and academic objectives prior to the experience. A second required component is post-XLP reflection on meeting these objectives and unanticipated experiences. More details.

Core Capstone requirement:

Satisfied by completing:

- Any course designated CCAP if the student has junior or senior standing.

Study in Depth

Through study in depth, students learn the modes of inquiry of an academic discipline, develop the insight to make informed judgments among conflicting methods and interpretations, and acquire the ability to make connections among different disciplines. Study in depth is achieved by the completion of a major.

Majors consist of 32 or more credits — minimum of eight courses — and include at least one writing-intensive course, a course that has a significant oral presentation, and a capstone course, where students review, apply, and demonstrate their mastery of concepts or approaches learned in earlier major courses. Writing-intensive classes are designated by a "W" in the course number; oral presentation and capstone courses within the major are listed at the end of the major requirement list. Minors generally consist of five courses or 20 credits.

Majors

The following majors have been approved by the faculty:

- American Studies
- Anthropology and Sociology
- Art and Art History
- Biochemistry and Molecular Biology
- Biology
- Business Economics
- Chemistry
- Computer Science
- Creative Writing
- Dance
- East Asian Studies
- Economics
- Educational Studies
- English
- Environmental Studies
- Finance
- French
- German
- Health Science
- Health and Society

- History
- International Relations
- Mathematics
- Media and Communication Studies
- Music
- Neuroscience
- Performing and Visual Arts Design and Technology
- Philosophy
- Physics
- Politics
- Psychology
- Religious Studies
- Spanish
- Theater

Student-Initiated Majors

Students who complete the first year and whose major interests span two or more recognized academic fields, if they have a cumulative B average (3.0 or above), may arrange a specialized major which combines these two fields, such as biophysics, biopsychology, chemical biology or comparative literature.

In order to set up such a specialized major, the student and the appropriate department heads, in consultation with other department members, must draw up a written statement of all courses and additional major requirements, which may include a comprehensive or an oral exam by members of both departments at the end of the program of studies. The proposal must identify the courses that will satisfy the College's requirements for intensive writing, oral presentation, and capstone experience. This proposed course of studies must then be submitted to the Provost, whose approval is needed. Upon successful completion of the major requirements so specified, the student will graduate in the subject field specified on the program proposal.

Minors

Students have the opportunity to develop a secondary academic specialty by developing a minor concentration.

The following minor concentrations have been approved by the faculty:

- Accounting
- African American and Africana Studies

- American Studies
- Animal Behavior
- Anthropology
- Applied Ethics
- Applied Sustainability
- Art History
- Biodiversity & Wildlife Conservation
- Biology
- Biostatistics
- Business Economics
- Chemistry
- Chinese
- Classical Studies
- Climate Change
- Coaching
- Comparative Literature and Global Literatures
- Computational Biology
- Computer Science
- Creative Writing
- Dance
- Data Analytics
- Digital Studies
- Disability Studies
- Earth and Environmental Science
- East Asian Studies
- Economics
- Educational Studies
- English
- Entrepreneurial Studies
- Environmental Justice
- Environment and Sustainability
- Film Studies
- Finance
- Food Studies
- French
- Gender, Women's, and Sexuality Studies
- German
- Health and Society
- Health Science
- History
- International Relations
- Japanese

- Latin
- Latin American Studies
- Legal Studies
- Management Studies
- Marine Science
- Mathematics
- Media and Communication Studies
- Museum Studies
- Music
- Native American and Indigenous Studies
- Neuroscience
- Peace and Social Justice Studies
- Performing and Visual Arts Design and Technology
- Philosophy
- Physics
- Politics
- Psychology
- Religious Studies
- Science and the Common Good
- Sociology
- Spanish
- Statistics
- Studio Art
- Theater

Students who have interests spanning more than one department may design individual minors in consultation with the chairpersons of the involved departments.

Additional Opportunities

In addition, students may participate in other academic/advising programs that provide opportunities outside of the classroom and that may also include some coursework. These opportunities include:

- Research at Ursinus during the academic year or summer
- Research at other institutions
- Internships
- Co-ops
- Study abroad
- Washington Internship Initiative
- Howard Semester Program
- Pre-professional programs

    - Pre-Law
    - Pre-Health
    - Pre-Theological
    - Pre-Engineering

- Centers
    - Parlee Center for Science and the Common Good
    - Melrose Center for Global Civic Engagement
    - U-Imagine Center for Integrative and Entrepreneurial Studies

Experiential Learning

As part of our Open Questions core curriculum the Experiential Learning Project (XLP) will help students take responsibility for their education and foster student initiative and independence by enhancing their confidence in their own abilities.

The XLP requirement is fulfilled by a completion of a single project of at least three credits in a single semester or summer in one of these categories:

(a) an independent research project or a creative project (including but not limited to honors);

(b) an internship;

(c) a co-op;

(d) an approved study abroad program or

(e) student teaching.

The requirement can also be fulfilled by completion of a project in the Summer Fellows program or a comparable summer research program. For pre-engineering students, successful completion of the first of two years at the engineering school satisfies the XLP requirement.

The Experiential Learning Project (XLP) will provide students with the opportunity to:

1. develop independent thinking skills, their awareness of self and others, and their capacity for reflection by adopting different perspectives and inquiring into their own beliefs.
2. apply knowledge and skills learned in the classroom successfully and thoughtfully to an experience outside of the classroom.
3. gain knowledge and skills that are applicable to future pursuits.
4. disseminate their project (e.g., essay, public presentation, research paper) including synthesis of the XLP with previous class learning

Departmental and Interdepartmental Honors

The goals of the Honors Program at Ursinus College are to encourage academic excellence, to promote original research and independent study, and

to reward scholarly achievement. Students with high overall academic standing who have demonstrated an exceptional competence, the capacity for independent, original research and disciplined scholarship may be awarded departmental honors or distinguished honors in the department of their major or minor fields of concentration. Students may also be awarded interdepartmental honors or distinguished honors, if they are double majors and complete the requirements for honors in both departments. Interdepartmental or distinguished honors may also be granted to students who complete the requirements for honors in the departments of their major and minor, subject to approval of both departments. Students may receive honors or distinguished honors in their minor departments or programs, with the approval of both their major and minor departments/ programs. **Students' eligibility to do honors outside of their major or minor must be pre-approved by the department in which the honors project is conducted and by the Academic Standards and Discipline Committee.**

All these awards are made subject to the following regulations:

1. The standard GPA requirement to be eligible for departmental honors is either 3.3 overall or in the major. A student with a GPA below 3.3 may be nominated to the program by the student's research advisor(s), who should provide information about extenuating circumstances in the student's background and evaluate the student's academic qualifications and ability to complete the thesis. Such nominations must be confirmed by the Academic Standards and Discipline Committee.

2. To be admitted to candidacy for departmental or interdepartmental honors or distinguished honors, students must enroll in a first semester of Research/Independent Work 491. By the middle of their first semester of Research/Independent Work 491, a candidate for honors submits a formal proposal including a bibliography and research plan to the department(s) for approval. Near the end of the 491 course, the candidate submits a written status report and makes an oral presentation to the department(s). Upon completion of 491, the student may be invited by the department(s) to pursue honors in the following semester.

Students must obtain written consent of a faculty member who will serve as the project adviser and have their candidacy certified by the chairperson of the department in which they wish to pursue honors. In the case of interdepartmental honors, students must obtain written consent of a faculty project adviser from each department/program, have their candidacy certified

by the chairperson/coordinator of one of these departments/programs, and have the research or individual projects approved by both departments/programs.

Students who receive such approval by the end of the first semester will complete a second semester of Research/Independent Work 492.

3. The Honors Project, completed in the second semester of research/independent work, must demonstrate disciplined, independent and original scholarship or creativity. If the candidates receive a passing grade, they will earn credit hours toward graduation, even though their work may not be recommended for honors.

4. An honors committee consists of at least three faculty members, at least two from the department(s) and at least one from outside the department(s). If the committee agrees the project is moving towards consideration for distinguished honors, an outside evaluator will be secured at least one month prior to the project's defense and added to the committee. The committee evaluates the project and an oral presentation, and examines the candidate by early to mid-April. This committee is chosen by the adviser(s) in consultation with the department chair(s) and the student. Departmental or interdepartmental honors will be awarded on the recommendation of this committee and the department(s), and the approval of the faculty.

5. After the student submits the final paper and passes the oral presentation, the committee may decide to award distinguished honors, if the student has demonstrated exceptional scholarship, originality, and/or thoroughness, and the project has been vetted by an outside reader. The Honors Committee including the outside reader must be unanimous in their decision to award distinguished honors to the student.

6. Departments specify the date for the candidate to submit a completed thesis. In order that the faculty may consider the awarding of honors or distinguished honors, the following must be completed by the Monday of the last full week of classes: the candidate must submit the completed thesis to the Digital Commons, following the format established by the Myrin Library, and the approval of the department(s), project adviser(s), and committee members — including the outsider reader for distinguished honors —must be submitted to the Provost's Office.

Co-Ops

A co-op is a structured and supervised professional experience for which a student receives academic credit. Co-ops differ from internships in that they typically span a year or more and require more work hours at the co-op site during the academic year than occurs in internships. Because of the large co-op time commitment during the academic year, students will work closely with their faculty co-op advisor to ensure that the co-op requirements of the company and the Ursinus graduation requirements are fulfilled. Career and Professional Development will keep a list of co-op opportunities.

Guidelines

Credit for a departmental co-op will be established within the department. In consultation with Career and Professional Development, the Provost Office, and the department, the faculty co-op advisor will determine whether a co-op opportunity meets the standards to qualify for academic credit. Approval for academic credit for co-op experiences will not be granted for co-ops in progress or following their completion. Students may receive a maximum of eight credits toward graduation for the co-op experience (APEX-373 and 374).

Qualifications

Students who meet the following qualifications will be permitted to enroll in a co-op for credit: 1. be at least in their second year, 2. acceptance into an Ursinus-approved co-op program, 3. approval of the faculty internship advisor, and 3. a cumulative GPA of 2.0 or above. Exceptions to these qualifications must be approved by the Academic Standards and Discipline Committee prior to enrolling in the co-op.

Defined Activities

The co-op will include the following specified activities:

a. specified number of hours at the co-op site, more than 160 hours during an academic semester or summer,
b. submission of the co-op registration form (co-op learning agreement),
c. completion of the Online Co-op Companion Course by the end of the first week of commencing the co-op,
d. a journal or daily log recording activities and hours,
e. meetings with the faculty co-op advisor,
f. a final research paper or other visible product such as a portfolio, video,
g. whenever possible, a public oral presentation of results, and
h. completion of a co-op evaluation within one week of finishing the co-op term.

Grading

Since the faculty co-op advisor is responsible for the final grade, the co-op will be graded based on:

a. final visible product as defined by the co-op-granting advisor,

b. input from on-site advisor, and
c. input from faculty co-op advisor

Internships

An internship is a structured and supervised professional experience for which a student receives academic credit. Internships are permitted to take place on-site or virtually. In the case of a virtual internship, the student intern gains experience while working in a remote professional setting, not a in a physical location. Career and Post-Graduate Development has information on a wide range of internship opportunities.

Guidelines

Credit for a departmental internship will be established within the department and may be either three or four credits. The faculty internship adviser will determine whether an internship opportunity meets the standards to qualify for academic credit. Approval for academic credit for internship experiences will not be granted for internships in progress or following their completion. Students register for a summer internship during the spring registration period.

Qualifications

Students who meet the following qualifications will be permitted to enroll in an internship for credit:

1. junior or senior status
2. have completed three courses within the department that administers the internship, or permission of the faculty internship adviser
3. must have a cumulative GPA of 2.0;

Students will be permitted to undertake two internships, provided they are not concurrent, under any of the following conditions:

1. the internship site requires a two-term commitment
2. the student is a double major and wishes an internship in each major
3. the second internship is outside the major (e.g. in the minor)
4. the two internships are within the same major but are so different as to constitute a markedly different experience

Exceptions to these qualifications must be approved by the Academic Standards and Discipline Committee prior to enrolling in the internship.

Defined Activities

The internships will include the following specified activities:

a. specified number of hours at the internship site or gained through virtual experience; the minimum hourly requirement will be 10–12 hours per week with a minimum of 160 hours per semester – four credits; 120 hours per semester – three credits
b. submission of the internship registration form (internship learning agreement)
c. completion of the Online Internship Companion Course (Internship PREP) by the end of the first week of commencing the internship
d. a journal or daily log recording activities and hours
e. meetings with the faculty internship adviser
f. a final research paper or other visible product such as a portfolio, video
g. whenever possible, a public oral presentation of results
h. Completion of an internship evaluation within one week of receipt.

Virtual Internships

Students are asked to include implementation of the items below in their daily journal/log for review by their UC Faculty Internship Adviser.

Requirements:

a. Student interns should communicate regularly with their on-site supervisor through various remote means (including email, online tools like Skype and Zoom, instant messaging, phone conversations, webinars, project management tools, text messaging, etc.) to discuss internship goals, job performance expectations, and to receive coaching.
b. Students should communicate with their on-site supervisor in a "live" session once a week, at minimum.
c. Student interns should agree upon a definitive time allotment per week and per day for internship activities.
d. Student interns engaged in virtual internships should not incur any personal expenses as a result of the internship's "remote" status.

Recommendations:

a. Student interns should incorporate synchronous training with their on-site supervisors along with any expected asynchronous activities.
b. Student interns should request that their supervisors make a good faith effort to integrate the intern into the organization's work culture. After initial onboarding orientation, this may include client interactions, attendance at select team meetings, use of company tools and resources,

opportunities to present work and/or collaborate with other employees, and any other forms of access to other staff members.

Grading

Since the faculty internship adviser is responsible for the final grade, the internship will be graded on the basis of: a) final visible product as defined by internship-granting department, b) input from on-site adviser, c) input from faculty internship adviser

International Programs

The immediate knowledge of the cultural heritage of another country, with its contemporary economic and social problems, affords students an awareness of differing values and an understanding of their own country's relation to issues which confront the world today. Ursinus students grow and learn from a wide variety of international experiences, both for academic credit and not credit-bearing. Students may participate in an approved study abroad program during the academic year or during summer or winter break provided they are students in good standing, are recommended by their major adviser, and, in the opinion of the Provost and the faculty, will be worthy representatives of the College and will profit from this experience. Many programs provide internship or service learning opportunities for academic credit while others offer extracurricular and volunteer activities. Students may apply to study abroad as early as during summer following their freshman year and as late as during their penultimate semester.

All students, regardless of major, are encouraged to consider study abroad, and opportunities are available in English, in the host country language or in a combination thereof in most regions of the world. Students approved to study abroad for a semester are required to take a pre-departure orientation course. The course of study must be approved for transfer credit in advance. All approved semesters and some short-term programs satisfy the College's XLP requirement.

Students may apply their financial aid and merit scholarships to approved semester-long abroad programs. The Ursinus faculty-led and affiliated programs listed below are a partial list of study abroad options chosen by our students.

We also allow students to participate in a number of other overseas programs run by partner organizations. Additional information may be obtained from

the Center for International Programs and website. Other international opportunities are supported by the Provost's Office, the Melrose Center for Global Civic Engagement, Career and Post-Graduate Development, and the Ursinus Center for Advocacy, Responsibility and Engagement (UCARE).

International Summer and Winter Interim Programs

These programs are conducted by Ursinus College faculty and offered depending on course scheduling and faculty availability. Programs that fulfill the Experiential Learning Project (XLP) requirement are indicated by *.

ECON-223 Economies in Transition (Field Study in Eastern Bloc Countries)*

In the faculty-led study abroad course Economies in Transition, students will investigate why some countries are relatively rich while other countries are poor within the context of the former communist economies in Central and Eastern Europe. Field study in Eastern Bloc Countries and intensive course work. Visits to old and new institutions, lectures, and field research are among other activities. Offered for three weeks during the summer. Prerequisites: ECON-101 or 102; or permission of instructor.

BIO/ENVS-320. Biology of the Neotropics*

A field study of Costa Rican tropical habitats — including lowland rain forests, montane rain forests, seasonally dry forests, and wetlands — conducted at research sites throughout the country. Topics include diversity and natural history of key plants and animals, ecological interactions and evolutionary processes, and conservation. Prerequisite: Permission of the instructor and BIO-101Q. Field investigations accompanied by readings, lectures, and a directed research project. Course will meet 15 hours on campus and three weeks in Costa Rica between the Fall and Spring semesters.

IDS-224. Human Rights and the Korea Experience*

Students explore matters related to human rights in the context of Korean history and culture in this faculty-led program in South Korea. Topics include the philosophy and history of concepts of human rights, human rights abuses and war on the Korean peninsula, rights against torture, women's and LGBTQ rights, disability rights, reproductive rights, adopted children's rights, aging people's rights, and other issues. The course includes visits to relevant sites and institutions. Offered for three weeks in May and June.

The Summer Program in Japan*

This program runs from late May to late June and is offered in collaboration with Tohoku Gakuin University in Sendai, Japan. Students live with families while studying at the university and have an opportunity to visit Hiroshima and Tokyo.

Exchange Programs

These semester or academic year programs are based on student exchange agreements with other institutions or organizations. Students who participate in these programs are officially enrolled at the host institution. Up to 16 credits per semester, but not grades, may transfer.

Akita International University (Japan)

Qualified Ursinus students can study at AIU for the fall and/or spring semester. In addition to intensive Japanese language courses, AIU offers many courses taught in English in a variety of disciplines, making the program open to students of all majors. Its location gives our students an opportunity to study away from Japan's urban centers, while still having access to a region rich with cultural and recreational activities. AIU houses most of its exchange students in dorms with Japanese students. A winter term option is available. Previous study of Japanese is desirable but not required. Admission is competitive.

Lingnan University of Hong Kong

Ursinus students may apply to study at Lingnan for the fall and/or spring semester. Lingnan offers coursework taught in English in many disciplines and therefore may be of interest to students in any major. Lingnan houses exchange students in residence halls with local students. A summer option is also available. Previous study of Cantonese is not required.

ISEP Exchange

ISEP is a network of over 300 colleges and universities in more than 50 countries. The consortium allows Ursinus to offer study abroad opportunities in programs or countries that may be of special interest to particular students. Participating students enroll as visiting students for one or two semesters in a foreign university and enjoy virtually all of the rights and responsibilities of local students. Students are housed in residence halls or in private accommodations arranged by the host institution. Each accredited and recognized university is unique and therefore requirements and offerings vary from one host to the next.

Ursinus-Tohoku Gakuin University Program (Japan)

Since 1991, this exchange program has provided Ursinus students with the opportunity to spend the fall semester at sister school Tohoku Gakuin University in Sendai, Japan. Classes are conducted in English except for Japanese language classes. Admission is competitive and the program is open to majors in any field who have completed at least one year of Japanese language study at the college level.

Dual-degree program with Hong Kong Baptist University

Students at Ursinus College and Hong Kong Baptist University may complete a four-year program of study, upon completion of which they will receive bachelor's degrees from both institutions. In this program, students spend their first three semesters at their home institution, the following four semesters at the partner institution, and the final semester at their home institution. Summer coursework and internships are required to complete the program in four years. Students receive a Bachelor of Arts degree in Economics from Ursinus and a Bachelor of Business Administration degree from Hong Kong Baptist.

In addition, for Ursinus students who are interested in a lengthy exposure to Hong Kong without the four-semester commitment of the dual-degree program, there is an option to spend one year studying at Hong Kong Baptist University as part of an Ursinus bachelor's degree program. For more details about both the dual-degree and intensive-study programs, please visit the dual degree program's website.

International Partnerships

Ursinus College is affiliated with several organizations and consortia of colleges and universities that offer high-quality international experiences to our students throughout the world. Qualified students who participate in these programs are visiting students abroad. Normally up to 16 credits, but not grades, may transfer. Students have recently studied abroad under the auspices of CAPA The Global Education Network, the Council for International Education Exchange (CIEE), Institute for Study Abroad (IFSA), International Christian University (Japan), French Field Study and Internship Programs (IFE), School for International Training (SIT), and University of St Andrews. For a complete and updated list of approved programs, please see the Study Abroad Website.

Student Teaching

The teaching semester immerses students daily in a large and varied professional community outside Ursinus. The college is approved by the Pennsylvania Department of Education (PDE) to offer initial teacher certification in 13 subject areas (see Education section of the catalog). To pursue one of these subject area certifications, students must major in that subject and complete nine Education courses totaling 38 credits (which includes the student teaching semester). The department does not offer certification in elementary education (though some subject area certifications, such as foreign languages and health/physical education, span grades K–12).

Earning a degree and certification in four years is possible, but candidates must meet with their advisers early in their college career and plan their schedule with care. Interested students should read the Education Department section of the catalog for the eligibility requirements for Field Experience, Admission to the Program, and Student Teaching.

Most Education courses require field experience hours in local public schools, which prepare students to step in front of a class during the student teaching semester in the senior year. Students must arrange transportation for all field experiences and student teaching. Student teaching can take place in either the fall or spring semester. In order to be recommended for a student teaching placement, students must receive the approval of faculty from the major department and the Education Department, who will consider patterns of professionalism as well as academic performance.

Summer Fellows and Undergraduate Research

Another program that illustrates the College's commitment to providing meaningful independent research opportunities is the Summer Fellows Program. Established in 1996 for students of all disciplines, the program allows students to participate in a research project or a creative or artistic endeavor on a one-to-one basis with a faculty member. For eight to ten weeks, Summer Fellows live on campus and work closely with their mentors on independent projects. The opportunity for students to live and work together as a community of scholars generates a unique atmosphere of student-faculty collegiality on the Ursinus campus that is highly valued by all participants. The program is highly competitive and about seventy to ninety students participate each summer. To mark the close of the summer program, each year students, faculty, and members of the Ursinus community gather together formally to recognize and celebrate students' outstanding achievements with a Summer Fellows Symposium, an opportunity for student scholars to present

their work in a public forum. The program is funded by internal and external grants as well as by gifts from generous alumni.

Students who do not have the time for a major research commitment such as honors or Summer Fellows often participate in a focused research project for at least one semester through Directed Research courses and Independent Study courses. Small grants are available to support research expenses for Honors, Directed Research, and Independent Study courses.

Students to have the opportunity to showcase their work on the Celebration of Student Achievement (CoSA) day each spring when classes are set aside for the presentation of students' scholarly and artistic work. Ursinus students regularly present at the National Conference on Undergraduate Research and at the Sigma Xi Student Research Conference as well as at discipline-specific undergraduate research conferences and regional professional meetings. Others have co-authored presentations at national meetings and many have won awards for their independent research and artistic accomplishments. Many students also publish with their faculty mentors and in the past five years over one hundred papers have been published in professional journals.

Digital SPARK / U-Imagine Summer Program

Students have the opportunity to partner with local mentors from startup, small and mediumsize local businesses to develop and/or improve digital marketing strategies and data analytics skills in an eight-week summer program supervised by Maureen Cumpstone, Entrepreneur-in Residence at the U-Imagine Center for Integrative and Entrepreneurial Studies. Students participate in a preorientation training session, meet weekly as a cohort with Professor Cumpstone, give a final presentation to a public audience, prepare a written report based on outcomes and submit personal reflections to their BEAR Tracks. Students engage with two external advisors, both experts in digital marketing. The Digital SPARK program fulfills the Ursinus Quest XLP requirement. (XLP.)

Course Designations

Understanding Course Listings

The first number in the course number designates the level of the course — a lower number means less background knowledge or experience is expected — and not necessarily the year in which a course must or should be taken. After

the course number and title, a short description of the content, requirements, and/or skills is provided. After the description, prerequisites — if any — the amount of time and type of class meetings, and credit hours are provided. Lastly, abbreviations of any core requirements fulfilled by the course are provided. The abbreviations are:

Abbreviation	Meaning
CIE	Common Intellectual Experience
GN	Examine global interconnections
DN	Engage diversity and inequality
O	Obligations
LINQ	Linked inquiry
A	Artistic/Performative
H	Humanistic inquiry
SS	Social science inquiry
S	Scientific inquiry/experimentation
R	Deductive inquiry
Q	Quantitative reasoning Note: For some courses the Q is included in the course number and not with the other core designations
L	Understanding the world through foreign language
XLP	Experiential learning project
CCAP	Core Capstone

Requirements for Graduation

The requirements for the degree of Bachelor of Arts (B.A.) or Bachelor of Science (B.S.) are:

1. The completion of 128 semester hours, of which no more than 12 may be from courses with numbers lower than 100, and all the courses required by the faculty, including the courses required for a major; and
2. A GPA of C (2.00) or above for all courses taken at Ursinus College.

To qualify for the degree of Bachelor of Arts or Bachelor of Science, a student must have successfully completed a minimum of 64 semester hours of credit at Ursinus. Half of the semester hours of credits required in the major department must be taken at Ursinus; exceptions may be granted by the dean of the College. A degree from the College requires that a student spend the two semesters of the senior year as a full-time student.

A full-time student may not take fewer than 12 semester hours per semester. The normal load for a term is 16-18 credits. It is recommended that students normally take no more than 16 credits per semester. Students may register for up to 18 credits with the approval of their advisers. They may not register for more than 18 credits in any semester without special permission from the dean of the College. Students carrying fewer than 12 hours are not permitted to remain or to become residents of College residence halls.

All requirements for graduation must be satisfied before the end of the last day of examination week preceding commencement. Each student must bear responsibility for fulfilling the requirements for graduation.

Degrees

Ursinus College confers the degrees of Bachelor of Arts and Bachelor of Science. For specific requirements of the curricula leading to each of these degrees, see departmental requirements. Degrees are conferred only at commencement in May of each year and candidates must present themselves in person.

A student in good standing who has earned a minimum of 96 semester hours of credit and who withdraws from the College to enter an accredited graduate or professional school may, with the approval of the faculty, receive a baccalaureate degree from Ursinus after earning any doctoral degree from an accredited institution.

The College may confer the honorary degrees of Doctor of Divinity, Doctor of Humane Letters, Doctor of Pedagogy, Doctor of Science, Doctor of Letters, and Doctor of Laws on persons whose distinguished ability and service have been deemed worthy of such recognition by the faculty and the Board of Directors.

Second Bachelor's Degrees

We usually recommend against students working toward a second bachelor's degree. For those who do desire a second degree, the following applies: Students who hold a bachelor's degree from another institution may be admitted to degree candidacy at Ursinus as transfer students. The student must satisfy all degree requirements at Ursinus, including completion of a minimum of sixty-four (64) semester hours work at Ursinus. Students who hold a bachelor's degree from Ursinus will not be awarded a second degree of the same type (B.A., B.S., or B.B.A.). They may be admitted to candidacy in a second degree area. The student must satisfy all requirements and must complete at least thirty-two (32) additional semester hours beyond what was required for the first degree.

Academic Policies

Choice of Studies

At matriculation, students designate possible areas of academic interest. In the second semester, first-year students may declare a major field to study in depth. Students who have not decided on a major by the end of the second semester will retain their first-year advisers. In the fourth semester, students must designate a major field. The chairpersons of the students' major departments will assign their academic advisers. The approval of the adviser is necessary before a student may register for or enter any course of study, or discontinue any work.

Registration

First-year students register for the fall semester in consultation with their advisers on freshman orientation days held during the summer. Returning students register for the fall semester during the spring registration period published by the Registrar. Registration for the spring term is completed for all students during the fall registration period published by the Registrar.

Before the registration period published by the Registrar, students consult with their advisers to prepare schedules of courses for their college careers. Students must remember that they alone are responsible for making sure they have completed College requirements and departmental requirements. When students change their majors, they must fulfill the requirements of the most recent major department in order to be graduated.

Students may add or drop courses at any time during the first two weeks of classes. No course may be added after the second week of classes. Courses dropped after the second week of classes but before the midpoint of the course end of the registration period for the subsequent semester will be designated by a W on the student's record. Students who withdraw after the midpoint of a course this 'W' deadline will receive a grade of WF. Students who withdraw from a course without permission will receive a grade of F. Students may petition the Academic Standards & Discipline Committee (at academicstandards@ursinus.edu) to drop with a 'W' after this deadline. The midpoint dates of a course or the semester are 'W' deadline is published by the Registrar for each semester.

Class Attendance

In keeping with a strong liberal arts tradition that encourages active learning and complete participation in the education process, the college expects students to attend class. Specific attendance policies are set by individual instructors and indicated on the course syllabus at the beginning of each term. Academic warnings will be issued by instructors for all students failing to meet the stated course attendance policies. Excessive absences by first year students and students on academic probation will be reported to the Ursinus Institute for Student Success and the Provost's Office. Students may be dropped from a course with a grade of F for failing to meet the stated policy.

Statement on Academic Honesty

Ursinus College is a small community which functions by a social contract among students, faculty, administration and alumni. In order for the spirit of community to endure and thrive, this agreement, based upon shared values and responsibilities and a sense of mutual respect, trust and cooperation, must be preserved. Students have an obligation to act ethically concerning academic matters and the faculty has a responsibility to require academic honesty from students and to be vigilant in order to discourage dishonesty.

Lying, cheating, stealing, other forms of academic dishonesty, and plagiarism violate this spirit of mutual respect and collaboration and corrode the atmosphere of openness and free inquiry upon which the educational process is based. Such activities are demeaning and potentially damaging to those who undertake them. Moreover, academic dishonesty is damaging to the student body as a whole, in that it cheapens the achievement of the honest majority of students and subverts the integrity and reputation of the institution with which they will be identified for the rest of their lives.

Students should be aware that there are many legitimate sources of help available on campus. Academic departments often provide help sessions, and the library provides research assistance. The Center for Writing and Speaking and the Ursinus Institute for Student Success are only two examples of academic assistance provided to all students and are designed to enhance the learning process rather than circumventing it, which occurs in cases of academic dishonesty.

The student body, the faculty, and the administration of Ursinus College therefore unanimously condemn academic dishonesty in all its forms and affirm that it is the responsibility of all members of the college community to prevent such activity.

Grades of Scholarship

When a course has been completed, the standing of the student is expressed by one of the following grades: A+, A, A-, B+, B, B-, C+, C, C-, D+, D, D-, F; or, if the course is a Satisfactory/Unsatisfactory (S/U) course, the student's standing is expressed by the grade S or the grade U.

Letter grades have the following equivalence assigned (note that the numeric grade column is only for converting grades for other colleges and universities that calculate GPA on a 100-point scale; the syllabus for each Ursinus course is the authority on letter grade ranges within a course):

Grade	GPA	Numeric Grade
A+	4.00	98.33
A	4.00	95.00
A-	3.67	91.67
B+	3.33	88.33
B	3.00	85.00
B-	2.67	81.67
C+	2.33	78.33
C	2.00	75.00
C-	1.67	71.67
D+	1.33	68.33
D	1.00	65.00
D-	0.67	61.67
F	0.00	45.00

The mark of S signifies that a student has earned the course credits in an S/S-/U course at the C- (1.67) level or higher. The mark of S- signifies that a student has earned the course credits in an S/S-/U course at the passing grade of D+ (1.33), D (1.00), or D-minus (0.67). These two marks are not included in the computation of a student's average. The mark of U in an S/S-/U course is calculated into the student's average as F (0.0).

The mark of W signifies that a student withdrew from the course prior to the midpoint of a course and is not calculated into a student's average. The mark of WF signifies that a student withdrew from the course after the midpoint of the course and is calculated into the student's average as an F (0.00). The mark of I, which may be given only with the written permission of the Provost's Office, is reserved for cases of incomplete work, due to documented

physical incapacitation or other extenuating circumstances beyond the student's control. A plan and schedule for completing the remaining work, agreeable to student and professor, must accompany the request for an I. If the mark of I is not removed within one month after the end of the semester in which the I was given, the grade F will be assigned for the course.

S/S-/U Grading Choice

Students may choose up to two courses (up to four credits each) over their time at the College to take with S/S-/U (satisfactory/unsatisfactory) grading instead of A–F grading. The following courses are excluded from this option: CIE-100, 150, or 200. Courses passed with an S can count toward the student's major(s) with the permission of the relevant chair for that major. Courses taken S/S-/U can count toward a minor, but only with the permission of the minor director, who may specify a minimum grade. The student must declare an intention to take the course for an S/S-/U grade within the first two weeks of the semester. Courses offered only S/S-/U do not count toward the above limit of two courses.

Provost's Honor List

All full-time students achieving an average of 3.50 for a semester are announced six weeks after the end of that semester as members of the Provost's Honor List. It is an Ursinus tradition to publish at the Ursinus Day Academic Convocation the names of those students who have been carried on the Provost's Honor List for the preceding two semesters.

Commencement Honors and Graduation with Distinction

Two commencement honors are assigned: one, the Valedictory, to the person attaining the highest standing in the graduating class; the other, the Salutatory, to the person attaining the next highest standing.

Members of the graduating class who have shown great proficiency in their study at Ursinus College may be graduated with distinction if, in the opinion of the faculty, their credentials warrant such honors. These distinctions, Summa Cum Laude, a cumulative average of 3.85 or above, Magna Cum Laude, 3.67 but less than 3.85; and Cum Laude, 3.5 but less than 3.67, are given only for unusual excellence in all subjects pursued by the candidate. Graduation honors will be calculated at the end of the fall term. If as a result of work done in the spring semester a student should merit distinction or a higher distinction, such honors will be awarded ex post facto.

Grade Appeal

Faculty must follow practices of fairness and objectivity when assigning student grades. Since it is assumed that the final grade is obtained after a careful evaluation of a student's entire academic performance in a class, the course syllabus must contain a clear statement of how a final grade is computed. Even though grading may be considered to be inherently subjective, it does not follow that grading is an arbitrary or capricious practice. Normally, no grade appeal will be accepted unless there is an error in computation or there is evidence of prejudice or caprice.

Grade Appeal Procedure

1. A student who wishes to appeal a final grade must contact the instructor and attempt to resolve the issue.
2. If, upon consultation with the instructor, there is no resolution, the student contacts the chair of the department in which the course is offered, or in the case where there is no chair, the Provost of the College. The chair attempts to resolve the conflict by discussing the issue with the instructor involved. Every effort should be made to resolve the conflict at the departmental level.
3. If there is still no resolution, the student contacts the Provost's Office, and in writing, describes the nature of the complaint. The Provost discusses the matter with the chair and the instructor and makes a recommendation to the instructor.
4. If there is still no resolution, the Provost will bring the issue to the Academic Standards and Discipline Committee and/or appoint an ad hoc committee of three faculty to make a recommendation to the instructor. The committee will be composed of members acceptable to both the student and the faculty member.

Time Frame

Students must initiate the grade appeal no later than two weeks after the start of the next semester. The appeal process should take no longer than four weeks from the student's initial contact with the instructor to the final recommendation of the ad hoc committee.

Repeating Courses

Students may retake any course, but they shall receive credit only once for the same course. Although a course may be retaken as many times as necessary to receive a passing grade, students may repeat only once courses they passed on

the initial try. All grades for courses taken at Ursinus will appear on the transcript, but the last grade earned will replace the previous grades for the purpose of calculating the GPA. Credits earned elsewhere and accepted as transfer credits will not alter the GPA or serve as a replacement grade.

Academic Probation

Any students who have a GPA below C (2.00) at the end of any semester or who have a semester GPA below 2.00 will be placed on academic probation by the Academic Standards and Discipline Committee or by the faculty. Students on academic probation may be restricted in their extracurricular activities. On-campus employment and Ursinus College financial aid may be restricted for a student whose average for the preceding academic year is below C (2.00).

Academic Suspension and Dismissal

Students will be suspended from the College if at the end of their first semester their GPA is below 1.00; if at the end of their second semester their GPA is below 1.50; if at the end of their third semester their GPA is below 1.75; if at the end of their fourth semester or 64 semester hours (including transfer credits), or any subsequent semester, their GPA is below 2.00. Students will also be suspended if they achieve a semester average below C (2.00) for more than two successive semesters, regardless of their cumulative average. Students who earn a semester average of zero will also be dismissed. Exceptions to the above policy must be approved by the faculty, or by the Academic Standards and Discipline Committee acting for the faculty. The action of the faculty, or the Academic Standards and Discipline Committee acting for the faculty, in all cases is final.

Any student may be suspended or dismissed from the College for academic violations such as cheating or plagiarism, regardless of the student's academic average. Non-academic reasons for suspension and dismissal are outlined in the Student Handbook.

Returning to the College

Students who have been suspended or dismissed for academic reasons may apply to return to the College. Unless there are unusual circumstances, applications to return will not be considered unless one academic year has passed before the return date. Permission to return is not automatic. To be considered for return, students must demonstrate that they are able and prepared to do serious academic work at the College. They should take courses

at an accredited institution and obtain at least a B (3.00) average. They may work or engage in community service or other volunteer activities that will demonstrate a seriousness of purpose.

Requests to return to the College from academic suspension or dismissal should be directed to the Academic Standards and Discipline Committee. Students' previous academic performance and social activities at Ursinus will be important factors in the committee's decision. In the case of dismissal, students approved by the committee to return must also apply for readmission through the Office of Admission.

Change in Student Status

Students may request a Medical Leave of Absence, Leave of Absence or Withdraw by completing this form

Study Elsewhere

Students are permitted to earn credit toward graduation from Ursinus College from another accredited college or approved study abroad program in a semester, interim or summer program if they have been granted permission by their academic advisers and the Registrar or the Provost or the Academic Standards and Discipline Committee. Required courses in the department of a student's major should be taken at Ursinus. Approval to take such courses elsewhere will be granted by Registrar or the Provost or the Academic Standards and Discipline Committee only with the approval of the chairperson of the major department and if special or mitigating circumstances exist. Credit, but not grades, for approved courses taken elsewhere will be transferred upon successful completion of the course with a grade of C (2.00) or better and upon receipt of an official transcript from the other college. It is recommended that students take these courses at a four-year institution. Students planning to study abroad for a semester, interim or summer program must consult with the study abroad office and receive approval from the International Education Committee. All courses must be approved before the start of the courses at another college or program.

Students who take coursework abroad at any institution *other than* an Ursinus College partner (that is, one of the exchange universities or study abroad program organizations with which the College has a written agreement), can only receive consideration for transfer credit upon submission of a course-by-course transcript evaluation completed by **WES**. Students are advised to create an account with WES and submit all required documentation as soon as

possible upon completing their coursework abroad, as this process can take time. The student will bear all responsibility and costs for the WES transcript evaluation.

Special Academic Opportunities

Student Fellowships and Scholarships

The Provost's Office coordinates information on external awards for undergraduate and graduate study and provides support to students wishing to apply for these prestigious awards. In the past five years Ursinus students have received numerous highly competitive national awards including Rhodes, Fulbright, Watson, Udall, Goldwater, and Kemper awards. Details

Academic Honor Societies

Phi Beta Kappa

Phi Beta Kappa is a national academic honor society founded at the College of William and Mary in Williamsburg, Va., on Dec. 5, 1776. The stated purpose of Phi Beta Kappa is to "recognize and encourage scholarship, friendship, and cultural interests." The Ursinus College chapter, Tau of Pennsylvania, was approved on October 19, 1991. Composed of faculty members holding Phi Beta Kappa keys, the chapter confers membership on the basis of "high scholarship, liberal culture, and good character." Election to Phi Beta Kappa is considered the highest academic honor for undergraduate students.

The Whitian and Cub & Key Societies

The Whitian Society and the Cub & Key Society are Ursinus honor organizations with a history extending back for roughly a century. They were designed to recognize students who embody the ideals of Ursinus students—outstanding scholars who are also deeply engaged in campus activities and service to the college and community. Selection to the groups is a joint effort without gender distinction. Elected students may list membership to the joint societies on their own resumés, or if they wish, may choose to identify with either group singly. The **Cub & Key Society** was founded in 1939 at Ursinus College to recognize the male leaders of the campus who have distinguished themselves through high scholastic standing, participation in extracurricular activities, and service to the College community. Election to the society is limited to second-semester juniors.

The Whitian Society was founded in 1939 at Ursinus College by Dr. Elizabeth B. White, professor of history and dean of women. The society recognizes the achievements of women who have distinguished themselves

through outstanding academic performance, in addition to leadership and service to the College. Election to the society is limited to second-semester juniors.

Discipline-Based Honor Societies

These include: Alpha Kappa Delta, the international sociology honor society; Beta Beta Beta, an honorary society for the biological sciences; Chi Omega Lambda, the Ursinus chapter of Chi Omega Lambda, the American Society for Biochemistry and Molecular Biology honor society; Kappa Mu Epsilon, the national mathematics honor society; Modern Languages Honor Society, the Ursinus College modern languages honor society; Nu Rho Psi, the national honor society in neuroscience; Omicron Delta Epsilon, the international honor society in economics; Phi Alpha Theta, the international history honor society; Phi Epsilon Kappa, the national honor society in health and exercise physiology; Pi Sigma Alpha, the national political honor society; Psi Chi, the national honor society in psychology; Sigma Iota Epsilon, the national honorary and professional management fraternity; Sigma Pi Sigma, the national physics honor society; Sigma Tau Delta, the national English honor society; Theta Chi, the Ursinus chapter of Lambda Pi Eta, the national communications honor society; and Upsilon Pi Epsilon, the international honor society for the computing and information disciplines. Details

Pre-Professional Programs

Pre-Engineering Program

Arrangements have been made with the engineering schools of Columbia University and Case Western Reserve University to which a student may apply for transfer after completing three years of prescribed work toward a B.A. or B.S. at Ursinus College. Ursinus will grant the B.A. or B.S. after the student has satisfied the requirements for that degree, usually on satisfactory completion of the fourth year. The engineering school will grant the engineering degree, and Ursinus will grant the B.A. or B.S. on satisfactory completion of the fifth year. The student may participate in the Ursinus Commencement ceremony in the fourth year, provided requirements for that degree are complete. Transfer to other engineering schools (without formal affiliation) is also possible. Details

Pre-Health Advising Program

The Health Professions Advising Committee at Ursinus serves all students interested in pursuing careers in the health care field. The committee serves students interested in, but not limited to, medical school (allopathic and osteopathic), dental school, veterinary school, optometry school, and physician assistant programs. The Pre-Health Adviser, housed in Career and Professional Development, advises all students until junior year, holds group meetings, and organizes speakers. Each junior is assigned an adviser from the interdisciplinary Health Professions Advising Committee. Advisers assist in revising personal statements, team up to provide "practice" interviews for students about to apply, and write up composite recommendation letters to send to medical schools. Details

Pre-Law Advising Program

The Pre-Law program provides support for those students considering a career related to the law. The Pre-Law program is directed by a coordinator assisted by pre-law faculty advisers from across the disciplines, including Biology, Business and Economics, Chemistry, English, History, Sociology, Mathematics and Computer Science Philosopphy, Applied Ethics and Politics, who are meant to serve as advocates and providers of information to students with whom they come in contact. No particular major provides the "best" path to a legal career. Students considering legal careers should choose majors and courses that can help them understand human experience while developing the reading, writing, speaking, and reasoning skills necessary for success in legal work. These skills can be obtained from courses in a wide array of departments in humanities, social sciences, and natural sciences. Details

Pre-Theological Studies

Students who are considering entering a school of theology or seminary after graduation are encouraged to discuss their plans with members of the department of Philosophy and Religious Studies and with the Campus Chaplain. Most seminaries and schools of theology will accept students from any academic major. In general, a broad background in the humanities, arts, social science, and sciences is desirable. Also, students should check with their denomination for more specific details regarding entrance requirements.

Peace Corps Preparatory Program

The Peace Corps Preparatory Program prepares civic-minded students for international service with the Peace Corps or work in international development more generally. Students enrolled in this program are expected to complete coursework and engage in applied learning and leadership

community service opportunities that reflect the Peace Corps' focus on international development, practical experience related to its project areas, and foreign language study. Students who successfully meet the specific requirements established by their institution are more competitive Peace Corps applicants and receive a signed certificate of completion from the Peace Corps. Details

Foreign Language Integration Option (FL)

This program allows students to use their language abilities in courses outside the language departments. Faculty members in the disciplines who wish to make their courses available for the foreign language integration option decide, in conjunction with individual students and in consultation with a member of the modern or classical language departments, on the amount and type of language work involved. This work typically includes readings from books, newspapers or articles, or paper writing, and it substitutes for English language work.

Off-Campus Programs

Washington Internship Initiative

Ursinus enjoys an affiliation with the Washington Internship Institute (WII), an organization that provides intensive internship experiences and academic coursework within a thematic liberal arts framework. All participants select one of several areas of concentration, including Environmental and Sustainability Policy Studies, Global Health Policy Studies, Global Women's Leadership Development, Inside Washington: Politics and Policy, and International and Foreign Policy Studies. This program gives qualified students the opportunity to work with people and resources in the nation's capital so as to understand better the dynamics of American politics and policymaking.

Under the direction of WII faculty and staff, students participate in seminars with governmental officials, lobbyists, and media representatives; they secure an internship within a governmental office or non-governmental organization, political parties, interest groups, research organizations, or the media; and they complete a major research project on a current issue or policy problem. Candidates must apply to the College in order to be nominated to WII. Semester participants pay Ursinus tuition, room and fees (but not board) and their Ursinus financial aid travels. Summer participants pay tuition, room and fees directly to WII and pay for their own meals, but Ursinus aid does not travel. Interested students should contact the Career and Professional Development office. View course offerings in Interdivisional Studies.

Howard Semester Program

This program allows Ursinus students to attend Howard University in Washington, D.C., under an exchange agreement between the two institutions. Students wishing to participate will normally do so for one semester in their junior year. Students pay Howard University's tuition and fees. Contact the Provost's Office for more information.

Courses of Instruction

Visit the Major and Minor webpage to learn more about the individual programs and departments.

- African American and Africana Studies
- American Studies
- Animal Behavior
- Anthropology and Sociology
- APEX
- Applied Ethics
- Applied Sustainability
- Arabic
- Art and Art History
- Artificial Intelligence
- Biochemistry and Molecular Biology
- Biodiversity & Wildlife Conservation
- Biology
- Biostatistics
- Business and Economics
- Chemistry
- Chinese
- Classical Studies
- Climate Change
- Coaching
- Comparative and Global Literatures
- Creative Writing
- Common Intellectual Experience
- Computer Science
- Dance
- Data Analytics
- Digital Studies
- Disability Studies
- Earth and Environmental Science
- East Asian Studies
- Education
- English
- Entrepreneurial Studies
- Environment and Sustainability
- Environmental Justice
- Film Studies

- Food Studies
- French
- Gender, Women's and Sexuality Studies
- German
- Health Sciences
- Health and Society
- History
- Interdivisional Studies
- International Relations
- Japanese
- Latin American Studies
- Legal Studies
- Management Studies
- Marine Science
- Mathematics
- Media and Communication Studies
- Modern Languages
- Museum Studies
- Music
- Native American and Indigenous Studies
- Neuroscience
- Peace and Social Justice
- Performing and Visual Arts Design and Technology
- Philosophy and Religious Studies
- Physics and Astronomy
- Politics and International Relations
- Psychology
- Science and the Common Good
- Spanish
- Theater and Dance

African American and Africana Studies

Faculty

- *Professors Edwards, Hubbs, Scudera, VanGilder; Associate Professors Clark, Goodman, A. Karreth, Ko, Leppert, Lott (Coordinator), Onaci, Shuru.*

- The African American and Africana Studies program provides an opportunity to study the experiences of people of African descent in the African Diaspora (including Latin America), the United States, and Africa. This program explores the human, cultural, social, political, and historical factors that have affected the experiences of African American and Africana people.

  ### Requirements for Minors

  A minor concentration in African American and Africana Studies consists of 20 credits including a 4-credit introductory course, AAAS-200. The courses in the minor deal with aspects of the African American and African Diasporic experiences as they have been framed by the peoples concerned and represented by others. In addition to AAS-200, students must take at least four courses from the following electives, with no more than two courses from a single department: BIO-151, ECON-110; ENGL-222; FREN-252; FS-440; HEP-203; HIST-228, 260, 326, 330, 332, 360, 426W; MCS-340; MCS/GWMS-319; POL-316, 348; RELS-225; SOC-255, 258; AMST-200. ENGL-212, IR-400W, POL-399L, and/or SPAN-440W may also fulfill this elective requirement when the topic is appropriate and with prior approval from the AAAS coordinator.

Courses

- ### AAAS-200. Issues in African American and Africana Studies
  This is an interdisciplinary, introductory course for the African American and Africana studies program. This discussion-oriented course is designed to integrate the diverse concentrations of the discipline. It will cover the history of the field, and the role and contributions of various disciplines. This course also examines the variables and dimensions of African-American and African Diasporic experiences. Three hours per week. *Four semester hours. (DN, H.)*

  ### AAAS-380. Internship

An off-campus academic/work experience under the supervision of an internship adviser and an on-site supervisor. Contact the AAAS coordinator for further details. Prerequisites: AAAS-200, junior standing, and approval of a faculty internship adviser. 120 hours. *Three semester hours. (XLP.)*

AAAS-381. Internship

An off-campus academic/work experience under the supervision of an internship adviser and an on-site supervisor. Contact the AAAS coordinator for further details. Prerequisites: AAAS-200, junior standing, and approval of a faculty internship adviser. 160 hours. *Four semester hours. (XLP.)*

AAAS-491W. Independent Research

This course is open to candidates for honors of junior/senior status who have completed at least 16 credits in the minor upon consultation with the AAAS coordinator and the student's faculty adviser and formation of an interdisciplinary faculty committee of three persons. *Four semester hours. (XLP.)*

AAAS-492W. Independent Research

A continuation of AAAS-491W. Prerequisite: AAAS-491W. *Four semester hours. (XLP.)*

- African American and Africana Studies Program

American Studies

Faculty

- *Professors Edwards, Goldsmith, Hubbs, Hurley, Mackler, Marks; Associate Professors Clark, Lott, Onaci, Spencer, Woodstock.*

- Knowledge of our own culture, its history, literature, and politics, is indispensable to responsible American citizenship. Furthermore, a deeper understanding of American culture enables us to appreciate the ways in which our own culture affects our perception of other cultures. The American Studies program provides an interdisciplinary approach to the study of American life through which students can fully appreciate both its unity and diversity. The American Studies major and minor are useful for students interested in graduate study in American Studies and all the participating disciplines, as well as professional study in areas such as law, social work and journalism. It is also an appropriate major for those seeking certification to teach social studies.

  The American Studies major is interdisciplinary. All majors must take AMST-200, a course that demonstrates the possibilities of an interdisciplinary approach to the study of American society. Interdisciplinary study works best, however, when the student is well grounded in at least one specific discipline to serve as a point of departure. American Studies majors accordingly choose a disciplinary concentration by taking an introductory or methods course, a capstone course, and two American Studies-related electives from one of the core disciplines of the program (English, History, Media and Communication Studies, Politics, and Sociology), as well as electives from American Studies disciplines beyond the concentration. The American Studies major can easily accommodate a dual major, should a student wish to pursue mastery of more than one discipline, but no more than two courses can count for both majors. The major can be completed with 36 credits.

  Special topics courses relevant to American Studies may be included in the major or the minor with the prior approval of the Coordinator.

  ### Requirements for Majors

  Required course for all majors: AMST-200 – Issues in American Studies. American Studies majors can fulfill the writing requirement by

taking a W course within their disciplinary concentration, and the oral presentation and capstone requirements by taking a 400-level seminar in that same concentration.

Disciplinary concentration:

Students will elect four courses in one of the American Studies disciplines, including a methods class, an American-themed capstone, and two electives. At least one course in the disciplinary concentration must be at the 300-level or above. The exception to this rule is the disciplinary concentration, sociology, which requires Sociology 391 as a prerequisite for the capstone. Only one elective is required in this disciplinary concentration.

English concentration:

- Methods: ENGL-290W.
- Capstone: a 400-level seminar in American literature.
- Electives: two courses in American literature, one of which must be at the 300-level.

History concentration:

- Methods: HIST-200W.
- Capstone: HIST-425W, 426W, or 450W on an American topic.
- Electives: two courses from HIST-125, 126, 212, 225, 227, 228, 330, 332, 326. If on a relevant topic, HIST-150, 250, or 350 may also count. One of the electives must be at the 300-level.

Media and Communication Studies concentration:

- Methods: MCS-292W.
- Capstone: MCS-460W or 462W or 464W on an American topic.
- Electives: MCS-205 and one course from MCS-315, 319, 340, 360, 366.

Politics concentration:

- Methods: POL-300.
- Capstone: POL-418W.
- Electives: POL-218 and one course from 310, 314, 316, 321, 322, 325, 330, 355.

Sociology concentration:

- Methods: ANSO-200.
- Theory: ANSO-210
- Capstone: ANSO-460W on an American topic.
- Electives: one course from SOC-100, 220, 255, 258, 263, 288.

Four electives must be taken from at least three different departments outside of the student's disciplinary concentration. Students may choose any of the above listed courses (except methods courses); as well as from ART-290; ECON-210, DANC-100, 350A; EDUC-100, 280; ENVS-332, 366; MUS-207, 306; RELS-221, 225. Other electives may be taken with the chair's approval. Students cannot count more than four courses in any one discipline towards the American Studies major.

Students are strongly encouraged to take more than one version (separate topics) of AMST-200. Students are also encouraged to consider a semester of off-campus study in a national program such as the Washington Semester or the Howard Semester program. The American Studies major is sufficiently flexible to accommodate study abroad.

Students may elect to fulfill some of the above requirements by doing an internship or research courses (including honors) in American Studies.

Students who are working on a double major must choose a disciplinary concentration in American Studies that is different from their other major.

Requirements for Minors

A minor concentration in American Studies consists of six courses dealing with aspects of American life and culture.

- AMST 200.
- One course each from four of the five disciplinary concentrations (English, History, Media and Communication Studies, Politics, Sociology), selected from the courses approved for the major (excluding methods courses: ANSO-200, ENGL-290W, HIST-200W, MCS-292W, and POL-300).
- One elective selected from any disciplinary concentration or from the electives approved for the major.

Courses

- ### AMST-200. Issues in American Studies

  This course will introduce students to American Studies by engaging them in an interdisciplinary examination of a broad theme or question about American society and culture. Topics will vary with the instructor(s), but will always be broad and issues and readings will be drawn from different disciplines. An example might be an interdisciplinary examination of the history of Philadelphia as a microcosm of the American experience, or an interdisciplinary examination of race and ethnicity in American society. Three hours per week. *Four semester hours*.

AMST-381. Internship

An academic/work experience under the supervision of an internship adviser and an on-site supervisor. Students must document their experience according to the requirements delineated in the College catalogue section on Internships. Discuss details with the American Studies Coordinator. Open to juniors and seniors. The term during which the internship work is performed will be noted by one of the following letters, to be added immediately after the internship course number: A (fall), B (winter), C (spring), or D (summer). Internships undertaken abroad will be so indicated by the letter I. The intern must complete a minimum of 120 hours of work. Prerequisites: 12 credits in the major and permission of the internship adviser. *Three semester hours. (XLP.)*

AMST-382. Internship

An academic/work experience under the supervision of an internship adviser and an on-site supervisor. Students must document their experience according to the requirements delineated in the College catalogue section on Internships. Discuss details with the American Studies Coordinator. Open to juniors and seniors. The term during which the internship work is performed will be noted by one of the following letters, to be added immediately after the internship course number: A (fall), B (winter), C (spring), or D (summer). Internships undertaken abroad will be so indicated by the letter I. The intern must complete a minimum of 160 hours of work. Prerequisites: 12 credits in the major and permission of the internship adviser. *Four semester hours. (XLP.)*

AMST-391. Independent Study

Independent study under the supervision of an American Studies Department adviser. Topic and readings will be decided by the student and the adviser. Substantial reading and writing is required. Prerequisites: 12 credits in the major; and permission of the department adviser. *Four semester hours. (XLP.)*

AMST-400W. Independent Research

Independent Research, under the guidance of an American Studies Department adviser, directed toward the production and oral presentation of a research project or paper. Prerequisite: 12 credits in the major and permission of the faculty adviser. *Four semester hours.*

AMST-491W. Research/Independent Work

This course is open to candidates for honors upon consultation with the American Studies Coordinator and with permission of an American Studies faculty adviser. *Four semester hours. (XLP.)*

AMST-492W. Research/Independent Work

A continuation of AMST-491W. Prerequisite: AMST-491W. *Four semester hours. (XLP.)*

- American Studies Program

Animal Behavior

Faculty

- *Associate Professor Straub (Coordinator); Assistant Professor Makuch.*

- Animal Behavior is an interdisciplinary minor that introduces students to fundamental elements of animal behavior, the neurobiological mechanisms underlying behavior, and the ecological and evolutionary influences that help to shape animal behavior. Students will also be exposed to research methods commonly used in the field. The minor invites students to explore questions closely linked to the Ursinus Quest, such as:
  • how should we live with other animals as members of the interrelated living world?
  • how can we understand interactions between animals and between animals and their environments?
  • how can we understand the best (altruism) and worst (aggression) of human behavior?
  • what will I do to become a respectful co-habitant of planet Earth?

Requirements for Minors

To complete a minor in Animal Behavior, students must complete 23–24 credits, distributed as follows:

I. Biology:
BIO-101

II. Foundations of Behavior: (2 courses)
BIO-359 and NEUR/PSYC-330 or PSYC-232

III. Elective Courses: (3 courses, 1 from each group listed below)

Elective Group 1 – Biology: BIO-324, 360, 365, 375, 415, 442W; BIO/ENV-320, 325.

Elective Group 2 – Neuroscience and Psychology: NEUR/PSYC-235, 330, 430, 465; or PSYC-232.

Elective Group 3 – Social Science or Applied Learning Experience: ENV-272, SOC/ENV-288; or an internship (BIO-382; ENV-381, 382; NEUR-381, 382; PSYC-381, 382); or independent/honors research (BIO-481, 482, 491, 491; HEP-481, 482, 491, 492; NEUR-481, 482, 491, 492; PSYC-481, 482, 491, 492). Internships and research projects must be approved by the Animal Behavior coordinator and contain substantive content germane to Animal Behavior.

Special topics courses may be counted as elective courses for the minor with the permission of the instructor and the Animal Behavior coordinator. Such courses must contain substantive content germane to Animal Behavior.

Study Abroad:

Courses taken during study abroad may be counted toward the minor with permission of the student's academic advisor and the Animal Behavior coordinator.

Other Requirements:

For Biology or Neuroscience majors wishing to minor in Animal Behavior, at least 3 courses (11 or 12 credits) for the minor must be in addition to credits already counting toward their major.

No course may count in more than one of the "Foundational Categories" (categories I and II) or elective groups (category III).

Animal Behavior Website

Anthropology and Sociology

Faculty

- *Associate Professor Clark, van de Ruit, Wynne (Chair); Assistant Professor Kauffman-Berry; Visiting Instructor Davis.*

- Whether by immersing ourselves in another culture or by turning a critical eye on our own, anthropologists and sociologists seek to denaturalize the social forces that shape our individual lives. Our majors learn to appreciate how they have been shaped by their culture. They also learn to practice cultural relativism — the ability to suspend moral judgment to understand another culture on its own terms. Finally, our students grapple with the issue of social inequality; they examine how race, class, gender, sexuality, and other social categories intersect in ways that privilege some and disadvantage others.

  In-depth study in a particular discipline is a key component of a liberal education. The mission of our department is to provide students with an opportunity for in-depth study in the disciplines of anthropology and sociology. Drawing on the American Sociological Association's most recent report on liberal learning, we define in-depth study as "a process of intellectual development where students become increasingly independent participants in the discourse of the sociological [and anthropological] communities]." In keeping with this definition, we aim to produce graduates who are capable not just of learning existing knowledge but of producing new knowledge, too. Our curriculum has been designed with this goal in mind. With its focus on sequential learning opportunities that, at each step of the way, encourage students to integrate empirical research with theoretical reflection, the curriculum is designed to produce students who are capable of doing, not just learning, anthropology and sociology.

  ### Requirements for Majors

  We offer a single, interdisciplinary major: Anthropology and Sociology. All majors must take the following:

  - ANTH-100;
  - SOC-100;
  - STAT-141Q;
  - ANSO-200;

- ANSO-210;
- ANSO-460W.
- Twenty credits in ANTH or SOC courses at the 200-level or above. (Note: Only two, two-credit readings courses may count towards the 20 credits, and only one semester of independent research may count. The 20 credits must include at least one four-credit course in each discipline, ANTH and SOC. Internships do not count towards the major.)

Students interested in teaching certification in Social Studies should consult with the Education Department.

Anthropology and Sociology majors can fulfill the College writing requirement, along with the major capstone, the core capstone (CCAP), and the oral presentation requirement, by taking ANSO-460W.

Requirements for Minors

Students may minor in either Anthropology or Sociology.

I. Anthropology Minor

Students minoring in Anthropology must take ANTH-100 and at least 16 credits in either ANSO courses, 200-level ANTH courses, or both.

II. Sociology Minor

Students minoring in Sociology must take SOC-100 and at least 16 credits in either ANSO courses, 200-level SOC courses, or both.

Courses

- **ANSO-200. Methods in Anthropology and Sociology**
  An introduction to data collection, analysis and interpretation in anthropology and sociology. Students will be exposed to a wide variety of data collection techniques including participant observation, interviews, questionnaires, existing source studies, and the like. Students will also learn how to analyze and interpret the data with the aid of statistics. Ultimately, they will examine the relationship between research and theory. Prerequisites: STAT-141Q and either ANTH-100 or SOC-100; or permission of the instructor. Three hours of lecture and discussion plus two hours of lab per week. *Four semester hours. (SS.)*

ANSO-210. Using Social Theory

An exploration of how to use the work of key classical and contemporary theorists to understand the social world. Prerequisite: ANTH-100, SOC-100, or permission of the instructor. Three hours per week. *Four semester hours. (SS.)*

ANSO-381. Anthropology and Sociology Internship

An academic/work experience under the supervision of an internship adviser and an on-site supervisor. Students must document their experience according to the requirements delineated in the College catalogue section on Internships. Contact any member of the Department for further information. Open to juniors and seniors. The term during which the internship work is performed will be noted by one of the following letters, to be added immediately after the internship course number: A (fall), B (winter), C (spring), or D (summer). Internships undertaken abroad will be so indicated by the letter I. The intern must complete a minimum of 120 hours of work. Prerequisites: A major in anthropology and sociology, junior standing, at least 12 credits in anthropology/sociology, and approval of the Department internship adviser. A minimum of 160 hours. Graded S/U. *Three semester hours. (XLP.)*

ANSO-382. Anthropology and Sociology Internship

An academic/work experience under the supervision of an internship adviser and an on-site supervisor. Students must document their experience according to the requirements delineated in the College catalogue section on Internships. Contact any member of the Department for further information. Open to juniors and seniors. The term during which the internship work is performed will be noted by one of the following letters, to be added immediately after the internship course number: A (fall), B (winter), C (spring), or D (summer). Internships undertaken abroad will be so indicated by the letter I. The intern must complete a minimum of 160 hours of work. Prerequisites: A major in anthropology and sociology, and approval of the Department internship adviser. Graded S/U. *Four semester hours. (XLP.*)

ANSO-460W. Seminar in Anthropology and Sociology

Seminar is the capstone course for the major. The professor will choose a topic relevant to the disciplines of anthropology and sociology, and students will write a major paper on that topic, thereby demonstrating their ability to think anthropologically and sociologically. Prerequisite: ANSO-200 and 210; or permission of the instructor. Three hours per week. *Four semester hours. (CCAP, SS.)*

Anthropology

ANTH-100. Introduction to Sociocultural Anthropology

Sociocultural anthropology is one of four subfields in anthropology. This course will emphasize sociocultural anthropology but will also briefly look at the other subfields: physical, prehistoric archaeology, and linguistics. Our main focus will be placed on family patterns, kinship relationships, political organization, economic systems, religion, the arts, and social change. Prerequisites: None. Four hours per week. *Four semester hours. (GN, SS.)*

ANTH-205. Introduction to Archaeology

Archaeology is the subdiscipline of anthropology that seeks to understand cultures of the past on the basis of their material remains. This course provides basic instruction in methods and theory in archaeology, followed by a survey of world prehistory that focuses on the development of societal complexity, as interpreted through archaeological data. Prerequisite: ANTH-100, SOC-100, or permission of the instructor. Three hours per week. *Four semester hours. (SS.)*

ANTH/GWSS-212. Anthropology of Sexuality

Sexual desires and practices are often naturalized in popular discourse, imagined as reflections of pre-cultural biological drives. In this course, we consider the cultural

forces that shape these desires and practices into diverse forms across the globe. We use anthropological theories of sexuality to understand the ways in which even our most private thoughts and acts enact and/or resist cultural norms. Ethnographic readings from a range of geographic and subcultural settings provide an opportunity to explore erotic and sexual diversity in depth. Three hours per week. *Four semester hours. (GN, SS.)*

ANTH-221. Contemporary Mexican Culture

In this course, we will explore a number of themes central to contemporary life in Mexico, including migration; drug trafficking and related violence; tourism; race and ethnicity; gender; and agriculture. We will analyze the lived experiences of Mexicans, as presented in ethnography, in the context of local, national, and global cultures. Prerequisite: SOC-100, ANTH-100, LAS-200, or permission of the instructor. Three hours per week. *Four semester hours. (GN, SS.)*

ANTH-226. Native Peoples of South America

Though the continents of the Americas had been peopled for over ten thousand years before Columbus' fateful arrival in the Caribbean, there were no "Indians" in the New World before 1492. Disparate native groups, with distinctive cultures and languages lived by a diversity of subsistence methods. Agropastoralist empires with cities expanded and collapsed contemporaneously as small, mobile bands carried out their hunting-gathering lifestyles in the diverse cultural and ecological landscape of South America. All these peoples across the Atlantic would be "Indian" after European contact. For indigenous groups and individuals, however, "Indian-ness" was never a fixed category of identity. We will delve deeper than essentialist classification of indigenous groups to explore the construction of ethnicity as a more fluid, situational identity based on class, religion, gender, race, and sexuality. We will investigate historic and social narratives that help shape group identity and the symbolic nature of being "Indian". We will continually consider how indigenous and non-indigenous peoples used ethnic categories to construct power and authority and how native peoples have expressed resistant cultural responses to efforts to de-Indianize the continent. Prerequisites: ANTH-100, LAS-100, SOC-100, or permission of the instructor. Three hours per week. *Four semester hours. (SS.)*

ANTH/ENVS-230. Food and Culture

The human need for food is a biological fact. Yet humans have a relationship with food that is at once highly intimate—requiring its ingestion into their bodies—and utterly cultural—rooted in learned processes that make obtaining, preparing, and consuming food possible. Through the lens of anthropology, this course will examine a variety of issues inspired by this human–food relationship, including hunger, inequality, gender, morality, and nationalism. Prerequisite: SOC-100, ANTH-100, or permission of the instructor. Three hours per week. *Four semester hours. (GN, SS.)*

ANTH-235. Medical Anthropology

This course uses theoretical and ethnographic readings to broaden students' understanding of health and healing. The course introduces students to the major issues and theoretical paradigms in medical anthropology. We examine culturally specific concepts and experiences of health, illness, and healing, and we consider the many cultural, economic, and political determinants of health. Prerequisite: Either ANTH-100, HSOC-100, or SOC-100; or permission of instructor. Three hours per week. *Four semester hours. (GN, LINQ in semesters when SOC/HS-298 is also taught, SS.)*

ANTH-240. Biological/Physical Anthropology

Human beings are culture-bearing animals but also biological ones. What effect do cultural systems have on the biological and vice versa? This course deals with this question for the evolution and adaptations of ancient and modern humans. Students in this course explore the theories of human evolution and evolutionary theory, comparing humans with our ancient precursors and our closest non-culture bearing cousins, the Great Apes, the class investigates the clues to the evolution of our own species. Students will also come to understand variation in modern humans in various climates and regions and explain how variation in biological form—skin color, body form, eye shape, variation in growth patterns, menarche, disease, sexual behavior, and "race"—is affected by biological and cultural factors. Three hours per week. *Four semester hours. (SS.)*

ANTH-242. Health and Healing in African Societies

The course will study differing conceptions of health and healing in the African subcontinent. Students will critically examine how western medicine became embedded in efforts to subdue and manage colonized peoples. The course will also study contestations over health in relation to postcolonial transformation, in particular how these contestations play out in global efforts to mediate and contain the spread of infectious diseases including AIDS, Ebola, drug resistant tuberculosis, and COVID-19. Students will gain exposure to digital archives in African settings and the Global North and create several digital projects. Prerequisites: Either ANTH-100, SOC-100, or HSOC-100; or permission of instructor. Three hours per week. *Four semester hours. (GN, O, SS.)*

ANTH-245. Forensic Anthropology

Forensic anthropology is a distinct subfield of biological anthropology that applies the techniques of osteology and biomechanics to questions in forensic science. It is a diverse and growing field of anthropology that has practical implications for criminal justice. Class topics include human osteology, crime scene investigation, search, recovery and taphonomy of human remains, laboratory analysis, postmortem interval (or time since death), trauma analysis (cause and manner of death), and the development and application of innovative and specialized techniques. Three hours per week. *Four semester hours. (SS.)*

ANTH-251. Special Topics in Anthropology

An occasional course focusing on a special topic in anthropology. Prerequisite: ANTH-100, SOC-100, or permission of the instructor. Three hours per week. *Four semester hours. (Possible GN or SS, depending on the topic)*

ANTH-258. Anthropology of Religion

Declaring a practice to be "witchcraft", "profane", "superstition", or a group to be "a cult" is often a pejorative shorthand used to label and dismiss groups and individuals who believe or behave radically differently (and therefore wrongly) from the speaker's group. While many hold a fascination for spiritual practices from around the globe or a commitment to building cross-faith dialogue, religious-based genocide and persecution and subjugation are also present. Students gain exposure to the many universal themes of human belief and religious experience by exploring ethnographic texts from a range of cultures. We will examine themes of rites of passage, social control, sacrifice, atonement, pilgrimages, and sacred sites and landscapes through the study of cultures across the world. We will ask throughout the semester: How may/should I live alongside others who hold radically different beliefs? Prerequisites: ANTH-100, SOC-100, RELS-111, RELS-212, or permission of the instructor. Three hours per week. *Four semester hours. (GN, SS.)*

ANTH-271. Readings in Anthropology I

An opportunity for students to read about an anthropological topic of their choice. Before the course starts, the supervising faculty member must approve the student's preliminary bibliography. A final paper is required. Prerequisite: ANTH-100, SOC-100, or permission of the instructor. Six to eight hours of reading per week. *Two semester hours*.

ANTH-272. Readings in Anthropology II

A continuation of ANTH-271. Before the course starts, the supervising faculty member must approve the student's preliminary bibliography. A final paper is required. Prerequisite: ANTH-271. Six to eight hours of reading per week. *Two semester hours*.

ANTH-276. The Rise of Cities

This course will review the origins of agriculture, urban life and state level societies. Theories, processes and the archaeological evidence for changes in human economic and social organization will be discussed. The essential relationship between economy, environment and society provides the subtext for the more detailed presentation of the case studies. Readings will emphasize the Old World, but New World developments will be included for comparison. The geographic areas in which primary states developed and have been intensively studied archaeologically are the Near East (Anatolia, Mesopotamia, Egypt, and the Indus Valley) and Mesoamerica. These regions will be the focus of the course, with some discussion of the emergence of state level societies in other areas (such as East Asia, Africa and South America). Comparing Old and New World cultural responses to different environmental and geographic contexts focuses attention on the way in which the evolution of social complexity occurs, rather than on the memorization of facts and dates alone. The course provides a context for understanding the process of cultural evolution in the past as well as in today's world by exploring why we are the way we are, and how we got here. Prerequisite: ANTH-100, SOC-100, or permission of the instructor. Three hours per week. *Four semester hours. (SS.)*

ANTH/HSOC-283. Contemporary Issues in Public Health in the Yucatán

Students will explore matters related to health and healing in Mexico with a particular focus on the Yucatán Peninsula and Maya peoples. This faculty-led program will enable students to receive credit for a four-credit course, as well as complete their XLP. The course offers an examination of Mexico's medical system, structural factors that impact wellbeing in the region, and healers and healing approaches from biomedicine and indigenous traditions. Drawing on multiple academic disciplines we connect contemporary health and healing practices with national and local history, and wider transformations in global health. Topics of study include health inequity, traditional health beliefs and practices, reproductive health, mental health, and foodways and agriculture. Guest speakers and community site visits will enrich and deepen our understandings of health and wellbeing in this region. Includes travel to Mexico between the fall and spring semesters. Offered every two years. No prerequisites. *Four semester hours. (GN, LINQ, O, SS, XLP.)*

ANTH/HIST-385 Historical Archaeology Field School

A four-week summer archaeology course offered in conjunction with The Speaker's House, a non-profit that owns and is restoring the Frederick Muhlenberg house and property in Trappe, Pennsylvania. The field school course in Historical Archaeology will combine instruction in archaeological methods and theory with hands-on excavation training and experience at an important historical site. Through assigned readings and classroom discussions, on-site training and experience, and weekly laboratory study, field school students will learn historical archaeology techniques and develop the ability

to identify and interpret discovered artifacts and place archaeological information within a cultural/historical framework. *Six semester hours. (XLP.)*

ANTH-390. Research

An opportunity to engage in independent empirical research on a topic of your choice. Before the course begins, the student's faculty supervisor must approve the student's research proposal. A final progress report is required. Prerequisite: ANSO-200. *Four semester hours. (XLP.)*

ANTH-491. Research/Independent Work

Open only to candidates for Honors in Anthropology. Prerequisites: ANSO-200 and permission of the department chair. *Four semester hours. (XLP.)*

ANTH-492W. Research/Independent Work

A continuation of ANTH-491. Prerequisites: ANTH-491 and permission of the department chair. *Four semester hours. (XLP.)*

Sociology

SOC-100. Thinking Sociologically

This course serves as an introduction to the discipline of sociology. The course combines an overview of the field with an analysis of contemporary social issues. Three hours per week. *Four semester hours. (DN, SS.)*

SOC/ENVS-220. Environmental Justice

This course explores the topic of environmental inequality. Focusing mostly on the United States, the course examines unequal exposure to pollution and other environmental health risks. The course also explores the environmental justice movement's efforts to frame environmental inequality as a social problem. Prerequisite: ANTH-100, SOC-100, or permission of the instructor. Three hours per week. *Four semester hours. (DN, O, SS.)*

SOC-230. Readings in Sociology I

An opportunity for students to read about a sociological topic of their choice. Before the course starts, the supervising faculty member must approve the student's preliminary bibliography. A final paper is required. Prerequisite: SOC-100, ANTH-100, or permission of the instructor. Six to eight hours of reading per week. *Two semester hours.*

SOC-231. Readings in Sociology II

A continuation of SOC-230. Before the course starts, the supervising faculty member must approve the student's preliminary bibliography. A final paper is required. Prerequisite: SOC-230. Six to eight hours of reading per week. *Two semester hours.*

SOC-255. Race and Ethnic Relations

An exploration of how race and ethnicity shape social life. This course examines the relations between racial and ethnic groups, along with the social consequences of their relative positions. The course expands students' critical thinking and reflection skills by making meaningful connections between sociological ideas and everyday experience. Prerequisite: SOC-100, ANTH-100, or permission of the instructor. Three hours per week. *Four semester hours. (DN, O, SS.)*

SOC-258. African American Experiences

This course is designed to make students aware of the institutional and cultural effects of Blackness in the United States; to educate students on the complex intersections of race, class, gender, and nationalism; and to investigate issues concerning the multiple experiences of African-Americans in America. Students will work to expand their critical thinking and reflection skills by making meaningful connections between sociological ideas and everyday experience to better understand how race and ethnicity interact with larger social and historical forces. Prerequisite: SOC-100, ANTH-100, or permission of instructor. Three hours per week. *Four semester hours. (DN, SS.)*

SOC-260. Special Topics in Sociology

An occasional course focusing on a special topic in sociology. Prerequisite: ANTH-100, SOC-100, or permission of the instructor. Three hours per week. *Four semester hours. (Possible DN, O, or SS depending on topic)*

SOC/GWSS-263. Sex, Gender, and the Politics of Bodies in American Society

After initial examination of the causes of sex differences, focus is placed on the modern American sex/gender role system: socialization and education; economic, political, religious, and family roles; sexual inequality; and gender-based public policy issues. Some cross-cultural and cross-national comparisons are made. Prerequisite: SOC-100, ANTH-100, or permission of the instructor. Three hours per week. *Four semester hours. (DN, SS.)*

SOC-272. Sociology of Sport

This course examines sports in American society, as well as the reciprocal influences between sports and our culture, including social values, education, socialization, deviance, minority and female athletes, the mass media and institutional settings. Part one of the course deals with the multiple ways in which individuals are involved in sports organizations and activities. Part two of the course deals with the organization of sports and sports organizations as particular representations of societal goals, norms, social roles, and manifest and latent functions. Prerequisite: SOC-100, ANTH-100, or permission of the instructor. Three hours per week. *Four semester hours. (DN, SS.)*

SOC/ENVS-288. Animals and Society

An examination of the sociology of human-animal relationships. Focusing mainly on the United States, the course examines the various ways in which people think about and interact with other animals. Prerequisite: SOC-100, ANTH-100, or permission of the instructor. Three hours per week. *Four semester hours. (O, SS.)*

SOC/ENVS-290. Radical Environmentalism

This course explores the radical environmental movement that emerged in the United States in the 1980s. The movement differs from other streams of environmentalism in its embrace of ecocentrism and in its willingness to engage in controversial tactics such as ecosabotage. Students will reflect on their obligations to nature and on the wisdom and morality of various tactics for protecting the environment. Three hours per week. *Four semester hours. (O, SS.)*

SOC/HS-298. Sociology of Health and Illness

Illness, health, and healing are social phenomena. In this class we focus primarily on the United States, studying the types of disease afflicting Americans, the distribution of disease among the population, and how medical care is organized to respond to population health problems. To understand the links between health and society we

must also consider how wider social processes influence health, for instance the organization of the economy, the media, cultural representations about disease, and values and practices associated with caring for the sick. The course builds on sociological frameworks that ground understanding of 1) how patients experience illness; 2) situate health problems within the context of a society's history, social arrangements, and cultural values and; 3) for health reforms to be meaningful they necessarily need to be accompanied by societal change. Taken together these theoretical foundations enable a critical approach to the study of health and medical care. Three hours of lecture per week. Prerequisites: Either ANTH-100, SOC-100, or HSOC-100; or permission of instructor. *Four semester hours. (DN, LINQ in semesters when ANTH-235 is also taught, SS.)*

SOC-391. Research

An opportunity to engage in independent empirical research on a topic of your choice. Before the course begins, the student's faculty supervisor must approve the student's research proposal. A final progress report is required. Prerequisite: ANSO-200. *Four semester hours. (XLP.)*

SOC-491. Research/Independent Work

Open only to candidates for Honors in Sociology. Prerequisites: ANSO-200 and permission of the department chair. *Four semester hours. (XLP.)*

SOC-492W. Research/Independent Work

A continuation of SOC-491. Prerequisites: SOC-491 and permission of the department chair. *Four semester hours. (XLP.)*

- Anthropology and Sociology Department

APEX

APEX is an educational framework that helps students answer the open questions of the core curriculum and become adaptable, innovative thinkers. APEX works toward this aim by providing educational experiences that prepare students to apply their liberal education to life beyond graduation. Through integration of career-focused, applied learning, it provides them with experiences and skills to thrive. While many courses across the college fulfill APEX goals, those with the APEX prefix cross the boundaries of a particular program to afford students applied and experiential learning opportunities and the development of professional skills and career exploration.

APEX Courses

- ### APEX-050. First-Year Experience

  APEX-050 will get first-year students set up on the right course for the rest of their time at Ursinus. APEX-050 will assist students in major exploration, understanding how to be successful in college, and beginning their search for answers to the open questions. Through class discussions and visits around campus, students will engage in meaningful major and career exploration and develop the skills and growth mindset needed for academic success and personal growth. We will also discuss how to engage with various resources on campus. Graded S/U. One hour per week. *One semester hour*.

APEX-051. Career Readiness and Competencies

APEX-051 is designed to help typically first-year students in their second semester at Ursinus develop the essential skills and competencies needed for professional success. Students will engage in interactive activities, assessments, and real-world events that focus on key career readiness competencies, including self-development, communication, professionalism, critical thinking, leadership, and equity and inclusion. The course emphasizes hands-on experiences such as career fairs, informational interviews, and career community events that connect students with faculty, industry professionals, and alumni to build a foundation for personal and professional growth. Through this course, students will develop a career readiness plan and gain a deeper understanding of the skills and experiences required for career development. The combination of assessments, professional events, and one-on-one advising will give students the tools and insights needed to navigate their career paths with confidence. Prerequisites; APEX-050 or permission of instructor. Graded S/U. One hour per week. *One semester hour*.

APEX-089. Topics in Applied, Professional, and Experiential Learning

In this topics course, students will develop professional competencies, apply their learning, and/or engage in experiential projects. This course may be taken more than

once for credit with permission of instructor. Graded S/U. One hour class time or up to three experiential hours per week. *One semester hour.*

APEX-099. Topics in Applied, Professional, and Experiential Learning

In this topics course, students will develop professional competencies, apply their learning, and/or engage in experiential projects. This course may be taken more than once for credit with permission of instructor. Graded S/U. One hour class time or up to three experiential hours per week. *Two semester hours.*

APEX-373. Co-op I

This co-op may include work experience that falls inside or outside of the student's specific major department. Co-op students must engage a faculty advisor in a relevant department. Qualifications and expectations are delineated in the college catalogue section on co-ops. Because of the large co-op time commitment during the academic year, students will work closely with their faculty co-op advisor to ensure that the co-op requirements of the company and the Ursinus graduation requirements are fulfilled. Term will be designated by one of the following letters, which will be added immediately after the co-op course number, A (fall), B (winter), C (spring) or D (summer). Co-ops undertaken abroad will be indicated by the letter XLP. The co-op student must log a minimum of 160 hours of work. Graded S/U. *Four semester hours. (XLP.)*

APEX-374. Co-op II

This co-op may include work experience that falls inside or outside of the student's specific major department. Co-op students must engage a faculty advisor in a relevant department. Qualifications and expectations are delineated in the college catalogue section on co-ops. Because of the large co-op time commitment during the academic year, students will work closely with their faculty co-op advisor to ensure that the co-op requirements of the company and the Ursinus graduation requirements are fulfilled. Term will be designated by one of the following letters, which will be added immediately after the co-op course number, A (fall), B (winter), C (spring) or D (summer). Co-ops undertaken abroad will be indicated by the letter XLP. The co-op student must log a minimum of 160 hours of work. Graded S/U. Pre-requisite: APEX-373. *Four semester hours. (XLP.)*

Applied Ethics

Faculty

- *Professors Marks, Sorensen (Coordinator), VanGilder; Associate Professors Clark, Evans.*

- Applied Ethics is an interdisciplinary minor that explores ethical issues in medicine, business, politics, law, the environment, and other areas. Courses in the minor seek to develop the student's ability to think critically about moral considerations in various contexts. Courses are drawn from the departments of philosophy, politics, environment and sustainability, business and economics, and sociology. The minor is a valuable supplement to a variety of undergraduate majors.

  Requirements for Minors

  A minor in applied ethics consists of 20 credits.

  Applied ethics minors must take PHIL-240. It is strongly recommended that this course be among the first courses taken for the minor.

  The remaining credits must come from the following: ECON-110; EDUC-380; ENVS/PHIL-248; ENVS/SOC-220; ENVS/SOC-288, PHIL-106, PHIL-240, PHIL-243, PHIL-246, PHIL-247, PHIL-249, PHIL-344; PHIL/POL-237, PHIL/POL-337, PHIL/POL-338, PHIL/POL-339; POL-328, POL-330, POL-357.

  HIST courses, PHIL-309 and/or POL-399 may also count toward the minor when the topic is appropriate and with prior approval from the applied ethics minor coordinator.

  For philosophy or politics majors wishing to minor in applied ethics, at least 12 of the 20 credits for the minor must be in addition to credits already counting toward the major.

- Applied Ethics Program

Applied Sustainability

Faculty

- *Professor Hurley; Associate Professors Clark, Joseph, J. Karreth; Assistant Professors Berry; Visiting Professor Ashcroft; Director of Sustainability Keppen (Coordinator)*

- Applied Sustainability (APS) is an interdisciplinary minor comprised of integrative learning experiences across areas of study designed to introduce students to the sustainability field. The minor program provides students with curricular opportunities for developing knowledge and critical analytical skills in the environmental, societal, and economic dimensions of sustainability studies. Co-curricular and experiential learning are incorporated into the minor so that students have the opportunity to practice and reflect on applied skills. A minor in APS consists of 24 credits plus an applied learning experience. Required courses include:

  Core:

  Students must take at least one course from two of the following three categories (other courses may be taken as an elective):

  - Environment and Sustainability: ENVS-100
  - Society and Sustainability: PSJ-200, ENVS/SOC-220, or ENVS/RELS-261
  - Economies and Sustainability: ECON-120 (with permission from the coordinator of APS) or ENVS-340

  Electives:

  Students must take at least one course from each of the following three categories. A fourth course is required and can be taken from any of the categories or from the list above if not taken for the core requirement.

  - Environment and Sustainability: ENVS-242, 243, 332, 362, 450W, 452W, 454W, or ENVS/MCS-302
  - Society and Sustainability: ENVS-428W, HIST/GWSS-126, MCS-335, POL-343, 356, SOC-255
  - Economies and Sustainability: ECON/GWSS-210, ENVS-338, HIST-330, IDS/GWSS-441, or POL-359

XLP:

- See additional information below

Other recommended courses include: ENVS-244, and other courses not selected from above.

Students who plan to continue on within the field of Applied Sustainability after graduation are advised to talk with the APS coordinator to determine the specific courses, and/or additional courses, that may be recommended for continuing on in a particular aspect of this field.

For majors in the field of Environment and Sustainability (ENVS) majors who wishing to minor in Applied Sustainability, no more than 12 credits can be counted toward both their APS minor and their major.

Special topics and new courses that contain substantive content germane to sustainability may count toward the minor with the permission of instructor and the APS minor coordinator. Study abroad courses may count toward the minor with permission of the student's academic advisor and the APS minor coordinator.

To fulfill the minor, students must also complete an applied learning experience (XLP) the focus of which is germane to sustainability, from among the following options, with permission of the APS coordinator:

- Office of Sustainability Fellows Program
- Internships (ENVS-381 or 382, others as appropriate)
- Semester-long research (directed, independent, or honors) with participating faculty
- On campus or off-campus practicums (ENVS-001, 002, 003, 004, 005, 006, others as appropriate)
- Bonner Leaders Program • Melrose Fellows
- Model UN
- Parlee Center for Science and the Common Good Fellows
- U-Imagine
- Summer Fellows research
- Study Abroad
- Or other approved experience

Use of Bonner Leaders, Melrose Fellows, Model UN, Parlee Center Fellows, U-Imagine, Study Abroad or Summer Fellows to fulfill the

applied learning experience of the APS minor requires the joint approval of the APS minor coordinator and the director or advisor of the respective program.

- Environment and Sustainability

Arabic

In addition to the languages that are offered as majors or minors, the Modern Languages Department regularly offers elementary courses in Arabic which can be taken to fulfill the language requirement, even though majors or minors are not offered. Students who wish to satisfy the language requirement in a modern language will be placed in the appropriate language class based on background and the results of the Foreign Language Placement Test.

Learning Goals

First Year

ARA 101/ARA 102

Our Elementary Arabic courses are designed to help students develop their four languages skills: listening, speaking, reading and writing. By the end of the year, students should have mastered the Arabic sounds as well as basic proficiency in everyday conversational Arabic including greeting and other common expressions. Also, they should have acquired a number of common vocabulary and some basic grammar concepts.

Second year Level

ARA 111/ARA 112

At second year level, students continue to develop their four language skills, their vocabulary as well as grammar concepts. By the end of the year, students should be able to communicate in Arabic as well as present and interpret information using their inventory of Arabic vocabulary.

Courses

- **ARA-101. Elementary Arabic I**
  An introduction to the Arabic language. This course will allow the student to master the Arabic alphabet and to learn elementary speaking, writing, and reading in Arabic. Four hours of instruction plus one hour of supervised work with the textbook's DVD material. *Four semester hours. (L.)*

ARA-102. Elementary Arabic II
Continuation of ARA-101. Emphasis on communication and cultural uses of the language. Four hours of instruction plus one hour of supervised work with the textbook's DVD material. *Four semester hours. (L.)*

ARA-111. Advanced Elementary Arabic I

In this second-year-level course, students will continue to develop their four language skills (speaking, listening, reading and writing), vocabulary, and grammar. This course is designed to enable students to communicate in Arabic in everyday situations and to present and interpret information using their inventory of Arabic vocabulary. Prerequisite: ARA-102 or placement by instructor. Four hours per week. *Four semester hours. (L.)*

ARA-112. Advanced Elementary Arabic II

In this course, students will further improve their four language skills (speaking, listening, reading and writing) with an emphasis on comprehension and speaking. Students will also continue to develop their knowledge and application of vocabulary and grammar. Prerequisite: ARA-111or placement by instructor. Four hours per week. *Four semester hours. (L.)*

ARA-220. Topics in Intermediate Arabic

In this course, students will further advance their Arabic language skills in listening, speaking, writing as well as reading. In addition, students will improve their ability to communicate at an intermediate level by interpreting and presenting information in different tenses and contexts. Prerequisite: ARA-112 or equivalent, or permission of instructor. This course may be taken more than once for credit. Four hours per week. *Four semester hours. (H, L.)*

ARA-320. Topics in Advanced Arabic

This course introduces new vocabulary, develops students' listening and oral skills, and expands their knowledge and understanding of the culture and history of the Arabic-speaking world. Prerequisite: two 200-level courses or permission of instructor. This course may be taken more than once for credit. Four hours per week. *Four semester hours. (H, L.)*

ARA-335. Independent Study in Arabic

Independent study of topics in Arabic linguistics, literature, society or culture. Offered upon request. Prerequisite: one 300-level course and permission of instructor. *Two to four semester hours. (XLP, if 4 credits.)*

Modern Languages

Olin Hall - Second Floor
610-409-3594

Email us

Art and Art History

Faculty

- *Associate Professors Barkun, Freno, Kaufman (Chair), Tierney; Assistant Professors Aipperspach; Visiting Professor Komp.*

Requirements

- Studio Art and Art History offerings focus on the preparation of students in the creation of art, the critical study of Art History and the appreciation of visual culture as an integral part of their liberal arts experience. Coursework covers the broad cultural and intellectual context of human civilization from a visual and historical perspective, and provides an important framework for advanced study in making and interpreting art and the environment. The curriculum integrates art historical foundations with the hands-on creation of art, moving from general survey and introductory courses to advanced studio work, historical studies, graphic design, and museum practices. The rich resources of the Philip and Muriel Berman Museum of Art and the Philadelphia region are integral to the learning process. The art and art history major and minors in Studio Art, Graphic Design, and Art History provide students with an understanding of the human experience through visual and aesthetic means and prepare them for further study in the post-graduate arena and professional internship opportunities, and can serve as a springboard for other professions in the arts and beyond.

  Studio Art classes are numbered 101-149; 200-249; 300-349, 401, 402, 455. Art History classes are numbered 150-199; 250- 299; 350-380; 390, 391, 450W. Internships (381,382) and departmental honors (491,492) are used for both Studio Art and Art History. An art materials fee is required for some studio art courses as indicated in the catalogue.

Requirements for Majors

A major in Art & Art History consists of 40 credits in Studio Art and Art History. Students may concentrate in Studio Art, Graphic Design, or Art History. Students pursuing the Art History concentration fulfill the capstone, writing, and oral presentation requirements by taking ART-450W, or ART-491 and 492. Students pursuing the Studio Art or Graphic Design concentration fulfill their writing requirement by

completing ART-291W and their capstone and oral presentation requirements by taking ART-455, or Art-491 and 492.

Requirements for Studio Art Concentration:

1. ART-101

2. ART-150 or 160;

3. ART-291W;

4. ART-310;

5. Five electives selected from Art courses:

- at least one art history course at the 200-level or higher (ART-371 or 372 are strongly recommended)
- at least two courses (studio or art history) at the 200-, 300- or 400-level excluding internships, ART-381 and 382
- one studio art course in a lens-based medium (ART-104, 107, 209, or equivalent in Special Topics)
- one studio art course in a two-dimensional medium ART-102, 105, 120, or equivalent in Special Topics)
- one studio art course in a three-dimensional medium ART-106 or equivalent in Special Topics)

NOTE: ART-210 and 310 do not count toward the three medium-specific distribution requirements among the electives.

6. One capstone course (ART-455, 491 and 492 for honors)

Requirements for for Graphic Design Concentration:

1. ART-101 or 102

2. ART-150, 160, or 250 (Special Topics: History of Design)

3. ART-110

4. ART-120

5. ART-222

6. One elective selected from the following Photography courses: ART-104, 107, 208 (Special Topics: The Art of the Photo Book), 209;

7. ART-210 or 310;

8. ART-291W;

9. One elective selected from the following: ART-225, 226; CS-476; MCS-225,

10. One capstone course (ART-455, 491 and 492 for honors).

A graphic design-related XLP is strongly encouraged.

Requirements for Art History Concentration

1. Two studio art courses: ART-101 and one of the following: ART-102, 104, 105, 106, 107, 209;

2. ART-150 and 160;

3. ART- 291W;

4. Four electives selected from Art History courses:

- One elective must be an art history course at the 200-level or higher in art before 1800.
- One elective must be an art history course at the 200-level or higher in art after 1800.
- A minimum of two art history courses must be at the 300- or 400-level excluding internships ART-381 and 382
- MS-100 may count as an Art History elective (100-level);

5. One capstone course (ART- 450W, or 491 and 492 for honors).

Requirements for Minors

A minor concentration in **Studio Art** consists of 20 credits in art, excluding internships:

- four courses in Studio Art (ART-101–107; 120; 130; 201–209; 210, 220, 300- or 400-level studio art classes)
- one course in Art History

ART-101 and either ART-100 or 291W are strongly recommended.

A minor concentration in **Graphic Design** consists of 20 credits in art, excluding internships:

- ART-101, 102, or 107
- ART-110
- ART-120
- Two electives from the following: ART-222, 225, or 226

A minor concentration in **Art History** consists of 20 credits.

- Art-150
- Art-160
- At least one course in art history at the 300- or 400-level, excluding internships
- At least one course in Studio Art

MS-100 may count as an elective for the minor (100-level).

Courses

- ### ART-100. Introduction to Visual Culture
  This course explores a concept of visuality that crosses cultural and academic boundaries. Students discuss theoretical texts about looking and analyze a wide range of visual materials. The goal is to develop an intellectual framework for engaging with the visual culture in which we live. Three hours per week. *Four semester hours. (A, H)*

ART-101. Drawing I
A study of drawing as a tool for articulating what the eyes, hand, and mind investigate and discover when coordinated. Through the repeated activity of drawing, students will refine their powers of observation and visualization. Each student will explore the concepts, techniques, materials, tools, and aesthetics of drawing while expanding their expressive, technical, conceptual, and visual skills. Assignments and work in class will relate to drawing from both a historical and contemporary approach. Students will be introduced to a range of artworks, materials, and methods for both producing and conceptualizing drawing. Three hours per week plus extensive individual work in the studio. *Four semester hours. (A.)*

ART-102. Painting I
A comprehensive introduction to the medium of paint. Students will develop oil painting skills and perceptual and critical abilities—learning how to paint, how to look at painting, and how to speak about painting. The course will examine both historical and contemporary precedents. Students will learn observational painting techniques as well as strategies for graphic expression and pictorial organization. Slide presentations, group critiques, and readings will supplement studio work. Three hours per week plus extensive individual work in the studio. *Four semester hours. (A.)*

ART-104. The Art of Photography I

To explore the expressive qualities of black & white photography as an art form, the student will learn the use of the camera and basic darkroom techniques. The student will learn how to see photographically through a study of contemporary and historical photography, as well as through practical exercises. Students are expected to develop a portfolio of work outside the class meetings. Students must have access to a camera that accepts 35mm film. Three hours per week plus extensive individual work in the studio. *Four semester hours. (A.)* Art materials fee.

ART-105. Printmaking I

This course introduces the history and context of printmaking, several printmaking processes, and the skills to articulate ideas and meaning visually through basic drawing and 2D design concepts. Students will explore printmaking techniques including intaglio, woodcut, linocut, and screen print. We will investigate the presence and power of reproducible images in contemporary art and visual culture and examine the work of various artists throughout the course. Written reflection and group critiques and discussions will supplement hands-on studio work. Three hours per week plus extensive individual work in the studio.*Four semester hours. (A.)*

ART-106. Sculpture I

An introduction to the process of making art that transforms topical themes and concepts into three-dimensional form or spaces. Various materials, tools and techniques will be explored as a means to focus design, structural, and conceptual challenges. Projects will be introduced through lectures, slide presentations, and discussion of readings on contemporary practice, and concluded through group critique and discussion. Three hours per week plus extensive individual work in the studio. *Four semester hours.* Art materials fee. *(A.)*

ART-107. Digital Photography I

Students will be introduced to the functions of digital cameras and to the use of Photoshop and other digital tools to enhance captured images and print the images as part of the digital darkroom. Class time will be devoted to working with digital tools, critiques of student work, discussion of assigned readings and reviewing the work of both traditional photographers and digital artists. Students must have access to a digital SLR camera with manual controls. Four hours per week plus extensive individual work in the Lab. *Four semester hours. (A.)* Art materials fee.

Note: *This course does not serve as a prerequisite for upper level photography courses. Students who intend to do advanced level work in Photography should enroll in Art 104-Photography I.*

ART-110. Digital Image Making

This course introduces digital image-making for the evolving language of visual communications in a complex world. Students will learn the basic skills to produce vector and raster graphics for print and digital applications. Students will learn digital drawing, rendering, and retouching techniques using professional software to create original work. Development of student work will explore the core question of How can we understand the world? through compositional elements and conceptual narratives. Three hours per week plus extensive individual work in the studio. *Four semester hours. (A.)*

ART-120. Graphic Design I

This course emphasizes the creation of visual communication through conceptualization and technical proficiency. Students will be introduced to the design process, terminology, and theory used in graphic design. As creative problem-solvers,

students will explore the elements and principles of design, typography, and semiotics for concept development. They will reflect on the nuances of target audiences and how the application of color, type, and imagery will vary based on end users, deliverables, and messaging. Three hours per week plus extensive individual work in the studio. *Four semester hours. (A.)*

ART/TD-130. Introduction to Design

In this studio class, students will be introduced to principles of theatrical design and the artistry of imagination. They will explore how theater designers think about images and use elements such as line, shape, space, mass, texture, light and color to create visual expression and communicate dramatic intention in three-dimensional space. Students will gain an understanding of the effect of lighting, scenic and costume design choices for theater and dance productions. Four hours per week. *Four semester hours. (A.)*

ART-150. History of Art I: Ancient Through Medieval

An exploration of the stylistic and conceptual developments of art and architecture from the Paleolithic and "antiquity" through the Gothic period of Europe until approximately 1250 CE. An interdisciplinary approach will be taken to examine a variety of works from ancient Mesopotamia and the Near East, the Ancient Americas, Egypt, Greece, and Rome as well as those of the Early Christian to Medieval periods of Europe. This course is structured as a broad, chronological survey and requires inquiry into questions of form and meaning as well as the relationship between art and society via lectures, discussion, written description and analysis of a work of art, readings, videos, and hands-on activities. Three hours per week plus museum trips. *Four semester hours. (A, H.)*

ART-160. History of Art II: Renaissance to Modern

A study of architectural monuments, paintings, and sculptures from the Renaissance through the Modern periods. A chronological approach and an inquiry into form and meaning will guide an exploration into the changing concept of space, time and society. Readings from other disciplines will be used to examine contextual issues, such as the political and religious uses of arts, the relationship between art and science, the profound social transformations that occurred during the period and the political significance of artistic practice. Issues such as class, gender, reception and spectatorship, racism, and Eurocentrism will be addressed. Three hours per week plus museum trips. *Four semester hours. (A, H.)*

ART-201. Drawing II

A continuation of the study of form through drawing emphasizing more sustained studio work. Students must develop their techniques in significant independent work beyond the contact hours. Students are expected to develop a portfolio of work outside the class meetings. Prerequisite: ART-101 or permission of instructor. Three hours per week plus extensive individual work in the studio. *Four semester hours. Art materials fee. (A.)*

ART-202. Painting II

An upper-division painting studio course that expands on techniques and concepts introduced in Painting I. Students will advance material skills and perceptual and critical abilities. The course will examine both historical and contemporary precedents. Students will work through a sequence of assignment prompts that present different conceptual and pictorial challenges. Emphasis is on sustained work and personal exploration. Students will expand their techniques in significant independent work beyond scheduled class hours. Prerequisite: ART-102 or permission of instructor based

on portfolio. Three hours per week plus extensive individual work in the studio.*Four semester hours. (A.)*

ART-204. The Art of Photography II

A continuation of Art-104. Students will investigate spaces and places defined by time with visual tools that record light. They will convert cultural, social, political, and philosophical issues into visual statements using the medium of photography. Students are expected to develop a portfolio of work outside class meetings. Prerequisite: ART-104 or permission of the instructor. Three hours per week plus extensive individual work. *Four semester hours. (A.)* Art materials fee.

ART-205. Printmaking II

Printmaking II will introduce students to a range of printmaking processes. We will experiment with painterly screenprinting techniques and screenprinting on textiles (t-shirts, totes, etc.) as well as larger-scale color woodcut/relief, lithography, collagraphy, and large-format color monotype techniques. Students will produce a portfolio of prints, with a focus on growing personal imagery and technique. The course is appropriate for students seeking to expand their exploration of printmaking processes beyond Printmaking I as well as students with special interest in painting, drawing, and/or design. Prerequisite: ART-105 or permission of the instructor. Three hours per week plus extensive individual work in the studio. *Four semester hours. (A.)*

ART-206. Sculpture II: Media, Time, Place

This course explores historical and contemporary definitions of sculpture through the incorporation of multiple objects and media, site specificity, and the element of time. Lectures, slide presentations, videos and readings will frame investigations, and writing and group discussion will aid in an ability to analyze artworks critically and articulate ideas. Prerequisite: ART-106 or permission of instructor. Three hours per week plus extensive individual work in the studio. *Four semester hours. (A.)* Art materials fee.

ART-208. Special Topics in Studio Art

The course offers an opportunity to develop creative ability using various two- and three-dimensional media not covered elsewhere. Specific course focus will vary from semester to semester, but topics may include painting, drawing, photography, sculpture, mixed-media or cross-disciplinary practices. Three hours per week plus extensive individual work. *Four semester hours. (A.)*

Note: *Art materials fee will vary by section.*

ART/MCS-209. Documentary Photography

This course introduces students to the concepts of visual documentation, social documentary style, photojournalism and ethics in photography as well as an historical perspective on the works of visual social documentarians. Students are required to conduct field work collecting digital still images to create visual narratives on a range of issues. Students enrolled in this course will need access to a digital camera to complete assignments. Three hours per week plus extensive individual work in the studio. *Four semester hours. (A.)*

ART-210. Studio Practice

In this course studio art majors and minors develop a body of work, engage in critical discourse, and develop a foundation in professional practices. Assignments include an artist statement, research paper, presentation and journal. Students' weekly progress in the studio will also be assessed. Prerequisite: Two introductory studio art courses or permission of instructor. *Four semester hours. (A.)*

ART-220 Art of the Ancient Americas

Through a variety of media—textiles, ceramics, metallurgy, painting, and sculpture—this course explores some of the major indigenous artistic traditions of what is now known as Latin America, the culturally defined regions of Mesoamerica, the center of the Americas, and the central Andes. We will consider made objects and architecture within the contexts of geography and the environment, artistic processes (techniques and materials), socio-political and religious status, ritual and performance, and language, writing, and mythology. Objects from local and regional collections will be featured. The course is suitable for first-year students and students new to art history. Three hours per week plus museum trips. *Four semester hours. (A, GN, H.)*

Note: *Students cannot enroll in both ART-220 and ART-320.*

ART-222. Graphic Design II

A continuation of Graphic Design I. Students will expand their exploration and development of visual design concepts. Students will examine the use of text and images in multi-page concept development through design processes that integrate design thinking strategies. This course will emphasize the application of typography and layout to enhance messaging and readability. Students will gain an understanding of print and digital print production, as well as file preparation. Prerequisite: ART-120. Three hours per week plus extensive individual work in the studio. *Four semester hours. (A.)*

ART-225. User Interface Design

This course introduces user interface (UI) and user experience (UX) concepts and tools as applied in developing websites and digital products. Strategies and workflow practices such as wireframes and prototypes will be implemented. Students will explore design systems, site architecture, color, typography, and layout to enhance accessibility and the user experience. Three hours per week plus extensive individual work in the studio. *Four semester hours. (A.)*

ART-226. Motion Graphics

This course introduces students to the fundamentals of motion graphics, teaching them how to convey messages and stories through moving visuals. Students will explore principles like timing and pacing while using industry-standard software to create engaging animations and videos. Students will learn to communicate visual concepts through composition, type, images, sound, and movement. In addition to making their original designs, students will analyze and critique existing motion graphics. Pre-requisite: ART-110 or 120. Three hours per week plus extensive individual work in the studio. *Four semester hours. (A.)*

ART-230 Art of the Ancient Andes

This course considers artworks of the ancient cultures of the central Andean region of South America from the earliest mummification to the stonework of the Inka. Students will engage with these distinct cultures and artworks within the contexts of geography and environment, artistic process, sociopolitical status, ritual and performance, and sacred spaces and landscapes. Special attention will be given to textiles (fiber materials, dyes, and techniques of weaving) through hands-on activities, demonstrations by artisans, and a visit with alpacas! Objects from local and regional collections will be featured. The course is suitable for first-year students and students new to art history. Three hours per week plus museum trips. *Four semester hours. (A, GN, H.)*

Note: *Students cannot enroll in both ART-230 and ART-330.*

ART/TD-231. Lighting Design

This course introduces students to the fundamentals of lighting design. The class focuses on the five functions of light: visibility, focus, modeling, mood, and spectacle; and the four qualities of light: intensity, color, distribution, and movement. Additionally, students explore basic lighting technology and the tools necessary to create a theatrical lighting design. This course is made up of a combination of lectures, class discussions, and projects. Class participation is essential to the success of this class. Students are asked to think critically and express ideas about their own work as well as the work of others. Four hours per week. *Four semester hours. (A.)*

ART/TD-232. Scene Design

This course introduces students to the fundamentals of scene design. The class focuses on enhancing students' analytical, research, drawing, and spatial problem-solving skills. Students develop ideas using traditional drawing, rendering, drafting, and model making to communicate ideas as we transfer them into the art of storytelling. Additionally, students explore basic stage technology and the tools necessary to create a theatrical scene design. This course is made up of a combination of lectures, class discussions, and projects. Class participation is essential to the success of this class. Students are asked to think critically and express ideas about their own work as well as the work of others. Four hours per week.*Four semester hours. (A.)*

ART/TD/MUS-233. Sound Design

This course introduces students to the fundamentals of sound design. The class focuses on creating an environment with sound through the use of Foley, pre-recorded media, and music. Additionally, students explore basic sound technology and tools to create a theatrical sound design. This course is made up of a combination of lectures, class discussions, and projects. Class participation is essential to the success of this course. Students are asked to think critically and express ideas about their work as well as the work of others. Four hours per week. *Four semester hours. (A.)*

ART-240 Maya Art and Architecture

This course investigates the Classic Maya (c. 150 – 900 CE) of modern-day Mexico, Belize, Guatemala, and Honduras, through their art, architecture, mythology, and writing. With special emphasis on ceramics—students will design and create (in the sculpture studio) a ceramic vessel that reflects engagement with information offered in the course—we will explore a variety of artistic materials and techniques as well as archaeological sites throughout the region. Students will study cultural interactions with areas on the Maya periphery, the histories of discovery of Maya art, and the ethical and theoretical issues related to its collection, interpretation, and display. Objects in local and regional museums will be featured. The course is suitable for first-year students and students new to art history. Three hours per week plus museum trips. *Four semester hours. (A, GN, H.)*

Note: *Students cannot enroll in both ART-240 and ART-340.*

ART-250. Special Topics in Art History

A focused exploration of special subject areas and/or periods in Western, Asian and African art. Students will utilize regional museums and archives for individual research projects. Museum trips required. This course could also be held off campus. Open to all students although a course in art history is strongly recommended. Three hours per week. *Four semester hours. (A, H; potentially DN or GN, depending on topic.)*

ART-260. Special Topics in Art History — Study Abroad

A focused exploration of special subject areas and/or periods in art conducted in a foreign location. Individual research projects and museum and historic site excursions

required. Open to all students, although a previous course in art history is strongly recommended. Three hours per week. *Four semester hours. (A, H.)*

ART-270. History of Photography

An introduction to photographers and their images from 1829 to the present with attention to photographic images created from diverse cultural perspectives. Emphasis is on the development of photography as a fine art. Readings will be selected from artists and critics in the field. Open to all students. Three hours per week plus museum trips. *Four semester hours. (A, H.)*

ART-280 A Visionary Aesthetic: Shamanism and the Art of the Ancient Americas

How did shamanism, or a "transcendental worldview," influence the making of ancient American artworks? How did ancient American artists solve the visual problem of representing the ambiguity, paradox, and flux central to shamanic experience? Are some media and techniques better suited to expressing an otherworldly perspective? This course explores those questions and interrogates the use of shamanism as an interpretive framework for the understanding ancient American art, including a variety of media and techniques, architecture, and the sacred landscape. As a group, we will engage with artworks from ancient contexts in Mesoamerica, the Center of the Americas, and the Central Andes region of South America as well as by contemporary indigenous shamans and ethnographic accounts of practices. These sources will also guide a critique of shamanic analyses and the use of the term "shaman" as well as examinations of global contemporary "shamanisms." This course is suitable for first-year students and students new to art history. Three hours per week plus museum trips. *Four semester hours. (A, GN, H.)*

Note: *Students cannot enroll in both ART-280 and ART-380*

ART-291W. Critical Perspectives on Art

This course explores the tools available for understanding art through a variety of art historical investigations of a single artist, monument, genre, theme, or work. Students probe "behind the scenes" of art history, and try out various methods for interpreting and writing about art. This course is required for all Art majors (both studio and art history concentrations). Three hours per week. *Four semester hours. (A.)*

ART-308. Advanced Special Topics in Studio Art

Students will examine advanced and experimental processes not covered in the regular curriculum. Topics may focus on various two- and three-dimensional media, mixed-media or cross-disciplinary practices such as painting/drawing, photography, installation, performance, alternative distribution systems, new media or collaboration. Students may be required to exhibit, perform, publish, or distribute their work to an audience outside of the classroom. Prerequisites: one course in Studio Art at the 100 or 200 level or permission of instructor. Four hours per week plus extensive individual work in the studio. *Four semester hours. (A.)* Art materials fee.

ART-310. Advanced Studio Practice

In this course studio art majors and minors develop a body of work, engage in critical discourse, and develop a foundation in professional practices. These activities prepare majors for the Studio Capstone (Art-455) and will benefit minors as well. Assignments include an artist statement, research paper, presentation and journal. Students' weekly progress in the studio will also be assessed. Prerequisite: Three introductory studio art courses or permission of instructor. *Four semester hours. (A.)* Art materials fee.

ART-320 Art of the Ancient Americas

Through a variety of media—textiles, ceramics, metallurgy, painting, and sculpture—this course explores some of the major indigenous artistic traditions of what is now known as Latin America, the culturally defined regions of Mesoamerica, the center of the Americas, and the central Andes. We will consider made objects and architecture within the contexts of geography and the environment, artistic processes (techniques and materials), socio-political and religious status, ritual and performance, and language, writing, and mythology. Objects from local and regional collections will be featured. This course is offered at the same time as ART-220 with additional required work. Prerequisite: ART-150 or 160 or permission of the instructor. Three hours per week plus museum trips. *Four semester hours. (A, GN, H.)*

Note: *Students cannot enroll in both ART-220 and ART-320.*

ART-330 Art of the Ancient Andes

This course considers artworks of the ancient cultures of the central Andean region of South America from the earliest mummification to the stonework of the Inka. Students will engage with these distinct cultures and artworks within the contexts of geography and environment, artistic process, sociopolitical status, ritual and performance, and sacred spaces and landscapes. Special attention will be given to textiles (fiber materials, dyes, and techniques of weaving) through hands-on activities, demonstrations by artisans, and a visit with alpacas! Objects from local and regional collections will be featured. This course is offered at the same time as ART-230 with additional required work. Prerequisite: ART-150 or 160 or permission of the instructor. Three hours per week plus museum trips. *Four semester hours. (A, GN, H.)*

Note: *Students cannot enroll in both ART-230 and ART-330*

ART-340 Maya Art and Architecture

This course investigates the Classic Maya (c. 150 – 900 CE) of modern-day Mexico, Belize, Guatemala, and Honduras, through their art, architecture, mythology, and writing. With special emphasis on ceramics—students will design and create (in the sculpture studio) a ceramic vessel that reflects engagement with Maya ceramic styles—we will explore a variety of artistic materials and techniques as well as archaeological sites throughout the region. Students will study cultural interactions with areas on the Maya periphery, the histories of discovery of Maya art, and the ethical and theoretical issues related to its collection, interpretation, and display. Objects in local and regional museums will be featured. This course is offered at the same time as ART-240 with additional required work. Prerequisite: ART-150 or 160 or permission of the instructor. Three hours per week plus museum trips. *Four semester hours. (A, GN, H.)*

Note: *Students cannot enroll in both ART-240 and ART-340.*

ART-350. Advanced Special Topics in Art History

A focused exploration of special subject areas and/or periods in art. Students will utilize regional museums and archives for individual research projects. This course could also be held off campus. Prerequisite: ART-150 or 160 or permission of instructor. Three hours per week plus museum trips. *Four semester hours. (A, H.)*

ART-371. Modern Art

The term “modernism” generally refers to aesthetic issues and practices that developed in response to 19th- and early 20th-century social forces of “modernity,” such as technology, industrialization, urbanization, politics, economics, and culture. Within the domain of the visual arts, avant-garde artists waged ideological and aesthetic debates against institutions of academic art. Through a critical exploration of visual and literary texts, this course considers the roles played by critics, curators, theorists, historians, politicians, and the popular press in shaping and defining “modern art.” Prerequisite:

ART-160 or permission of the instructor. Three hours per week plus museum trips. *Four semester hours. (A, H.)*

Note: *Students who have previously taken ART 280 may not take ART-371.*

ART-372. Contemporary Art

This course examines artistic movements from the late 1950s to the present, with special emphasis on contemporary visual culture. Course content focuses on international, political, economic, and cultural conditions that occasioned artistic movements, as well as representative artists working in various idioms and critical responses to them. Topical readings, lectures, visual interpretation, student presentations, and discussion inform the exploration of media, technology, scale, audience, the museum and gallery system, public art, the art market, the "culture wars," and censorship, to name a few. Prerequisite: ART-160, 290W, 371 or a 100-level studio art course, or permission of the instructor. Three hours per week plus museum trips. *Four semester hours. (A, GN, H.)*

ART/GWSS-373. Feminism and Gender in Art and Art History

This course investigates the influence of political, activist, and scholarly developments in feminist and gender theory on artistic practice and the discipline of art history. Course material explores how feminist consciousness and theories of gender have led artists, critics, and theorists to innovative representational strategies and to challenge, revise, and reinterpret art historical narrative. In the process, the course focuses on how such interventions alter the stories that artists and scholars tell. Prerequisite: ART-160, 290W, 371, or 372; or permission of the instructor. *Four semester hours. (A, DN.)*

ART-380 A Visionary Aesthetic: Shamanism and the Art of the Ancient Americas

How did shamanism, or a "transcendental worldview," influence the making of ancient American artworks? How did ancient American artists solve the visual problem of representing the ambiguity, paradox, and flux central to shamanic experience? Are some media and techniques better suited to expressing an otherworldly perspective? This course explores those questions and interrogates the use of shamanism as an interpretive framework for the understanding ancient American art, including a variety of media and techniques, architecture, and the sacred landscape. As a group, we will engage with artworks from ancient contexts in Mesoamerica, the Center of the Americas, and the Central Andes region of South America as well as by contemporary indigenous shamans and ethnographic accounts of practices. These sources will also guide a critique of shamanic analyses and the use of the term "shaman" as well as examinations of global contemporary "shamanisms." This course is offered at the same time as ART-280 with additional required work. Prerequisite: ART-150 or 160 or permission of the instructor. Three hours per week plus museum trips. *Four semester hours. (A, GN, H.)*

Note: *Students cannot enroll in both ART-280 and ART-380.*

ART-381. Art Internship

An academic/work experience under the supervision of an internship adviser and an on-site supervisor. Students must document their experience according to the requirements delineated in the College catalogue section on Internships. Contact art faculty for further details. Open to juniors and seniors. The term during which the internship work is performed will be noted by one of the following letters, to be added immediately after the internship course number: A (fall), B (winter), C (spring), or D (summer). Internships undertaken abroad will be so indicated by the letter I. The intern must complete a minimum of 120 hours of work. Prerequisites: approval of an

internship adviser and three courses in art. 120 hours. Graded S/U. *Three semester hours. (XLP.)*

ART-382. Art Internship

An academic/work experience under the supervision of an internship adviser and an on-site supervisor. Students must document their experience according to the requirements delineated in the College catalogue section on Internships. Contact art faculty for further details. Open to juniors and seniors. The term during which the internship work is performed will be noted by one of the following letters, to be added immediately after the internship course number: A (fall), B (winter), C (spring), or D (summer). Internships undertaken abroad will be so indicated by the letter I. The intern must complete a minimum of 160 hours of work. Prerequisites: approval of an internship adviser and three courses in art. 160 hours. Graded S/U. *Four semester hours. (XLP.)*

ART-390. Research in Art History

Readings and independent research under the supervision of a faculty adviser. A substantial written paper on a specific topic in art history is required. Prerequisites: Eight credits of coursework in Art History beyond the 100 level, demonstrated competence in the specific area of study, a written project proposal, and permission of a department faculty member who will serve as project adviser. *Four semester hours. (A, XLP.)*

ART-391. Research in Art History

Content, prerequisites, and requirements are the same as for ART-390. *Four semester hours. (A, XLP.)*

ART-401. Special Projects in Studio Art I

Independent work on a creative project approved and supervised by a faculty adviser. An oral presentation is required. Prerequisite: A portfolio of creative works or permission of instructor. *Four semester hours. (XLP.)*

ART-402. Advanced Special Projects in Studio Art II

Advanced independent work on a creative project approved and supervised by a faculty adviser. Prerequisites: ART-401; and a portfolio of creative works or permission of instructor. *Four semester hours. (A, XLP.)*

ART-450W. Seminar in the History of Art

In this course, students will further develop research criteria and techniques, using museum and library resources, in topics in a specific era of art history. An oral presentation is required. Prerequisite: ART-150 or ART-160, ART- 200W, and permission of instructor. Three hours per week plus museum trips. *Four semester hours. (A, H.)*

ART- 455. Capstone in Studio Art

Preparation of a studio art major's professional portfolio, senior exhibit d oral presentation. Students will demonstrate a familiarity with larger visual, historical and theoretical contexts of all three course components as well as a thoughtful implementation of artistic media and methodologies. Each student will develop an independent project in a medium of choice under the guidance of the advising instructor. Prerequisites: ART-101, 200W, 150 or 160, and 2 electives of studio art at the 200 level or above. Three hours per week plus extensive individual work in the studio. *Four semester hours. (A, CCAP, XLP)*

ART-491. Research/Independent Work

This course is open to candidates for departmental honors and to other students, with the permission of the instructor. *Four semester hours. (XLP.)*

ART-492. Research/Independent Work

A continuation of ART-491. An oral presentation is required. Prerequisite: ART-491. *Four semester hours. (XLP.)*

- Art Department

Artificial Intelligence

Faculty

- *Professors Scoville, Sorensen, VanGilder; Associate Professor Mongan (Coordinator), Montesinos-Yufa, New; Assistant Professors Grossbauer, O'Rourke-Friel, Yan.*

- Artificial intelligence is an interdisciplinary minor involving a number of academic areas: computer science, mathematics, data analytics, and philosophy. The minor prepares students to work with a powerful, quickly evolving, and controversial tool, in a world that stands to be changed by this tool in ways still only beginning to be understood. Students in the minor will understand the difference between traditional/rule-based approaches to artificial intelligence and more current approaches (such as generative artificial intelligence, which uses massively large data sets to train a system to predictively generate statements, computer code, images, music, and other items). Students will become more proficient at using artificial intelligence. Central to the minor will be the questions of the core curriculum, especially "How should we live together" and "How can we understand the world."

  Requirements for Artificial Intelligence Minor

  A minor in artificial intelligence consists of 24 credits, with at least 17 credits in required courses. Required courses are as follows:

  - STAT-141
  - STAT-142
  - CS-357
  - DATA-201
  - PHIL/CS-243

  In addition, artificial intelligence minors must complete 7–8 elective credits to reach 24 credits in the minor. The following courses will satisfy the elective requirement:

  - ART-110
  - CS-173, 372, 377, 477
  - DATA-150, 202, 301, 350
  - DIGS-200
  - MATH-341

- PHIL-274
- STAT-242, 243, 244, 342, 443W
- Another course, with approval of the artificial intelligence coordinator, that allows for a substantive project involving artificial intelligence.
- Honors or research or an independent study in any discipline that involves significant work with artificial intelligence may also count towards the minor, with the permission of the artificial intelligence coordinator. Students will present their rationale, approach, and socio-ethical considerations via a disseminable project through CoSA, CS/MATH/STAT-350, or other approved means.

Artificial Intelligence Courses

- **CS-357. Foundations of Artificial Intelligence**

  A technical introduction to the tools and practices that have evolved from artificial intelligence (AI) and large language models that considers the role of technology through the lens of the Ursinus Questions. This course prepares students to create and interact with conversational virtual assistants and multi-agent systems that achieve goal-oriented outcomes. Students will explore the foundations and history of artificial intelligence that enabled the technical underpinnings of generative AI, with a particular emphasis on the ethical, social, and intellectual property implications of the nature of the training data sets used to form large language models. The course includes a practical discussion of responsible AI from the perspective of creators and of consumers and stakeholders. Students will apply current design patterns in AI with respect to large language models to create and present a technical project using generative AI, and will lead a discussion focused on practices for responsible AI within the context of their chosen project. Offered in Spring of odd years. Prerequisites: CS-170 or CS-173 or DATA-201, or permission from the instructor. Four hours per week. *Four semester hours.*

Biochemistry and Molecular Biology

Faculty

- *Professors Cameron, E. Dawley, R. Dawley, Ellison, Favero, Lyczak, Reig, Roberts; Associate Professors Finney, Lobo (Co-Coordinator), Straub, Walvoord, Williamsen (Co-Coordinator), Willner; Assistant Professors Bove, Bustin, Gorenberg, Kraus, Leslie, Price, Yost; Visiting Professors and Instructors Benfer, Gabel, Klein, Smeller, Tracy, Volger.*

- Biochemistry and Molecular Biology (BCMB) is an interdisciplinary major that includes courses in biology, chemistry, mathematics, and physics. Students pursuing this major will explore the chemical interactions that underlie life's diversity. Courses in the major will cover the theoretical basis of knowledge in biochemistry and molecular biology and the experimental strategies used by scientists in these fields. Laboratories will foster creative experimental work by students and familiarize them with current techniques and equipment used by biochemists and molecular biologists. It is the goal of this program to prepare majors for graduate study in biochemistry and molecular biology, post-baccalaureate study in the health sciences, and careers in the pharmaceutical and biotechnology industries.

  ## Requirements for Majors

  A major in Biochemistry and Molecular Biology (BCMB) consists of the following components:

  ## Courses Required of All Majors:

  - BCMB-202, 307, 351, 452W
  - BIO-101Q, 102Q, 201W
  - CHEM-107/107LQ 108/108L, (CHEM-151/151LQ can be taken instead of CHEM-107/107LQ and 108/108L), 207/207L, 208/208L
  - MATH-112
  - PHYS-111Q/111L or 121Q/121L
  - Advanced Molecular Biology Course (one of the following): BCMB-426W, 429W, 433W; BIO-425W, BIO-428W, 449W, 459W; BIO/NEUR-431W

- Advanced Molecular Biology Laboratory (one of the following): BCMB-429L (in conjunction with BCMB/BIO-429W), 433L (in conjunction with BCMB-433W), 493; BIO-328L (in conjunction with BIO-328), 426L (in conjunction with BCMB/BIO-426W); BIO/NEUR-431L (in conjunction with BIO/NEUR-431W)
- Advanced Biology or Chemistry Course (one of the following): BCMB-350; BIO-306, 328, 345, 346; CHEM-310, 315, 322, approved 340 sections (twice on different topics); after fulfilling the Advanced Molecular Biology Course requirement, a second course from that list may fulfill this requirement.
- Advanced Chemistry Laboratory (one of the following): BCMB-307L; CHEM-315L, 322L

Biochemistry and Molecular Biology majors fulfill the capstone, writing, and oral presentation requirements in the major by completing BCMB-452W and one of the Advanced Molecular Biology Courses.

Departmental Honors in Biochemistry and Molecular Biology

Students successfully completing BCMB-491/492 may be awarded honors but no additional credits will be given. Description of the honors program, including qualifications, is detailed in this catalog.

S/U Guidance

For medical or graduate programs, prerequisite courses for the program should not be taken with S/S-/U grading.

Courses

- **BCMB-202. Foundations in Biochemistry and Molecular Biology**

  Discussion of milestones and current topics in biochemistry and molecular biology. Students will be introduced to key BCMB skills and resources. Co- or Prerequisites: BIO-201W, CHEM-108/108L or 151/151LQ, CHEM-208/208L (or currently), a declared BCMB major, and sophomore status. One hour per week. *One semester hour*.

BCMB-291. Introduction to Research

Laboratory and library work, under the direction of a faculty member, designed to introduce the student to fundamental research procedures and data interpretation in the context of a research project. Upon completion of the work, a formal presentation must be given. This course may be taken more than once. At the time of registration, written consent of the instructor is required. Three hours of laboratory per week. Graded S/U. *One semester hour*.

BCMB-307. Biophysical Chemistry

An in-depth study of the theory and applications of chemical and physical equilibria in cells, enzyme kinetics, and thermodynamics of biochemical processes. Examples of such applications may include the study of the thermodynamics of metabolism, biological redox reactions, double strand formation in nucleic acids, equilibrium and energetics of protein denaturation, membrane potential, potassium ion channels, ligand binding, buffers, and osmosis and dialysis. Prerequisites: BIO-102W; CHEM-108 or 151; MATH-112; and PHYS-111Q or 121Q. Three hours per week. *Three semester hours.*

Note: *Students may not receive credit for both BCMB-307 and CHEM-309.*

BCMB-307L. Biophysical Chemistry Laboratory

This laboratory course is intended to complement the material presented in Biophysical Chemistry (BCMB-307) in an experimental setting. Techniques and instrumentation will be introduced that are commonly used to characterize biophysical processes such as enzyme kinetics, DNA melting, and hemoglobin oxygenation. An emphasis will be placed on data analysis, error propagation, and lab report writing skills. Prerequisite: BCMB-307 (or currently). Three hours of laboratory work per week. *One semester hour.*

Note: *A student cannot take both BCMB-307L and CHEM-309L for credit.*

BCMB-350. Selected Topics in Biochemistry and Molecular Biology

A course offered periodically in an area of special interest to students by a faculty member or a visiting lecturer. Prerequisite: permission of the instructor. Three hours per week, plus either intensive writing or three hours of laboratory, depending on the topic. *Four semester hours.*

BCMB-351. Biochemistry I: Protein Biochemistry

The study of properties, structure, function and role(s) in life processes of proteins. Enzymatic mechanisms, kinetics, and the biochemical basis of selected physiological processes are also included. The laboratory introduces the theory and methods of protein isolation and analysis, including chromatography, electrophoresis, and enzyme kinetics. Prerequisites: BIO-201W; CHEM-108/108L or 151/151LQ; and CHEM-208/208L; or permission of instructor. Three hours of lecture; three hours of laboratory. *Four semester hours.*

Students who have received credit for CHEM-347 may not enroll in BCMB-351.

BCMB-380. Off-Campus Research

An approved, off-campus laboratory research experience supervised by an on-site adviser and faculty liaison involving a minimum of 120 hours of work. Before beginning the project, the student must submit a proposal to be approved by both the BCMB faculty and the on-site adviser. Upon completion of the work, written and oral reports must be presented to the department. Prerequisites: BIO-201L, CHEM-108/108L or 151/151LQ; and CHEM-208/208L. Graded S/U. *Three semester hours. (XLP.)*

BCMB-381. Internship

An academic/work experience with a primary focus on a laboratory research project. Students must document their experience according to the requirements delineated in the College catalogue section on Internships. Before beginning the internship, the student must submit a proposal to be approved by the faculty internship advisor. Upon completion of the work, written and oral presentations must be made to the program faculty. Open to juniors and seniors. The term during which the internship work is performed will be noted by one of the following letters, to be added immediately after

the internship course number: A (fall), B (winter), C (spring), or D (summer). Internships undertaken abroad will be so indicated by the letter I. The intern must complete a minimum of 120 hours of work. Prerequisites: BIO-201W, CHEM-108/108L or 151/151LQ; and CHEM-208/208L. Graded S/U. *Three semester hours. (XLP.)*

BCMB-382. Internship

An academic/work experience with a primary focus on a laboratory research project. Students must document their experience according to the requirements delineated in the College catalogue section on Internships. Before beginning the internship, the student must submit a proposal to be approved by the faculty internship advisor. Upon completion of the work, written and oral presentations must be made to the program faculty. Open to rising juniors and seniors. The term during which the internship work is performed will be noted by one of the following letters, to be added immediately after the internship course number: A (fall), B (winter), C (spring), or D (summer). Internships undertaken abroad will be so indicated by the letter I. The intern must complete a minimum of 160 hours of work. Prerequisites: BIO-201W, CHEM-108/108L or 151/151LQ; and CHEM-208/208L. Graded S/U. *Four semester hours. (XLP.)*

BCMB-391. Research/Focused Inquiry

Laboratory and library work, under the direction of a faculty member, designed to introduce the student to fundamental research procedures and data interpretation in the context of a research project. Upon completion of the work, a formal presentation must be given. This course may be taken more than once. At the time of registration, written consent of the instructor is required. Six hours of laboratory per week. Graded S/U. *Two semester hours.*

BCMB/BIO-426W. Molecular Biology

A survey of gene structure, transcription, translation, regulation, and replication, as well as the theory underlying laboratory techniques used in their study. Laboratory experiments will include DNA and protein isolation, enzymatic manipulations, electrophoresis, and nucleic acid hybridization in an attempt to clone and analyze a bacterial gene. Prerequisites: BIO-201W; or permission of the instructor. Three hours of lecture; three hours of laboratory. *Four semester hours.*

BCMB/BIO-429W. Structural Biology

An introduction to the principles of protein and DNA structure, X-ray crystallography, structure visualization and interpretation, and bioinformatics. The use of these concepts to understand biological function at the level of individual molecular interactions and at the level of complex processes will be demonstrated through specific biological examples. Laboratory work will emphasize structure-determining techniques and use of scientific databases and protein visualization software. Prerequisite: BIO-201W; two semesters of chemistry strongly recommended; or permission of the instructor. Three hours of lecture; three hours of laboratory per week. *Four semester hours.*

BCMB/BIO/NEUR-433W. Molecular Neurobiology

This course focuses on the cellular and molecular basis of neuronal communication. The lecture explores the structure of neurons, neurotransmitter regulation, synaptic plasticity, neurological disorders and their current pharmacological therapies. During the semester students will examine scientific literature through presentations and increase their understanding of molecular neurobiology mechanisms through laboratory cell culture techniques. Prerequisites: BIO-201W; or permission of the instructor. Three hours of lecture; three hours of laboratory per week. *Four semester hours.*

BCMB-452W. Biochemistry II: Metabolism

The study of diverse, complex interactions among biomolecules. A comprehensive survey of metabolism including the cellular mechanisms underlying metabolic regulation. The laboratory introduces advanced biochemical methods. This course (together with BCMB-426W, 429W or 433W) fulfills the capstone, oral and writing requirements of the major. Prerequisite: BCMB-351. Three hours of lecture; three hours of laboratory. *Four semester hours.*

Note: *Students who have received credit for CHEM-347 may not enroll in BCMB-452W.*

BCMB-480. Off-Campus Research

An approved, off-campus laboratory research experience supervised by an on-site adviser and faculty liaison involving a minimum of 160 hours of work. Before beginning the project, the student must submit a proposal to be approved by both the BCMB faculty and the on-site adviser. Upon completion of the work, written and oral reports must be presented to the department. Prerequisites: BIO-201L; CHEM-108/108L or 151/151LQ; and CHEM-208/208L. Graded S/U. *Four semester hours. (XLP.)*

BCMB-491. Independent Research

Independent laboratory and library investigation in biochemistry and/or molecular biology, with oral progress reports and a research paper presented to the faculty research mentor. This course may be taken more than once. At the time of registration, written consent of the research advisor is required. 12—14 hours of laboratory per week. *Four semester hours. (XLP.)*

BCMB-492W. Independent Research

A continuation of BCMB-491 with an oral presentation to the BCMB faculty and a thesis or paper describing research work. Emphasis is placed on oral and written presentation, as well as advanced laboratory techniques. Prerequisites: BCMB-491, BCMB-452W (or concurrently). 12-14 hours of laboratory per week. *Four semester hours. (XLP.)*

BCMB-493. Molecular Biology Research

A course taken by a student who wishes to fulfill the molecular biology laboratory major requirement in a research setting. Work is done within a BCMB-391, BCMB-491, BCMB-492W or Summer Fellows research project. Beyond fulfilling the requirements of the research course, the student must demonstrate an understanding and facility with multiple techniques commonly used in the molecular biology laboratory. A student enrolls in this course the semester after successfully completing the requirements. Graded S/U. Prerequisite: Permission of research advisor and BCMB coordinators. *Zero semester hours.*

Note: Students must complete the associated research component (BCMB-391, BCMB-491, BCMB492W) prior to their last semester.

- Biochemistry Program

Biodiversity & Wildlife Conservation

Faculty

- *Professor Hurley (Coordinator); Associate Professors Clark, Finney, Joseph, Straub; Assistant Professors Berry, Bove, Leslie.*

- Biodiversity & Wildlife Conservation (BDWC) is an interdisciplinary minor designed for students interested in protecting and enhancing natural systems and the diverse flora and fauna these systems support. The minor program allows students to explore aspects of biodiversity and wildlife conservation related to biology (foundational, organismal, and community aspects), dimensions of environmental science (longer-term change and planetary forces), and environmental studies (focusing on the relationship of human interactions and decision-making that affect extinction and protection efforts). Co-curricular and experiential learning are incorporated into the minor so that students have the opportunity to practice and reflect on applied skills. A minor in the BDWC consists of 28 credits. Required courses include:
    - Foundation (all required): ENVS-100, ENVS-120, and BIO-101Q
    - Organismal (select 1): ENVS/BIO-325, 334, 360, 365, 375, 442W, or BIO-359
    - Ecological Systems and Change (select 2): ENVS/BIO-310, 320, 330, 336, 415W, 419W, 455W; ENVS/GEOS-240Q, ENVS-370, 454W
    - Human Systems/Decision-Making (select 1): ENVS/SOC-288, ENVS-332, 338, 364, 366, or 428.

  Taking ENVS/BIO-455 within the minor is highly recommended for those students who would like to continue on in the field of wildlife conservation. Other recommended courses include: ENVS/SOC-220, ENVS-244, ENVS/HIST-254, ENVS/PHIL-248, and STAT-141Q and 142Q; in addition to those courses not already selected from within the minor categories.

  Students who plan to continue on within the field of Biodiversity & Wildlife Conservation after graduation are advised to talk with the BDWC coordinator to determine the specific courses, and/or additional courses, that may be recommended for continuing on in a particular aspect of this field. BDWC minors are also recommended to seek out and complete an XLP that provides additional experience and exposure to some aspect of biodiversity & wildlife conservation.

For majors in the field of Environment and Sustainability (ENVS) or BIO who wish to concentrate in BDWC, no more than 12 credits can be counted toward both their BDWC minor and their major.

Special topics and other new courses may count towards the Biodiversity & Wildlife Conservation minor with permission of the BDWC coordinator. Similarly, internships or courses taken during a study abroad or off campus program may also count towards the BDWC minor with approval from the BDWC minor coordinator.

- Environment and Sustainability

Biology

Faculty

- *Professors Cameron, E. Dawley, R. Dawley, Favero, Lyczak, Roberts; Associate Professors Finney (Chair), Lobo, Straub; Assistant Professors Bove, Gorenberg, Kraus, Leslie, Price; Visiting Professors and Instructors Benfer, Gabel, Vogler.*

- The underlying philosophy of the departmental curriculum is to provide a balanced and current biological education within the broader context of the liberal arts. The curriculum has been designed to keep pace with new developments in the field and to afford students as broad a base as possible for understanding the principles governing life processes. Coursework provides a firm foundation of knowledge in the various sub-disciplines, fosters the scientific attitude, and familiarizes students with current research methods. A capstone course, coupled with oral and written experiences within the department, helps to develop and reinforce the ability to think clearly, critically and independently. In the junior and senior years, students have the opportunity to pursue an independent project, which may include research with a faculty mentor.

  Successful completion of the curriculum prepares students for graduate work, for employment in a biologically oriented profession, or for admission to professional schools in the several fields of medicine and related health services. The department also participates in a program leading to teacher certification in secondary schools as described below.

Requirements for Biology Majors

To fulfill the requirements of the major, all students must complete 36 semester hours of biology as outlined in the departmental core and the ancillary requirements listed below. Biology majors can fulfill the requirement for an oral presentation and the capstone requirement in the major by taking BIO-415W (or ENVS-415W), BIO-419W (or ENVS-419W), 425W, 426W (or BCMB-426W), 428W, 429W (or BCMB-429W), 431W, (or NEUR-431W), 433W (or BCMB-433W or NEUR-433W), 435W (or NEUR-435W), 442W, 444W, 449W, 455W (or ENVS-455W), 459W, 492W (or BCMB-492), BCMB-452W.

I. Required Biology Courses:

BIO-101Q, 102Q, 201W and one of the following capstone courses: BIO-415W (or ENVS- 415W), BIO-419W (or ENVS-419W), 425W, 426W (or BCMB-426W), 428W, 429W (or BCMB-429W), 431W (or NEUR-431W), 433W (or BCMB-433W or NEUR-433W), 435W (or NEUR-435W), 442W, 444W, 449W, 455W (or ENVS-455W), 459W, 492W, BCMB-452W. At least 24 of the 36 biology credits for the major must have a laboratory or be a four-credit lecture/laboratory combination course. These courses are: BIO-101Q, BIO-102Q, BIO-201W, BIO-234, BIO-305, BIO-306, BIO-310, BIO-320, BIO-325, BIO-328, BIO-334, BIO-336, BIO-345, BIO-346, BIO-351, BIO-359, BIO-360, BIO-365, BIO-375, BIO-415W, BIO-419W, BIO-426W, BIO-429W, BIO-431W, BIO-433W, BIO-435W, BIO-442W, One research course from: BIO-481, 485, 491, or 492W may be used as part of this requirement.

II. Distribution Requirements:

A. Molecular/Cellular Biology. At least two courses must be completed from the following: BIO-220, 225 (or NEUR-225), 306, 328, 333, 345, 346, 351, 364, 425W, 426W (or BCMB-426W), 428W, 429W (or BCMB-429W), 431W (or NEUR-431W), 433W (or BCMB-433W or NEUR-433W), 435W (or NEUR-435W), 444W, 449W, 459W, BCMB-351, 452W.
B. Organismal/Population Biology: At least two courses must be completed from the following: BIO-234 (or ENVS-234), 305, 310, 320, 324, 325 (or ENVS-325), 330, 334 (or ENVS-334), 336 (or ENVS-336), 359, 360, 365 (or ENVS-365), 375 (or ENVS-375), 415W (or ENVS-415W), BIO-419W (or ENVS-419W), 442W, 455W (or ENVS-455W).

Note: Students must take both BIO-205, 205L and 206 for either course to be counted for the biology minor.

III. Electives:

Chosen in accordance with the major area of interest and bringing the total to a minimum of 36 credit hours in biology (excluding BIO-205, 205L and BIO-206).

Note: A maximum of 10 credit hours of research (BIO-391, 392, 481, 485, 491, 492W), including no more than 3 credit hours from among BIO-391 and 392, may be applied to the major. A maximum of 12 credit hours of research may be applied to graduation.

IV. Required of all Biology Majors:

C. Chemistry: CHEM-107/107LQ and 108/108L; or CHEM-151/151LQ and 207/207L.
D. Mathematics/Computer Science:
Choose any two classes from among the following: CS-173 and higher, MATH-111 and higher, or STAT-141Q and higher.

Strongly Recommended: At least one class be in Statistics (STAT).

CS-350, MATH-350, MATH-400, or any CS, MATH, or STAT internship or research class cannot be used to fulfill this requirement.

V. Recommended of all Biology Majors:

E. One year of physics
F. A second year of organic chemistry

Requirements for Biology Minors

A minor concentration in biology consists of BIO-101Q, 102Q, 201W, and at least 12 additional elective credits in biology including at least one course from each of the two distribution categories (Molecular/Cellular and Organismal/Population) and exclusive of internships or research.

Special Career Interests

I. Students seeking admission to graduate programs in biologically related fields should note the following:

G. A second year of chemistry is strongly recommended.
H. A fifth course in chemistry is recommended.
I. Additional coursework in mathematics/computer science is recommended.

II. Prospective secondary school teachers whose interest is biology and who wish to be certified in biological science should note the following:

J. PHYS-111Q is required; a year of physics is recommended.
K. ENVS/GEOS-102Q is required.

L. CHEM-107/107LQ and 108/108L; or CHEM-151/151LQ and 207/207L.
M. It is highly recommended that prospective teachers serve at least one semester as departmental assistants.
N. The curriculum beyond the first year must be arranged in consultation with the chairman of the department of education or with the departmental teacher education adviser. Students and their advisers should consult the Ursinus College Education Department.

III. Students seeking admission to schools of medicine, dentistry, veterinary medicine, optometry and podiatry should note the following:

O. Two years of chemistry and one year of general physics for science majors are required by all of the above schools.
P. Many schools also require one full year of English and some specify one or two semesters of calculus.
Q. Students and their advisers should consult the premedical handbook or one of the premedical advisers for requirements of specific schools.

IV. Students seeking admission to other health science programs, such as physical therapy, should consult the departmental allied health adviser.

V. Students who seek employment in a biologically oriented profession should note the following:

R. ACCT-140 and ECON-102 are recommended.
S. Additional coursework in Media and Communication Studies is recommended.
T. Additional courses that emphasize writing are recommended.

S/U Guidance

No more than 12 credit hours in biology graded S/S-/U can be applied to the major, including those from research (BIO-391, 392, 481, 485, 491, 492W), internships (BIO-382), and classes opted for S/S-/U grading. BIO-101Q, 102Q, 201W, and any 400-level course may not be taken with S/S-/U grading for the biology major. For medical or biologically related graduate programs, BIO-101Q, 102Q, 201W, and any prerequisite courses for the program should not be taken with S/S-/U grading.

No more than 4 credit hours in biology graded S can be applied to the minor, including those from research, internships, and classes opted for S/S-/U grading.

Courses

- ### BIO-101Q. Issues in Ecology and Evolution

  Approaches the fundamental principles of ecology and evolution using the examination of specific case studies and the current scientific literature. Principles will include population growth, organismal adaptations and ecosystem level interactions, all in the light of natural selection theory. Lecture readings and laboratory exercises will employ the scientific method and emphasize quantitative analysis of data. Recitation develops the academic skill set necessary for success throughout STEM fields at Ursinus. Three hours of lecture; an average of one and one-half hours of laboratory per week; one hour of recitation per week. *Four semester hours. (S.).*

BIO-102Q. Cell Biology

Approaches the fundamental principles of cell biology using the examination of specific case studies and the current scientific literature. Principles will include molecular structure and function of cells, generation of biochemical energy, cell cycle regulation and cancer, and neuronal communication. Lecture readings and laboratory exercises will employ the scientific method and emphasize quantitative analysis of data. Three hours of lecture; an average of one and one-half hours of laboratory per week. *Four semester hours. (S.)*

BIO-150. Biology and the World

This course is intended for non-science majors. The biological topic on which the course focuses varies by semester. Students will develop the ability to explain and apply evidence-based approaches to understanding natural phenomena; understand the roles of observation, hypothesis and theory development, controlling variables, and repetition and replication in the accumulation of scientific knowledge; and participate in methods of inquiry and/or experimentation that include at least one of the following approaches: bench work, fieldwork, observation of the natural world, utilization of scientific databases, and modeling. Students will seek to understand how biology influences their individual understanding of the universe. Three or more hours of meeting time per week, some portion of which is spend participating in methods of inquiry and/or experimentation. *Four semester hours. (S.)*

Note: *BIO-150 does not count toward the biology major or the biology minor.*

BIO-151. Biology and the African Diasporic Experience in America

This course is intended for non-science majors. Biology and the African Diaspora in America takes a biological and historical look at topics including evolution of skin pigmentation, and the influence biology has had on the concept of race. Students will develop the ability to explain and apply evidence-based approaches to understanding natural phenomena. Students will understand the roles of observation, hypothesis and theory development, controlling variables, repetition and replication in the accumulation of scientific knowledge by participating in various methods of inquiry and/or experimentation that including: bench work, fieldwork, observation of the natural world, utilization of scientific databases, and modeling. Students will seek to understand how biology influences their individual understanding of the universe.

Three hours of lecture and one and one-half hours of laboratory per week. *Four semester hours. (DN, Q, S.)*

BIO-150 does not count toward the biology major or the biology minor.

BIO-201W. Genetics

Exploration of principles of genetics using examination of specific case studies and the scientific literature. Topics include advanced Mendelian genetics, molecular genetics, population genetics. Prerequisites: BIO-101Q and BIO-102Q, or permission of the instructor. Three hours of lecture per week and three hours of laboratory per week. *Four semester hours. (S.)*

BIO/HS-205 Human Anatomy & Physiology I

A study of the structure and function of the tissues and organs that compose the integumentary, skeletal, muscular, nervous, and special senses systems. We will explore the maintenance of homeostasis made by each of these systems. Prerequisites: BIO-102Q; or permission of the department chair; must be taken concurrently with BIO205L unless granted permission by instructor. Three hours of lecture per week. *Three semester hours. (S, if taken with BIO/HS-205L.)*

Note: Students who have taken BIO/HS-205. 205L and/or 206 may not receive credit for completing BIO-305.

***Note:** BIO/HS-205 and 205L do not count toward the biology major.*

***Note:** Students can count BIO/HS-205 and 205L as satisfying the organismal/population requirement and BIO/HS-206 as satisfying the integrative requirement for the biology minor. Both courses must be taken for either course to count for the biology minor.*

BIO/HS-205L. Laboratory in Human Anatomy & Physiology I

Laboratory work related to BIO205. Emphasis in the laboratory will be placed on histology, joints, muscles, bones and nervous system anatomy. Prerequisite: BIO-102Q; must be taken concurrently with BIO205 unless granted permission by instructor. Three hours of laboratory per week. *One semester hour. (S, if taken with BIO/HS-205.)*

BIO/HS-206. Human Anatomy & Physiology II

A study of the structure and function of the tissues and organs that compose the endocrine, pulmonary, cardiovascular, digestive, urinary, and reproductive systems. A case study approach will be utilized to explore the homeostatic contributions made by each of these systems under rest, exercise, and disease conditions. This is an approved elective course for the completion of the Biology minor but not the Biology major. Prerequisites: BIO/HS-205 or permission of the instructor. Three hours of lecture and three hours of laboratory per week. *Four semester hours.*

***Note:** Students who have taken BIO/HS-205 and/or BIO/HS-206 may not receive credit for completing BIO-306.*

***Note:** BIO/HS 206 does not count toward the biology major.*

***Note:** Students can count BIO/HS-205 as satisfying the organismal/population requirement and BIO/HS-206 as satisfying the molecular/cellular requirement for the biology minor. Both courses must be taken for either course to count toward the biology minor.*

BIO-220. Innovation in Biology

This course approaches biology through the lens of innovation – identification of problems and pathways to solutions. Through the use of case studies, primary literature, and discussion students are introduced to historical and current innovations

in biology. Students explore the relationships between innovative science, funding, ethics, intellectual property (patents), biotechnology, and business. Sophomores will be allowed to enroll in this course first and remaining seats can be filled by juniors and seniors. Prerequisite: BIO-201W; or permission of the instructor. *Four semester hours. (LINQ.)*

BIO/NEUR-225. Glial Cell Biology

Understanding biological functions and the mechanisms cells use to carry out them out are critical to advancing scientific knowledge about how cells govern systems. The overall goal of this course is to examine what we currently know about glial cells, one of the two major types of cells in the nervous system, and how research is discovering new roles for these cells in nervous system function by investigating primary and secondary literature, animal model systems, current experimental methods, and human conditions associated with alterations of glial cells. This course is designed for first- and second-year students. Prerequisite: NEUR-100 or BIO-102Q or permission of the instructor. Three hours per week. *Four semester hours.*

BIO/ENVS-234. The Nature of Food

The food we eat not only fuels our bodies, but also shapes the environment in which we live. This course introduces students to the biological and ecological principles that govern how food is produced and the impact food production has on air, water, soil, climate, and biodiversity. Students will gain knowledge of diverse approaches to food production (e.g., conventional, organic, sustainable) through engagement with scientific literature, popular media and field trips. In the laboratory students will research ecological approaches to food production in a class garden. Prerequisite: BIO-101Q or permission of the instructor. Three hours of lecture; three hours of laboratory per week. *Four semester hours. (O.)*

BIO-300. Learning to Lead: STEM, Ethics, and You

Understanding scientific functions, mechanisms, and the underlying ethical implications are critical to advancing knowledge in the field. In this course students will learn about STEM careers via physical and/or virtual class visits from scientists while preparing a path for success in their own career. Students will investigate the work of our featured scientists by reading a variety of scientific sources such as primary literature, review articles, and news reports. Class discussions will evaluate scientific arguments, confounding variables, hypotheses, experimental design, and data interpretations. The course will explore the questions “How should we live together?” and “What will I do?”. This course is restricted to students with junior or senior standing that are majoring or minoring in STEM. This course fulfills an elective requirement for Biology majors. Prerequisite: BIO-201W or permission of the instructor. Three hours of discussion per week. *Four semester hours (CCAP.)*

Note: *BIO-300 does not count toward the Organismal/Population or Molecular/Cellular Biology distribution requirement*

BIO-305. Human Anatomy and Functional Morphology

A study of the structure of human tissues, organs and organ systems and their contributions to the integrated functioning of the human body. Prerequisite: BIO-201W; or permission of the instructor. Three hours of lecture and three hours of laboratory per week. *Four semester hours.*

Note: *Students who have taken BIO/HS-205 or BIO/HS-206 may not receive credit for BIO-305.*

BIO-306. Human Physiology

A study of the physiological processes that support the integrated functioning of the human body. Prerequisite: BIO-201W; or permission of the instructor. Three hours of lecture; three hours of laboratory per week. *Four semester hours.*

Note: *Students who have taken BIO/HS-205 or BIO/HS-206 may not receive credit for BIO-306.*

BIO/ENVS-310. Biological Oceanography

A study of the biological bases of ocean science. Topics discussed include: ocean basins, seawater physics and chemistry, currents, waves, tides, upwelling zones, tidal rhythms in organisms, ocean habitats/biota, marine virology, marine microbiology, plankton, trophic relationships, hydrothermal vent communities, coral reefs. Prerequisite: BIO-201W; or permission of the instructor. Three hours of lecture; three hours of laboratory per week. (Course may be conducted in part at a marine field station). *Four semester hours.*

BIO/ENVS-320. Biology of the Neotropics

A field study of Costa Rican tropical habitats — including lowland rain forests, montane rain forests, seasonally dry forests, and wetlands — conducted at research sites throughout the country. Topics include diversity and natural history of key plants and animals, ecological interactions and evolutionary processes, and conservation. Prerequisite: Permission of the instructor and BIO-101Q. Field investigations accompanied by readings, lectures, and a directed research project. Course will meet 15 hours on campus and three weeks in Costa Rica between the Fall and Spring semesters. *Four semester hours. (LINQ, XLP.)*

BIO-324. Darwin and Evolution

This course considers the theory of evolution from its original conception by Charles Darwin to its modern form. Reading from the primary and secondary literature, students will examine key components of the modern theory of evolution; gain an increased understanding of science as a way of knowing, including the scientific method as well as social and historical influences on the development of theory; and develop skills in critical reading, data analysis, and writing. Prerequisite: BIO-201W or permission of the instructor. Three hours per week. *Four semester hours. (CCAP.)*

BIO/ENVS-325. Insect Biology

This course will introduce students to the insects—the most diverse group of organisms on the planet. We will examine the physiology, development, behavior, ecology, and evolution of insects to better understand why they are so successful, and special emphasis will be placed on understanding the importance of insects to human welfare. Students will learn the taxonomy of local insects by completing an insect collection. The laboratory component of this course will include insect rearing, experiments, and field trips to collect insects from terrestrial and aquatic habitats. Prerequisite: BIO-101Q and BIO-102Q or permission of the instructor. Three hours of lecture; three hours of laboratory per week. *Four semester hours.*

BIO-328. Protein Biogenesis

Proteins are essential macromolecules that participate in virtually every aspect of cellular function, and their biogenesis requires some of the most ancient and highly conserved biological processes. Through discussions and analysis of primary research articles, this course will provide an in-depth exploration of the processes involved in protein biogenesis, including translation and its regulation, protein folding and quality control systems, as well as the physiological consequences of protein misfolding. Prerequisites: BIO-201W; or permission of the instructor. Three hours of lecture; three hours of laboratory per week. *Four semester hours.*

BIO/ENVS-330. Marine Biology

This course will explore life in the seas by taking a look at the ecology, evolution, and human impacts the marine environment experiences. Topics will include behavioral, physiological, structural, ecological, and evolutionary perspectives. The course will be supplemented with discussions of primary literature, several written assignments, and a final project that aims to encourage deeper exploration of an ocean-related topic of your choice. Prerequisite: BIO-101Q or permission of the instructor. Three hours of lecture per week. *Four semester hours. (LINQ only when offered in the same semester as ENVS-364.)*

BIO/NEUR-333. Stem Cell Biology

This course will address current knowledge and outstanding questions in the field of stem cell biology. We will use primary literature to examine the cellular and molecular characteristics of stem cells, and we will explore modern techniques used to study and manipulate stem cells in the laboratory. We will also discuss issues pertaining to the regulation of stem cell research in the United States and abroad. We will use current web-based readings from the popular press to explore the hope and hype generated by the private stem cell industry in the quest to cure disease. Students will demonstrate understanding through oral presentation, discussion facilitation, periodic quizzes, and writing projects. This course fulfills the Molecular/Cellular distribution requirement for Biology majors. Prerequisite: BIO-102Q. Three hours per week. *Four semester hours. (O.)*

BIO/ENVS-334. Plant Biology

A survey of the morphology and evolution of the monophyletic green plant clade, including the principles, theory and methodology underlying modern taxonomic systems. Available field time centers upon the morphology and taxonomy of the local vascular flora. Prerequisite: BIO-201W; or permission of the instructor. Three hours of lecture; three hours of laboratory per week. *Four semester hours.*

BIO/ENVS-336. Freshwater Biology

Students will study the inhabitants, human impact, and chemical and physical properties of streams, lakes, rivers, wetlands, and groundwater. The laboratory will include field and laboratory investigations, and culminate in individual investigations by students. Prerequisites: BIO-101Q and BIO-102Q or permission of the instructor. Three hours of lecture and three hours of laboratory per week. *Four semester hours.*

BIO-345. Microbiology

The structure, physiology, genetics, diversity, and ecology of micro-organisms. Topics in medical microbiology will be discussed to illustrate basic principles of pathology, virology, immunology, and epidemiology. The laboratory will cover techniques of bacterial propagation, purification, identification, and genetic experimentation. Prerequisites: BIO-201W; or permission of the instructor. Three hours of lecture; 1.5 hours of laboratory per week. *Four semester hours.*

BIO-346. Developmental Biology

An investigation of the cellular and molecular mechanisms that control animal development. The role of developmental regulators and cell-cell communication in the embryo will be discovered in the context of fertilization, axis formation, gastrulation and organogenesis in a variety of model organisms. Laboratory work will focus on hypothesis driven inquiry and will include analysis of both vertebrate and invertebrate development. Prerequisite: BIO-201W; or permission of the instructor. Three hours of lecture; three hours of laboratory per week. *Four semester hours.*

BIO-350. Selected Topics in Biology

A course offered periodically in an area of special interest to students by a faculty member or a visiting lecturer. Prerequisite: permission of the instructor. Three hours per week, plus either intensive writing or three hours of laboratory, depending on the topic. *Four semester hours.*

BIO-351. Advanced Cell Biology: Cellular Perspectives of the World

This case-study and laboratory-based course builds on students' knowledge from previous core biology courses and applies these concepts to broader issues that affect our world. The case studies use clinical and biomedical research to explore cellular biology principles and data. Principles may include explorations of genetic mutations and its implications on organ donation and the exploration of external strategies to modulate learning. The students will consider the obligations of cellular biologists to pursue research that benefits diverse groups including the socioeconomic disadvantaged and aging populations. The laboratory includes an introduction to cell culture techniques as well as hands on simulation experiments that directly support lecture topics. Students will gain knowledge through analyzing data, presenting primary scientific literature and reporting laboratory findings. Three hours of lecture and/or laboratory per week. Prerequisites: BIO-201W; or permission of the instructor. *Four semester hours. (O, S.)*

BIO-359. Animal Behavior

This course will introduce students to the study of animal behavior. The genetic, neural, and hormonal bases of behavior (i.e., proximate causes), and evolutionary explanations for behavior (i.e., ultimate causes), will be explored. Students will examine the behavior of a diverse array of taxa, including humans. The laboratory will provide students with training in animal behavior research. Research will involve both invertebrates and vertebrates, in both the laboratory and in the animals' natural (outdoor) environment. Data collection, statistical analysis, and presentation will be emphasized in the laboratory. Prerequisite: BIO-201W or permission of the instructor. Three lecture and three laboratory hours per week. *Four semester hours.*

BIO-360. Marine Mammalogy

Marine mammals have sparked human curiosity for millennia. Today, they serve as an alluring entry point for a range of important topics in the natural and social sciences. This interdisciplinary course leverages our inherent curiosity and integrates biological sciences and policy to examine the evolutionary diversity and ecological success of marine mammals and explore the historical and current issues concerning their conservation and management. Offered every other year. Four semester hours. Three hours of lecture and three hours of lab per week. *Four semester hours. (S.)*

BIO/NEUR-364. Neuropharmacology

Drugs that act on the central nervous system (CNS) are the most widely used group of pharmacologic agents. In addition, drugs are one of the most important tools for studying all aspects of CNS physiology from the mechanisms that control movement to the consolidation of memories. The field of neuropharmacology requires understanding of disease mechanisms as well as the effects of drugs and other compounds on neuronal function. This course will focus on the pharmacodynamics (the actions of the drug on the body) and pharmacokinetics (the actions of the body on the drug) of various drugs in the central nervous system and the communication of this subject to a non-science audience. This course can be independent or linked with MCS-250, Prerequisites: Students must have completed BIO-102Q or NEUR-100 to register for Neuropharmacology (BIO/NEUR-364). Three hours per week. *Four semester hours.*

Note: *When linked with MCS-250, Pharmacology Message Analysis and Production and consists of five units that each: a) explore basic principles of neuropharmacology, b) use case studies to apply that knowledge to real world situations, c) evaluate primary literature of drug discovery, and 4) analyze, assess, and produce media messages targeting the general public. Specifically, as a Linked Inquiry (LINQ) course, students will work collaboratively with MCS-250 students to translate this scientific information into educational materials, public service announcements, and action campaigns to assess message effectiveness. The class will culminate in several group directed visual presentations that bring awareness to the properties, use and abuse of a chosen class of drugs. (LINQ.)*

BIO-365/ENVS-365. Ornithology

A study of bird biology (anatomy, physiology, behavior, ecology, phylogeny, and evolution) and the conservation issues that surround these most visible of terrestrial vertebrates. Students will design a conservation proposal. Lab will include field studies and natural history of Northeastern birds. This will include a group field project focusing on the changing status of Pennsylvania bird species that result from anthropogenic disturbances, such as introduced species, climate change, etc. Readings will come primarily from primary and secondary literature, with an emphasis on basic scientific research and its application to conservation. Prerequisite: BIO-101Q. Three hours of lecture and three hours of laboratory per week. *Four semester hours. (O.)*

BIO/ENVS-375. Marine Invertebrate Zoology

This course introduces students to the diversity of marine invertebrates, their role in marine ecosystems, and how changing oceanic conditions impact these organisms. Students will examine taxonomy, physiology, ecology, and evolution of marine invertebrates, while developing skills in scientific writing and literacy. The lab component of this course will include hands-on experiences with organisms from different marine invertebrate phyla, short-term lab experiments, and discussions of current issues in marine zoology. Prerequisite: BIO-101Q or permission of the instructor. Three hours of lecture per week and three hours of laboratory per week. *Four semester hours.*

BIO-382. Internship

An academic/work experience under the supervision of a faculty adviser and an on-site supervisor. Students must document their experience according to the requirements delineated in the College catalogue section on Internships. Open to juniors and seniors. Students must document their experience according to the requirements delineated in the College catalogue section on Internships. The term during which the internship work is performed will be noted by one of the following letters, to be added immediately after the internship course number: A (fall), B (winter), C (spring), or D (summer). Internships undertaken abroad will be so indicated by the letter I. The intern must complete a minimum of 160 hours of work. Prerequisites: Nine credits in biology and approval of a faculty internship adviser. Graded S/U. *Four semester hours. (XLP.)*

BIO-391. Directed Research

Laboratory and/or field experiences under the direction of a faculty member and designed to introduce students to fundamental research procedures and data manipulation in the context of an original research project. This course can be taken more than once. Prerequisite: permission of a participating faculty member. Three hours of laboratory per week. Graded S/U. *One semester hour.*

BIO-392. Directed Research

Content as in BIO-391. This course can be taken more than once. Prerequisite: permission of a participating faculty member. Six hours of laboratory per week. Graded S/U. *Two semester hours.*

BIO/ENVS-415W. Ecology

Ecology is the study of how organisms interact with one another and with their environment. This course will advance students' understanding of interactions that determine the structure and function of organisms at individual, population, community and ecosystem levels. Case studies are used to apply ecological knowledge to current issues such as climate change, invasive species, sustainability, and pollution. The laboratory will provide students with training in ecological field research. Experimental design, data collection, statistical analysis, and scientific communication will be emphasized in the laboratory. Prerequisites: BIO-201W or permission of the instructor. This course does not fulfill the ENVS capstone requirement. Three hours of lecture, three hours of laboratory per week. *Four semester hours. (O.)*

BIO/ENVS-419W. Climate Change Biology

The climate is changing. Higher average temperatures, increasing weather extremes, and altered patterns of precipitation are already here, and further change is forecasted. Students in Climate Change Biology will learn how ecosystem processes and human activities impact Earth's climate system, and they will examine the physiological, behavioral, ecological, and evolutionary processes that underly organismal responses to climate change. Climate change ethics, solutions to the climate change problem, and our obligations to enact these solutions will be explored. Students will participate in an original research project investigating organismal responses to climate change. This is a writing-intensive Biology capstone course. Prerequisite: BIO-101Q or permission from the instructor. Three hours per week. *Four semester hours. (O.)*

BIO-425W. Human Molecular Genetics

An investigation of the molecular mechanisms underlying complex genetic phenomena and human traits. The course will cover topics which may include: epigenetic inheritance, gene regulation, gene therapy, molecular pathology, disease gene identification, and genetic technologies through reading, discussion, and careful analysis of current primary research articles. Students will consider ethical concerns related to the use of genetic information and technologies as well as work to disseminate science to lay-audiences. A semester-long project will require each student to examine the symptoms, inheritance pattern, and molecular pathology of a genetic disorder. This Core/Biology Capstone course will explore the field of human genetics through the lens of the four questions that are the foundation of the Ursinus Quest. Prerequisites: BIO-201W; or permission of the instructor. Three hours per week. *Four semester hours. (CCAP.)*

BIO/BCMB-426W. Molecular Biology

A survey of gene structure, transcription, translation, regulation, and replication, as well as the theory underlying laboratory techniques used in their study. Laboratory experiments will include DNA and protein isolation, enzymatic manipulations, electrophoresis, and nucleic acid hybridization in an attempt to clone and analyze a bacterial gene. Prerequisites: BIO-201W; or permission of the instructor. Three hours of lecture; three hours of laboratory per week. *Four semester hours.*

BIO-428W. Genomics

The advent of technologies to facilitate rapid and inexpensive genome sequencing has enabled enormous volumes of genomic data to be collected in recent years, transforming biology and medicine and profoundly impacting our understanding of evolution and disease. This course will examine the field of genomics and the broader

ethical and societal impacts of genomics research. Topics include genome organization, genome sequencing and analysis, bioinformatics, the microbiome, the epigenome, and the ethical, legal and social implications of the genomics revolution. Through selected textbook and primary literature readings, class discussions, in-class activities, and individual and group projects, this Core/Biology Capstone course will explore the field of genomics through the lens of the four foundational questions of the Ursinus Quest. Prerequisites: BIO-201W. Three hours per week. *Four semester hours. (CCAP, S.)*

BIO/BCMB-429W. Structural Biology

An introduction to the principles of protein and DNA structure, X-ray crystallography, structure visualization and interpretation, and bioinformatics. The use of these concepts to understand biological function at the level of individual molecular interactions and at the level of complex processes will be demonstrated through specific biological examples. Laboratory work will stress structure-determining techniques and use of scientific databases and protein visualization software. Prerequisite: BIO-201W; two semesters of chemistry strongly recommended; or permission of the instructor. Three hours of lecture; three hours of laboratory per week. *Four semester hours.*

BIO/NEUR-431W. Cellular Neurobiology

An advanced examination of current research in the field of cellular neuroscience. Highlighted topics include the cell biology of neurogenesis, neuron morphology, electrical and chemical communication, intracellular signaling, and the importance of neuron-glia interactions. Class discussions will be grounded in primary literature, and the laboratory component will feature a semester-long original research project. This is a writing intensive course in which students will draft and revise a mock research proposal on a topic of their choice. Prerequisite: BIO-201W or permission of the instructor. Three hours of discussion; three hours of laboratory per week. *Four semester hours.*

BIO/BCMB/NEUR-433W. Molecular Neurobiology

This course focuses on the cellular and molecular basis of neuronal communication. The lecture explores the structure of neurons, neurotransmitter regulation, synaptic plasticity, neurological disorders and their current pharmacological therapies. During the semester students will examine scientific literature through presentations and increase their understanding of molecular neurobiology mechanisms through laboratory cell culture techniques. Prerequisites: BIO-201W; or permission of the instructor. Three hours of lecture; three hours of laboratory per week. *Four semester hours.*

BIO/NEUR-435W. Developmental Neurobiology

This course investigates the cellular and molecular mechanisms that govern nervous system development from conception through about age 25. Class discussions will cover nervous system organization, neural cell fate, axon and synapse formation, and neurological conditions in context of current research in the field of developmental neurobiology. Class discussions will also consider how the timing of nervous system development over the first 3 decades of life plays a role in the neurobiology of drug addiction from scientific, public policy, and personal perspectives. Laboratory work will be performed in small groups to analyze nervous system development via a hypothesis-driven experimental design. This course fulfills the Molecular/Cellular distribution and Capstone requirements for Biology majors and the Advanced Course Biology requirement for Neuroscience majors. Prerequisites: BIO-201W; or permission of the instructor. Three hours of discussion; three hours of laboratory per week. *Four semester hours. (O, S.)*

BIO/ENVS-442W. Mammalogy

A study of vertebrate biology using the mammalian class as the case study. The course includes evolutionary history, phylogeny, diversity, structure and function, behavior and ecological aspects of mammals. Prerequisites: BIO-201W; or permission of the instructor. Three hours of lecture; three hours of laboratory and field investigations per week. *Four semester hours. (CCAP, O.)*

BIO-444W. Advanced Integrative Physiology

A study of the mechanisms that regulate the interaction of the various organ systems in health and disease. Students will build upon their understanding of physiology to explore the question of how gene products integrate at the cellular, systems and whole-organism level. The course will investigate the molecular basis for and pathophysiology of different diseases through reading and careful analysis of current primary research articles. This Core/Biology Capstone course will explore the field of human physiology through the lens of the four questions that are the foundation of the Ursinus Quest curriculum. Prerequisites: BIO-201W; or permission of the instructor. BIO 306 is recommended. Three hours per week. *Four semester hours. (CCAP.)*

BIO-449W. Immunology

A study of the cellular and humoral aspects of immunity in humans and other mammals. The course will cover interactions between mammalian hosts and bacterial, fungal, and viral antigens: tumor and transplantation immunology, vaccines and their development and the evolution of the immune system. Prerequisites: BIO-201W; or permission of the instructor. BIO-345 is recommended. Three hours per week. *Four semester hours.*

BIO/ENVS-455W. Conservation Biology

Students in Conservation Biology will learn about the causes and the consequences of species extinctions and best management practices for conserving biodiversity. Concepts from genetics, ecology, and evolution will be applied to conservation, and the role of scientific research in conservation practice will be emphasized. Case studies in conservation will come from a variety of species and ecosystems, and special emphasis will be placed on conservation in human-dominated landscapes, such as the suburban landscape within which Ursinus College is situated. Prerequisite: BIO-101Q or permission of the instructor. Three hours of lecture per week. *Four semester hours.*

BIO-459W. Virology

After an introduction to general virology, each virus family and its unique approaches to host cell entry, viral replication, and transmission will be discussed. Topics covered will include the social, historical and economic impact of human diseases such as yellow fever and Ebola hemorrhagic fever, and important diseases of crops and agricultural animals. Prerequisites: BIO-201W; or permission of the instructor. Four hours per week. *Four semester hours.*

BIO-481. Independent Research

Laboratory or field investigation of some biological phenomenon. This original work includes library-assisted preparation of a final written thesis and the oral presentation of its results before a faculty/student colloquium. This course can be taken more than once. Pre- or co-requisites: junior or senior standing, written consent of a faculty member who will serve as research adviser. Graded S/U. *Four semester hours. (XLP.)*

BIO-485. Off-Campus Research

An approved, off-campus field or laboratory research experience supervised by a faculty internship adviser and an on-site supervisor. Approved projects result in the library-assisted preparation of a final written report. This course can be taken more than once.

Prerequisites: Junior or senior standing and written consent of a faculty adviser. Eleven to 14 hours per week, with a minimum of 160 hours. Graded S/U. *Four semester hours. (XLP.)*

BIO-491. Honors Research

Content as in BIO-481, but open only to candidates for departmental honors. Prerequisite: junior or senior standing, written consent of a faculty member who will serve as research adviser. *Four semester hours. (XLP.)*

BIO-492W. Honors Research

Content as in BIO-481, but offered in the spring term and open only to candidates for departmental honors. This continuation of BIO-491 fulfills the capstone, oral and writing requirements within the major. Prerequisites: junior or senior standing, written consent of a faculty member who will serve as research adviser. *Four semester hours (XLP.)*

- Biology Department

Business and Economics

Faculty

- *Professor VanGilder (chair); Associate Professor Nicoara; Assistant Professors Aukers, Henkel, King, Newfeld, Shoeb, Stern; Visiting Professors and Instructors Chaudhary, Cooper, Ricciardi, Sereni.*

- The Department of Business and Economics offers a variety of programs to prepare students for careers in the public and private sectors and studies in graduate or professional school. Programs include majors in Economics, Finance, and Business Economics as well as minors in Accounting, Economics, Finance, and Management Studies. The Economics major develops a broad perspective on the allocation of resources as well as skills in applying economic theory and data to real-world problems. The Finance major prepares students to contribute to society at financial institutions and within the finance and accounting functions of both for-profit and non-profit organizations.

  The major in Business Economics prepare students to analyze factors impacting businesses both quantitatively and qualitatively. These skills provide a solid background for a variety of professions as well as prepare students for advanced education. After graduation, Economics and Finance majors are prepared to work independently and effectively in a dynamic environment where resources are scarce, information is over-abundant or uncertain, and decisions are often morally complex. Students gain experience and skills in teamwork and are challenged to recognize the moral elements of situations, the impacts of their decisions and actions on others, and are empowered to choose courses of action that are ethically sound.

  Minors offered by the Department of Business and Economics complement the studies of students majoring in any discipline.

  Note: Due to the overlap in the number of courses among the three majors offered by the department, students may only major in one of the three.

  ### Requirements for Economics Majors

  A major in economics consists of 44–48 credits, comprised of the following courses:

- Three foundational courses: ECON-101,102,151. The ECON-151 requirement will be waived for students who receive a C- or better in both MATH-111 (or a higher-level calculus course) and STAT-141Q (or a higher-level statistics course).
- Three intermediate courses: ECON-200W, 201, and 202.
- ECON-300Q.
- Four electives from the following list: ECON-210, 213, 223, 231, 263, 311, 312, 313, 314, 330, 361, 362; FIN-374.
- The economics capstone seminar: (ECON-403W). Qualified students may substitute BE-491 and 492W for the capstone requirement.

Economics Capstone

All students who major in Economics can fulfill the college's capstone, writing, and oral presentation requirements with ECON-403W. Qualified students may substitute BE-491 and 492W for the capstone requirement.

Graduate Study in Economics

Students considering entering a doctoral program in economics after graduation are advised to take MATH-111, 112, 211, 234, and 311W as well as CS-173. Coursework in probability, statistics, and data analytics is also valuable preparation for doctoral work in the field. Research experience is also desirable. The BE department recommends students discuss their interest in graduate school with their academic advisers.

Requirements for Finance Major

A major in finance consists of 44–48 credits comprised of the following courses:

- Five foundational courses: ECON-101, 102, 151; ACCT-140; FIN-270. The ECON-151 requirement will be waived for students who receive a C- or better in both MATH-111 (or a higher- level calculus course) and STAT-141Q (or a higher-level statistics course).
- One intermediate economics course – either ECON-201 or 202.
- FIN-200W
- ECON-300Q
- Either three finance electives from the following list: FIN-213, 262, 313, 370, 372, 374; ECON-362; or two of the preceding

finance electives and one accounting elective from the following list: ACCT-240, 241 or 242.
- The finance capstone (FIN-403W). Qualified students may substitute BE-491 and 492W for the capstone (FIN-403W) requirement.

Finance Capstone

All students who major in Finance can fulfill the college's capstone, writing, and oral presentation requirements with FIN-403W. Qualified students may substitute BE-491 and 492W for the capstone requirement.

Graduate Study in Finance

Students considering entering a doctoral program in finance after graduation are advised to take MATH-111, 112, 211, 234, and 311W as well as CS-173. Coursework in probability, statistics, and data analytics is also valuable preparation for doctoral work in the field. The BE department recommends students discuss their interest in graduate school with their academic advisers.

Requirements for Business Economics Major

A major in Business Economics consists of 44–52 credits comprised of the following courses:

- Four foundational courses: ECON-101, 102, 151; ACCT-140. The ECON-151 requirement will be waived for students who receive a C– or better in both MATH-111 (or a higher-level calculus course) and STAT-141Q (or a higher-level statistics course).
- Four intermediate courses: ECON-200W, 201; MGT-200, 201.

Concentration Elective Requirements

All Business Economics majors must concentrate in Analytics, Entrepreneurship, Management, or Marketing. The following courses do not count as elective credit for the major in Business Economics: ECON-120; BE-381, 382, 391, 392, 394, 491, and 492W; FIN-001–004, 010, 011, 100, 272, 301, 302, 401, 402, and 403W.

Analytics Concentration

- DATA-201 or ECON-300
- ECON-403W
- eight credits from ACCT-241, PSYC-250, MCS-350, ENTR-101, ENTR-102, ECON-231, ECON 312, MKT-250, FIN-374, and MGT-300

Entrepreneurship Concentration

- ENTR-101 and 102
- either ECON-403W or MGT-403W
- eight credits of electives from ACCT-241; ART-120; ECON-231, 310, 312; ENTR-120; FIN-370; MCS-350; MGT-300; MKT-250; PSYC-250

Management Concentration

- Two courses from: ACCT-241, MCS-350, PSYC-250
- MGT-403W
- eight credits from ENTR-101, ENTR-102, MKT-250, ECON-210, ECON-231, ECON-312, FIN-370, MGT-330, and MGT-300

Marketing Concentration

- ECON-231, MGT-403W and MKT-250
- eight credits of electives from ACCT-241, PSYC-250, ECON-231, MCS-350, ENTR-101, ENTR-102, ECON-310, FIN-370, and MGT-300

Business Economics Capstone

All students who major in Business Economics can fulfill the college's capstone, writing, and oral presentation requirements with either ECON-403W or MGT-403W (depending on concentration). Qualified students may substitute BE-491 and 492W for the capstone requirement.

Requirements for Accounting Minor

A minor in accounting consists of 20 credits: ACCT-140; 240, 241, 242; and FIN-270.

Accounting Careers

Students interested in careers in accounting are encouraged to complete the Accounting minor. Many Ursinus graduates work in the field of accounting after graduation, but state boards of accountancy mandate 150 credit hours of coursework before candidates may sit for the Certified Public Accountant (CPA) exam. Students must therefore take additional courses after graduation to become a CPA. Students should also be aware that there are other accounting certifications and career paths separate from the CPA, such as the Certified Management Accountant (CMA) designation.

Requirements for Economics Minor

A minor in economics consists of 20 credits, including eight credits from two required courses: ECON-101, 102; and three ECON electives at the 200-level or higher. Note: 200-level courses may have additional pre-requisites besides ECON-101 and 102. As pertaining to the normal limitations on major/minor overlap, Business Economics and Finance majors may only count two courses of their major requirements toward the minor.

Requirements for Finance Minor

A minor in Finance consists of 20 credits including 12 credits from three required courses: ACCT-140; ECON-102, FIN-270, and eight credits from two electives chosen from the following list: ECON-362; FIN-200W, 213, 313, 370, 372, 374. Elective courses may have additional prerequisites besides ACCT-140 and FIN-270.

Finance Scholars

This program is offered to selected students with a strong career interest in finance and investments with the potential goal of earning the Chartered Financial Analyst (“CFA”) designation. The program involves a range of relevant co-curricular activities (FIN-301, 302, 401, and 402) that prepare students to take the CFA examination. Eligible students must major in Finance or Economics or minor in Finance. Students must apply to the Department Chair or the chair’s designee for acceptance to the program at the end of their sophomore year.

UCIMCO

The Ursinus College Investment Management Company (UCIMCO) is the college’s student-managed investment fund. The fund manages

several portfolios, exposing students to different management styles and group collaboration. There are no prerequisites to taking part in the fund. Students from any class year or major are encouraged to join. For students interested in investment or financial careers, the fund provides invaluable experience in research and portfolio management. To take part in UCIMCO, students should enroll in a section of FIN-001.

Requirements for Management Studies Minor

A minor in Management Studies requires that students take 24 semester hours in courses across several disciplines. All Management Studies minors are required to take ACCT-140 and MGT-200. In addition students are required to select one course focused on ethics from PHIL-240 or 246, MCS-315, HEP-275, EDUC-380, MGT-201 and 300 (Leadership Ethics) and three elective courses (12 credits) chosen from the following list and representing three different disciplines and at least two different departments or programs: Business and Economics (ACCT-240, 241; or ECON-120, 210, 231, 361; or MKT-250; or MGT-300, 330); Data Analytics (DATA-201); Entrepreneurial Studies (ENTR-101 and -102, 120); Health Sciences (HS-223, 226, 245, 365, or 446); Interdivisional Studies (IDS-110 depending on topic); Media and Communications Studies (MCS-307, 315, 342, 350, or 375B); Psychology (PSYC-250 or 350); Sociology (SOC-255 or 260 depending on topic). (LINQ)

Note: Following normal overlap limitation guidelines, majors in Economics and Finance are permitted to minor in Management Studies, however due to major/minor overlap Business Economics majors may not pursue the Management Studies Minor. See the appropriate departmental listings for course descriptions.

Secondary School Teaching Certification

This program satisfies the Pennsylvania State requirements for secondary certification in social studies. Substantial further coursework outside of economics and education is required in order to prepare the student for subjects taught in the secondary curriculum. Students who wish to obtain teaching certification should consult their departmental adviser and the chair of the department of education as early as possible, preferably at the end of the freshman year.

S/U Guidance

Courses taken as S/U cannot not be counted towards any major or minor in the Business and Economics Department.

Courses

- **Accounting**

ACCT-140 Financial Accounting and Reporting

An introduction to financial accounting concepts, standards and reports. Emphasis on the accounting cycle, journal entries, relationships between the income statement, balance sheet and statement of cash flows and relevance of accounting information to decision making. Excel applications of accounting problems. Three hours of lecture; two hours of computer laboratory per week. *Four semester hours.*

ACCT-213 Topics in Accounting

An occasional course focusing on a special topic in accounting. Prerequisites will vary. Three hours per week. *Four semester hours.*

ACCT-240 Topics in Advanced Financial Reporting

An in-depth study of selected topics related to financial reporting and disclosure, including their impact on decisions by managers, investors and creditors. Prerequisite: A grade of C- or higher in ACCT-140.

ACCT-241 Management Accounting

The study of accounting information used internally by managers for planning and controlling business activities and decision-making. Emphasis is on cost concepts and behavior, costing systems for products and services, budgeting, breakeven and variance analysis. Prerequisite: A grade of C- or higher in ACCT-140. Three hours per week. *Four semester hours.*

ACCT-242 Federal Income Tax Policy

An introduction to the principles and policies of the federal income tax code, with focus on issues affecting corporations, partnerships and individuals. Prerequisite: A grade of C- or higher in ACCT-140. Three hours per week. *Four semester hours.*

ACCT-313 Advanced Topics in Accounting

An occasional course focusing on a special topic in accounting involving advanced reading, theory, quantitative analysis, writing, or some combination of the four. Prerequisites will vary. Three hours per week. *Four semester hours.*

Business and Economics

BE 001-004 Community Service Practicum

This practicum allows students to volunteer and collaborate with a local non-profit organization. Placement is based on availability, student interest and qualifications. Special classroom training may be needed. Students report to a supervisor and faculty advisor, keep a journal of their activities, and write a research paper. Prerequisite: Sophomore standing and permission of the chair. A minimum of 40 hours. Grade: S/U. *One semester hour.*

Students may take up to four credits of Community Service Practicum. Completion of the Community Service Practicum does not satisfy the XLP requirement for the college.

BE-005-008. Readings in Business and Economics

Individual study and directed reading of a particular topic or book within the discipline. Students will work closely with a member of the BE faculty in selecting, reading, and discussing the topic, and in determining a proper written assignment. Prerequisites: Permission of the instructor. Grade: S/U. *One semester hour.*

Students may take up to four credits of Readings in Business and Economics

BE-381. Internship

An academic/work experience under the supervision of a faculty internship adviser and an on-site supervisor. Students must document their experience according to the requirements delineated in the College catalog section on Internships. Students are required to document their experiences in a written journal. A poster presentation of the experience is required. Contact the chair of the department for further details. Open to juniors and seniors. The term during which the internship work is performed will be noted by one of the following letters, to be added immediately after the internship course number: A (fall), B (winter), C (spring), or D (summer). Internships undertaken abroad will be so indicated by the letter I. The intern must complete a minimum of 120 hours of work. Prerequisites: Four courses in the major and prior written approval of a faculty internship adviser. Graded S/U. *Three semester hours. (XLP.)*

BE-382. Internship

An academic/work experience under the supervision of a faculty internship adviser and an on-site supervisor. Students must document their experience according to the requirements delineated in the College catalog section on Internships. Students are required to document their experiences in a written journal. A poster presentation of the experience is required. Contact the chair of the department for further details. Open to juniors and seniors. The term during which the internship work is performed will be noted by one of the following letters, to be added immediately after the internship course number: A (fall), B (winter), C (spring), or D (summer). Internships undertaken abroad will be so indicated by the letter I. The intern must complete a minimum of 160 hours of work. Prerequisites: Four courses in the major and prior written approval of a faculty internship adviser. Graded S/U. *Four semester hours. (XLP.)*

BE-391. Research/Independent Study

Independent investigation of an area of business or economics not covered in regular courses. Prerequisite: Completion of Economics, Business Economics or Finance major core and written consent of a department faculty member. Graded S/U. *One semester hour.*

Note: *This course may be taken more than once.*

BE-392. Research/Independent Study

Independent investigation of an area of business or economics not covered in regular courses. Prerequisite: Completion of Economics, Business Economics, or Finance major core and written consent of a department faculty member. Graded S/U. *Two semester hours.*

Note: *This course may be taken more than once.*

BE-394.Research/Independent Study

Independent investigation of an area of business or economics not covered in regular courses. Prerequisite: Completion of Economics, Business Economics, or Finance major core and written consent of a department faculty member. An oral presentation to the department is required. Graded S/U. *Four semester hours. (XLP.)*

Note: *This course may be taken more than once. This course always fulfills the XLP requirement for the college.*

BE-491. Research/Independent Study

Preparation of an independent research paper. Open only to candidates for departmental honors or to fourth-year majors with the permission of the department chair. *Four semester hours. (XLP.)*

BE-492W. Research/Independent Study

A continuation of BE-491. Prerequisite: BE-491. *Four semester hours. (XLP.)*

Economics

ECON-101. Principles of Microeconomics

An introduction to the economic study of consumers and firms through the framework of supply and demand. The course presents an overview of different market structures, economic decision making, and foundational economic models. Three hours per week. *Four semester hours. (SS.)*

ECON-102. Principles of Macroeconomics

The course covers the foundations of the macro-economy. Concepts of the price system, measurements of economic performance, macro models, monetary and fiscal policies, and the time value of money will be introduced. Three hours per week. *Four semester hours. (SS.)*

ECON-120. Contemporary Global Economic Issues

This course examines a variety of contemporary economic issues in low and middle-income countries (LMiCs). Economic theory provides the basis of the analysis. Specific issues may vary from semester to semester, and will include how LMiCs have dealt with or reacted to some or all of the following: the environment, the labor market, health care, government regulation, monetary and fiscal policy, international economics, and social policy. Students will participate in debates and critically evaluate current events. Three hours per week. *Four semester hours. (GN, SS.)*

Note: *Students who have received credit for ECON-101 or 102 may not enroll in ECON-120 nor may ECON-120 be taken concurrently with ECON-101 or 102.*

ECON-151. Analytic Foundations in Economics and Finance

This course covers the essential quantitative principles necessary for majors in both Economics and Finance. Mathematical topics include a review of algebra, functions, graphs, logarithms, and differentiation. Instruction in statistics will take a conceptual approach that covers sampling, randomness, probability, distributions, hypothesis testing, confidence intervals, correlation, and linear regression. Pre- or co-requisite: ECON-101 or -102. Three hours per week. *Four semester hours. (Q, R.)*

Note: *Students may satisfy the requirement for this course with a C- or better in MATH-111 and STAT-141.*

Note: *Students with credit for ECON-150 may not enroll in ECON-151.*

ECON-200W. Research Methods in Economics

This course is an introduction to research within Economics. Topics include writing conventions within the discipline, presentation development, synthesizing data, and culmination of analysis across different genres. Students will manipulate data using Excel to help support their arguments. Prerequisites: a grade of C– or higher in ECON-101 or a grade of C– or higher in ECON-102. Three hours per week. *Four semester hours.*

ECON-201. Managerial Economics

This course develops the tools and theories of some microeconomic models and introduces elements of behavioral economics. Topics covered include utility, consumer theory, producer theory, monopoly, imperfect competition, risk aversion, externalities, principal-agent problems, moral hazard, and adverse selection. Topics will be examined from the viewpoint of both consumers and firms. Prerequisite: A grade of C– or higher in ECON-101 and either a grade of C- or higher in ECON-151 or a waiver for ECON-151. Three hours per week. *Four semester hours.*

ECON-202. Intermediate Macroeconomics

The study of inflation, unemployment and economic growth within the context of the world economy. An examination of how exchange rates, taxes and central bank policies affect businesses and the performance of the U.S. economy. Prerequisite: A grade of C– or higher in ECON-101 and either a grade of C- or higher in ECON 151 or a waiver for ECON-151. Three hours per week. *Four semester hours.*

ECON/GWSS-210. Race and Gender in the American Economy

The study of the issues of race and gender in the U.S. economy. We will evaluate the economic status of racial minorities and women. Issues include occupational segregation, wage differentials, educational attainment, affirmative action and labor market discrimination. . Prerequisites: ECON-101 or ECON-102 or permission of instructor. Three hours per week. *Four semester hours. (DN, SS.)*

ECON-213. Topics in Economics

An occasional course focusing on a special topic in economics. Prerequisites will vary. Prerequisites will vary. Three hours per week. *Four semester hours.*

ECON-223. Economies in Transition

Students will investigate why some countries are relatively rich while other countries are poor within the context of the former communist economies in Central and Eastern Europe, including the Baltic region. Coursework is centered on experiential learning through three weeks of intensive field study in the Eastern Bloc and the Former Soviet Countries. Visits to local establishments, old and new organizations, lectures, and historical and cultural sites, field research are among other activities. Offered for three weeks during the summer. Prerequisites: ECON-101 or 102; or permission of instructor. *Four semester hours. (GN, SS, XLP.)*

ECON-231. Behavioral Economics

A study of economic models in which standard economic rationality assumptions are relaxed. Models will include psychologically plausible assumptions on behavior. New models improve ability to predict and understand behavioral phenomena including altruism, trust and reciprocity, procrastination, and self-control. Prerequisites: A grade of C– or higher in ECON-101. Three hours per week. *Four semester hours.*

ECON-263. Development Economics

An introduction to the study of various challenges facing low and middle-income countries (LMICs). Focusing on the understanding the nature and the contribution of

economic, cultural and political institutions. Approaches to progress are reviewed. Case studies of successful and unsuccessful LMICs will be examined. Prerequisites: ECON-102 or permission of instructor. Three hours per week. *Four semester hours. (GN, SS.)*

ECON-300Q. Econometrics

Econometric methods used in analyzing business and economic data, including hypothesis testing, trend analysis, and forecasting of behavioral decisions by consumers and firms. Topics include the specification, estimation and verification of multiple regression and time series models. Laboratory experience includes statistical software usage. A research paper presenting original data analysis is required. Prerequisites: ECON-200W or FIN-200W; ECON-201 or 202. Three hours of lecture; two hours of laboratory per week. *Four semester hours. (SS.)*

ECON-311. Health Economics

Discussion of various topics including the supply and demand of health care, health professionals' services, facilities and pharmaceuticals. Government policies concerning Medicare and Medicaid are analyzed. International comparisons of health care delivery systems are discussed. Prerequisite: ECON-200W and 201 or permission of instructor. Three hours per week. *Four semester hours.*

ECON-312. Labor Economics

A theoretical and empirical study of the functioning of labor markets, with emphasis on employment and compensation determination as affected by worker and firm characteristics, public policy, and worker organizations. Prerequisite: ECON-200W and 201. Three hours per week. *Four semester hours.*

ECON-313. Advanced Topics in Economics

An occasional course focusing on a special topic in economics involving advanced reading, theory, quantitative analysis, writing, or some combination of the four. Prerequisites will vary. Three hours per week. *Four semester hours.*

ECON-314. The Economics of Sports

The study of introductory economics and business using topics in sports and sports business. Professional, amateur, college and recreational sports will be analyzed. Prerequisites: ECON-200W. Three hours per week. *Four semester hours. (SS.)*

ECON-361. International Trade Theory and Policy

An exploration of the factors that contribute to international trade and globalization. Topics include gains from trade, firm motivation, and government policies. Ongoing discussion analyzing current trade problems, prescriptions and legislation. Prerequisite: ECON-200W and 201. Three hours per week.*Four semester hours.*

ECON-362. International Finance Theory and Policy

An examination of foreign exchange rate markets as they relate to multinational corporations. The key factors that influence exchange rates and international capital flows will be studied. The course will also consider policies that governments use to influence the foreign exchange market. Prerequisite: ECON-200W. Three hours per week. *Four semester hours.*

ECON-403W Seminar in Economics

This course is both the capstone for the applied economics major's concentration in economics and a college core capstone. The course provides an opportunity to synthesize and apply the theory and methods of economics. Interdisciplinary

perspectives will help illuminate for students what makes economics distinctive from other ways of knowing. Students will reflect on their experiences in the field and how those experiences influence their responses to the question, “What will I do?” These objectives will be met through reading and discussion of influential economic thinkers; writing a reflective journal; a review of econometric methods; and the research, writing, and presentation of a capstone paper. Prerequisites: Completion of all other required courses in the major and two electives in the Economics major, or permission of the instructor. Three hours per week. *Four semester hours. (CCAP.)*

Finance

FIN-001. Student-Managed Investment Fund (UCIMCO)

In this course students will oversee and manage an investment fund. From selecting the portfolio to communicating about investment analysis, students will assume a variety of roles related to fund maintenance. Offered every semester. This course may be repeated for credit. Students are limited to counting a total of eight credits across all FIN-00X courses toward graduation requirements One hour per week. *One semester hour.*

Note: *This course does not satisfy any department requirements.*

FIN-005. UCIMCO Leader

In this course student leaders will oversee and manage the UCIMCO organization. Registration is by permission of the instructor based on a selection process. This course may be repeated for credit. Students are limited to counting a total of eight credits across all FIN-00X courses toward graduation requirements. Two hours per week. *Two semester hours.*

Note: *This course does not satisfy any department requirements.*

FIN-100. Personal Finance

As the financial world becomes more complex, the need for financial literacy grows. This course is open to all students and intended to prepare them for post-Ursinus life. The nature and scope of the economy and how it affects one’s life plans and goals will be examined. Topics include supply and demand, financial planning, personal taxes, retirement planning, investing in stocks and bonds, portfolio management, the time value of money, managing credit cards and debt, and insurance planning. Four hours per week for half a semester or two hours per week for a full semester. *Two semester hours.*

Note: *This course does not satisfy any department requirements.*

FIN-200W. Research Methods in Finance

Students develop an understanding of best practices in research and communication about financial topics, including investments, organizational finances, and financial institutions. The course emphasizes the creation of documents and presentations that make use of clear and engaging writing, speaking, slides and charts. Students will learn how to use a variety of software, particularly spreadsheets. Students will also examine professional standards of ethics and objectivity in financial research. Prerequisites: ECON-101 and 102. Three hours per week. *Four semester hours.*

FIN-213. Topics in Finance

An occasional course focusing on a special topic in finance. Prerequisites will vary. Prerequisites will vary. Three hours per week. *Four semester hours.*

FIN-262. Corporate Valuation and Financial Modeling

This course explores the fundamentals of valuation methods and financial modeling techniques. Students will consider the theory and practical challenges associated with forecasting as well as the ethical and social implications of the standard approaches used in contemporary valuation. Prerequisites: ACCT-140 and one of ECON-101 or 102. *Four semester hours.*

FIN-270. Introduction to Finance

An introduction to the core subjects of finance. Topics include financial markets and institutions, the interpretation of financial statements, methods for estimating the value and risk of financial securities, and theories that explain interest rates. Prerequisites: A grade of C– or higher in ACCT-140 and ECON-102. Three hours per week. *Four semester hours.*

FIN-301. Finance Scholars I

This course is restricted to students admitted to the Finance Scholars program. Content is oriented to the Chartered Financial Analyst designation. Relevant co-curricular activities are required. Offered fall semester. Prerequisites: Major concentration or minor in Accounting and Finance; Junior standing; Pre- or Co-Requisite: FIN-270. Grade: S/U. One hour per week. *One semester hour.*

Note: *This course does not satisfy any department requirements.*

FIN-302. Finance Scholars II

This course is restricted to students admitted to the Finance Scholars program. Content is oriented to the Chartered Financial Analyst designation. Relevant co-curricular activities are required. Offered spring semester. Prerequisite: FIN-301. Grade: S/U. One hour per week. *One semester hour.*

Note: *This course does not satisfy any department requirements.*

FIN-313. Advanced Topics in Finance

An occasional course focusing on a special topic in finance involving advanced work in theory, quantitative analysis, writing, or some combination of the four. Prerequisites will vary. Three hours per week. *Four semester hours.*

FIN-370. Corporate Finance

A study of the basic issues and principles involved in the financing of corporations: corporate structure, short- and long-term financing instruments, expansion, failure, and reorganization. This course will employ case studies, and a semester project will require students to use financial analysis and forecasting techniques. Prerequisite: FIN-200W and FIN-270; or permission of the instructor. Three hours per week. *Four semester hours.*

FIN-372. Investments

A survey of securities and security markets. Through the study of texts and market data, students explore the characteristics of stocks, bonds, and derivatives, paying particular attention to the measurement of returns and risk. In the process, students develop their understanding of market efficiency, fundamental analysis, technical analysis, behavioral finance, and ethical issues related to investment management. Prerequisite: FIN-200W and FIN-270; or permission of the instructor. Three hours per week. *Four semester hours.*

FIN-374. Money and Financial Institutions

An in-depth understanding of the role of money and financial institutions in the economy. Money-related topics include monetary systems, money's relationship to

prices and economic growth, and theories of central banking. The course explores the characteristics common to all financial institutions, their role as intermediaries between savers and investors, and the nature and influence of regulations on financial institutions. Prerequisite: ECON-102; ECON- or FIN-200W; or permission of the instructor. Three hours per week. *Four semester hours.*

FIN-401. Finance Scholars III

This course is restricted to students admitted to the Finance Scholars program. Content is oriented to the Chartered Financial Analyst designation. Relevant co-curricular activities are required. Offered fall semester. Prerequisite: FIN-302. Grade: S/U. One hour per week. *One semester hour.*

Note: *This course does not satisfy any department requirements.*

FIN-402. Finance Scholars IV

This course is restricted to students admitted to the Finance Scholars program. Content is oriented to the Chartered Financial Analyst designation. Relevant co-curricular activities are required. Offered spring semester. Prerequisite: FIN-401. Grade: S/U. One hour per week. *One semester hour.*

Note: *This course does not satisfy any department requirements.*

FIN-403W. Seminar in Finance

This course is both the capstone for the finance major and a college core capstone. The course provides an opportunity to synthesize and apply the theory and methods of economics and finance. Students will reflect on ethical challenges that finance professionals encounter. In addition, students will consider sociological and psychological perspectives on the field of finance. Through this process, students will develop their outlooks on the question, "What will I do?" These objectives will be met through reading and discussion of texts on ethics; a reflection paper; a review of econometric methods; and the research, writing, and presentation of a capstone paper. Prerequisites: Completion of all other required courses in the major, ACCT-140, FIN-270 and one elective in the Finance major, or permission of the instructor. Three hours per week. *Four semester hours. (CCAP.)*

Management Studies

MGT-200. Management and Organizational Behavior

The study of theories and practices in the field of organizational behavior. Organizations are made up of individuals and groups of people resulting in a complex psychological, sociological and social psychological environment within which individuals must interact and effectively function. Focus is on understanding, explaining, and ultimately improving the attitudes and behaviors of individuals and groups in organizations. Three hours per week. *Four semester hours.*

MGT-201. Business Ethics and Practices

The study of theories and practices in the fields of management and ethics through a human centered lens. Management is directly responsible for whether the organization's efforts produce its desired results in an ethical manner. The focus is on understanding management and the pursuit of an organizations goals efficiently and effectively by integrating the work of people through planning, organizing, leading, and controlling the organization's resources and the ethical challenges and considerations that arise during these processes. Three hours per week. *Four semester hours.(O.)*

MGT-300. Topics in Management Studies

Contemporary topics in management are discussed such as organizational leadership, human resource management and international business. Prerequisite: sophomore standing or permission of the instructor. Three hours per week. *Four semester hours*.

MGT-330. Strategic Analysis

A case-oriented course in strategy and strategic management taught from the perspective of the firm's top management team as they seek to achieve a competitive advantage in a rapidly evolving business world. Prerequisite: MGT-200. Three hours per week. *Four semester hours*

Note: *Students who have taken ECON-330 can not enroll in MGT-330.*

MGT-403W. Seminar in Management and Marketing

Issues in Management and Marketing are discussed using a cross-disciplinary approach. Course will incorporate the development and exploration of a student-selected, independent research topic, culminating in a written and oral presentation. Three hours per week. Prerequisites: Completion of required courses in the Business Economics major and two electives in the Management, Marketing or Entrepreneurship concentration. Three hours per week. *Four semester hours.*

MKT-250. Marketing

The study of market analysis, consumer behavior and the four components of the marketing mix—product, price, promotion and distribution. Marketing issues will be examined through case studies and projects utilizing marketing research and analytical techniques. Prerequisite: Sophomore standing. Three hours per week. *Four semester hours*.

MKT-350. Marketing Research

Focuses on fundamental issues in research design and analysis: problem formulation, data collection, sample selection, data analysis and interpretation. Topics include the economic aspects of pricing strategies, advertising, inter and intra market rivalries, entry and barriers to new markets, and regulations. A marketing research paper is required. Prerequisites: MKT-250. Three hours per week. *Four semester hours*.

- Business and Economics Department

Chemistry

Faculty

- *Professors Ellison (Chair), Reig ; Associate Professors Walvoord, Williamsen, Wilner; Assistant Professors Bustin, Yost; Visiting Professors and Instructors Benfer, Klein, Smeller, Tracy.*

- The chemistry department at Ursinus College has been approved by the American Chemical Society since 1959. The objectives of the department are (1) to offer specialized training in chemistry, beyond the basic course, that will enable a graduate to enter a career as a professional chemist; (2) to prepare the student for graduate study; (3) to provide a strong foundation for the student planning to enter medicine, dentistry, or an allied health field; (4) to prepare the student for teaching chemistry at the secondary level; (5) to provide courses which satisfy the departmental requirements for a comprehensive minor; and (6) to provide a course in general chemistry which satisfies the natural science requirements of the College.

  Recognizing that students have different educational objectives, the chemistry department offers several programs leading to a major. Students wishing to combine a chemistry major with a major/minor concentration in another academic department may enroll in any one of the following programs (tracks) in accordance with their career interests.

  ### Requirements for Majors

  Regardless of track, all majors must complete the following courses: CHEM-107/107LQ, 108/108L (or 151/151LQ in place of 107/107LQ and 108/108L), 202W, 207/207L, 208/208L, 309/309L, 310/310L, 315/315L, 322/322L, 340 (twice), 401, and 499; MATH-112; and PHYS-121Q,122Q.
  Chemistry majors fulfill the requirement for an oral presentation and capstone requirement in the major by completing CHEM-401.

  #### Track 1. Major Specialization in Chemistry

  Students planning to enter the chemical industry or planning further study in chemistry or chemically related areas (e.g. engineering, biochemistry, material science, and the like) may enroll in this program.

Track 2. American Chemical Society Certified Major — Chemistry Emphasis

The American Chemical Society has adopted a set of standards for undergraduate training in chemistry. In addition to the courses required of all majors, students seeking certification must complete the following courses: CHEM-380 or 381 or 382 or 491W or Summer Fellows research with a Chemistry faculty member; and CHEM-347 or BCMB-351.

Track 3. Specialization in Chemistry for Medical School and Allied Fields

This course of study is designed for students planning admission to graduate programs in biochemistry, toxicology, pharmacology, etc., and to professional schools in the healing arts (such as medicine and dentistry) or further study in the health-related fields. In addition to the courses required of all majors, this program consists of the following courses: CHEM-347 or BCMB-351; BIO-101Q and 102Q.

Track 4. Specialization in Chemistry for Science Teaching

This program satisfies the requirements for secondary school certification in chemistry as established by the Commonwealth of Pennsylvania. In addition to the courses required of all majors, students seeking certification should complete ENV-100 or CHEM-101Q. Prospective teachers should serve as laboratory assistants or participate in safety training. Prospective student teachers must have a 2.50 average in chemistry and receive a departmental recommendation which considers, in addition to academic performance, the student's interpersonal and communication skills. Students and their advisers should consult the Ursinus College Education Department.

Requirements for Minors

A minor concentration in chemistry consists of:

• CHEM-107/107LQ, 108/108L (or 151/151LQ in place of 107/107LQ and 108/108L), 207/207L, 208/208L
• One of the following courses: CHEM-309/309L, 310/310L, 315/315L or 322/322L
• At least three additional credits in chemistry at the 300-level or higher excluding internships, research, and seminar courses.

Note: For any lecture course that has an accompanying laboratory, a student may choose to repeat the lecture and lab independently.

Departmental Honors in Chemistry

Students successfully completing CHEM-491W and 492W may be awarded honors in chemistry, but no additional credit will be granted. Description of the honors program, including qualifications, is detailed in this catalogue.

Courses

- **Note:** For any lecture course that has an accompanying laboratory, a student may choose to repeat the lecture and lab independently.

CHEM-050. Foundations of Chemistry

An introduction to fundamental chemical concepts and quantitative problem-solving skills in chemistry. Topics include dimensional analysis, atomic structure, chemical bonding, nomenclature, solutions, chemical reactions, and stoichiometry. Four hours per week for half a semester. *Two semester hours.*

Note: *A student who has received credit for CHEM-107 or 151 or is currently enrolled in CHEM-107 or 151 may not enroll in CHEM-050. CHEM-050 may not be used as elective credits for chemistry majors or minors.*

CHEM-100Q. Topics in Chemistry

A study of the essential nature of chemistry, emphasizing basic chemical principles and applications. Topics may include atomic structure, bonding, the production and utilization of energy, and oxidation-reduction. Societal and historical perspectives are introduced by way of assignments from the popular literature. A knowledge of algebra is assumed. Three hours of lecture and three hours of laboratory per week. *Four semester hours.*

Note: *A student who has received credit for CHEM-107 or 151 may not enroll in CHEM-100Q. CHEM-100Q may not be used as elective credits for chemistry majors or minors.*

CHEM/ENVS-101Q. Introduction to Environmental Chemistry

This course, intended for non-science majors, will examine selected topics in environmental chemistry through an understanding of basic chemical principles. Topics may include global warming, ozone depletion, pollution, and waste management. Three hours of lecture. *Three semester hours. (S, if taken with CHEM-101LQ.)*

CHEM-101LQ. Laboratory in Introductory Environmental Chemistry

Laboratory work related to CHEM-101Q. In addition to mastering basic chemistry laboratory skills, students will analyze air, water, and soil samples using a variety of techniques. Prerequisite: CHEM-101Q (or concurrently). Three hours of laboratory per week. *One semester hour.*

Note: *CHEM-101Q and CHEM-101L may not be used as elective credits for chemistry majors or minors.*

CHEM-102Q. Introduction to Forensic Chemistry

This course, intended for non-science majors, will examine selected topics in forensic science. Through an understanding of basic chemical principles, this course will investigate the role of science in solving crimes. Topics may include fingerprint analysis, fiber identification, blood typing and analysis, drug identification, and DNA profiling. Case studies will be used to explore the scientific foundation for the examination of physical, chemical, and biological evidence. Three hours of lecture. *Three semester hours. (S, if taken with CHEM-102LQ.)*

CHEM-102LQ. Laboratory in Forensic Chemistry

Laboratory work related to CHEM-102Q. This laboratory course will involve the analysis of trace evidence. Techniques utilized may include chromatography, fingerprinting, blood typing, fiber identification, glass analysis, mass spectrometry, and infrared spectroscopy. Students will work in investigative teams. Prerequisite: CHEM-102Q (or concurrently). Three hours of laboratory per week. *One semester hour.*

Note: *CHEM-102Q and CHEM-102L may not be used as elective credits for chemistry majors or minors.*

CHEM-107. General Chemistry I

A study of the principles of chemistry. Topics include structure, bonding, stoichiometry, states of matter, inorganic reactions, thermochemistry, and solutions. The mathematical solution of chemical problems will be emphasized. This course must be taken concurrently with CHEM-107LQ. Prerequisite: Completion of Chemistry Department Placement Exam and Survey. Three hours of lecture per week plus one hour of recitation per week at the discretion of the instructor. *Three semester hours. (S, if taken with CHEM-107LQ.)*

CHEM-107LQ. Laboratory in General Chemistry I

Laboratory work related to CHEM-107. Experimental work may include verification of the stoichiometric relationship between reactants and products, the preparation and characterization of compounds, titrations involving neutralization and redox reactions, measurement of enthalpies of reaction, and colorimetric analysis. The mathematical solution of chemical problems will be emphasized. This course must be taken concurrently with CHEM-107. Three hours per week. *One semester hour.*

CHEM-108. General Chemistry II

A study of properties of solutions, kinetics, equilibria, and acid-base chemistry, thermodynamics, electrochemistry, and nuclear chemistry. This course must be taken concurrently with CHEM-108L. Prerequisite: CHEM-107. Three hours per week. *Three semester hours.*

CHEM-108L. Laboratory in General Chemistry II

Laboratory work related to CHEM-108. Special emphasis will be placed on sample manipulation, control of solution characteristics, quantitative analysis, and the development of skills in wet and instrumental analysis methods. This course must be taken concurrently with CHEM-108. Prerequisite: CHEM-107LQ. Three hours per week. *One semester hour.*

CHEM-151. Advanced General Chemistry

A course in the foundations of chemistry and analysis of chemical systems designed for students with a strong background in chemistry. Topics in atomic structure, bonding, thermodynamics, equilibria and kinetics will be discussed in detail. The course will emphasize the integration of these topics with other areas of chemistry, having an outlook toward upper-level chemistry courses. This course must be taken concurrently with CHEM-151LQ. Prerequisite: Completion of Chemistry Department Placement Exam and Survey. Placement in this course is based on the results of the exam and survey. Three hours of lecture per week plus one hour of recitation per week at the discretion of the instructor. *Three semester hours. (S, if taken with CHEM-151LQ.)*

Note: *Students who have received credit for CHEM-107 and/or 108 may not enroll in CHEM-151.*

CHEM-151LQ. Laboratory in Advanced General Chemistry

Laboratory work related to CHEM-151. Experimental work may include topics in stoichiometry, chemical structure and bonding, thermodynamics, equilibrium, and kinetics. This course must be taken concurrently with CHEM-151. Three hours of laboratory per week. *One semester hour.*

CHEM-202W. Rhetoric and Responsibilities of the Modern Scientist

Science is a collaborative enterprise that requires ethics and effective communication. Students will develop communication techniques and consider ethical obligations with respect to other scientists and the public. The underlying skill-based content serves as an excellent platform with which to simultaneously explore the broader obligations and considerations facing a modern scientist. Prerequisites: CHEM-108 or 151. Three hours per week. *Four semester hours. (O.)*

CHEM-207. Organic Chemistry I

An introduction to the study of the physical and chemical properties of both aliphatic and aromatic hydrocarbons within the context of modern structural theory. Areas emphasized are bonding, acidity and basicity in organic systems, stereochemistry, and reaction mechanisms. This course must be taken concurrently with CHEM-207L. Prerequisite: CHEM-108 or 151. Three hours per week plus one hour of workshop per week at the discretion of the instructor. *Three semester hours.*

CHEM-207L. Laboratory in Organic Chemistry I

Laboratory work related to CHEM-207. Experimental work may include measurement of physical properties, study of reaction kinetics, and synthesis. Techniques employed include chromatography, distillation, extraction, infrared and UV/vis spectroscopy, and recrystallization. Primary and secondary literature sources are introduced. This course must be taken concurrently with CHEM-207. Prerequisite: CHEM-108LQ or 151LQ. Three hours per week. *One semester hour.*

CHEM-208. Organic Chemistry II

A continuation of CHEM-207. Particular emphasis is placed on spectrometric methods, and on the reactivity and synthesis of a variety of organic functional groups. This course must be taken concurrently with CHEM-208L. Prerequisite: CHEM-207. Three hours per week plus one hour of workshop per week at the discretion of the instructor. *Three semester hours.*

CHEM-208L. Laboratory in Organic Chemistry II

Laboratory work related to CHEM-208; a continuation of 207L. This course must be taken concurrently with CHEM-208. Prerequisite: CHEM-207L. Three hours per week. *One semester hour*.

CHEM-291. Introduction to Research

Laboratory and library work, under the direction of a faculty member, designed to introduce the student to fundamental research procedures and data interpretation in the context of a research project. Upon completion of the work, a formal presentation must be given to the department. This course may be taken more than once. Prerequisites: CHEM-107LQ or 151LQ; and permission of the research adviser. Three hours of laboratory per week. Graded S/U. *One semester hour*.

CHEM-309. Physical Chemistry I

An in-depth study of chemical thermodynamics and kinetics, including enthalpy, entropy, and Gibbs energy changes; physical and chemical equilibria; rates of chemical reactions; and reaction mechanisms*. Prerequisites: CHEM-108 or 151; MATH-112; and PHYS-122Q. Strongly recommended: MATH-211. Three hours per week. *Three semester hours*.

Note: *Students may not receive credit for both CHEM-309 and BCMB-307.*

CHEM-309L. Laboratory in Physical Chemistry I

Laboratory work related to CHEM-309, emphasizing data analysis, computer and writing skills. Lab report writing will require use of the primary and secondary literature sources. Prerequisites: CHEM-108L or 151LQ; CHEM-309 (or concurrently) or CHEM-309 (or concurrently). Three hours per week. *One semester hour*.

Note: *Students may not receive credit for both CHEM-309L and BCMB-307L.*

CHEM-310. Physical Chemistry II

A study of the principles of quantum mechanics applied to simple models (particle in the box, harmonic oscillator) and to atoms and molecules (quantum chemistry). The course will include statistical thermodynamics. Emphasizes the mathematical foundation and spectroscopic investigation of atomic and molecular properties*. Prerequisite: CHEM-108 or 151; MATH-112; and PHYS-122Q. Strongly recommended: MATH-211. Three hours per week. *Three semester hours*.

CHEM-310L. Laboratory in Physical Chemistry II

Laboratory work related to CHEM-310, emphasizing spectroscopic methods of investigating atomic and molecular structure and properties. Data analysis and lab report writing will require the use of the chemical literature. Prerequisites: CHEM-108L or 151LQ; and 310 (or concurrently). Three hours per week. *One semester hour*.

CHEM-315. Instrumental Analysis

A study of instrument-based spectroscopic, separation, and electrochemical analyses. A framework that can be used to understand new and old techniques, the theory behind a variety of specific techniques, and the current practices used in chemical analysis will be discussed. In addition to the discussion of specific techniques, basic concepts in electronics and statistics will be presented. Prerequisite: CHEM-108 or 151. Three hours per week. *Three semester hours*.

CHEM-315L. Laboratory in Instrumental Analysis

Laboratory work related to CHEM-315. Students will gain experience with a variety of instrumental analysis techniques by investigating how specific instrumental settings affect output. Emphasis will be placed on statistical analysis of experimental data.

Prerequisites: CHEM-108L or 151LQ, and 315 (or concurrently); or permission of instructor. Three hours per week. *One semester hour.*

CHEM-322. Inorganic Chemistry

A principles-based approach to modern inorganic chemistry, including the structure, bonding, and reactivity of main group, transition metal, and organometallic compounds. Topics may include atomic theory, symmetry, chemical applications of group theory, molecular orbital theory, ligand field theory, the electronic spectroscopy of coordination compounds, and solid-state chemistry. Prerequisite: CHEM-108 or 151. Three hours per week. *Three semester hours.*

CHEM-322L. Laboratory in Inorganic Chemistry

Laboratory work related to CHEM-322. Techniques used to synthesize and characterize a variety of inorganic compounds will be introduced. This course must be taken concurrently with CHEM-322. Prerequisite: CHEM-108L or 151LQ. Three hours per week. *One semester hour.*

CHEM-340. Selected Topics in Chemistry

A course focused on a topic of contemporary chemistry to the scientific community, such as physical organic chemistry, structure and spectroscopy, medicinal chemistry, materials science, computational chemistry, food chemistry, or synthesis. May be taken more than once for credit, if topic is different. Prerequisites: CHEM-208 or permission of the instructor. Four hours per week for half a semester, two hours per week for a full semester, or one hour of lecture and three hours of laboratory per week for a full semester. *Two semester hours.*

CHEM-347. Fundamentals of Biochemistry

A study of the chemistry of molecules and reactions important in biological systems. Topics may include amino acids, proteins, enzymes, carbohydrates, lipids, metabolism, bioenergetics, DNA, RNA, pharmaceuticals, and the mechanisms of biological reactions. Prerequisites: CHEM-108 or 151, and 208. Three hours per week. *Three semester hours.*

Note: *Students who have received credit for BCMB-351 may not enroll in CHEM-347.*

CHEM-380. Off-Campus Research

An approved, off-campus laboratory research experience supervised by an on-site adviser and faculty liaison involving a minimum of 10 hours per week for one semester or four weeks of full-time work. Before beginning the project, the student must submit a proposal to be approved by both the chemistry faculty and the on-site adviser. Upon completion of the work, written and oral reports must be presented to the department. Prerequisites: CHEM-108L or 151LQ, and 208L. Graded S/U. *Four semester hours. (XLP.)*

CHEM-381. Internship

A laboratory project in cooperation with industry at an industrial site involving a minimum of 10 hours per week for one semester or four weeks of full-time work. Students must document their experience according to the requirements delineated in the College catalogue section on Internships. Before beginning the internship, the student must submit a proposal to be approved by both the chemistry faculty and the on-site supervisor. Upon completion of the work, written and oral reports must be presented to the department. Open to juniors and seniors. The term during which the internship work is performed will be noted by one of the following letters, to be added immediately after the internship course number: A (fall), B (winter), C (spring), or D (summer). Internships undertaken abroad will be so indicated by the letter I. The

intern must complete a minimum of 120 hours of work. Upon completion of the work, written and oral reports must be presented to the department. Prerequisites: CHEM-108L or 151LQ, and 208L. Graded S/U. *Three semester hours. (XLP.)*

CHEM-382. Internship

A laboratory project in cooperation with industry at an industrial site involving a minimum of 10 hours per week for one semester or four weeks of full-time work. Students must document their experience according to the requirements delineated in the College catalogue section on Internships. Before beginning the internship, the student must submit a proposal to be approved by both the chemistry faculty and the on-site supervisor. Upon completion of the work, written and oral reports must be presented to the department. Open to rising juniors and seniors. The term during which the internship work is performed will be noted by one of the following letters, to be added immediately after the internship course number: A (fall), B (winter), C (spring), or D (summer). Internships undertaken abroad will be so indicated by the letter I. The intern must complete a minimum of 160 hours of work. Prerequisites: CHEM-108L or 151LQ, and 208L. Graded S/U. *Four semester hours. (XLP.)*

CHEM-391. Research/Focused Inquiry

Laboratory and library work, under the direction of a faculty member, designed to introduce the student to fundamental research procedures and data interpretation in the context of a research project. Upon completion of the work, a formal presentation must be given to the department. This course may be taken more than once. Prerequisites: CHEM-208L or 291, and permission of the research adviser. Six hours of laboratory per week. *Two semester hours.*

CHEM-400. Chemistry Seminar

A forum for seminar presentations by students, faculty members, and visiting scientists. Offered both semesters. Prerequisites: CHEM-108 or 151, and 208. May be taken four times for credit. One hour per week. Students cannot be enrolled in CHEM-400 and CHEM-401 in the same semester. Graded S/U. *One semester hour.*

CHEM-401. Chemistry Capstone

A culminating experience for chemistry majors requiring the development and presentation of an independent research proposal, participation in research seminars presented by visiting speakers and Ursinus students, and preparation for post-graduate career and educational opportunities. Prerequisites: Senior standing, CHEM-202W, and at least one course in chemistry at the 300-level excluding internships and research. Students cannot be enrolled in CHEM-400 and CHEM-401 in the same semester. Two hours per week. *Two semester hours. (CCAP.)*

CHEM-450. Advanced Topics in Chemistry

An advanced course covering selected topics in modern chemistry. Possible topics include biophysical chemistry, bioinorganic chemistry, the chemistry of life, organometallic chemistry, and nanoscience. Prerequisites: CHEM-108 or 151, and 208; or permission of the instructor. Three hours per week. *Three semester hours.*

CHEM-491W. Research / Independent Work

Independent laboratory and library investigation in chemistry. A final research paper and oral presentation will be presented to the department faculty. At the time of registration, written consent of the research adviser and the department is required. This course may be taken more than once. Prerequisites: CHEM-202W. Co-requisite: CHEM-400 or 401. Twelve hours per week. *Four semester hours. (XLP.)*

CHEM-492W. Research/Independent Work

A continuation of CHEM-491W, with a final seminar and thesis describing the research work. At the time of registration, written consent of the research advisor and the department is required. This course may be taken more than once. Prerequisites: CHEM-491W. Co-requisite: CHEM-400 or 401. Twelve hours per week. *Four semester hours*.

CHEM-499. Chemistry Assessment

A course required of all Chemistry majors designed to assess their learning in the chemistry program. Taken in the student's last semester. Graded S/U. *Zero semester hours*.

- Chemistry Department

Classical Studies

Faculty

- *Visiting Professor Amoroso-O'Connor (Coordinator)*

- Classical Studies offers students an introduction to the worlds of Ancient Greece and Rome. Courses in Latin and Greek not only develop a student's reading knowledge in these languages but examine the cultural contexts of the literature, art, and archaeology we study. By encountering the ancients on their own terms, we can better understand their worlds and their influence on ours. Classical Studies is the traditional basis of a liberal arts education and a minor in Classical Studies enhances a student's ability and skills in interpretation and writing. A student may choose to minor in Classical Studies or Latin.

  Requirements for the Latin Minor

  A minor in Latin consists of five courses for a total of 20 credits.

  - LAT-101 and 102 do not count towards the minor.
  - Four of the Latin courses must be above the 100-level; one must be at the 300-level or above.
  - The fifth course may be selected from Latin, Greek or Classical Studies.

  Requirements for the Classical Studies Minor

  A minor in Classical Studies consists of five courses for a total of 20 credits.

  - Minimum of two semesters of Latin or two semesters of Greek. These courses may be at the 100-level or above.
  - CLAS-100 Introduction to the Classical World;
  - Two additional courses; one must be at the 300-level or above. These courses may be classical language courses, Special Topics in Classical Studies, or Independent Research.

  See list of classical studies-related courses below. One of these courses may be applied to the minor in Latin or Classical Studies.

  - ANTH-205

- ART-150
- HIST-101
- MUS-205
- PHIL/POL-237, 337
- RELS-242, 245
- Other Special Topics courses may be applied to the minor with permission of the Classical Studies program coordinator.

Students minoring in both Latin and Classical Studies may apply only one course to count towards both minors.

Students studying Classics abroad may apply at most two of those courses towards the Classical Studies or Latin minors with permission of the Classical Studies program coordinator. Upon request, the Classical Studies program coordinator may approve other courses, such as Special Topics in other departments that have a classical studies focus, to count towards the minor.

Courses

- **CLAS-100. Introduction to the Classical World**
  This course will provide students with an introduction to the Greeks and Romans, covering major historical events as well as social, literary, and artistic trends. This is the foundation course for a minor in Classical Studies. Three hours per week. *Four semester hours. (H.)*

CLAS-250. Special Topics in Classics
Special topics will vary but all will focus on ancient history, society, or literature. All primary sources will be read in translation. Three hours per week. *Four semester hours. (H.)*

CLAS-290. Independent Study in Classics
Individual study of topics in ancient literature or civilization. Students will meet weekly with the instructor to review assigned readings and writing assignments. Prerequisite: CLAS-100 or permission of the instructor. *Four semester hours. (XLP.)*

CLAS-350. Advanced Special Topics in Classics
Courses on wider topics in ancient history, society, or literature. All primary sources will be read in translation. Prerequisite: CLAS-100. Three hours per week. *Four semester hours. (H.)*

CLAS-390. Advanced Independent Study in Classics
Individual study of topics in ancient literature or civilization at an advanced level. Students will meet weekly with the instructor to review assigned readings and writing assignments. Prerequisites: CLAS-100 and 290. *Four semester hours. (XLP.)*

CLAS/LAT-452W. Advanced Seminar in Classics or Latin

Seminars of changing content, for study of authors and genres, combined with study and practice in writing. Prerequisites: CLAS-100 and three additional Classical Studies courses, of which two must be at the 300-level or above. Three hours per week. *Four semester hours. (H.)*

CLAS/LAT-491W. Pre-Honors Research in Classical Studies or Latin

This course is open to candidates for honors and to other students with the permission of the Classical Studies program coordinator. Students will meet weekly with the instructor to review assigned readings, research and writing assignments. Prerequisite: permission of the instructor. *Four semester hours. (XLP.)*

CLAS/LAT-492W. Honors in Classics or Latin

A continuation of CLAS/LAT-491W. Students will meet weekly with the instructor to review assigned readings, research and writing assignments. Prerequisite: CLAS/LAT-491W. *Four semester hours. (XLP.)*

Greek

GRK-150. Introduction to Greek for Classical Studies

Students will develop skills in reading Homeric or Biblical Greek, building on their previous knowledge of Latin. Prerequisite: LAT-102 or permission of instructor. Four hours per week. *Four semester hours. (H.)*

GRK-151. Special Topics in Greek

Students will develop their reading skills while focusing on a single author or topic. Prerequisite: GRK-150 or permission of instructor. Four hours per week. *Four semester hours. (H.)*

Latin

LAT-101. Elementary Latin

Students will be introduced to the basics of Latin and will develop skills in the foundational syntax and vocabulary of Latin. Four hours per week. *Four semester hours. (L.)*

LAT-102. Elementary Latin II

Students will broaden their knowledge of vocabulary, syntax and grammar and read excerpts from a variety of Latin authors. Four hours per week.*Four semester hours. (H, L.)*

LAT-201. Intermediate Latin I

Students will further develop their skills in Latin grammar while reading increasingly complex material. Prerequisite: LAT-101102; or permission of the instructor. Four hours per week. *Four semester hours. (H, L.)*

LAT-202. Intermediate Latin II

A continuation of LAT-201. Prerequisite: LAT-201 or permission of the instructor. Four hours per week. *Four semester hours. (H, L.)* The sequences LAT-101-102 or 201-202 are recommended for fulfilling the foreign language requirement.

The sequences LAT-101–102 or 201–202 can fulfill the College foreign language requirement.

LAT-250. Special Topics in Latin Language and Grammar

This course focuses on building skills in Latin grammar and structure. Students will read material from Latin texts simplified and adapted to emphasize grammar. Prerequisite: LAT-201202; or permission of the instructor. Three hours per week. *Four semester hours. (H, L.)*

LAT-350. Advanced Special Topics in Latin Reading and Translation

Content variable; may concentrate on author, period, or genre. Possible topics: Latin Poetry, Historical Writers, Roman Revolution, Vergil's Aeneid. Students will read primary sources in Latin. Prerequisite: LAT-250 or permission of the instructor. Three hours per week. *Four semester hours. (H, L.)*

LAT-450. Independent Work -Topics in Latin

Independent readings or research in Latin. Weekly meetings with Instructor supervising the independent work. Prerequisite: LAT-350 or permission of the instructor. Three hours per week. *Four semester hours. (XLP.)*

Climate Change

Faculty

- *Professor Hurley; Associate Professors Finney, Joseph (Coordinator), Straub, Woodstock; Assistant Professor Berry; Visiting Professor Ashcroft.*

- The Climate Change (CCG) minor is an interdisciplinary minor designed for students interested in learning more of the science involving the global climate system, the natural and anthropogenic changes that have, are, and are likely to occur and the impacts on Earth and life on Earth, as well as important interactions with human systems, who can affect the climate system, but are also affected by it. The minor incorporates classes from multiple fields, including geological, ecological, marine, chemical, and social science perspectives. A minor in CCG consists of 28 credits. Required courses include:
    - Foundation (all required): ENVS-100 or 120, and BIO-101Q
    - Climate Science (select 2): ENVS-370, 452W, or ENVS/BIO-419W
    - Related Sciences (select 2): ENVS-180Q, 266, 361, 372, ENVS/BIO-330, ENVS/GEOS-142Q, or 240Q
    - Human Impact on Systems/ Climate-Related Social System (select 1): ENVS/SOC-220, 290, ENVS-242, 338, or 366 , ENVS/PHIL-248, or ENVS/MCS-302

  Other recommended courses include: ENVS-244, 454W, ENVS/HIST-254, ENVS/PSYCH-260, and STAT-141Q or MTH-111, in addition to those courses not already selected from within the minor categories.

  Students who plan to continue on within field of Climate Change after graduation are advised to talk with the CCG coordinator to determine the specific courses, and/or additional ones, that may be recommended for continuing on in a particular aspect of this field. CCG minors are also recommended to seek out and complete an XLP that provides additional experience and exposure to some aspect of climate change.

  Environment and Sustainability (ENVS) or BIO majors who wish to minor in CCG, no more than 12 credits can be counted toward both their CCG minor and their major.

  Special topics and other new courses may count towards the CCG minor with permission of the CCG coordinator. Similarly, internships or

courses taken during a study abroad or off campus program may also count towards the CCG minor with approval from the CCG minor coordinator.

- Environment and Sustainability

Comparative and Global Literatures

Faculty

- *Professor Brodie, Sorensen; Associate Professors Lott, McShane, Mizenko; Assistant Professor Brossillon (Coordinator), Jones, Kluchin.*

- This Minor in Comparative and Global Literatures is designed to reflect contemporary trends in humanistic scholarship as it teaches and encourages students to study, compare, and analyze materials from different cultures, media and/or historical periods. This interdisciplinary and global perspective on the study of literature - across linguistic, historical and national boundaries - helps students reflect on the core questions, especially "How should we live together?" and "How can we understand the world?", crucial questions in our interconnected world. Students pursuing a minor in Comparative and Global Literatures will have the opportunity to work with professors from a wide variety of departments and programs in the Humanities, further developing their critical thinking skills and research methodologies.

Requirements for Minor

A minor in Comparative and Global Literatures (CGL) consists of 20 credits. Students must complete courses from at least three different programs or course prefixes.

1. **ENGL-290W**. It is recommended (but not necessary) that this be among the first courses taken for the minor.

2. **Four courses from the pre-approved list.**
    -
        - At least two courses must be taken from the following departments: CGL, EAS, ENGL, FREN, GER, GWSS, HIST, LAS, SPAN (251 and above), or THEA.
        - At least one course must carry a 'DN' designation and at least one other course must be designated 'GN'.
        - Relevant courses in other departments may be taken with pre-approval from the minor coordinator.

Pre-approved courses (potential) DN or GN listed by course:

Art
ART-250 (potential DN or GN depending on topic), 350, 371, 372 (GN); ART/GWSS-373 (DN)

Comparative and Global Literature
CGL-250, 350 (potential DN or GN depending on topic)

East Asian Studies
EAS-224 (GN), 299 (GN), 314 (GN)

English
ENGL-230 (potential DN or GN depending on topic), 240 (potential DN or GN depending on topic), 301, 325, 330; ENGL/GWSS-228

French
FREN-251 (GN), 252 (GN), 328, 352, 362, 372, 440 (with approval)

Gender, Women's, and Sexuality Studies
GWSS/ART-377 (DN); GWSS/ENGL-228; GWSS/HIST-126 (DN), 227 (DN), 251 (GN), 256 (GN), 360 (potential DN or GN depending on topic), 303 (DN, GN), 377 (DN); PHIL/GWSS-107 (DN); GWSS/THEA/-215 (DN), 217 (DN), 218 (DN), 315 (DN)

German
GER-251, 252

History
HIST-125 (DN), 151 (GN), 153 (GN), 202 (GN), 228 (DN), 255 (GN), 256 (GN), 260 (DN or GN), 277 (DN), 286 (DN or GN), 307 (GN), 308 (DN, GN), 352 (GN), 354 (GN); HIST/GWSS-126 (DN), 227 (DN), 303 (DN, GN), 377 (DN);

Interdivisional Studies
IDS-110 (with approval), 301 (with approval and when taken as four-credit class), 363 (when taken during the semester)

Latin American Studies
LAS-215 (DN), 332 (GN, with approval)

Philosophy
PHIL-102, 106, 109 (with approval), 227 (potential DN; with approval), 249, 258, 345; PHIL/GWSS-107 (DN)

Spanish
SPAN-251 (GN), 252 (GN), 340 (with approval), 352 (GN), 440W (with approval)

Theater
THEA-216, 300W (GN), 301W, 320; THEA/GWSS-215 (DN), 217 (DN), 218 (DN), 315 (DN)

No more than eight of the required 20 credits may also count toward a student's major, and no more than eight of the required 20 credits may count toward a student's additional minor.

Capstone courses, special topics courses, and independent study courses may also count toward the minor when the topic is appropriate and with prior approval from the program coordinator.

Common Intellectual Experience

Faculty

- *College Librarian Skorina (Coordinator)*

Requirements

- The goals of the two Common Intellectual Experience Seminars (CIE-100 and CIE-200) are 1) to develop a student's ability to think critically through a pedagogy which stresses the intellectual process; 2) to foster the essential skills of critical reading, effective speaking and clear writing; 3) to develop these skills within the intellectually challenging context of three broad questions relevant to the human condition; 4) to enable the student to make connections across the traditional disciplines; and 5) to promote a shared intellectual endeavor for all entering students.

  All first-year students are required to enroll in CIE-100 and CIE-200 during the fall and spring, respectively, of their first year. (In unusual circumstances, students, with permission of the Office of the Provost, may take CIE in the second year.) Transfer students take one semester of CIE-150 to fulfill the Question 1 core requirement.

  While Common Intellectual Experience Seminars have an enrollment limited to 16 students to provide an atmosphere conducive to discovery and inquiry, the small sections meet together, from time to time, for common events. Faculty members from all disciplines lead students to reflect about significant issues that introduce them to the intellectual climate of the College. Reading assignments consist of seven or eight books or equivalents. Frequent writing and oral assignments are required throughout the course.

Courses

- **CIE-100. Common Intellectual Experience I**
  The first of a two-semester course introducing inquiry into the core questions of liberal education at Ursinus: What should matter to me? How should we live together? How can we understand the world? What will I do? The course will explore these questions through the study of influential primary texts. The first semester focuses on texts from antiquity up to the modern era. *Four semester hours. (CIE.)*

  CIE-150. Common Intellectual Transition

A one-semester course, designed especially for transfer students, introducing inquiry into the core questions of liberal education at Ursinus: What should matter to me? How should we live together? How can we understand the world? What will I do? The course explores these questions through the study of influential primary texts drawn from both semesters of the Common Intellectual Experience, with attention to reading critically, writing for revision, and discussion in a small classroom environment. Students will also become familiar with Ursinus resources, including the Institute for Student Success, Myrin Library, the Center for Writing and Speaking, and Career and Post-Graduate Development. Open to transfer students with 24 or more transfer credits, excluding AP credits. Four semester hours. (Fulfills the CIE requirement for eligible transfer students.

CIE-200. Common Intellectual Experience II

This course continues the inquiry into the four core questions begun in CIE-100 (CIE I) through the study of influential primary texts. The second semester focuses on texts from the modern era through contemporary times. Four hours per week. *Four semester hours. (CIE.)*

CIE-300. Common Intellectual Experience III

This course allows deeper exploration into issues and texts encountered in CIE-100 and CIE-200. While the topics may vary each semester, this seminar will be a discussion-oriented, interdisciplinary course that permits engagement with themes in a more sustained and focused manner. Prerequisite: Sophomore standing or higher. Three hours per week. *Four semester hours. (Possible DN or GN, depending on the topic.)*

Note: *This course may be taken more than once.*

Data Analytics

Faculty

- *Professors Scoville (Coordinator), VanGilder; Associate Professor Mongan, Montesinos-Yufa, New; Assistant Professors Aukers, Grossbauer, Takyi, Yan.*

- Data analytics is an interdisciplinary minor that combines statistics and computer science, preparing students to understand how to ask questions and present answers about a world in which exponentially growing amounts of quantitative data are becoming available. The minor trains students to organize and assemble large data sets, process them, and use them to describe and answer questions about the world in all of its complexity. In the context of the Ursinus core curriculum, the minor asks students to consider the question, "How can we understand the world?"

  Requirements for Data Analytics Minor

  A minor in data analytics consists of 24 credits, with 16–20 credits in required courses. Required courses are as follows:

  Programming courses (prerequisites for DATA classes)

  - STAT-141 and 142 or a two- to four-credit course focusing on R programming. Other courses will be accepted for this requirement with the permission of the data analytics coordinator.
  - A two- to four-credit course focusing on Python programming. CS-170Q satisfies this requirement. Other courses will be accepted for this requirement with the permission of the data analytics coordinator.

  Data Classes

  - DATA-201
  - DATA-202
  - DATA-301

  In addition, data analytics minors must complete between four to eight elective credits to reach 24 credits in the minor. The following courses will satisfy the elective requirement:

- CS-173
- CS-377
- CS-477
- DIGS-200
- DATA-150
- DATA-350
- No more than one of the following courses, which require data gathering, description, and statistical analysis: ANSO-200, BIO-359, CHEM-315/315L, HEP-261W, NEUR/PSYC-432W, POL-300, STAT-242, STAT-243W, or ECON-300Q.
- Honors or research or an independent study in any discipline that involves significant data analysis may also count towards the minor, with the permission of the data analytics coordinator.

Courses

- ### DATA/STAT-150. R for Data Science

  A hands-on study of the statistical programming language R for liberal arts students. This course prepares students to collect, manipulate, analyze, and visualize real-world data using R with a focus on data science applications. A final project will consist of analyzing and visualizing CIE readings statistically. Key R packages to use include (and will not be limited to) base, readr, readxl, stringr, knitr, dplyr, dbplyr, lubridate, ggplot2, tidytext, mlr3, caret, rmarkdown, data-table, and the tidyverse suite. Examples will be drawn from various disciplines centered on students' interests. Offered in Spring. Prerequisites: STAT-142 and either CIE-100 or CIE-150 or CIE-200, or permission from the instructor. Four hours per week. *Four semester hours*.

DATA-201. Data Analytics

A broad introduction to the field of data analytics. The course focuses on the proper deployment and use of data analytic tools and techniques that are successfully utilized by modern organizations. Students will be introduced two programming language: SQL and R. After taking the course, students will demonstrate a mastery of SQL queries to extract data from a relational database; demonstrate the ability to manipulate, analyze and visualize data; and demonstrate the ability to utilize statistical scripting languages and software tools to analyze data for insights. Three hours per week. *Four semester hours*.

DATA-202. Data Care and Cleaning

Building upon foundational analytics tools and techniques, this course further explores advanced data pre-processing tools used in the field of data analytics. Students will focus on data care, data cleaning and data visualization with Python. By the end of this course students will master modern data pre-processing libraries in Python. Prerequisite: CS-170 (or another course in Python programming). Three hours per week. *Four semester hours*.

DATA-301. Data-Driven Insights and Society

An introduction to the methods used to build and manage databases, the storehouses of information used by organizations to understand their operations and make decisions. Students who successfully complete the courses will know how to choose appropriate tools for a given data management application; understand relations in the context of

databases; construct distributed databases and NoSQL databases; and develop a substantial data management project. Prerequisites: DATA-201 and 202. Three hours per week.*Four semester hours.*

DATA-350. Topics in Data Analytics

An occasional course focusing on a special topic in data analytics. Prerequisites will vary. Three hours per week.*Four semester hours.*

Digital Studies

Faculty

- *Professors Edwards, Goldsmith, Hubbs, Hurley, Kozusko; Associate Professor McShane (coordinator), Mellis, Tierney.*

- Digital Studies is an interdisciplinary minor that introduces students to the approaches and mindsets they need to engage in digital work within and across disciplines. The minor provides students with curricular opportunities to develop the technical, analytic, and improvisational skills crucial to digital work. The minor invites students to explore questions closely linked to the Ursinus Quest, such as: "What should matter to us in an increasingly and inequitably digitized world?", "how can disciplinary and cross-disciplinary approaches help us understand the digital world?", and "what will I do to build and be a member of more equitable digital communities?". With a focus on ethics and collaboration, the minor prepares students to be productive, engaged citizens in an increasingly digital world.

  Requirements for Minors

  To complete a minor in Digital Studies, students must complete 16–20 credits, distributed as follows:

  - DIGS-200

  - **One course that provides practical knowledge of and experience with the skills necessary for success in digital environments:** ART-107, 110; CS-170Q, 173, 174; DATA/STAT-150; DATA-201; ENVS-244; IDS-110, 301; MCS-210, 225, 327; MUS-226; STAT-141Q, 142; special topics courses as appropriate (two – four credits)

  - **One applied course that situates digital tools and theories within a disciplinary focus**: BIO-425W, 428W; BIO/BCMB-429; BIO/NEUR-435W; ENVS-003, 004, 005, 006, 338; 200W; HIST/GWSS-375; MCS-208, 220, 318, 319, 335, 358, 363; PHIL/CS-243; POL-300, 358, 359, 452; SOC-255, 258; special topics courses as appropriate (four credits)

- **One applied, project-based course**: AMST-200; ART-120; CS-375; DATA-301; DIGS-250, ENGL-250 (Podcasting Literature); ENVS-332, 366; HIST/ENGL-212; MUS-203; MCS-250; PHIL/CS-357; PSYC/MCS-268; special topics courses as appropriate (four credits)

- **An additional applied experience, such as a second, project-based course or an XLP in digital studies:** This may or may not be credit-bearing. It may include an approved internship; an independent study or honors in Digital Studies; participation in the Digital Spark program; at least one year of work as a Digital Liberal Arts fellow or a digitization assistant; or an approved Summer Fellows experience (zero – four credits);

- **A reflective activity**: To complete the minor, students will complete a reflection to be reviewed by Program Coordinator(s) and/or supporting faculty. This is required for students who wish to use the minor to fulfill the LINQ requirement (zero credits).

To complete the minor, students should take courses from at least three disciplines.

Courses

- ### DIGS-200. Introduction to Digital Studies

  This course cultivates foundational knowledge in digital studies, providing students with an understanding of central questions in the field. In this course, students will examine what it means to be digitally literate. The course will address questions of power, privilege, and access that shape the digital world. Beginning with an historical overview, students will explore issues such as digital security and privacy, digital identities, and copyright and fair use. Along with this theoretical grounding, students will be introduced to key principles for project management and development, data analysis, visualization, and curation. While gaining familiarity with and thinking critically about a variety of tools and platforms, students will build projects that help them develop a context for informed, ethical choices about the use of technology. Required for the digital studies minor. Offered every other year. Three hours a week. *Four semester hours. (LINQ.)*

DIGS-250. Introduction to Game Studies

What is the role of games in our society? Can a game motivate social change? What makes one game more engaging than another? In this course, students will explore the game industry, game culture, and the purpose and effects of games. They will gain considerable experience with gameplay and evaluation and ultimately design and market their own game. Three hours per week. *Four semester hours. (A. SS, LINQ if concurrently enrolled in CS-476 or ENTR-101.)*

- Digital Studies Department

Disability Studies

Faculty

- *Associate Professor Frymiare (Coordinator); Visiting Scholar Lelli; Derstine, ODA*

- The Disability Studies minor provides students with an interdisciplinary perspective of how we define disability and how disabled individuals face barriers to full inclusion in society. This minor will benefit students preparing for a variety of careers who will work with people with disabilities (e.g., education, business, health professions), create products that will be used by people with disabilities (e.g., engineering, entrepreneurs), or deal with policy that affects people with disabilities (e.g., politics, law).

  The Disability Studies minor consists of 20 credits:

  - DSST-100 and 400
  - 16 elective credits

  At least 12 of the 20 credits for the minor must be in addition to credits already counting toward the student's major(s) and/or another minor.

  Elective courses include: ANTH-235; BIO-220, 425W; DIGS-200; DSST-210, 274, 275, 391, 392, 491, 492; ECON/GWSS-210; EDUC-280, 320, 375; HIST/GWSS-126; HS-275; HS/SOC-298; HS-464; HSOC-100; IDS-224; MCS/PSYC-268; MCS-335; PHIL/GWSS-107; PHIL-246; POL-354, 356; PSYC-220, 264, 266, 311

  Capstone courses, special topics courses, and independent study courses may also count toward the minor when the topic is appropriate, with prior approval from the coordinator.

Courses

- **DSST-100. Introduction to Disability Studies**
  A guiding question asked throughout the course will be: why and how have individuals with disabilities experienced unfair and/or unequal treatment? To answer that question, as an introductory course, we will examine the social, historical, cultural, and

political construction of categories of disability. In addition, this overview will focus on the unequal treatment experienced by people with disabilities. Through a wide variety of texts, all of which are first-hand accounts by individuals who identify as having a disability, an exploration of various meanings of disability will be provided. In addition, the class will explore topics including disability rights movements in the United States, different models and theories of disability and disability identities and cultures. In this course, disability is widely defined to include a range of impairments and differences.*Two semester hours. (O.)*

DSST-210. Disability Rights Movement

This course explores the disability rights movement in the United States and the ways in which this movement was similar and different from other social and human rights movements. The goals of the disability rights movement involved securing equal opportunities and equal rights for people with disabilities, and the primary issues for this movement were adequate funding, accessibility, and safety for individuals with disabilities. Discussions will include the achievements and the shortcomings of the movement, the major advocates during this movement, and the multiple connections between disability and other identities such as race, ethnicity, gender, sexual orientation and class. The historical and legal aspects of the disability rights movement will be studied including imperative legislation such as: American with Disabilities Act (ADA), The Individuals with Disabilities Act (IDEA), and Section 504. Political and social issues yet to be resolved in the disability culture world will be investigated. Questions raised throughout the course include: What is disability? Why do definitions matter? How is disability socially constructed? How did the disability rights movement evolve? Three hours per week. *Four semester hours. (DN, O.)*

DSST-274. Special Topics in Disability Studies

An occasional content course which will focus on a special topic in Disability Studies. This course is offered as needed. A working knowledge of this special topic will be developed. Two hours per week. *Two semester hours.*

DSST-275. Special Topics in Disability Studies

An occasional content course which will focus on a special topic in Disability Studies. This course is offered as needed. A working knowledge of this special topic will be developed. Three hours per week. *Four semester hours.*

DSST-381. Internship

An academic/work experience under the supervision of an internship adviser and an on-site supervisor. Students must document their experience according to the requirements delineated in the College catalogue section on Internships. While students are welcome to participate in an internship of their choosing, an internship specifically for UC students has been established for individuals interested in pursuing a career or with specific interest in Disability with the Pennsylvania State Representative offices. This relationship will continue to be cultivated to foster additional internship opportunities for UC students within areas state representative offices with specific focus on Disability, education, mental health, public health, policy, advocacy and legislation. Contact coordinator for further information. Open to juniors and seniors. The term during which the internship work is performed will be noted by one of the following letters, to be added immediately after the internship course number: A (fall), B (winter), C (spring), or D (summer). Internships undertaken abroad will be so indicated by the letter I. The intern must complete a minimum of 120 hours of work. Graded S/U. Prerequisites: DSST-100 and approval of a faculty internship adviser. *Three semester hours. (XLP.)*

DSST-382. Internship

An academic/work experience under the supervision of an internship adviser and an on-site supervisor. Students must document their experience according to the requirements delineated in the College catalogue section on Internships. While students are welcome to participate in an internship of their choosing, an internship specifically for UC students has been established for individuals interested in pursuing a career or with specific interest in Disability with the Pennsylvania State Representative offices. This relationship will continue to be cultivated to foster additional internship opportunities for UC students within areas state representative offices with specific focus on Disability, education, mental health, public health, policy, advocacy and legislation. Contact coordinator for further information. Open to juniors and seniors. The term during which the internship work is performed will be noted by one of the following letters, to be added immediately after the internship course number: A (fall), B (winter), C (spring), or D (summer). Internships undertaken abroad will be so indicated by the letter I. The intern must complete a minimum of 160 hours of work. Graded S/U. Prerequisites: DSST-100 and approval of a faculty internship adviser. *Four semester hours. (XLP.)*

DSST-400. Capstone in Disability Studies

This is the final course for all students intending to complete a Disability Studies minor. It intends for participants to draw from their learning throughout their entire course of study. Through this course students will develop a student directed, professor supported research-based solution to a contemporary problem within Disability. Prerequisites: Junior standing and DSST-100. *Two semester hours.*

DSST-491. Independent Research/Honors

This course is open to candidates for honors and to other students with permission of the coordinator. This course involves independent or student-initiated research experience under the direction of a faculty member. The preparation of a written and oral scientific report is required. Prerequisites: Junior standing, DSST-100, and permission of instructor. *Four semester hours. (XLP.)*

DSST-492. Independent Research/Honors

This course is a continuation of DSST-491. Prerequisites: DSST-491, and permission of instructor. *Four semester hours. (XLP.)*

- View list of Elective Courses for Disability Studies
- Visit Disability Studies Home

Earth & Environmental Science

Faculty

- *Professor Hurley; Associate Professors Finney, Joseph; Assistant Professor Berry; Visiting Professor Ashcroft (Coordinator).*

- The Earth & Environmental Science (EES) interdisciplinary minor focuses on developing knowledge and skills important for understanding Earth, including the natural and anthropogenic processes that occur at or near Earth's surface. It allows students to engage in the study of Earth and environmental systems from a number of fields, including geological, environmental, biological, marine, and chemical perspectives, and considers Earth as a resource worthy of protection as well as one with hazards. A minor in EES consists of 28 credits.

  Required courses include:

  - Foundation (all required): ENVS-100 and BIO-101Q
  - Introductory Geoscience (select 1): ENVS/GEOS-102Q or ENVS-142Q
  - Intermediate Geoscience (select 2): ENVS-180Q, 266, or ENVS/GEOS-240Q
  - Environmental & Advanced Geoscience (select 2): ENVS/BIO-334, 415W, CHEM-315, ENVS-361, 370, or 372

  Other recommended courses include: CHEM-107/LQ and 108/LQ; STAT 141Q or MTH 111; ENVS-242, 244, 332, 340, and 452W or 454W, in addition to those courses not already selected from within the minor categories.

  Students who plan to continue on within the field of EES after graduation are advised to talk with the EES coordinator to determine the specific courses, and/or additional ones, that may be recommended for continuing on in a particular aspect of this field. EES minors are also recommended to seek out and complete an XLP that provides additional experience and exposure to some aspect of earth and/or environmental science.

For majors in the field of Environment and Sustainability (ENVS) majors who wishing to minor in EES, no more than 12 credits can be counted toward both their EES minor and their major.

Special topics and other new courses may count towards the EES minor with permission of the EES coordinator. Similarly, internships or courses taken during a study abroad or off campus program may also count towards the EES minor with approval from the EES coordinator.

- Environment and Sustainability

East Asian Studies

Faculty

- *Associate Professor Chao, Mizenko (Coordinator).*

- Acquaintance with cultures other than our own is an integral part of both a liberal education and preparation for a career in a variety of fields, including business, law, government, or teaching. The major and minor in East Asian Studies are interdisciplinary programs drawing on offerings in several departments, but emphasizing history, culture, politics, literature and language. The programs are designed to provide an introduction to the cultures of China and Japan; in reflection of Ursinus' relationship with our sister school, Tohoku Gakuin University (TGU), located in Sendai, Japan, offerings emphasize the latter. In addition to the courses offered on the Ursinus campus, students either majoring or minoring in East Asian Studies are encouraged to take advantage of off-campus study-abroad opportunities, including the Ursinus Summer Study in Japan (EAS-301) and the Semester in Japan (EAS-399), both offered in conjunction with TGU. Students seeking intensive language experience should consult with the language faculty about appropriate overseas or summer-intensive programs.

  ## Requirements for Majors

  1) A minimum of 12 hours of appropriate language study beyond the introductory 101/102 level (NOTE: EAS majors are encouraged to complete all or some of this requirement either through study abroad or summer-intensive programs, including the college-sponsored Semester Study in Japan program [EAS-399]; regarding major credit, see Note below). Students may satisfy this requirement through equivalent off-campus study — including study abroad — of Chinese, Korean, or other appropriate East Asian language, subject to college approval.

  2) 12 credits from HIST-151, 152, 153, 252, 256; EAS-224, 299, 314.

  3) A capstone experience either in an approved seminar in History, Politics, Modern Languages, or other department as appropriate, EAS-400W, or EAS-491W/492W;

  4) An appropriate methodology course (i.e. ECON-202, ENGL-290W, HIST-200W, POL-252 or 300, ANSO-200, or other approved course).

East Asian Studies majors generally fulfill their requirement for an oral presentation in the major through the required oral component of their methodology and capstone courses;

5) 12 additional credits from the following courses (Note: at least eight credits must be at the 300-level): EAS-224, 299, 301, 314, 398, 399, HIST-151, 152, 153, 252, 256, 352, 354, 451W; ENVS/HIST-254; RELS-111, or approved topics courses in Anthropology and Sociology, Business and Economics, East Asian Studies, English, History, Politics, or Philosophy and Religious Studies.

Note: For the purposes of the EAS major, students who complete EAS-398–399 will receive 3 credits toward the appropriate level of Japanese language, to be determined by the Ursinus faculty, and full credit toward #5 above.

Minors in Chinese and Japanese

Ursinus College also offers language-focused minors in Chinese and Japanese. For more information, please refer to the catalog entry for the Department of Modern Languages

Requirements for Minors

A minor concentration in East Asian Studies consists of 20 credits from courses dealing with East Asia. Twelve credits must come from HIST–151,152, 153, 252, 256; or EAS-224. The remaining credits must come from the following: EAS-299, 301, 314, 398, 399; CHN-111, 112, 211, 212, 311, 312, 328; JPN-111, 112, 211, 212, 311, 312, 328; HIST-151, 152, 153, 252, 256, 352, 354, 451W; ENVS/HIST-254; or RELS-111.

Teacher Certification

Ursinus is one of only a small number of institutions in Pennsylvania to offer certification for secondary-school teaching in Japanese language. For requirements, candidates should consult the Ursinus College Education Department as well as their Japanese language instructor. Certification requires passing a language competency examination.

Courses

- **EAS-224. Japanese Literature in Translation**

Critical reading of representative Japanese literary texts in English translation. This survey begins with ancient texts and concludes with mid-20th century fiction. The focus is on tracing the development of the lyrical and expressive tradition in poetry, and its influence on such genres as drama, essays, diaries and fictional narratives. Three hours per week. *Four semester hours. (H, GN.)*

EAS-299. Topics in East Asian Studies

An interdisciplinary topics course focusing on aspects of East Asian culture, the specific topic to be chosen by the instructor. To be taught in English by guest faculty. Four hours per week. *Four semester hours. (GN.)*

EAS-301. Summer Study in Japan

A five-week course offered in collaboration with Tohoku Gakuin University in Sendai, Japan. This interdisciplinary course comprises three weeks of classroom instruction in Sendai on selected topics of Japanese culture and society, plus an introduction to conversational Japanese language, followed by a two-week tour of Japan. Instruction is in English and is provided by the faculty of Tohoku Gakuin University as well as members of the Ursinus faculty. Offered annually mid-May through June. Not open to incoming freshmen. *Four semester hours.*

EAS-314. Contemporary Japanese Culture.

An introduction to contemporary Japanese culture in its socio-historical context from the post-WWII era to the present. Course materials will include fiction, nonfiction, manga, film, anime, and the visual arts. Among the topics typically addressed are Hiroshima and its aftermath, the social impact of economic reconstruction, gender and ethnicity, postmodern identity and society, the environment, technology and cyborgs, education and business, and the continuing search for definitions of what it means to be Japanese. Taught in English; no knowledge of the Japanese language is necessary. Four hours per week. Several required film screenings. *Four semester hours. (H, GN.)*

EAS-351. Readings in East Asian Studies

Individual or small-group study of one or more selected topics in East Asian Studies. May include preparation of a bibliography for a proposal for subsequent research. Requires consent of a member of the program who will serve as adviser. This course is graded S/U and may be taken more than once for credit. One hour per week plus at least three hours of preparation. *One semester hour.*

EAS-352. Readings in East Asian Studies

Individual or small-group study of one or more selected topics in East Asian Studies. May include preparation of a bibliography for a proposal for subsequent research. Requires consent of a member of the program who will serve as adviser. This course is graded S/U and may be taken more than once for credit. Two hours per week plus at least six hours of preparation. *Two semester hours.*

EAS-381. Internship

An academic/work experience under the supervision of an internship adviser and an on-site supervisor done either domestically or abroad. Students must document their experience according to the requirements delineated in the College catalogue section on Internships. Open to juniors and seniors. The term during which the internship work is performed will be noted by one of the following letters, to be added immediately after the internship course number: A (fall), B (winter), C (spring), or D (summer). Internships undertaken abroad will be so indicated by the letter I. The intern must complete a minimum of 120 hours of work. Graded S/U. *Three semester hour. (XLP.)*

EAS-382.Internship

An academic/work experience under the supervision of an internship adviser and an on-site supervisor done either domestically or abroad. Students must document their experience according to the requirements delineated in the College catalogue section on Internships. Open to juniors and seniors. The term during which the internship work is performed will be noted by one of the following letters, to be added immediately after the internship course number: A (fall), B (winter), C (spring), or D (summer). Internships undertaken abroad will be so indicated by the letter I. The intern must complete a minimum of 160 hours of work. Graded S/U. *Four semester hour. (XLP.)*

EAS-398. Study in Japan Pre-Departure Program

A introduction to basic themes of Japanese history, culture, society. This is a required course for all Ursinus students participating in either EAS-399, Semester in Japan, or EAS-301, Summer Study in Japan. Enrollment by permission of the instructor. The course meets 75 minutes/week for six weeks after spring break. *One semester hour.*

EAS-399. Semester in Japan

Ursinus College has a long-standing tradition of exchange programs with Tohoku Gakuin University, our sister university in Sendai, Japan. The fall semester exchange program provides Ursinus students with the opportunity to spend the fall semester at Tohoku Gakuin. In addition to intensive Japanese language training, classes are offered in a variety of topics. Except for the language classes, courses are taught in English. The program is open to all majors, Admission is competitive. Prerequisite: EAS-398 and two semesters of Japanese language. *Fifteen semester hours.*

Note: *Grades (Pass/Fail) earned in the Semester in Japan program will not count in the student's cumulative GPA at Ursinus.*

EAS-400W. Research in East Asian Studies

A capstone course for East Asian Studies majors only, involving a supervised independent research project and an oral presentation to EAS faculty. Prior approval of the East Asian Studies coordinator and supervising faculty required. *Four semester hours. (XLP.)*

EAS-491W. Research/Independent Work

This course is open to candidates for honors in East Asian Studies and to other students with the permission of the East Asian Studies coordinator. *Four semester hours. (XLP.)*

EAS-492W. Research/Independent Work

A continuation of EAS-491W. Prerequisite: 491W. *Four semester hours. (XLP.)*

- East Asian Studies Program

Education

Faculty

- *Professor Mackler; Associate Professor Mulryan, Spencer (Chair); Instructors Derstine, McShane, Shady.*

- The study of education is interdisciplinary and can spark profound insights about one's own educational experience and about practices and functions of education in society. It can also prepare students for a wide range of work in education after graduation: not only teaching in a range of settings (public or private schools, schools in foreign countries, programs like Teach for America, museums and other institutions), but also careers and/or graduate study in fields such as education policy, social justice, education law, higher education, and counseling.

  The Education department offers:
  1) an Educational Studies major, consisting of 36 credits;
  2) a teaching certification program that leads to state licensure to teach specific academic subjects, mostly for grades 7–12 but in some cases for grades K–12. Certification students major in the subject they intend to teach and take 38 credits in the Education department, including student teaching. (They may also earn the Educational Studies major as a second major with the addition of eight credits in the Education department. See details below).
  3) a minor in Educational Studies, consisting of 20 credits.

  For all students, including those who might be interested in taking a course or two, the department brings a rigorous, liberal arts approach to the study of education, including a focus on the social, political, cultural, historical, and philosophical contexts in which teaching and learning take place. Education students apply academic learning to educational problems and practices, in schools as well as society.

  ### Requirements for Majors

  Educational Studies majors must earn a minimum of 36 credits as follows:

  - Core/foundational courses: EDUC-100, 265, 280, and EDUC/PHIL-310W;

- Four electives from among the following: EDUC-270, 290, 320, 330, 346, 350W, 375, 380; PSYC-240, 340, 342. Students may receive departmental permission to substitute a different non-EDUC course, not on this electives list, if they provide compelling evidence for its relevance to the major. No more than two courses taken outside of the Education department can count toward the major.
- EDUC-450. This course fulfills the oral presentation requirement.
- Students pursuing honors should also register for EDUC-491 and EDUC-492 in succession.
- Students who complete the teaching certification program and take two additional courses may earn the Educational Studies major; see details under "Requirements for Teacher Certification."

Students fulfill their writing requirement by taking EDUC-310W, and fulfill the oral requirement and major capstone by taking EDUC-450.

Requirements for Teaching Certification

Ursinus College is approved by the Pennsylvania Department of Education (PDE) to offer initial Pennsylvania state certification (transferable to more than forty other states), to teach in the following subject areas and grade levels:

- Chemistry (7–12)
- Physics (7–12)
- Biology (7–12)
- Mathematics (7–12)
- English (7–12)
- Social Studies (7–12)
- German (PK–12)
- French (PK–12)
- Japanese (PK–12)
- Spanish (PK–12)
- Environmental Education (PK-12)
- Health and Physical Education (PK–12)

NOTE: The department does not offer certification in elementary education (though as noted above, some subject area certifications span grades PK–12).

To pursue one of these subject area certifications, students must major in that subject and complete 38 credits in the Education department as follows:

- Core/foundational courses: EDUC-100, 265, and 320;
- Methodological courses: EDUC-350W, 360 (two credits), 375, and 443 (two credits) (Students seeking certification in Health and Physical Education are required to complete HEP-355 and 356 instead of EDUC-350W and 443.)
- EDUC-453 (student teaching, 12 credits) and 454 (two credits).

Teaching certification students must also meet various criteria, including required grade point averages (cumulative, subject area department, and Education), standardized test scores, and recommendations from the subject area department and the Education department, in order to be 1) admitted into the program (typically at the end of sophomore year); 2) approved for a pre-student teaching field placement in EDUC-443 (junior year); 3) admitted to student teaching (senior year); and to receive approval for state certification. See the Education department website for more specific details on requirements at each stage of the program, as well as recommended course sequences.

Students pursuing the teaching certification program may also earn the Educational Studies major as a second major (in addition to the major in the content area) with the addition of eight credits in the Education department. At least one of the additional courses must be EDUC-280 or EDUC/PHIL-310W. Other possible courses are EDUC-270, 290, 330, 346, 380, and PSYC-340 or 342.

For such students, the combination of EDUC-453 and 454 will serve as the capstone for the Educational Studies major and fulfill the oral presentation requirement. Health and Physical Education students who wish to earn the second major should include EDUC/PHIL-310W as one of their two courses, to ensure fulfillment of the “W” requirement in Education.

Requirements for Minors

A minor in Educational Studies requires EDUC-100; either EDUC-265, 280, or EDUC/PHIL-310W; and three courses from among the following (at least two of which must be EDUC):

- EDUC-265, 270, 280, 290, 320, 330, 346, 350W, 375, 380, 491, 492; EDUC/PHIL-310W
- PSYC-240, 340, 342
- HEP-223 and 224 (must take both to count as one course)

- HEP-366, 464

Students may receive departmental permission to substitute a different non-EDUC course, not on the above list, if they provide compelling evidence for its relevance to the minor. Education minors who undertake study abroad in Education may work with the department to determine adequate substitutions for required courses.

Courses

- **EDUC-100. Critical Issues in Education**
  Why do we have schools? Why are schools the way they are? This course will examine differing and competing answers to these and other questions in education. Students will explore philosophical ideas, historical influences, and social forces that shape current debates in educational policy and practice. Three hours per week. *Four semester hours. (O.)*

EDUC-265. Educational Psychology

An examination of psychological principles and how they can illuminate processes of learning and teaching, especially among adolescents. The course will explore cognitive, social, emotional, and moral development in multiple social contexts. It will also emphasize theories of learning and motivation and apply these to the development of positive and productive classroom learning environments. Field experience required. Three hours per week. *Four semester hours. (SS.)*

EDUC-270. Education and Culture

This course considers the intersection of culture and education, including such topics as technology, media (films, television, journalism), literature, art & aesthetic education, parenting advice, and consumer culture. Three hours per week. *Four semester hours. (H.)*

EDUC-280. Education and Inequality

Is education the key to providing social opportunity and reducing inequality, as many Americans profess—or do educational institutions reflect and reinforce the inequalities of society? Why do we see unequal educational outcomes between students of different backgrounds and identities, and what can and should be done about this problem? This course addresses questions such as these, with a focus on ways in which individual experiences are differentially shaped and structured by social and historical forces. Three hours per week. *Four semester hours. (DN, O.)*

EDUC-290. Educational Innovation and Reform

This course explores critiques of and alternatives to prevailing norms in educational policy and practice, including such topics as democratic and social justice education, Montessori education, and the small schools movement. Three hours per week. *Four semester hours.*

EDUC/PHIL-310W. Educational Theory and Philosophy

A study in the theories and philosophies that have shaped educational practice and policy, both historically and in current times. Students will engage in close reading of primary texts in seminar-style classes and through extensive written work. Three hours per week. *Four semester hours. (H.)*

EDUC-320. Diversity of Learners

An examination of multiple forms of diversity among schoolchildren and legal and procedural aspects of educating diverse students in regular classrooms. The course will focus on foundational knowledge about students with various types of disabilities as well as those who are English Language Learners (ELLs); historical and legal factors that have shaped the education of ELLs and students with disabilities; and processes of collaboration and cooperative teaching that have become integral to the practice of inclusive education. Field experience required. Prerequisite: EDUC-100 and 265; or permission of instructor. Three hours per week. *Four semester hours. (DN.)*

EDUC-330. Liberal Education

A study of the idea of liberal education from the ancient period to present. Students will consider their own experiences at Ursinus as well as current debates in higher education through study of scholarly work in the philosophy and practice of liberal education. Three hours per week. *Four semester hours. (H.)*

EDUC-346. Topics in Education

Topics may include particular debates, movements, ideas, or figures related to education. Three hours per week. *Four semester hours. (H, DN or GN, if so designated, depending on the topic.)*

EDUC-350W. Curriculum and Instruction

Approaches to planning, assessment, and instruction for secondary school classrooms. The course aims to provide knowledge and skills necessary for a successful student teaching experience and, beyond that, a conceptual framework for long-term professional growth and excellence. Students will construct unit and lesson plans grounded in philosophical foundations, in core ideas and standards within their academic disciplines, and in knowledge of student diversity and development. Topics will include Understanding by Design, inquiry learning and other teaching strategies, multiple forms and functions of assessment, and the evaluation and use of varied instructional materials. Prerequisites: EDUC-100 and 265. Field experience required. Three hours per week. *Four semester hours*.

EDUC-351. Research

Readings and fieldwork designed to introduce students to research methods in education. Students select topics and write a proposal which must be approved by an education adviser. Regular meetings and progress reports and a final paper are required. Prerequisites: EDUC-100 and 265. *One semester hour*.

EDUC-352. Research

Same as EDUC-351 but offered in spring. *One semester hour*.

EDUC-360. Teaching English Language Learners

Approaches and methods for teaching English Language Learners (ELL) in content area classrooms. Topics will include the process of language acquisition, sociocultural characteristics of ELL students, appropriate instructional strategies to make content comprehensible for ELL students, and appropriate assessments for ELL students. Prerequisites: EDUC-100, 265, 320. Two hours per week. *Two semester hours.*

EDUC-375. The Inclusive Classroom

Methods of teaching to meet the needs of diverse learners. The course will emphasize planning, instructional, and assessment strategies that enable regular classroom teachers to meet individual needs while fulfilling common curricular goals. Topics will

include the establishment of positive and inclusive learning environments, literacy development and instruction, assistive technology, and principles and practices of differentiated instruction. Prerequisites: EDUC-100, 265, 320. Field experience required. Three hours per week. *Four semester hours.*

EDUC-380. Ethics and Moral Education

This course inquires into the relationship between ethics and education, including such topics as moral education, religious education, professional ethics, and the cultivation of human flourishing. Three hours per week *Four semester hours. (H, O.)*

EDUC-381. Internship

An academic/work experience under the supervision of an internship adviser and an on-site supervisor. Students must document their experience according to the requirements delineated in the College catalogue section on Internships. Open to juniors and seniors. The term during which the internship work is performed will be noted by one of the following letters, to be added immediately after the internship course number: A (fall), B (winter), C (spring), or D (summer). Internships undertaken abroad will be so indicated by the letter I. The intern must complete a minimum of 120 hours of work. Prerequisites: Students must have completed 12 semester hours of education coursework and have permission of the supervising faculty member to be eligible for an internship. Graded S/U. 120 hours.*Three semester hours. (XLP.)*

EDUC-382. Internship

An academic/work experience under the supervision of an internship adviser and an on-site supervisor. Students must document their experience according to the requirements delineated in the College catalogue section on Internships. Open to juniors and seniors. The term during which the internship work is performed will be noted by one of the following letters, to be added immediately after the internship course number: A (fall), B (winter), C (spring), or D (summer). Internships undertaken abroad will be so indicated by the letter I. The intern must complete a minimum of 120 hours of work. Prerequisites: Students must have completed 12 semester hours of education coursework and have permission of the supervising faculty member to be eligible for an internship. Graded S/U. 160 hours. *Four semester hours. (XLP.)*

EDUC-443. Methods Practicum

A field-based exploration of teaching and learning in the various subject areas offered in the College's teacher education program. Students will be placed in field experiences according to their broad field of specialization (mathematics, science, world languages, English, or social studies), with teachers who will immerse them in the observation, analysis and application of instructional approaches in that subject area. Students must budget time to visit schools roughly once per week, for a total of 30 hours over the course of the semester. On-campus evening sessions will be devoted to subject-specific group work, discussion of field experiences, and the distribution and discussion of important resources in the various subject areas. Prerequisites: EDUC-100, 265, 320, and 350W. Field experience required (25 hours). Usually taken the semester prior to student teaching. Two hours per week. *Two semester hours.*

EDUC-450. Seminar in Educational Studies

This capstone course combines an intensive study of a special topic in education with the opportunity for students to pursue in depth an area in educational scholarship of their interest. Students will receive ongoing feedback and present work orally and in writing. Open to juniors or seniors with at least eight credits in Education or permission of instructor. Three hours per week. *Four semester hours. (CCAP.)*

EDUC-453. Student Teaching

A clinical experience in which students teach a full load of courses in their subjects in a local school, under the guidance of a cooperating teacher in that school and a faculty supervisor from the Ursinus Education department who regularly observes the student teacher and provides feedback in one-on-one conferences. Emphasis is on applying and deepening understanding of theories and methods from previous coursework and demonstrating mastery of program and professional goals. Student teachers must earn at least a "B" in this course to receive the College's recommendation for teacher certification. Enrollment is open only to students who have been approved by the Education department and completed all other certification courses and program requirements. Taken concurrently with EDUC-454 *Twelve semester hours. (XLP.)*

EDUC-454. Professional Seminar

This course is taken concurrently with student teaching and provides an opportunity to analyze, reflect on, and make ongoing improvements in the student teaching experience using theories and methods from Education coursework. Students produce a written analysis and give a public, oral presentation of a unit of curriculum that was written and taught in the placement school, emphasizing the use of assessment as a tool to improve practice. Two hours per week. *Two semester hours.*

EDUC-491. Research/Independent Work

Independent inquiry into scholarship in education. Oral progress reports and significant written work are required. Written consent of the research adviser must be presented at the time of registration. *Four semester hours. (XLP.)*

EDUC-492. Research/Independent Work

A continuation of EDUC-491. Open only to candidates for honors. Prerequisites: EDUC-491 and permission of the department. *Four semester hours. (XLP.)*

EDUC-493. Student Teaching

A clinical experience in which students teach a full load of courses in their subjects in a local school, under the guidance of a cooperating teacher in that school and a faculty supervisor from the Ursinus Education department who regularly observes the student teacher and provides feedback in one-on-one conferences. Emphasis is on applying and deepening understanding of theories and methods from previous coursework and demonstrating mastery of program and professional goals. The course is open only to 9th semester/post baccalaureate students who have been approved by the Education department and completed all other certification courses and program requirements. Student teachers must earn at least a "B" in this course to receive the College's recommendation for teacher certification. Taken concurrently with EDUC-454. *Four semester hours. (XLP.)*

- Education Department

English and Creative Writing

Faculty

- *Professors Goldsmith, Kozusko, Volkmer; Associate Professors Lott, McShane (Chair); Assistant Professors Argondezzi, Henson, Kowalski, Shelat.*

- Students choose to major in English and Creative Writing because they love to read and write and want to explore how language constructs the world in which they live. These programs build on these passions by developing the skills of attentive reading, thoughtful analysis, and writing in a variety of genres and for a variety of audiences.

  The analytical tools developed in the English major illuminate both literary texts and the societies in which they are produced. Our majors study the American, British, and Anglophone traditions, just as they learn to interpret women's writing, the poetics of the blues, and literary technologies from Gutenberg to emergent forms of digital writing..

  The creative writing major offers students the option to focus on their own creative process and development towards life-long artistic involvement while sharpening their overall writing skills and learning about the real-world applications of their emerging writing and editorial skills.

  By encouraging students to apply their interpretive and writing skills in multiple contexts, both the English and Creative Writing majors prepare students to enter a wide variety of careers, to succeed in graduate or professional study, and to become engaged global citizens.

  ### Requirements for a Major in English

  Students majoring in English must complete forty credits, comprising seven required ENGL courses, plus three elective courses.

  Required English courses:

  - One ENGL course numbered between 220 and 260;
  - ENGL-290W and 301W;

- at least three 300-level colloquia, including one focusing on literature before 1800 and one focusing on literature after 1800 (ENGL-301 may count as a colloquium);
- ENGL-440W or 492W.
- Elective courses may include any of the following: all ENGL or ENCW courses; EAS-224; FS-101, 250, 251, 252, 253, 305; IDS-290; LAS-215; MCS-207, 208; THEA-300W, 301W.

One DN or GN course offered in ENGL/ENCW is required in addition to the college's DN/GN core requirement. Majors are encouraged to fulfill both requirements within the major.

English majors can fulfill both the capstone requirement and the requirement for an oral presentation in the major by taking ENGL-440W or 492W.

Requirements for Minor in English

A minor concentration in English consists of ENGL-290W and at least four additional courses in English. ENGL-301W is strongly recommended. One ENCW course may be counted toward the minor.

Requirements for a Major in Creative Writing

Students majoring in Creative Writing must complete forty-two credits, comprising six required courses, plus four elective courses.

Required courses:

- ENCW-290W;
- Five other ENCW courses. Students must select courses from at least two genres, at least two of which must be at the 300-level or above. Two courses from MCS-206, 207 or 208 or THEA- 210 may substitute for one of these courses;
- at least three ENGL courses numbered 220 or above, including one focusing on literature before 1800 and one focusing on literature after 1800;
- ENCW 420W Senior Portfolio or ENCW 492W;
- At least two credits in MCS-009 (Grizzly) or ENCW-016 (Lantern) or ENCW-201

One non-ENGL elective from the following list may replace one ENGL course: EAS-224; FS-101, 250, 251, 252, 253, 305; IDS-290; LAS-215; THEA-300W, 301W.

One DN or GN course offered in ENGL/ENCW is required in addition to the college's DN/GN core requirement.

ENCW majors can fulfill both the capstone requirement and the requirement for an oral presentation in the major by taking ENCW-420W or 492W.

For students completing a major in one field and a minor in the other, three courses may count toward both the major field and the minor field.

Requirements for Minor in Creative Writing

A minor concentration in Creative Writing consists of at least twenty-two credits.

ENCW-290W is required. ENCW-420 is strongly recommended. Participation in Ursinus's writing community by serving as a staff member on either the Grizzly or the Lantern is also required, demonstrated by either ENCW-201 or by two credits in ENCW-016 or MCS-009–016.

Other courses for the minor may include any ENCW or ENGL courses; MCS-207, 208; THEA-210; or IDS-290. Fourteen credits toward the minor must be in ENCW.

Teacher Certification

Students seeking teaching certification in English for grades 7-12 must fulfill all departmental requirements for an English major. Their courses should include literary genres, themes, and histories. In addition, students working toward certification must take the following courses: ENGL-214; and either MCS-205, or any FS course. Students are strongly recommended to take either ENGL-220 or a 300-level colloquium on Shakespeare. It is also strongly recommended that the candidate participate in student journalism or theater activities. Students and their advisers should consult the Ursinus College Education Department.

English and Creative Writing Courses

- **English Courses**

ENGL-099. Big Books

We like big books. The purpose of this course is to immerse students in one lengthy work. Through a carefully paced schedule, weekly discussion sessions, and check-ins with small groups and the instructor, the class will work its way through one long work of meaningful, influential, or otherwise "important" literature and consider just what it is about this big book that makes it meaningful, influential, or important. Can be retaken for credit with a different text for up to four credits. No prerequisites. Graded S/U; to pass, a student must attend discussions regularly, keep up with the scheduled reading, and make informed contributions to group and one-on-one conversations. *One hour per week. One credit.*

ENGL-104W. Introductory Topics in English

A writing-intensive course focusing on a particular topic related to literature, film or other forms of cultural studies. This course emphasizes the writing process and is designed for all students interested in developing their critical reading ability and improving their writing, as well as for students interested in an English major. Limited to first- and second-year students. Three hours per week. *Four semester hours. (H; DN or GN, if so designated, contingent upon topic)*

ENGL/HIST-212. Bears Make History: U.S. Higher Education and Digital Entrepreneurship in the Archive and Online

Ursinus College has a history, and you're going to tell it. Using an array of digital media, students in this course will become part of the shaping and recounting of the history of Ursinus College and its community. We will consider Ursinus's place in a broader history of U.S. colleges and universities and will examine how digital humanities is influencing archival research. Students will learn a variety of digital tools, and will analyze and evaluate existing digital history projects. The final part of the semester will be devoted to the collaborative design, pitch, construction, and public dissemination of digital group project/s based on materials from the Ursinusiana Archive. This course is part of the IMPACT curriculum supported by the U-Imagine Center for Integrative and Entrepreneurial Studies. Prerequisite: One Ursinus ENGL or HIST course, or permission of the instructors. Three hours per week. *Four semester hours. (H, LINQ.)*

ENGL-214. The Structure of the English Language

This course addresses two questions: how does the English language work, and how did Standard American English become the complex structure it is today? Students will examine the sentence as structure, with attention to morphology, syntax, and grammar. Students will also explore how the English language has developed from its earliest forms through attempts at standardization, including how different racial and ethnic communities have shaped English in the United States. Required for students seeking certification to teach English. Three hours per week. *Four semester hours.*

ENGL-220-250

These literature courses focus on improving students' skills in close reading of texts and writing of critical essays, with instruction in the conventions of genre, period, and region as appropriate. Students will complete a research project as part of the course. ENGL-230, 240, and 250 courses may have a DN, GN, and/or O designation depending on individual course topics.

ENGL-220. Shakespeare

An interactive introduction to Shakespeare focused on language, genre, and dramatic techniques, with some attention given to theater history and performance questions. Three hours per week. *Four semester hours. (H, O.)*

ENGL-222. African American Literary Traditions

A thematic study the literature written by Black American writers, sampled from its beginnings to the twenty-first century. Three hours per week. *Four semester hours. (H, DN, LINQ with HIST-228.)*

ENGL/GWSS-228. Women's Literature

A cross-period study of women's writing, whether national, multiethnic, and/or transnational, attending to issues of canon formation and feminist literary theories. Three hours per week. *Four semester hours. (H, DN.)*

ENGL-230 Literary Histories

A mixed-genre approach to a specific historical period or literary movement, including early modern/ Renaissance, Modernism, Romanticism, ante-bellum America, the Atlantic World, and 20th/21st-Century America. Three hours per week. *Four semester hours. (H.)*

ENGL-240. Literary Genres

Focusing on the development of a single literary form throughout a specific time period or more generally through literary history, genre courses emphasize the relationships between formal innovation and changing thematic concerns. Sample topics include medieval romance, lyric poetry, epic poetry, satire, drama, rise of the novel, memoir, neo-historical novel, and short fiction. Three hours per week. *Four semester hours. (H.)*

ENGL-250. New Directions in Literature

These courses shift the focus from conventional genres and periods to new directions in the expanding field of literary study. Students may encounter contemporary genres, such as the graphic novel or the emancipation narrative; explore literary texts through a recent theoretical lens such as disability studies or ecocriticism; or investigate new spaces of textual production such as the digital humanities or transnational/urban literature. Three hours per week. *Four semester hours. (H.)*

ENGL-255. Topics in Multi-Ethnic Literature

Introduces literature by multi-ethnic writers across the globe. Studying multi-ethnic literature enables students to gain a better understanding of a rich diversity of cultures, illuminating the historical Eurocentrism of literary canon and literary studies. Topics may include Latinx literature, Asian American literature, Native American literature, Jewish literature, African and African Diasporic literature, and others. Three hours per week. *Four semester hours.*

ENGL/ENV-262. The Environment in Literature

Students in this course will read and reflect on a variety of texts focused on environmental issues, such as sustainability, the land ethic, ecological crises, climate change and other eco-critical concerns. From nature writers, to philosophers, and from poetry to prose, students will engage with the literature as well as participate in a civic engagement project as part of their course-related work. Three hours per week. *Four semester hours. (H, O.)*

ENGL-290W. Methods in Literary Studies

Designed as a gateway to the English major, 290W offers robust understanding of critical vocabulary in three major genres: poetry, fiction, and drama. May explore additional genres such as art and film. Teaches methods of literary analysis using close reading and historicism; conventions of a mature literary research paper; and frequent practice of careful critical writing. Prerequisite: CIE-100 or 150, or permission of instructor. Three hours per week. *Four semester hours.*

ENGL-301W. Literary Theory

A study of historical and contemporary theoretical approaches to literary texts, such as ecocriticism, feminist criticism, postcolonial critique, and psychoanalytic theory. Entails applications of these theories—in writing and speech—to close readings and critical interpretations of literary texts and other kinds of human cultural productions. Prerequisites: ENGL- 290W and one course between ENGL-220 and 250, or permission of instructor. Three hours per week. *Four semester hours.*

ENGL Advanced Colloquia

ENGL courses numbered between 310 and 330 build on the English major's knowledge and skills, while providing students with opportunities for substantive research, oral presentations, and other scholarly activities To ensure that students are prepared for advanced work, each colloquium will have as prerequisites both ENGL-290W or ENCW-290W and one course between ENGL-220 and 250; or permission of the instructor. To provide students with as many choices as possible, the English Department will rotate the courses listed below and post specific topics in advance of registration. (Listed topics are subject to change.)

- **ENGL-310—Topics in the Novel**
- **ENGL-315—Topics in Poetry**
- **ENGL-320—Topics in Drama**
- **ENGL-325—Crossing Borders/Periods/Genres**
- **ENGL-330—Literature in Translation**

ENGL-381. Internship

An academic/work experience under the supervision of an internship adviser and an onsite supervisor. Open to juniors and seniors. The term during which the internship work is performed will be noted by one of the following letters, to be added immediately after the internship course number: A (fall), B (winter), C (spring), or D (summer). Internships undertaken abroad will be so indicated by the letter I. The intern must complete a minimum of 120 hours of work and must present that work in a public forum to complete the internship. Graded S/U. Prerequisites: approval of an internship adviser. *Three semester hours. (XLP.)*

ENGL-382. Internship

An academic/work experience under the supervision of an internship adviser and an onsite supervisor. Open to juniors and seniors. The term during which the internship work is performed will be noted by one of the following letters, to be added immediately after the internship course number: A (fall), B (winter), C (spring), or D (summer).

Internships undertaken abroad will be so indicated by the letter I. The intern must complete a minimum of 160 hours of work and must present that work in a public forum to complete the internship. Graded S/U. Prerequisites: The approval of an internship adviser.*Four semester hours. (XLP.)*

ENGL-440W. English Major and College Core Capstone

A study of a genre, a major figure, or a special topic. Prerequisites: ENGL-290W or 301; senior or permission of department chair. This course will satisfy the College requirement for a capstone experience and an oral presentation in the major. While the topic of the course will change based on faculty expertise, several elements remain consistent, especially those pertaining to its capstone designation and to the Quest Curriculum. Three hours per week.*Four semester hours. (CCAP, H.)*

ENGL-491. Research/Independent Work

This course is open to candidates for honors in English and to other students with the permission of the department chair. Pre-requisite: ENGL-301. *Four semester hours. (XLP.)*

ENGL-492W. Honors in English

A continuation of course ENGL-491 for students approved for honors. Prerequisite: ENGL-491. When this course is used to fulfill the capstone experience in the major, the student will be required to give a substantial oral presentation of the research project, either to the departmental honor society or to another group approved by the project adviser. *Four semester hours. (XLP.)*

Creative Writing Courses

ENCW-016. Lantern Literary Journal

This course will equip students with real-world literary publishing experience. Students will build the skills necessary to edit and publish a small magazine and will learn how to productively work in a communal and creative workspace at Ursinus' literary journal, The Lantern. From selection of manuscripts to editorial pointers, students will be involved in all aspects of the production process, giving them a firm understanding of what it takes to put together a literary journal. May be taken up to twice for credit. Graded S/U.*One semester hour. (A.)*

ENCW-106 Introduction to Creative Writing

A mixed-genre introduction to writing fiction, poetry, and one other genre (such as memoir or playwriting), in a workshop environment. Students will closely engage with a variety of texts in each genre, learn genre conventions and craft techniques, and write and revise original work. Three hours per week. *Four semester hours. (A.)*

ENCW-201. Writing in the Real World: Preparation & Publishing

Writing in the Real World introduces students to the various forms of professional writing and editing most working creative writers do as part of the business of being a writer. This course introduces students to the business of publishing in contemporary literary markets. Through careful research, practice, and workshopping, students will be able to prepare a manuscript for publication and successfully send it out to literary journals. Additionally, students will talk to writers working in the world about the paths they have taken to sustain their artistic practices, and research career options that may be of interest to creative writers, including graduate school, freelance writing and academic publishing, and more. This course will be practical and generative as students

develop materials for your personal professional goals and explore paths to achieving those goals. Offered in fall semester. Three hours per week. *Four semester hours. (A.)*

ENCW-205. Fiction Writing

A beginning course in the writing of fiction, with special attention to the short story. Students will study technical aspects of the craft and a variety of examples of the genre. Students will write short stories, receive critical responses, and make extensive revisions. Three hours per week. *Four semester hours. (A.)*

ENCW-206. Poetry Writing

A beginning course in the writing of poetry. Students will study selected works, learn traditional forms of the lyric, and write original verse in those forms. Students will make extensive revisions, based on responses from peers and the professor. Three hours per week. *Four semester hours. (A.)*

ENCW/MCS-207. Introduction to Journalism

This course introduces students to the principles of journalism, including: information gathering, writing, editing and presentation of news under deadline. Students also explore issues related to libel, visual literacy, and changing audience demographics through the critical analysis, interpretation, and evaluation of various media outlets. Three hours per week. *Four semester hours.*

ENCW/MCS-208. Journalistic Storytelling in the 21st Century

In this course, students will consider how the digital era has brought upheaval to the world of journalism, including changes to the ways journalists report, tell stories, and relate to audiences. In the second half of the semester, students will create multimedia content that meets the challenges and takes advantage of the opportunities of digital media. Prerequisite: ENCW/MCS-207 or permission of instructor. Three hours per week. *Four semester hours.*

ENCW-209. Memoir Writing

A beginning course in the writing of memoir, with attention to the personal essay. Students will study selected examples of the genre and write original work rooted in personal experience that incorporates a connection to the larger world. Students will make extensive revisions based on responses from peers and the professor. Three hours per week. *Four semester hours. (A.)*

ENCW-215. Topics in Fiction (sample titles: Myth & Fairytale, Flash fiction, Science Fiction)

Three hours per week. *Four semester hours. (A.)*

ENCW-216. Topics in Poetry (sample titles: Spoken Word, Persona, Prose Poems)

Three hours per week. *Four semester hours. (A.)*

ENCW-217. Topics in Creative Nonfiction (sample titles: Travel Writing, Philly Word / Literary Culture)

Three hours per week. *Four semester hours. (A.)*

ENCW-218. Topics in Hybrid & Digital forms (sample titles: Hybrid Texts, DIY Publishing, Word & Image)

Three hours per week. *Four semester hours. (A.)*

ENCW-290W. Craft and Methods in Creative Writing

This course introduces students to the study and craft of creative writing. By analyzing the various narrative and poetic forms of fiction, poetry, and creative non-fiction, students will begin to form a language around these forms. Students will be able to distinguish between story and plot, stanza and paragraph, essay and poem, etc., as well as put these vocabularies to use in the practice of the forms. In addition to the study of the basic modes of narrative and poetics, this course provides a general introduction to the theories of those forms. Prerequisite: a previous four-credit ENCW course, or permission of instructor. Three hours per week. *Four semester hours. (A.)*

ENCW-305. Advanced Fiction Writing

A workshop course in fiction writing Students will have the opportunity to develop skills first established at the 200-level. Prerequisite: ENCW-205, or permission of instructor. Three hours per week. *Four semester hours. (A.)*

ENCW-306. Advanced Poetry Writing

A workshop course in poetry writing Students will have the opportunity to develop skills first established at the 200- level. Prerequisite ENCW-206, or permission of instructor. Three hours per week. *Four semester hours. (A.)*

ENCW-309. Advanced Creative Nonfiction

A workshop course in creative nonfiction. Students will have the opportunity to develop skills first established at the 200- level. Prerequisite: ENCW-209, or permission of instructor. Three hours per week. *Four semester hours. (A.)*

ENCW-319. Special Topics in Advanced Creative Writing

A workshop course in an area of advanced creative wring not covered by other courses. Students will have the opportunity to develop skills first established at the 200 level. Prerequisites will vary. Three hours per week. *Four semester hours. (A.)*

ENCW-381. Internship

An academic/work experience under the supervision of an internship adviser and an onsite supervisor. Open to juniors and seniors. The term during which the internship work is performed will be noted by one of the following letters, to be added immediately after the internship course number: A (fall), B (winter), C (spring), or D (summer). Internships undertaken abroad will be so indicated by the letter I. The intern must complete a minimum of 120 hours of work and must present that work in a public forum to complete the internship. Graded S/U. Prerequisites: approval of an internship adviser. *Three semester hours. (XLP.)*

ENCW-382. Internship

An academic/work experience under the supervision of an internship adviser and an onsite supervisor. Open to juniors and seniors. The term during which the internship work is performed will be noted by one of the following letters, to be added immediately after the internship course number: A (fall), B (winter), C (spring), or D (summer). Internships undertaken abroad will be so indicated by the letter I. The intern must complete a minimum of 120 hours of work and must present that work in a public forum to complete the internship. Graded S/U. Prerequisites: approval of an internship adviser. *Four semester hours. (XLP.)*

ENCW-420. Senior Portfolio in Creative Writing

A workshop course in creative writing offering students the opportunity to receive significant critical responses on a portfolio of works of poetry, fiction, creative nonfiction, or hybrid forms. Prerequisites: senior standing or permission of instructor, plus at least three ENCW courses. Three hours per week. *Four semester hours. (A.)*

ENCW-493. Independent Study in Creative Writing

This course is open to candidates for honors in Creative Writing and to other students with the permission of the department chair. *Four semester hours. (XLP.)*

ENCW-494W. Honors in Creative Writing

A continuation of course ENCW493 for students approved for honors in Creative Writing. Prerequisite: ENCW-493. When this course is used to fulfill the capstone experience in the major, the student will be required to give a substantial oral presentation of the research project, either to the departmental honor society or to another group approved by the project adviser. *Four semester hours. (XLP.)*

- English and Creative Writing Department

Entrepreneurial Studies

Faculty

- *Assistant Professor Aukers; Visiting Instructor Cooper; Director of Entrepreneurship Cumpstone.*

- The Entrepreneurial Studies minor is a course of study designed for students who have an interest in entrepreneurial thought and action. Students are inspired to be problem solvers, creative members of innovative teams, change agents, and mission-driven leaders. Entrepreneurship is a process used to recognize opportunities and identify, refine and implement impactful solutions in business, social, technological, artistic, environmental, and scientific realms. The process offers students a framework and competencies to make positive contributions in these areas. Students develop an understanding of the entrepreneurial mindset through a variety of courses and experiential learning. The Entrepreneurial Studies minor asks students to consider the questions, “What will I do?” and, “How can we live together?”

  ### Requirements for Entrepreneurial Studies Minor

  The Entrepreneurial Studies Minor consists of 24 credits and a not-for-credit practicum. The requirements and key components are listed below.

  - ENTR-101 and 102 (two credits each)
  - ACCT-140
  - MGT-200
  - MKT-250
  - MGT-330
  - Four credits from the following list: ACCT-241; ART-120; BIO-220; BIO/ENVS-234; DATA-201; DIGS-200, 250; ECON-231; ENG-104W; ENTR-050, 120, 150; ENVS-332; HIST/ENG-212; IDS-055; MCS-201; MGT-300 (Leadership); PSYC-250.

  - ENTR-200, a learning experience in which students put the ideas studied in the minor into practice.

Courses

- **ENTR-050. Topics in Entrepreneurship**

An occasional course focusing on a special topic in entrepreneurship. Prerequisites will vary. Two hours per week. *Two semester hours.*

ENTR-101. Entrepreneurial Mindset

This course is designed to introduce the concepts of entrepreneurship as they relate to the continuing processes of creativity and innovation. Students will develop oral and written communication skills with an emphasis on persuasive communication. Class discussion will focus on the entrepreneurial process and leadership. A variety of instructional and learning techniques will be used, including group projects that apply theory to practice. Open to all students but content will be especially relevant to students planning to enter the BEAR Innovation Competition. Two hours per week. *Two semester hours. (LINQ if concurrently enrolled in DIGS-250.)*

Students may not enroll in ENTR-101 if they had previously completed IDS-050 in the fall semester.

ENTR-102. The Lean Startup

The course focuses on an entrepreneurial model of value creation. Value creation is assessed as students develop and test their ideas. Students from all disciplines create, map, and evaluate their assumptions with stakeholders and outside partners, using an iterative model (act, measure, learn) to determine the potential for market or social value. Critical thinking, problem-solving, and communication skills are used to develop insights from data and iterate project plans. Two hours per week. *Two semester hours. (LINQ if concurrently enrolled in DIGS-250.)*

Students may not enroll in ENTR-102 if they had previously completed IDS-050 in the fall semester.

ENTR-120. Start-ups and the Scientific Method

This is an entrepreneurial course for scientific minds aimed to bridge the gap between scientific and entrepreneurial thought in order to equip students with the skills needed to create and implement novel solutions that bring value to themselves and others. The intersection of science and entrepreneurship has become a catalyst for groundbreaking discoveries and technological advancements. This course intends to foster innovation, cultivate business insight, and empower students to transform scientific knowledge into real-world solutions. Through a comprehensive curriculum, students will gain a deep understanding of the entrepreneurial process, from ideation to commercialization, while leveraging their scientific knowledge to identify and capitalize on market opportunities. Students will contribute to solving environmental, social and other problems by bringing innovative solutions to all types of sectors, for both for-profit and non-profit. There are no prerequisites for this course. Students of all levels and backgrounds are encouraged to take the course. Creation of student teams will occur mid-course, pairing students based on background and expertise to ensure good working diverse teams. Teams will be paired with a faculty mentor or community partner in their field of interest. Design thinking, problem solving and ideation activities will be built into the curriculum to encourage and promote student innovation. *Four semester hours. (LINQ.)*

ENTR-150. Topics in Entrepreneurship

An occasional course focusing on a special topic in entrepreneurship. Prerequisites will vary. Three hours per week. *Four semester hours.*

ENTR-200. Entrepreneurship Practicum

A learning experience in which students put ideas they study in the Entrepreneurial Studies minor into practice. Participation in one of the following programs, subject to

approval by the Entrepreneurial Studies coordinator, will satisfy the requirements for this course:

- A presentation in the BEAR Innovation
- Digital Spark
- Media on Main
- Internship at a startup
- A presentation at an external venture development competition
- Participation in an external entrepreneurship incubator
- Completion of an independent study courses that serves as an on-campus idea incubator

Prerequisites: ENTR-101 or ENTR-102; Instructor Approval. *Zero semester hours.*

Environment and Sustainability

Faculty

- *Professors E. Dawley, R. Dawley, Hurley (Chair), Sorensen; Associate Professors Chao, Clark, Finney, Joseph, J. Karreth, Straub, Widmann Abraham, Woodstock, Wynne; Assistant Professors Berry, Bove, Leslie; Visiting Professors and Instructors Ashcroft; Director of Sustainability Keppen.*

- Study of human relationships with the natural world range across disciplines, from the cultural, philosophical, ethical, and aesthetic to the scientific, economic, and political. Environment and Sustainability (ENVS) is an interdisciplinary department, in which students learn critical thinking, analytical, and problem-solving skills. ENVS students learn to synthesize diverse disciplinary perspectives and approaches, drawing on and learning to integrate theoretical and empirical approaches from the natural sciences, social sciences, and arts and humanities to understand and develop strategies for solving environmental problems. Explorations of environmental and sustainability theory and research methods as well as engagement with diverse problems through independent research, internships, and course-based service-learning are all integral to an ENVS degree.

  Majoring within the field of ENVS offers (1) the opportunity to explore a breadth of environmental education topics that provide key critical thinking experiences and an ability to engage in fostering a more environmentally sustainable society and (2) the opportunity to specialize in a given area by pursuing one of 6 specific concentrations (e.g., applied sustainability, Earth & environmental science, environmental justice – see below) within the major that provides greater focus on an area and the ability to develop greater expertise relevant to solving environmental and sustainability problems in the specific field. Students receive a degree in Environmental Studies in addition to noting their specialized concentration (if any) on their transcript. Whether pursuing a general Environmental Studies degree or a specialized concentration within ENVS, students majoring within the field of ENVS at Ursinus are prepared for successful graduate study and careers in environmental sciences, conservation, policy, planning, education, engineering, agriculture, journalism, law, and many other areas.

ENVS students are active on and off campus, with numerous opportunities to work on campus with members of the faculty, staff, and administration and with members of the local community on research and applied projects involving recycling and waste reduction, energy efficiency, water resource management, sustainable purchasing and contracting policies, planning and land management, reforestation and forest mapping activities, creating food systems and managing agricultural production/land, developing climate and stormwater mitigation solutions, wildlife conservation, and geological education, among other topics. In addition to the focus on service and practice in the ENVS curriculum, Ursinus College features an Office of Sustainability, whose staff work to connect students, faculty, and staff with the college's sustainability initiatives.

Off campus, ENVS students have successfully worked in internships with many national, regional, and local organizations involved in all facets of environmental science and policy, with organizations such as the U.S. Environmental Protection Agency, U.S. Fish and Wildlife Service, U.S. National Marine Sanctuary Program, Pennsylvania Department of Environmental Protection, Pennsylvania Department of Conservation and Natural resources, Perkiomen Watershed Conservancy, Philadelphia Zoo, Elmwood Park Zoo, Academy of Natural Sciences, environmental engineering and consulting groups, outdoor education centers, organic farms, and many other organizations in the environmental and sustainability fields. ENVS majors' professional experiences are tied closely to the ENVS academic program; the integrated nature of ENVS's approach to learning and practice helps to prepare ENVS majors to be successful leaders and decision makers in the environmental arena.

Requirements for Majors

All students majoring within the field of Environment & Sustainability (ENVS) must take a minimum of 14 courses. At least two of three environmental and ecological science courses must have a S designation. Majors within ENVS fulfill the college requirements for writing, oral presentations, and capstone experience by completing one of the ENVS capstone courses: ENVS-450W, 452W, or 454W. The ENVS capstone courses also convey the applied nature of ENVS by engaging students in an applied group project. These projects typically entail a partnership with either an off-campus organization, another (i.e., non-ENVS) unit of the College, or in the management of one of the ENVS living-learning

laboratories (e.g. Ursinus Food Forest, BearShare, etc.). The ENVS curricular requirements are as follows:

ENVS core courses (must complete all of the following):

- ENVS-100
- ENVS-120
- ENVS-244
- BIO-101Q
- One introductory/intermediate environmental science course (CHEM-101Q/101L; ENVS/GEOS-142Q, 240Q; ENVS-180Q, or, if the department chair approves, ENVS-112 or ENVS-350). ENVS/GEOS-102Q does not fulfill this requirement.
- One advanced environmental science course (ENVS-266, 370, 372, or, if the department chair approves, ENVS-350)
- One ecological science course (ENVS/BIO-234, 310, 320, 325, 330, 334, 336, 360, 365, 375, 415W, 419W, 442W, 455W; or, if the department chair approves, ENVS-350)
- One social science or humanities course (ENVS/SOC-220, 288, 290; ENVS/ANTH-230; ENVS/PHIL-248; ENVS/HIST-254, ENVS/POL-351; ENVS/PSYC-260; ENVS/RELS-261; ENVS/MCS-302, or, if the department chair approves, ENVS-110, 111, or 350)
- One introductory synthesis course (ENVS-242, 243, or, if the department chair approves, ENVS-350)
- One intermediate synthesis course with community engagement and applied problem-solving (ENVS-332, 338, 340, or, if the department chair approves, ENVS-350)
- One intermediate synthesis course on interdisciplinary data analysis and problem-solving (ENVS-361, 362, 364, 366, or, if the department chair approves, ENVS-350)
- One course in advanced critical thinking: ENVS-428W, or, if the department chair approves, ENVS-350)
- One advanced synthesis capstone course in environmental problem solving: (ENVS-450W, 452W, or 454W, or, if the department chair approves, ENVS-350)
- Completion of an internship: ENVS-381 or 382

In consultation with the ENVS chair, students may petition to have ENVS-481W or 482W (independent research), or ENVS-491W and 492W (honors research) satisfy requirements in one of the environmental or ecological science, social science/humanities, or

synthesis categories. For independent or honors research to fulfill the major requirements, students must have already completed at least three of the four (12 semester hours) foundational ENVS requirements (ENVS-100, ENVS-120, ENVS-244, and BIO-101Q) and receive permission of the ENVS chair.

Majors within ENVS are also encouraged to complete a concentration and/or a minor (or major) in an additional area of focus. ENVS majors will receive a B.A. or B.S. degree in Environmental Studies, depending on their particular path through the major. Students who complete the standard ENVS degree (i.e. with no concentration, minor, or other major) will earn a B.A. Students who complete the Applied Sustainability, Environmental Justice, or Food Studies concentrations will earn a B.A. in Environmental Studies, with their concentrated noted on their transcript. Students who complete a concentration in Biodiversity & Wildlife Conservation, Climate Change, or Earth & Environmental Science, minor in those fields, or minor/double major in Biology, Chemistry, or Physics will have the option to elect a B.S. degree in Environmental Studies, with their concentrated noted on their transcript.

Recommended of all ENVS majors

- STAT-141Q

Concentrations in Environment and Sustainability

Students may opt to concentrate within their ENVS degree in a related field by directing their selections through the major purposefully. Concentrations may be pursued as part of the major; however, some courses may need to be completed in addition to 14 ENVS requirements, depending on course availability, students' schedules, specific requirements, etc. There are five possible concentrations listed below. Students should talk about their interests with their ENVS advisor to determine if a specific concentration would be useful to them, as well as their more specific pathway within the concentration.

For all the concentrations, it is recommended that students complete the ENVS XLP in a topic germane to their concentration. ENVS-110-112, 350 , or other courses may satisfy requirements within the concentrations, with permission of the ENVS department chair. Also in

consultation with the ENVS chair, ENVS-481/482 and ENVS-491/492 may count toward a given concentration.

Applied Sustainability Concentration:

Students seeking to complete the Applied Sustainability concentration in ENVS should ensure they complete the following specific courses as part of their ENVS major. Completion of the concentration will likely require completing more than the minimum 14 courses needed for the standard major.

- **Energy, Waste, and Economics (all required)**: ENVS-340, 361, and 362
- **Justice (select 2)**: PSJ-200, ENVS/SOC-220, ENVS/REL-261, ENVS-364, or 428W
- **Climate Change (select 1)**: ENVS-370, 452, or ENVS/BIO-419W
- **Food Systems (select 1)**: ENVS/ANTH-230, ENVS/BIO-234, ENVS-243, or 454W
- **Sustainabilities in Practice (select 1)**: ENVS-332, 338, or 450W
- **Recommended**: HIST/GWSS-126, ENVS-180Q, ECON/GWSS-210, ENVS/PHIL-248, ENVS/HIST-254, SOC-255, ENVS/SOC-288, ENVS/MCS-302, HIST-330, POL-343, 356, 359, MCS-335, or IDS/GWSS-441; Any of above not already selected

Students in the Applied Sustainability track are strongly encouraged to seek an XLP that reinforces their personal, academic, and professional goals in this area.

Biodiversity & Wildlife Conservation Concentration

Students seeking to complete the Biodiversity & Wildlife Conservation concentration in ENVS should ensure they complete the following specific courses as part of their ENVS major. Completion of the concentration will likely require completing more than the minimum 14 courses needed for the standard major. Completion of this concentration will result in a B.S. in ENVS.

- **Organismal (select 1)**: ENVS/BIO-325, 334, 360, 365, 375, 442W, or BIO-359
- **Ecological Systems (select 1)**: ENVS/BIO-310, 320, 330, or 336

- **Global Change (select 1)**: ENVS-240Q, 370, ENVS/BIO-419
- **Integrative Science (select 1)**: ENVS/BIO-415W, 455W, or ENVS-454W
- **Social-Ecological Systems (select 1)**: ENVS/SOC-288, ENVS-332, 338, 366
- **Decision-Making (select 1)**: ENVS-364, 428
- **Recommended**: STAT 141Q and 142Q; ENVS/SOC-220, ENVS/PHIL-248, ENVS/HIST-254; Any of above requirements not already selected

Students in the Biodiversity & Wildlife Conservation track are strongly encouraged to seek out and complete an XLP that provides additional experience that reinforces their personal, academic, and professional goals in some aspect of biodiversity & wildlife conservation.

Climate Change Concentration:

Students seeking to complete the Climate Change concentration in ENVS should ensure they complete the following specific courses as part of their ENVS major when possible. Completion of the concentration will likely require completing more than the minimum 14 courses needed for the standard major. Completion of this track will result in a B.S. in ENVS.

- **Climate Science (select 2)**: ENVS-370, 452W, ENVS/BIO-419W
- **Related Science (select 3)**: ENVS-180Q, 266, 361, 372, ENVS/BIO-330, ENVS/GEOS-142Q, or 240Q
- **Human Impact on Systems (select 1)**: ENVS-242, 332, 338, 366, or 454W
- **Climate-Related Social Systems (select 1)**: ENVS/SOC-220, 290, ENVS/PHIL-248, ENVS/MCS-302, or ENVS-340
- **Recommended**: ENVS/HIST-254, ENVS/PSYCH-260, IDS/GWSS-441, or STAT-141Q or MTH-111; Any of above requirements not already selected

Students in the Climate Change track are strongly encouraged to seek out and complete an XLP that provides additional experience that reinforces their personal, academic, and professional goals in some aspect of climate change studies.

Earth and Environmental Science Concentration:

Students seeking to complete the Earth and Environmental Science concentration in ENVS should ensure they complete the following specific courses as part of their ENVS major. Completion of the concentration will likely require completing more than the minimum 14 courses needed for the standard major. Completion of this track will result in a B.S. in ENVS.

- **Intro Geoscience (select 1)**: ENVS/GEOS-102Q or 142Q
- **Intermediate Geoscience (select 2)**: ENVS-180Q, 266, or ENVS/GEOS-240Q
- **Advanced Geoscience (select 1)**: ENVS-361, 370, or 372
- **Environmental Science (select 1)**: ENVS/BIO-334, 415W, or CHEM-315
- **Humans and ENV (select 1)**: ENVS-242, 332, or 340
- **Recommended**: ENVS/SOC-220, ENVS/PHIL-248, ENVS/PSYCH-260, or ENVS/MCS-302; ENVS-452W or 454W; CHEM-107/107LQ and 108/108LQ; STAT-141Q or MATH-111; Any of above requirements not already selected

Students in the Earth & Environmental Science track are strongly encouraged to seek out and complete an XLP that provides additional experience that reinforces their personal, academic, and professional goals in some aspect of earth and environmental science.

Environmental Justice Concentration:

Students seeking to complete the Environmental Justice concentration in ENVS should ensure they complete the following specific courses as part of their ENVS major. Completion of the concentration will likely require completing more than the minimum 14 courses needed for the standard major.

- **Environmental Justice Focused (select 2)**: ENVS/SOC-220, ENVS/RELS-261, PSJ-200, or ENVS-428W
- **Human Circumstances in the Env (select 2)**: ENVS-242, 243, 332, 338, 362, ENVS/HIST-254, or POL-356
- **Natural Science & EJ (select 1)**: ENVS-180Q, 266, 361, 370W, or ENVS/BIO-419W
- **Taking Action (select 1)**: ENVS-340, 364, ENVS/PHIL-248, ENVS/SOC-290, ENVS/MCS-302, ENVS/POL-351, or MCS-335

- **Recommended**: ECON/GWSS-210, SOC-255, or ENVS/PSYCH-260, ENVS-450W, 452W, 454W; Any of above requirements not already selected

Students in the Environmental Justice track are strongly encouraged to seek out and complete an XLP that provides additional experience that reinforces their personal, academic, and professional goals in some aspect of environmental justice.

Food Studies Concentration:

Students seeking to complete the Food Studies concentration in the ENVS major should complete the following courses as part of or in addition to courses for their ENVS major. Completion of the concentration will likely require completing more than the minimum 14 courses needed for the standard major.

- **Cultural & Ecological Dimensions of Food (select 2)**: ENVS-243, ENVS/ANTH-230, or ENVS/BIO-234
- **Agroecology (select 2)**: ENVS/BIO-325, 334, 415W, or 455W, or ENVS-454W
- **Food and Social-Ecological Systems (select 1)**: ENVS-242, 338, 366, or ENVS/SOC-288
- **Food and Society (select 1)**: ENVS/SOC-220, ENVS/PHIL-248, POL-343, or 354
- **Recommended**: Any of above requirements not already selected.

Students in the Food Studies track are strongly encouraged to seek out and complete an XLP that provides additional experience that reinforces their personal, academic, and professional goals in some aspect of food studies.

Requirements for Minors

All students minoring in Environment and Sustainability must complete a minimum of six courses that count towards a minor in ENVS:

- ENVS-100
- ENVS-120
- ENVS-244 or one environmental or ecological science (ENVS/GEOS-102Q does not fulfill this requirement)

- One introductory synthesis course or an ENVS social science or humanities course
- One intermediate synthesis course
- One additional course from one of the following categories: intermediate synthesis, advanced critical thinking, or advanced synthesis (capstone)

If they have not already done so, students minoring within ENVS are also encouraged to take an advanced synthesis capstone course (ENVS-450W, 452W or 454W). ENVS-350 (Topics in Environment and Sustainability) courses, independent research, or internships may satisfy the requirements of the minor. Students must receive permission of the ENVS chair for independent research or an internship to fulfill requirements of the minor. Students minoring within the ENVS department will receive a minor in Environmental Studies.

Related interdisciplinary minors include:

- Applied Sustainability
- Biodiversity & Wildlife Conservation
- Climate Change
- Earth and Environmental Science
- Environmental Justice
- Food Studies
- Marine Science

Teaching Certification in Environmental Education

Students interested in teaching may obtain a Pennsylvania teaching certification in Environmental Education (K-12). Requirements for certification include the successful completion of a major in Environmental Studies, a minimum GPA of 2.7 in Environmental Studies coursework, and other requirements as specified by the Ursinus College Education Department and the State of Pennsylvania. These additional requirements include further coursework, a minimum GPA of 3.0 in Education courses, an overall GPA of 3.0, any necessary PAPA (Reading, Writing, and Mathematics) and Praxis II exams, and student teaching. Please work in close coordination with your academic advisor within Environmental Studies and consult the Ursinus College Education Department to coordinate your schedule to fulfill these requirements.

S/U Guidance

If/when considering taking a course that counts towards a degree in ENVS, including those in other departments but not cross-listed (i.e. BIO-101), majors are strongly encouraged to discuss their choice with their ENVS advisor.

Courses

- **ENVS-001. Environmental Stewardship Practicum**
  A learning experience in which students assume primary responsibility for the maintenance and stewardship activities associated with a campus or campus-related environmental project. Examples include maintenance or stewardship activities associated with the Whitaker Environmental Research Station or Hunsberger Woods. Prerequisites: ENVS-100 and one additional ENVS course at the 200-level or above; or permission of the department. This course may be repeated for credit. Students are limited to a total of eight practicum credits. Graded S/U. *One semester hour.*

ENVS-002. Environmental Stewardship Practicum

A learning experience in which students assume primary responsibility for the maintenance and stewardship activities associated with a campus or campus-related environmental project. Examples include maintenance or stewardship activities associated with the Whitaker Environmental Research Station or Hunsberger Woods. Prerequisites: ENVS-100 and one additional ENVS course at the 200-level or above; or permission of the department. This course may be repeated for credit. Students are limited to a total of eight practicum credits. Graded S/U. *Two semester hours.*

ENVS-003. Environmental and Sustainability Outreach Practicum

A learning experience in which students assume primary responsibility for the outreach and communication associated with a campus or campus-related environmental or sustainability field site or project. Examples include communication or educational activities associated with an ENVS-related project, such as composting at Wismer, or ongoing research findings from the Whitaker Environmental Research Station or stewardship activities at Hunsberger Woods. Prerequisites: ENVS-100 and one additional ENVS course at the 200-level or above; or permission of the department. This course may be repeated for credit. Students are limited to a total of eight practicum credits. Graded S/U. *One semester hour.*

ENVS-004. Environmental and Sustainability Outreach Practicum

A learning experience in which students assume primary responsibility for the outreach and communication associated with a campus or campus-related environmental or sustainability field site or project. Examples include communication or educational activities associated with an ENVS-related project, such as composting at Wismer, or ongoing research findings from the Whitaker Environmental Research Station or stewardship activities at Hunsberger Woods. Prerequisites: ENVS-100 and one additional ENVS course at the 200-level or above; or permission of the department. This course may be repeated for credit. Students are limited to a total of eight practicum credits. Graded S/U. *Two semester hours.*

ENVS-005. Environmental and Sustainability Data Collection Practicum

A learning experience in which students assume primary responsibility for the collection of data associated with a campus or campus-related environmental or sustainability field site or project. Examples include data collection activities associated with an ENVS-related project, such as composting at Wismer, or ongoing research from the Whitaker Environmental Research Station or reforestation activities at Hunsberger Woods. Prerequisites: ENVS-100 and one additional ENVS course at the 200-level or above; or permission of the department. This course may be repeated for credit. Students are limited to a total of eight practicum credits Graded S/U. *One semester hour.*

ENVS-006. Environmental and Sustainability Data Collection Practicum

A learning experience in which students assume primary responsibility for the collection of data associated with a campus or campus-related environmental or sustainability field site or project. Examples include data collection activities associated with an ENVS-related project, such as composting at Wismer, or ongoing research from the Whitaker Environmental Research Station or reforestation activities at Hunsberger Woods. Prerequisites: ENVS-100 and one additional ENVS course at the 200-level or above; or permission of the department. This course may be repeated for credit. Students are limited to a total of eight practicum credits Graded S/U. *Two semester hours.*

ENVS-007. Environmental Leadership Practicum

A learning experience in which students lead the organization, planning, and execution of stewardship, outreach efforts, or data collection associated with a campus or campus-related environmental or sustainability field site or project. Examples include data collection activities associated with an ENVS-related project, such as composting at Wismer, or ongoing research from the Whitaker Environmental Research Station or reforestation activities at Hunsberger Woods. Prerequisites: ENVS-100, one additional ENVS course at the 200-level or above, and at least two semesters of the corresponding practicum the student will be leading; or permission of the department. This course may be repeated for credit. Students are limited to a total of eight practicum credits, Graded S/U. *One semester hour.*

ENVS-008. Environmental Leadership Practicum

A learning experience in which students lead the organization, planning, and execution of stewardship, outreach efforts, or data collection associated with a campus or campus-related environmental or sustainability field site or project. Examples include data collection activities associated with an ENVS-related project, such as composting at Wismer, or ongoing research from the Whitaker Environmental Research Station or reforestation activities at Hunsberger Woods. Prerequisites: ENVS-100, one additional ENVS course at the 200-level or above, and at least two semesters of the corresponding practicum the student will be leading; or permission of the department. This course may be repeated for credit. Students are limited to a total of eight practicum credits, Graded S/U. *Two semester hours.*

ENVS-100. Introduction to Environmental Studies and Sustainability

An introductory interdisciplinary course with readings and research on topics across key fields of environmental studies and sustainability. This course examines environmental issues through many lenses, including ecology, economics, ethics, policy

analysis, and the arts. Issues explored include (but are not limited to) population, energy, biodiversity and ecosystem conservation, food and agriculture, global warming, ozone depletion, air pollution, water resources management, and solid waste. Student projects include investigations of local environmental and sustainability issues as well as applied problem-solving activities within the Ursinus and surrounding communities. Three hours per week, plus possible field trips or field work. *Four semester hours. (O.)*

ENVS/CHEM-101Q. Introduction to Environmental Chemistry

This course, intended for non-science majors, will examine selected topics in environmental chemistry through an understanding of basic chemical principles. Topics may include global warming, ozone depletion, pollution, and waste management. Three hours of lecture. *Three semester hours. (S, if taken with CHEM-101LQ.)*

CHEM-101Q. Laboratory in Introductory Environmental Chemistry

Laboratory work related to CHEM-101Q. In addition to mastering basic chemistry laboratory skills, students will analyze air, water, and soil samples using a variety of techniques. Prerequisite: CHEM-101Q (or concurrently). Three hours of laboratory per week. *One semester hour.*

Note: *CHEM-101Q and CHEM-101L may not be used as elective credits for chemistry majors or minors.*

ENVS/GEOS-102Q. Geology: The Earth Around Us

This course examines the current state of knowledge about the Earth and investigates the forces and processes that shape it. Topics include the formation of the Earth and solar system, the materials that comprise the Earth, the forces that currently act on, around, and within the planet, and the relationship of these forces to the processes and features we observe and/or experience at the Earth's surface. To address complex and dynamic geologic processes, this course utilizes knowledge and methods from several disciplines in addition to geology, including biology, math, physics, and chemistry. This course does not count towards the ENVS major or minor. Three hours of lecture and three hours of laboratory per week. *Four semester hours. (S.)*

ENVS-110. Special Topics in Environmental Studies and Sustainability: Social Science

An introductory course with readings and research on environmental issues from the perspective of the social sciences. This course examines social dimensions of a selected environmental issue, drawing on disciplines including (but not limited to) economics, geography, policy analysis, and/or sociology. Issues that might be explored include (but are not limited to) biodiversity, cities, energy, food and agriculture, and climate change. Three hours per week, plus possible field trips or field work. *Four semester hours. (SS.)*

ENVS-111. Special Topics in Environmental Studies and Sustainability: Humanities

An introductory course with readings and research on environmental issues from the perspective of the humanities. This course examines dimensions of a selected environmental issue, drawing on disciplines including (but not limited to) English, history, modern languages, and philosophy. Three hours per week. *Four semester hours. (H)*

ENVS-112. Special Topics in Environmental Studies and Sustainability: Natural Science

An introductory course with readings and research on environmental issues from the perspective of the natural sciences. This course examines selected environmental issues, drawing on disciplines including (but not limited to) biology, chemistry, geology, oceanography, or other natural sciences. Issues that might be explored include (but are not limited to) energy, climate change, oceans, and/or waste. Three hours per week, possibly plus either field trips or three hours of laboratory, depending on the topic. *Four semester hours. (S, if lab or appropriate fieldwork associated with course; Q if appropriate course work associated with course.)*

ENVS-120. Introduction to Environmental Policy

This course will explore the past, present, and future of environmental policy in the United States. Topics will include landmark environmental legislation at the federal scale, as well as selected policies from state and local scales as well. Students will critically analyze and evaluate the tradeoffs associated with environmental policy, and will learn how to advocate for environmental policy and systemic change. This course draws upon interdisciplinary understandings of policy, social change, and environmental issues to help students explore policy as a complex and constantly-evolving process. Three hours per week. *Four semester hours. (SS.)*

ENVS/GEOS-142Q. Dynamic Earth – Geology, Landscape, and Environment

The Earth fundamentally shapes aspects of landscapes, ecosystems, and everyday life — all organisms including people, other animals, and plants. This course focuses on the geologic mechanisms that drive these interactions at the Earth's surface and the methods geologists use to understand these interactions. We will investigate geologic activity such as tectonics and crustal deformation, erosion and slope failure, glaciation, and stream, lake, and marine processes; both how they work and how they produce the present Earth surface (land and sea), which together influence the life on it. Three hours of lecture; three hours of laboratory per week. *Four semester hours. (S.)*

ENVS-180Q. Drinking it Up: Water Resources on a Thirsty Planet

Water is essential for life. But it is not always readily available in the amount or form desired. There are droughts, floods, lack of access, and various types of contamination (natural and human-caused). In order to help understand the science behind reducing the problems causing and caused by having too much, too little, or not clean enough water, this course will explore water as a natural resource, investigating its properties, the storage and movement of water above and below the ground surface, types of contamination and treatment options, and the accessibility of water resources for drinking, agriculture, and more. We will consider the links between these insights and the ways they inform social and ethical considerations. Three hours of lecture; three hours of laboratory per week. *Four semester hours. (S.)*

Note: *Students may not receive credit for both ENV-140Q and ENVS-180Q.*

ENVS/SOC-220. Environmental Justice

This course explores the topic of environmental inequality. Focusing mostly on the United States, the course examines unequal exposure to pollution and other environmental health risks. The course also explores the environmental justice movement's efforts to frame environmental inequality as a social problem. Prerequisite: ANTH-100, SOC-100, or permission of the instructor. Three hours per week. *Four semester hours. (DN, O, SS.)*

Note: *Students who have taken SOC-110 have fulfilled the prerequisite for this course.*

ENVS/ANTH-230. Food and Culture

The human need for food is a biological fact. Yet humans have a relationship with food that is at once highly intimate—requiring its ingestion into their bodies—and utterly cultural—rooted in learned processes that make obtaining, preparing, and consuming food possible. Through the lens of anthropology, this course will examine a variety of issues inspired by this human–food relationship, including hunger, inequality, gender, morality, and nationalism. Prerequisite: SOC-100, ANTH-100, or permission of the instructor. Three hours per week. *Four semester hours. (GN, SS.)*

ENVS/BIO-234. The Nature of Food

The food we eat not only fuels our bodies, but also shapes the environment in which we live. This course introduces students to the biological and ecological principles that govern how food is produced and the impact food production has on air, water, soil, climate, and biodiversity. Students will gain knowledge of diverse approaches to food production (e.g., conventional, organic, biodynamic) through engagement with the scientific literature, popular media and field trips. In the laboratory students will research ecological approaches to food production in a class garden. Prerequisite: BIO-101 or permission of the instructor. Three hours of lecture; three hours of laboratory per week. *Four semester hours.*

ENVS/GEOS-240Q. Earth and Life Through Time

The Earth, and the life on it, has changed substantially throughout its history. In this course, we will examine not only the history of the Earth and the tools and techniques used in analyzing it, but also the intellectual breakthroughs that have allowed us to reach our present understanding. We will explore the history and evolution of the solid Earth, hydrosphere, atmosphere, and biosphere and apply those understandings in practical, hands-on ways. Throughout the semester we will remain mindful of the links - contemporary and evolutionary - between the active planet and the life on it. To address complex and dynamic geologic processes, this course utilizes knowledge and methods from several disciplines in addition to geology, including biology, math, physics, and chemistry. Prerequisite: ENVS/GEOS-102Q, 142Q, or ENVS-180Q, or permission of instructor. Three hours of lecture; three hours of laboratory per week, plus field work/field trips outside of scheduled class time may be required. *Four semester hours. (S.)*

ENVS-242. Globalization and the Environment

An examination of the cultural, political, and economic linkages that characterize globalization and the consequences these linkages (e.g. through consumption practices) have for specific places, diverse peoples and cultures, and the environments where they live. Students will examine specific cases from Africa, South America, East and Southeast Asia, and Australia. Prerequisite: ENVS-100 or permission of the instructor. Three lecture hours per week. *Four semester hours. (GN, O.)*

ENVS-243. Introduction to Food Systems

The food we eat moves through complex global systems with impacts on people and the planet. This course will examine the interlinked social, economic, and environmental issues at play in food production, consumption, and disposal. Students will draw on interdisciplinary scholarship to better understand the labor dimensions of food production, how our food systems succeed and fail in ensuring human and environmental health and wellbeing, as well as the complex social and infrastructural processes for deciding how and whether to handle food as waste. While the course will focus primarily on the United States, global interlinkages will be explored. Field trips outside of class time may be required. Three hours per week. *Four semester hours.*

ENVS-244. Environmental Applications of GIS

GIS (Geographic Information System) is an overarching term for the systematic analysis of spatial data, ranging from the variation in elevation across the Earth's surface to the demographic make-up of individual city blocks. GIS software is invaluable for recording, maintaining, and analyzing location-dependent types of physical and social data. This class will cover the basics of using GIS software for data collection, mapping, and analysis, then apply those skills to asking and answering questions related to environmental and sustainability problem-solving. Class meetings will be divided into time for lecture on GIS concepts and operation and time for student work on assignments. Prerequisites: ENVS-100 or an introductory lab science course; or permission of the instructor. Three hours per week plus one additional hour of practice. *Four semester hours.*

ENVS/PHIL-248. Environmental Ethics

The central issue in environmental ethics concerns what things in nature have moral standing and how conflicts of interest among them are to be resolved. After an introduction to ethical theory, topics to be covered include anthropocentrism, the moral status of non-human sentient beings, preservation of endangered species and the wilderness, holism versus individualism, and the land ethic. Three hours per week. *Four semester hours. (H.)*

ENV/HIST-254. Timber, Water, and Toxins: Environment and History in China and Japan

This course examines the relationship between humans and the natural environment in China and Japan. Beginning with forestry, we examine how Qing China (1644-1912) and Tokugawa Japan (ca. 1603-1868) approached the issue of unsustainable deforestation, examining the interplay between state, society, and individuals in balancing resource extraction with conservation during the early modern period. We then examine the relationship each country has had with its most important bodies of water; for China, this is the Yellow River, which we will examine from a longue-durée perspective, and for Japan, these are its oceanic borderlands, which it has differentially used as resources, as wartime conquests, and as conservation spaces. Finally, we turn to look at industrialization during the mid-1900s, examining how each nation has attempted to extract as much from its environment as possible, and the resultant health and political legacies of these mid-twentieth century choices. Readings will consist of selections from historical monographs; the course will focus on historiographical analysis. Three hours per week. *Four semester hours. (GN, H.)*

Note: *Students who have completed HIST-244 may not register for ENVS/HIST-254.*

ENVS/PSYC-260. Environmental Psychology

This course is an overview of approaches to understanding the psychological relationship between human beings and the natural world and to a lesser extent our built environment. Humans, based on our nature and behavior, have created problems in the natural environment. In this course we will examine environmentally problematic human behavior from the perspective of all major psychological disciplines (behavioral, developmental, cognitive, social, Gestalt, and more). We will explore how we might use psychological modifications, based on these psychological approaches, to change thinking and behavior and become better stewards of the environment. A working knowledge of psychological principles and their application to solving global environmental issues will be developed. Prerequisite: PSYC-100. Three hours per week. *Four semester hours. (SS.)*

ENVS/RELS-261. Religion and Environmental Justice

This course posits that religion is a tool that is available in the cultural repertoire to support those who take up the protective work of repairing our world and responding to climate emergency. The course engages environmental justice through the lens of major religious traditions such as Buddhism, Catholicism, and indigenous traditions in Africa, Asia, and North America. The course addresses foundational issues of community, language, and movement building by spiritual and religious people involved in reparative ecology. By looking closely at how the climate crisis intersects with religious practice and spirituality, we can identify strategies through which people attempt to change their societies, their economies, and themselves. Three hours per week. *Four semester hours. (DN, GN, H, O.)*

ENVS/ENGL-262. The Environment in Literature

Students in this course will study literature inspired by a variety of environments. Readings will range from classic essays "Nature" by Emerson and "Walking" by Thoreau to Terry Tempest Williams' 1991 environmental/autobiographical study, "Refuge: An Unnatural History of Family and Place." Ecocriticism, the study of the relationship between literature and the physical environment will provide the theoretical framework for the course. Writing for the class will be half-analytical (critical responses to texts), and half-original, creative student writings about their own environments. Prerequisite: CIE-100. Three hours per week. *Four semester hours. (H, O.)*

ENVS-266. Natural and Environmental Hazards

A hazard is something with the potential to cause harm. Every day, we make decisions that expose ourselves to some amount of risk from hazards. Some risks we are aware of, while others are hidden from us. Sometimes we actively choose our level of risk, while other times risks are, or we feel they are, imparted upon us without our explicit permission. This class will focus on the recognition and evaluation of environmental and geologic hazards, including those that occur naturally from living on a dynamic planet, such as landslides or flooding, as well as those that are human induced, such as pollution of our air, land, and water. We investigate the ways these hazards create (or do not create) specific risks for people and/or different aspects of the environment, and what can be done to assess, avoid, and/or mitigate those risks. Prerequisites: ENVS-100 or introductory lab science course; or permission of the instructor. Three hours of lecture and three hours of laboratory per week. *Four semester hours. (S.)*

ENVS-268. Wetlands

An exploration of the ecological, hydrological, and botanical features common to all wetlands, including the great variety of wetlands that exist due to differences in climate and geomorphology, and the many ways in which humans are connected to and modify wetlands. Weekend field trips to area wetlands will broaden our view of regional types and increase awareness and appreciation of the vital role wetlands play. Prerequisite: ENVS-100 or permission of the instructor. Three hours of lecture per week plus three or four, one-day, weekend field trips. *Four semester hours.*

ENVS/SOC-288. Animals and Society

An examination of the sociology of human-animal relationships. Focusing mainly on the United States, the course examines the various ways in which people think about and interact with other animals. Prerequisite: SOC-100, ANTH-100, or permission of the instructor. Three hours per week. *Four semester hours. (O, SS.)*

Students who have taken SOC-110 have fulfilled the prerequisite for this course.

ENVS/SOC-290. Radical Environmentalism

This course explores the radical environmental movement that emerged in the United States in the 1980s. The movement differs from other streams of environmentalism in its embrace of ecocentrism and in its willingness to engage in controversial tactics such as ecosabotage. Students will reflect on their obligations to nature and on the wisdom and morality of various tactics for protecting the environment. Three hours per week. *Four semester hours. (O, SS.)*

ENVS-299. Readings in Environmental Studies and Sustainability

Individual study and directed reading of a particular topic or book within the discipline. Students will work closely with a member of the ENVS faculty in selecting, reading, and discussing the topic, and in determining a proper written assignment. This course may be repeated for credit. Prerequisites: ENVS-100 and permission of the instructor. *One semester hour.*

ENVS/MSC-302. Climate and Communication

In this interactive course, we study successful climate change communication strategies, practice how to effectively communicate about climate change to various constituencies, consider the relative strengths of a range of climate communication genres, and develop a deeper understanding of the complex dynamics between scientists, media industries, people, and politics impacting climate communication. Three hours per week. *Four semester hours. (O, SS.)*

ENVS/BIO-310. Biological Oceanography

A study of the biological bases of ocean science. Topics discussed include: ocean basins, seawater physics and chemistry, currents, waves, tides, upwelling zones, tidal rhythms in organisms, ocean habitats/biota, marine virology, marine microbiology, plankton, trophic relationships, hydrothermal vent communities, coral reefs. Prerequisite: BIO-201W or permission of the instructor. Three hours of lecture; three hours of laboratory per week. (Course may be conducted in part at a marine field station). *Four semester hours.*

ENVS/BIO-320. Biology of the Neotropics

A field study of Costa Rican tropical habitats including rain forests, montane forests, seasonally dry forests, and wetlands conducted at research sites throughout the county. Topics include diversity and natural history of key plants and animals, ecological interactions and evolutionary processes, and conservation. May include side trips to cloud forests or coral reefs. Prerequisite: Permission of instructor and BIO-101Q. Field investigations accompanied by readings, lectures, and a directed research project. Course will meet 15 hours on campus and three weeks in Costa Rica between the Fall and Spring semesters. *Four semester hours. (LINQ, XLP.)*

ENVS/BIO-325. Insect Biology

This course will introduce students to the insects—the most diverse group of organisms on the planet. We will examine the physiology, development, behavior, ecology, and evolution of insects to better understand why they are so successful, and special emphasis will be placed on understanding the importance of insects to human welfare. Students will learn the taxonomy of local insects by completing an insect collection. The laboratory component of this course will include insect rearing, experiments, and field trips to collect insects from terrestrial and aquatic habitats. Prerequisite: BIO-101 and BIO-102; or permission of the instructor. Three hours of lecture; three hours of laboratory per week. *Four semester hours.*

ENVS/BIO-330. Marine Biology

This course will explore life in the seas by taking a look at the ecology, evolution, and human impacts the marine environment experiences. Topics will include behavioral, physiological, structural, ecological, and evolutionary perspectives. The course will be supplemented with discussions of primary literature, several written assignments, and a final project that aim to encourage deeper exploration of an ocean-related topic of your choice. Prerequisite: BIO-101 or permission of the instructor. Three hours of lecture per week. *Four semester hours. (LINQ only when offered in the same semester as ENVS-364.)*

ENVS-332. Urbanization and the Environment

An introduction to the diversity of environmental transformations that accompany the process of urbanization and their implications for urban sustainability through exploration of the historical, political, social, economic, and ecological dimensions of the human-environment interactions. Field trips to local neighborhoods, nearby towns, and sites in Metropolitan Philadelphia are required. Prerequisite: ENVS-100, ENVS-120 or permission of the instructor. Three lecture hours per week plus possible field trips or field work. *Four semester hours.*

ENVS/BIO-334. Plant Biology

A survey of the morphology and evolution of the monophyletic green plant clade, including the principles, theory and methodology underlying modern taxonomic systems. Available field time centers upon the morphology and taxonomy of the local vascular flora. Prerequisite: BIO-201W; or permission of the instructor. Three hours of lecture; three hours of laboratory per week. *Four semester hours.*

ENVS/BIO-336. Freshwater Biology

Students in Freshwater Biology will study the chemical and physical properties of streams, lakes, rivers, wetlands, and groundwater. The communities of micro-organisms, algae, macrophytes, invertebrates, fish and other vertebrates that inhabit these environments will be studied. Unique environments such as mountain, desert, and island freshwater ecosystems will be included. The impact of humans on freshwater communities throughout the world will be considered. The laboratory will include field and laboratory investigations and culminate in individual investigations by students. Prerequisites: BIO-101 and BIO-102 or permission of the instructor. Three hours of lecture and three hours of laboratory per week. *Four semester hours.*

ENVS-338. Forests and People

An introduction to the diversity of human interactions and management issues associated with forests and their implications for ecological conservation, food systems, sustainable resource use, and climate change. Thematic emphases include changing ideas about forests and management, including timber extraction, forestry conflicts, ecosystem services, and climate change mitigation and adaptation as well as community forestry, non-timber forest products, agroforestry, and urban forestry. Readings will introduce students to human-environment dynamics in tropical, temperate, and boreal forest ecosystems. Prerequisite: ENVS-100, ENVS-120, or permission of the instructor. Three lecture hours and three field and/or laboratory hours per week. *Four semester hours.*

ENVS-340. Circular Economies

Take, make, waste. That's one way of describing a "linear economy." A growing movement of activists, scholars, and policymakers have begun to advocate for the creation of more "circular economies" — economies that focus on reuse, repair, recycling and remanufacturing rather than wasting. This course will explore the social

and environmental consequences of linear economies as well as the potential and pitfalls of more circular economic forms. Through readings, experiential learning, guest lectures, critical reflection, discussion, and engagement with campus and community partners, the class will examine how we can foster just and equitable local circular economies. Field trips outside of class time may be required. Prerequisite: ENVS-100, ENVS-120, or permission of the instructor. Three hours per week. *Four semester hours.*

ENVS-350. Special Topics in Environmental Studies and Sustainability

A study of a contemporary issue or specific subject area relating to the environment. Topics are often cross-disciplinary and vary according to the special interests of students and faculty. Potential topics include (but are not limited to): energy and the environment, environmental history, landscape ecology, natural hazards and vulnerability, and selected aspects of natural resource management. Prerequisite: as noted in special topics description. Independent written work required. Lab and field work required in some cases. Three hours of class per week, and in some cases three hours of laboratory, depending on the topic. *Four semester hours. (O, if appropriate topic; S, if lab associated with science-related course; Q, if appropriate course work associated with course. Generally counts as advanced science or a corresponding advanced synthesis course as determined by chair. Occasionally, as appropriate, the course may fulfill the introductory natural science or introductory social science or humanities category for the ENVS major or minor.)*

ENVS/POL-351. Politics of the End of the World

When it seems like the world is about to end, what are your options, and what does politics have to do with it? In this course, we explore the role of the individual in a world of existential crises and seeming hopelessness. We consider this question in three global settings: climate change, repressive governments, and a highly unequal economy. As a core capstone course, the course entertains core questions about how we should live together, how we should consider the impact of our own actions on others, and how any knowledge we acquire (during college and beyond) should shape our behavior. As a political science course, it approaches these questions with a focus on strategic behavior, representation, and institutions. Offered every other year. Three hours per week. *Four semester hours. (CCAP, GN, SS.)*

ENVS/BIO-360. Marine Mammalogy

Marine mammals have sparked human curiosity for millennia. Today, they serve as an alluring entry point for a range of important topics in the natural and social sciences. This interdisciplinary course leverages our inherent curiosity and integrates biological sciences and policy to examine the evolutionary diversity and ecological success of marine mammals and explore the historical and current issues concerning their conservation and management. Offered every other year. Four semester hours. Three hours of lecture and three hours of lab per week. *Four semester hours. (S.)*

ENVS-361. Energy & Environment

Energy, in its different forms, has been key in the development of human civilization. This course will explore broad questions relating to energy from a variety of perspectives and disciplinary approaches spanning the Sciences, Social Sciences, and Arts and Humanities, including: What is energy? How/why has it been influential throughout history? Have its costs and benefits been equally distributed? What are the challenges of modern energy systems? Starting with an introduction to foundational concepts, the history of energy, energy justice, and current topics and issues, students will develop, propose, refine, and critically analyze questions relating to energy and society. In the final portion of the course, students will develop a proposal for action addressing an energy-related challenge. 1 or 2 weekday or Saturday or Sunday field

trips outside of class time may be required. 3 hours of class and 3 hours of lab per week. Prerequisite: ENVS-100, 120, or permission of the instructor. *Four semester hours. (O.)*

ENVS-362. Social Life of Waste

Waste is all around us, yet often nearly invisible. The US Environmental Protection Agency estimates that the average American generates over four pounds of waste each day. This course will look carefully at our discards, bringing them into focus as a wicked sustainability challenge, a source of value, and a cultural product. Students will critically engage with efforts and infrastructures to manage and reduce waste in the state of Pennsylvania and beyond. This course moves beyond critique, however, to focus on potential solutions to the waste problem. Our focus will be, as James Ferguson suggests, to think through "real strategies and tactics that would enable one to mobilize around specific programs or initiatives that one might be for, not against." Through readings, experiential learning, guest lectures, critical reflection, and discussions, students will explore (1) the scale and scope of the waste problem, (2) strategies for managing and reducing waste, and (3) the role of policy in addressing waste issues. Field trips outside of class time may be required. Prerequisite: ENVS-100, 120, or permission of the instructor. Three hours per week. *Four semester hours.*

ENVS-364. Advanced Environmental Policy

This course will explore the history and contemporary practice of U.S. environmental policy from an interdisciplinary perspective. Students will explore environmental policy as a complex process, and will learn to think critically about how environmental, social, and economic objectives are prioritized and articulated in a range of policies. Drawing on case studies from a rotating list of environmental issues, such as marine conservation policy, municipal plastic bag bans, and more, students will examine tensions and tradeoffs at play in environmental policy. The course will cover introductory policy theory, selected legislative and judicial histories, and contemporary case studies. Students will complete an applied policy project on an issue of local or regional interest. Field trips outside of class time may be required. Prerequisite: ENVS-100, ENVS-120, or permission of the instructor. Three hours per week. *Four semester hours. (Possible LINQ.)*

ENVS/BIO-365. Ornithology

A study of bird biology (anatomy, physiology, behavior, ecology, phylogeny, and evolution) and the conservation issues that surround these most visible of terrestrial vertebrates. Students will design a conservation proposal. Lab will include field studies and natural history of Northeastern birds. This will include a group field project focusing on the changing status of Pennsylvania bird species that result from anthropogenic disturbances, such as introduced species, climate change, etc. Readings will come primarily from primary and secondary literature, with an emphasis on basic scientific research and its application to conservation. Prerequisite: BIO-101. Three hours of lecture and three hours of laboratory per week. *Four semester hours.*

ENVS-366. Ecological Change in Historical Perspective

An introduction to longer-term perspectives on human-environment interactions, drawing on approaches found within environmental history, historical ecology, and historical geography. Particular emphasis is placed on case studies from North America and on regional ecosystems in the Eastern United States. Saturday or Sunday field trips to regional sites are required. Prerequisite: ENVS-100, ENVS-120 and an introductory ENVS natural science; or permission of the instructor. Four lecture hours per week. *Four semester hours.*

ENVS-370. Global Climate Change

This course focuses on the science of climate, investigating what climate is and what factors determine and influence the climate of an area. Both the natural and anthropogenic (human) forces that may cause climate change are presented from a geological and historical perspective in addition to covering current climatic trends and predictions for future climate. Prerequisite: ENVS-100 and an ENVS introductory/intermediate environmental science or ecological science course; or permission of the instructor. Three hours of lecture and three hours of laboratory per week. *Four semester hours.*

ENVS-372. Environmental Issues in Oceanography

An introduction to the basic scientific concepts of oceanography, focusing on the aspects of oceanography that affect and are affected by humans. Topics include plate tectonics, properties of seawater (chemical and physical), coastal processes (coastal erosion, tsunamis, hurricanes), the effects of/on the ocean in climate change, el Niño/la Niña, the ocean as a resource (fisheries, mining), and pollution of the ocean (ocean dumping, mercury, and oil spills). Saturday or Sunday fieldtrips may be required. Prerequisite: ENVS-100 and an ENVS introductory/ intermediate environmental science or ecological science; or permission of the instructor. Three hours of lecture; three hours of laboratory per week. *Four semester hours.*

ENVS/BIO-375. Marine Invertebrate Zoology

This course introduces students to the diversity of marine invertebrates, their role in marine ecosystems, and how changing oceanic conditions impact these organisms. Students will examine taxonomy, physiology, ecology, and evolution of marine invertebrates, while developing skills in scientific writing and literacy. The lab component of this course will include hands-on experiences with organisms from different marine invertebrate phyla, short-term lab experiments, and discussions of current issues in marine zoology. Prerequisite: BIO-101 or permission of the instructor. Three hours of lecture per week and three hours of laboratory per week. *Four semester hours.*

ENVS-381. Internship

An academic/work experience under the supervision of a faculty internship advisor and an on-site supervisor. Students must have completed 12 semester hours of environmental studies and sustainability courses including ENVS-100 and have permission of the supervising faculty member to be eligible for an internship. Students must document their experience according to the requirements delineated in the College catalogue section on Internships. Open to juniors and seniors. The term during which the internship work is performed will be noted by one of the following letters, to be added immediately after the internship course number: A (fall), B (winter), C (spring), or D (summer). Internships undertaken abroad will be so indicated by the letter I. The intern must complete a minimum of 120 hours of work. Graded S/U. *Three semester hours. (XLP.)*

ENVS-382. Internship

An academic/work experience under the supervision of a faculty internship advisor and an on-site supervisor. Students must have completed 12 semester hours of environmental studies and sustainability courses including ENVS-100 and have permission of the supervising faculty member to be eligible for an internship. Students must document their experience according to the requirements delineated in the College catalogue section on Internships. Open to juniors and seniors. The term during which the internship work is performed will be noted by one of the following letters, to be added immediately after the internship course number: A (fall), B (winter), C (spring), or D (summer). Internships undertaken abroad will be so indicated by the

letter I. The intern must complete a minimum of 160 hours of work. Graded S/U. *Four semester hours. (XLP.)*

ENVS-391. Directed Research

Laboratory and/or field experiences under the direction of a faculty member and designed to introduce students to fundamental research procedures and data manipulation in the context of an original research project. This course can be taken more than once. Prerequisite: permission of a participating faculty member. Three hours of laboratory, field, or other data collection and/or analysis work per week. Graded S/U. *One semester hour.*

ENVS-392. Directed Research

Laboratory and/or field experiences under the direction of a faculty member and designed to introduce students to fundamental research procedures and data manipulation in the context of an original research project. This course can be taken more than once. Prerequisite: permission of a participating faculty member. Six hours of laboratory, field, or other data collection and/or analysis work per week. Graded S/U. *Two semester hours.*

ENVS/BIO-415W. Ecology

Studies of the interrelationships between organisms and their environments that determine their distribution and abundance in natural systems. Aspects of energy flow, biotic and abiotic limits, population growth and community organization are considered in the context of the ecosystem. Laboratories include local field work and emphasize techniques for collecting and analyzing data. Prerequisites: BIO-101Q and 102Q and 201W, or permission of the instructor. This course does *not* fulfill the ENVS capstone requirement. Three hours of lecture, three hours of laboratory per week. *Four semester hours. (O.)*

***NOTE:** This course does not fulfill the ENVS capstone requirement.*

ENVS/BIO-419W. Climate Change Biology

The climate is changing. Higher average temperatures, increasing weather extremes, and altered patterns of precipitation are already here, and further change is forecasted. Students in Climate Change Biology will learn how ecosystem processes and human activities impact Earth's climate system, and they will examine the physiological, behavioral, ecological, and evolutionary processes that underly organismal responses to climate change. Climate change ethics, solutions to the climate change problem, and our obligations to enact these solutions will be explored. Students will participate in an original research project investigating organismal responses to climate change. This is a writing-intensive Biology capstone course. Prerequisite: BIO-101 or permission from the instructor. Three hours per week. *Four semester hours. (O.)*

***NOTE:** This course does not fulfill the ENVS capstone requirement.*

ENVS-428W. Political Ecology

An introduction to an interdisciplinary field of inquiry concerned with the ecological and social drivers of environmental change and their politicization. Students will explore cases representing a diversity of ecosystems at local, regional, and national scales. Depending on the semester, students may focus either on cases specifically from North America or from a diversity of locations across the globe, including in Africa, Europe, South America, the Indo-Pacific, and Southeast Asia. Prerequisite: ENVS-100, ENVS-120, an introductory synthesis course, and junior standing, or permission of the instructor. Three lecture hours per week. *Four semester hours.*

ENVS/BIO-442W. Mammalogy

A study of vertebrate biology using the mammalian class as the case study. The course includes evolutionary history, phylogeny, diversity, structure and function, behavior and ecological aspects of mammals. Prerequisites: BIO-201W; or permission of the instructor. Three hours of lecture; three hours of laboratory and field investigations per week *Four semester hours. (CCAP, O.)*

NOTE: *This course does not fulfill the ENVS capstone requirement.*

ENVS-450W. Talkin' Trash: Waste in America

If nothing ever really "goes away," as Barry Commoner discussed in 1971, then what happens to our waste once we dispose of it? This course will investigate aspects of the methods, pathways, and impacts of disposal and (re-)processing of waste as well as some of the social facets in the decision-making surrounding waste disposal, particularly in considering solid waste. Laboratories include site visits, fieldwork, and hands-on application of course material. In the process, students will be asked to reflect regularly on how these experiences relate to the development of their personal, professional, and academic goals within the Ursinus Quest. This course fulfills the ENV capstone requirement and contains significant writing, oral, and experiential elements, including a group project. Prerequisites: ENVS-100, 120, at least one intermediate synthesis course or an advanced science course, and junior or senior standing, or permission of the instructor. Three lecture hours and three field and/or laboratory hours per week. *Four semester hours. (CCAP.)*

ENVS-452W. Climate Action

Predictions about the influence of increased greenhouse gases in our atmosphere were published before the year 1900 and impacts are apparent in areas around the world today. There is both national and international pressure to reduce the level of greenhouse gases in the atmosphere in order to mitigate the negative effects of climate change and to put in systems in place to help humans adapt to the changes that have already, or will, happen. This course will consider Earth's complex climate system and, in particular, the ways that human actions have had, and can have, an influence. We will discuss and engage with scientific and technical aspects, while also considering and working with social systems that have an influence on mitigation and adaptation. Laboratories include site visits, lab and/or fieldwork, and hands-on application of course material. Fieldwork outside of class time may be required. In the process, students will be asked to reflect regularly on how these experiences relate to the development of their personal, professional, and academic goals within the Ursinus Quest. This course fulfills the ENVS capstone requirement and contains significant writing, oral, and experiential elements, including a group project. Prerequisites: ENVS-100, 120, at least one intermediate synthesis course or an advanced science course, and junior or senior standing, or permission of the instructor. Three lecture hours and three field and/or laboratory hours per week. *Four semester hours. (CCAP.)*

ENVS-454W. Sustainability in the Suburbs

This course explores the theory and practice of emerging sustainability interventions in suburban areas. Emphasizing the role that alternative land management activities play in mitigating the impacts of human–environment interactions in suburbia, this course seeks to examine how new forms of environmental management can improve ecosystem service provision in the Collegeville area. Drawing on land-use management, agro-ecology, and ecosystem services literatures, this capstone course is designed to illuminate the importance of interdisciplinary analysis for implementing emerging strategies to improve ecosystem health in suburban yards, communities, and landscapes. Written and oral communication of critical thinking is emphasized. Laboratories include field work at the Ursinus Food Forest (Whittaker Environmental Research Station), experience with planning and design approaches and analytical

techniques, and field trips in the Collegeville region. In the process, students will be asked to reflect regularly on how these experiences relate to the development of their personal, professional, and academic goals within the Ursinus Quest. This course fulfills the ENVS capstone requirement and significant writing, oral, and experiential elements, including extensive group work. Prerequisites: ENVS-100, at least one intermediate synthesis or an advanced science course, and junior or senior standing; or permission of the instructor. Three lecture hours and three field and/or laboratory hours per week. *Four semester hours. (CCAP.)*

ENVS/BIO-455W. Conservation Biology

Students in Conservation Biology will learn about the causes and the consequences of species extinctions and best management practices for conserving biodiversity. Concepts from genetics, ecology, and evolution will be applied to conservation, and the role of scientific research in conservation practice will be emphasized. Case studies in conservation will come from a variety of species and ecosystems, and special emphasis will be placed on conservation in human-dominated landscapes, such as the suburban landscape within which Ursinus College is situated. Prerequisite: BIO-101 or permission of the instructor. Three hours of lecture per week. *Four semester hours.*

NOTE: *This course does not fulfill the ENVS capstone requirement.*

ENVS-481W. Research/Independent Work

An independent project conducted using research methods in environmental studies and sustainability, and including original work in the field, laboratory, or other scholarly forum. Students must have completed 12 semester hours of environmental studies and sustainability courses including ENVS-100 or have permission of their adviser to be eligible for independent research. *Four semester hours. (XLP.)*

ENVS-482W. Research/Independent Work

See course description for ENVS-481W. *Four semester hours. (XLP.)*

ENVS-491W. Research/Independent Work

Students who are eligible for departmental honors can complete independent research work in this course. Work should be comprised of an independent project conducted using research methods in environmental studies and sustainability, and including original work in the field, laboratory, or other scholarly forum. Students must have completed 12 semester hours of environmental studies courses including ENVS-100 or have permission of their adviser to be eligible for independent research. *Four semester hours. (XLP.)*

ENVS-492W. Research/Independent Work

See course description for ENVS-491W. *Four semester hours. (XLP.)*

- Environmental Studies Department

Environmental Justice

Faculty

- *Professor Hurley (Coordinator); Associate Professors Clark, Joseph, J. Karreth, Widmann Abraham; Assistant Professors Berry, Rice; Visiting Professor Ashcroft.*

- Environmental Justice (EJ) is an interdisciplinary minor that focuses on the differential exposures to environmental burdens and differential access to environmental benefits experienced by diverse human and non-human groups. The minor allows students to explore the social, cultural, economic, and environmental sources of this differential exposure or access. Students minoring in EJ will explore the history of environmental injustice and the ways in which impacted communities adapt to, respond to, and/or resist these injustices. EJ minors also will investigate ways to work toward a more environmentally just society. A minor in EJ consists of 28 credits. Required courses include:
    - Foundation (all required): ENVS-100 and 120 or 364
    - Environmental Justice Focused (select 2): PSJ-200, ENVS/SOC-220, ENVS/RELS-261, or ENVS-428
    - Human Circumstances in the Env (select 1): ENVS-242, 243, 332, 338, 362, ENVS/HIST-254, 356
    - Natural Science & Environmental Justice (select 1): ENVS-180Q, 266, 361, 370, ENVS/BIO-419W
    - Taking Action (select 1): ENVS/PHIL-248, ENVS/SOC-290, ENVS/MCS-302, MCS-335, ENVS-340, 364, ENVS/POL-351

  Other recommended courses include: ECON/GWSS-210, ENVS-244, 450W or 452W or 454W, SOC-255, or ENVS/PSYCH-260, in addition to those courses not already selected from within the minor categories.

  Students who plan to continue on within the field of EJ after graduation are advised to talk with the EJ coordinator to determine the specific courses, and/or additional ones, that may be recommended for continuing on in a particular aspect of this field. EJ minors are also recommended to seek out and complete an XLP that provides additional experience and exposure to some aspect of environmental justice work.

  Environment and Sustainability (ENVS) majors who wish to minor in EJ, no more than 12 credits can be counted toward both their EJ minor and their major.

Special topics and other new courses may count towards the EJ minor with permission of the EJ coordinator. Similarly, internships or courses taken during a study abroad or off campus program may also count towards the EJ minor with approval from the EJ coordinator.

- Environment and Sustainability

Film Studies

Faculty

- *Professor Edwards; Associate Professors Leppert, Mizenko; Assistant Professor Dienstfrey (Co-coordinator), Quanz (Co-coordinator).*

- The Film Studies minor is designed to help students achieve a critical and historical understanding of cinema, an art form of growing importance in a media-dependent world. The minor includes study of how film form produces meaning, an examination of the relationship between cinema and culture, and an introduction to the historical development of cinema. The program encourages students to engage in analysis and critique of a range of films, both classic and contemporary, from Hollywood, other national cinemas, and independent filmmakers.

  ### Requirements for Minors

  A minor in film studies consists of five courses: FS-101, 235, 250, and two additional courses in Film Studies one of which may be replaced with MCS-225.

Courses

- ### FS-101. Introduction to Film Studies
  The usual first course in a film studies minor, introducing students to analysis of film through style and form. Includes basic elements of the development of film conventions as well as an introduction to connections between style and ideology. Intended primarily for freshmen and sophomores. Three hours lecture and a two-hour screening per week. *Four semester hours. (H.)*

FS-235 Topics in Film History
A study of an area in the history of film production, distribution, and exhibition. Representative topics include Silent Film, Classical Hollywood Cinema, European Film Movements, Documentary Film, or New Hollywood Cinema. This course may be taken more than once for credit. Three hours lecture and a two-hour screening per week.*Four semester hours. (H.)*

FS-250. Topics in National Cinema
An overview of a national or regional cinema other than the United States. Three hours lecture and a two-hour screening per week. *Four semester hours. (H.)*

FS-251 Topics in Film Genre
A study of the production and consumption of films within a familiar form such as the musical, Western, or detective film. Three hours lecture and a two-hour screening per week. *Four semester hours. (H.)*

FS–252 Topics in Film and Identity

Representations in American cinema of groups as categorized by gender, race, or ethnicity. Three hours lecture and a two-hour screening per week. *Four semester hours. (DN., H.)*

FS-253 Special Topics in Film Studies

Focus on a specific topic within film studies not covered in other courses in the curriculum. Three hours lecture and a two-hour screening per week. *Four semester hours (H.)*

FS-265 Documentary Film Ethics

Documentary films purport to represent the real world, but they are also stories told for a purpose. This course will examine documentary film from early film actualities to contemporary reflexive nonfiction films in their historical contexts in order to consider the kinds of ethical questions their directors and producers must ask. The course is divided into three parts, each of which asks a question central to ideas about how we should live together: 1. What is the filmmaker's responsibility to the subject? 2. What is the filmmaker's responsibility to the truth? and 3. What is the filmmaker's responsibility to the audience? *Three hours lecture and a two-hour screening per week. Four semester hours. (H, O.)*

FS-305 Film Theory and Criticism

Theoretical approaches to the analysis of film. Prerequisite: FS-101Usually offered every other year. Three hours lecture and a two-hour screening per week. *Four semester hours. (H.)*

FS-381. Internship

An experience under the supervision of a faculty advisor and an on-site supervisor. Students must document their experience according to the requirements delineated in the College catalogue section on Internships. Includes periodic meetings with the faculty advisor and completion of an approved research project. Open to juniors and seniors. The term during which the internship work is performed will be noted by one of the following letters, to be added immediately after the internship course number: A (fall), B (winter), C (spring), or D (summer). Internships undertaken abroad will be so indicated by the letter I. The intern must complete a minimum of 120 hours of work. Graded S/U. Prerequisites: declared minor in film studies, three courses completed in the program, and approval of a faculty internship advisor. Graded S/U. *Three semester hours. (XLP.)*

FS-382. Internship

An experience under the supervision of a faculty advisor and an on-site supervisor. Students must document their experience according to the requirements delineated in the College catalogue section on Internships. Includes periodic meetings with the faculty advisor and completion of an approved research project. Open to juniors and seniors. The term during which the internship work is performed will be noted by one of the following letters, to be added immediately after the internship course number: A (fall), B (winter), C (spring), or D (summer). Internships undertaken abroad will be so indicated by the letter I. The intern must complete a minimum of 160 hours of work. Graded S/U. Prerequisites: declared minor in film studies, three courses completed in the program, and approval of a faculty internship advisor. Graded S/U. *Four semester hours. (XLP.)*

FS-390 Research in Film Studies

Readings and independent research under the supervision of a faculty advisor. A final product on a specific topic in film studies is required. Prerequisite: three courses in film studies, demonstrated competence in the specific area of study, a written project proposal, and permission of a program faculty member who will serve as project advisor. *Four semester hours. (XLP.)*

FS-440. Decolonizing African Memory on Screen

In this course, students analyze a variety of African films through the theoretical lenses of Memory Studies, Postcolonial Studies, and Decolonial Studies to reflect on the relationship between cinema and reality. By investigating how cinema participates in constructing imagined communities, geographies, and histories, students will question how the specificity of the film medium can shape reflection on the four open questions that frame the Ursinus Quest. Three hours lecture and a two-hour screening per week. *Four semester hours. (CCAP, GN, H.)*

- Film Studies Program

Food Studies

- *Professor Hurley (Co-Coordinator), Sorensen; Associate Professors Clark, DaCosta, Evans, Finney, Lobo, Straub, Williamsen, Wynne; Assistant Professors Berry, Tindall; Director of Sustainability Keppen (Co-Coordinator).*

Faculty

- Food studies is an interdisciplinary minor designed to introduce students to integrative learning experiences across areas of study within food and agriculture. The minor program provides students with curricular opportunities for developing knowledge and critical analytical skills and co-curricular opportunities for research and other applied experiences. Both the curriculum and co- curricular experiences are representative of the breadth and depth of food and agriculture studies available at Ursinus, and include natural sciences, social sciences, and humanities options, as well as interdisciplinary courses and experiences. A minor in food studies consists of 20 credits plus an applied learning experience. Requirements are as follows: Students must take two of the following four core courses (the other may be taken as an elective):
    - ANTH/ENV-230
    - BIO/ENVS-234
    - ENVS-243
    - HS-334

    Elective course options:

    - ANTH/ENVS-230
    - BIO-345
    - BIO/ENVS-234, 325, 334, 415W, 455W
    - ENVS-242, 243, 338, 366, 454W
    - HS-334
    - MCS/ENVS-302
    - POL-354
    - PHIL/ENVS-248
    - POL-343, 399
    - PSYC-463
    - SOC/ENVS-288

    Special topics and other new courses may count toward the minor with the permission of instructor and the Food Studies coordinator. Such

courses must contain substantive content germane to food studies. Courses taken during study abroad may also count toward the minor, with permission of the student's academic advisor and the Food Studies coordinator.

At least 12 of the 20 credits for the minor must be in addition to credits already counting toward the student's major(s) and/or another minor.

To fulfill the minor, students must also complete an applied learning experience the focus of which is germane to food studies, from among the following options:

- Office of Sustainability Fellows Program (Food, Farm, Water, others as appropriate)
- Internships (ENVS-381 or 382, others as appropriate)
- Semester-long research (directed, independent, or honors) with participating food studies faculty
- On campus or off-campus practicums (ENVS-001, 002, 003, 004, 005, 006, others as appropriate)
- Accredited off-campus research (BIO- 485, others as appropriate)
- Bonner Leaders Program
- Melrose Fellows
- Model UN
- Parlee Center for Science and the Common Good Fellows
- U-Imagine
- Summer Fellows research
- Study Abroad

Use of Bonner Leaders, Melrose Fellows, Model UN, Parlee Center Fellows, U-Imagine, or Summer Fellows to fulfill the applied learning experience of the food studies minor requires the joint approval of the Food Studies coordinator and the director or advisor of the respective program.

Food Studies Website

Gender, Women's, and Sexuality Studies

Faculty

- *Professors Edwards, Hubbs, Scudera, VanGilder; Associate Professors Barkun, Brodie, Dagger, Evans, Goodman, Leppert, Lott, Mizenko, Onaci, Wynne; Assistant Professor Kluchin (Coordinator).*

- Gender, Women's, and Sexuality Studies is an interdisciplinary minor which places the study of women, gender, and sexuality at the center of the curriculum. It is designed to include cross-cultural perspectives on the experiences and contributions of people in the United States and around the world, as well as to relate gender to other forms of social difference such as sexuality, race, class, ethnicity and nationality.

  By taking specially focused classes in Anthropology, Art, Economics, English, Film Studies, History, Media and Communication Studies, Politics, Religious Studies, Sociology and Theater, GWSS students have the opportunity to examine how gender and sexuality shape different aspects of people's lives. Drawing upon history and interdisciplinary theories, our classes ask how the implications of these studies can help us address pressing problems at home and abroad.

  Because gender and sexuality are fundamental to the ways people understand themselves, a minor in GWSS can enhance practically any other field of study. Students interested in a self-initiated major in GWSS should contact the GWSS Coordinator and at least one other member of the GWSS faculty.

  ### Requirements for Minors

  A minor concentration in Gender, Women's, and Sexuality Studies consists of 20 credits. All students must take GWSS-200. The remaining credits must come from the following courses and from at least two, different departments:

  - GWSS/ANTH-212
  - GWSS/ART-373
  - GWSS/ECON-210
  - GWSS/ENGL-228

- GWSS/HIST–101, 102, 126, 227, 256, 303, 332, 360, 377
- GWSS/IDS-441
- GWSS/MCS-319, 340
- GWMS/MUS-305
- GWSS/IDS/PSYC-214
- GWSS/PHIL-107, 221, 317, 371
- GWSS/PHIL/RELS-244
- GWSS/SOC-263
- GWSS/THEA-215, 217, 218, 315

Students may apply only one course from their major toward this minor. Seminars, directed reading courses, internships, special topics courses, and up to four credits of independent study projects above the 100-level which deal with the study of gender, women and/or sexuality may be substituted for the courses listed above with the approval of the course instructor and the coordinator of Gender, Women's, and Sexuality Studies.

Students may apply only one internship (GWSS-381 or 382) and one directed readings course (GWSS-370 or 375) toward the minor.

Courses

- **GWSS/HIST-101. Empire, Patriarchy, and Race: People and Power in Premodern World History**

  Why did patriarchy emerge in human societies? What different ideas of gender, sexuality, and family shaped people's lives? How and why did empires form, and what social inequalities and cultural trends supported imperial power? What connected different regions of the globe and how did global and local environmental trends affect those connections? How have modern ideas of imperialism, gender, and race influenced our historical knowledge? Using these questions as a driving force, we will explore the history of the premodern world by examining the ever-changing relations between the powerful and seemingly-powerless. We will prioritize the perspectives of non-Western peoples in their cross-cultural encounters and exchanges, and we will analyze socio-political power structures, race and ethnicity, and patriarchy. Three hours per week.*Four semester hours. (H, DN, GN.)*

  Note: *Students who have completed HIST-261 may not register for GWSS/HIST-101.*

GWSS/HIST-102. Empire, Patriarchy, and Race: People and Power in Modern World History

How have modern individuals' lives been shaped by people in power throughout history? How did Westerners use the tools of empire, patriarchy, and race to dominate colonized groups? In what ways did colonized and non-hegemonic peoples attempt to assert agency over these tools and their lives? What are the environmental legacies of these processes? How have ideas of imperialism, gender, and race influenced our historical knowledge of the modern world? Using these questions as a driving force, we will explore the history of the modern world by examining the ever-changing relations

between the powerful and seemingly-powerless. We will prioritize the perspectives of non-Western peoples in their cross-cultural encounters and exchanges and we will analyze socio-political power structures, race and ethnicity, and patriarchy. Three hours per week.*Four semester hours. (H, DN, GN.)*

Note: *Students who have completed HIST-262 may not register for GWSS/HIST-102.*

GWSS/PHIL-107. Philosophy of Love and Sex

What do we mean when we talk about love? How do we understand what motivates our interests in and movements toward relationships of pleasure and community? This course conducts its inquiry of love, sex/ualities, and pleasures with a ground in Black Feminist love-praxis and erotics and how this obligates us to others in various loving and pleasure engagements, including but not limited to transformative justice, friendship, wisdom, BDSM/Kink, asexuality, and sex work. The texts for this course range broadly within the discipline of philosophy (such as: black feminist/womanist thought, Latinx thought, feminist philosophy of science, and genealogy), and literature (as philosophical text) to engage with the multiple ways our lives are shaped by our situation as loving beings and the transformative possibilities of love. Three hours per week. *Four semester hours. (H, DN, O.)*

GWSS/HIST-126. Defining America: Modern U.S. History in its Global Context

What makes the United States of America unique, and what does it mean to be American? This course explores the stories of working people, economic elites, the descendants of the enslaved, government officials, cultural icons, and innovators of all races, genders, and physical abilities. Such stories offer us multiple perspectives on the past, and by understanding and questioning them, we will study the country's relationship to slavery, suffrage, civil and human rights, and accessibility, as well as its political, technological, economic, and ideological contributions, obligations, and shortcomings. Ultimately, we will gain an appreciation of what it means to be American and what America means to the world, beginning in the aftermath of the American Civil War and extending to the present. Three hours per week.*Four semester hours. (DN, H, O.)*

Note: *Students who have completed HIST-114 may not register for GWSS/HIST-126.*

GWSS-200. Gender, Women's, and Sexuality Studies

This course introduces a set of theoretical frameworks to conceptualize, explain, and reflect upon the categories of sex, gender, and sexuality through exploring classic texts in feminist thought and selections from contemporary feminist, queer, and trans* theory. Topics will include gender and sexual identities; conceptions of women's bodies and embodiment more broadly speaking; autonomy, coercion, and consent; representations of women in mass media with particular attention to clothing, fashion, and food; expressions of female sexual desire; the notion of gender as performative; the many meanings of queerness; gender as non-binary; and more. We will pay special attention to intersectional feminists who reflect critically on the relationship of gender and gendered analyses to other kinds of difference, including race, class, sexual orientation, and sexual identity. Open to first-year students. Three hours per week. *Four semester hours. (DN.)*

GWSS/ECON-210. Race and Gender in the American Economy

he study of the issues of race and gender in the U.S. economy. We will evaluate the economic status of racial minorities and women. Issues include occupational segregation, wage differentials, educational attainment, affirmative action and labor market discrimination. . Prerequisites: ECON-101 or 102 or permission of instructor. Three hours per week. *Four semester hours. (DN, SS.)*

Note: *Students with credit for BE-110 or ECON-110 may not enroll in ECON-210.*

GWSS/ANTH-212. Anthropology of Sexuality

Sexual desires and practices are often naturalized in popular discourse, imagined as reflections of pre-cultural biological drives. In this course, we consider the cultural forces that shape these desires and practices into diverse forms across the globe. We use anthropological theories of sexuality to understand the ways in which even our most private thoughts and acts enact and/or resist cultural norms. Ethnographic readings from a range of geographic and subcultural settings provide an opportunity to explore erotic and sexual diversity in depth. Three hours per week. *Four semester hours. (GN, SS.)*

GWSS/IDS/PSYC-214. Human Sexuality

A multidisciplinary study of the development and expression of human sexuality through the ages, across cultures, and through the lifespan of the individual. Topics include how is "having sex" defined, sexual anatomy and physiology, sexual behaviors and response cycles, development of gender identity, sexual orientations, relationships, atypical sexual practices, sexual dysfunctions, sexually transmitted infections, contraceptive methods, conception and birth. A working knowledge of sexual intelligence will be developed. Prerequisite: PSYC-100. Three hours per week. *Four semester hours.*

GWSS/THEA-215. Dramatic Dames: Plays By & About Women

This course explores provocative portraits of women in plays written by women. Students begin with a tenth-century nun and read their way right up to the present day. This is the subversive side of dramatic literature—the plays not included in most anthologies. We will investigate the objectification and reclamation of the female body, gendered language, intersectionality, and the politics of drama by and about women in their socio- historical contexts. Three hours per week. *Four semester hours. (A, DN, H.)*

GWSS/THEA-217. From Shakespeare to RuPaul: A History of Drag Performance

In Shakespeare's theater, men played female roles and female characters sometimes disguised themselves as male — creating confusion, comedy, and insight into the human condition. Today's drag queens, such as RuPaul, bring a sense of empowerment and theatricality to challenge a gender binary and to break through social norms. For centuries, playwrights and performers have crossed and mixed gender roles, creating a distinct art form that brings into focus issues of identity, gender variance, and social structures of masculinity and femininity. This course explores the history of drag entertainment and how it reflects and responds to cultural shifts over time. Three hours per week. *Four semester hours. (A, DN.)*

GWSS/THEA-218. The Craft of African-American Female Playwrights

The original, pioneering work of African- American female playwrights was largely unnoticed and unsupported. These artists persevered, writing and producing their plays in small venues, influencing future generations of black female theater artists. This course will explore the groundwork laid by these innovators and will examine the craft of the women who stand on their shoulders. Today, many of America's most creative, cutting-edge playwrights are African-American women. We will look at the contribution of these contemporary artists, and discuss their influences (social, political, and personal) that stretch beyond the boundaries of the stage. Three hours per week. *Four semester hours. (A, DN.)*

GWSS/PHIL-221. Prison Studies/The Problem of Freedom

Is it possible to think of freedom without framing it against a background of various unfreedoms? This course looks at how the development of the notion of the modern liberal subject is predicated on structures of unfreedom, specifically prisons. Taking prison abolition as its starting point, this course explores an historical account of the prison industrial complex and interrogates the constitutive relationship of prison in the lives of people with precarious identities. Three hours per week. *Four semester hours. (DN, H, O.)*

GWSS/HIST-227. Witches, Drudges, and Good Wives: Gender, Race, and Sex in Early America

How can we recover the experiences of individuals based upon archival fragments? How did social hierarchies based on the intersections of gender, race, and sex shape individuals' lives in early America and contribute to their historical erasure? While considering biography as a mode of historical investigation, we will work to define evolving conceptions of gender, race, and sex in early America, and we will uncover the lives of individuals whose experiences were shaped by the communities in which they found themselves and whose stories some sought to appropriate, hide, or silence altogether. In doing so, we will learn much about these individuals and will better understand the forces that sought and perpetuated their erasure. Students will complete a biographical project on a figure of their choosing. Three hours per week.*Four semester hours. (DN, H.)*

***Note:** Students who completed the course as HIST-300A in Spring 2018 may not register for GWSS/HIST-227*

GWSS/ENGL-228. Women's Literature

A cross-period study of literature by British and American women, paying attention to issues of canon formation and feminist literary theory. Prerequisite: CIE-100. Three hours per week. *Four semester hours. (H.)*

GWSS/PHIL/RELS-244. Work and Meaning

What is work? What's the difference between real work, bullshit work, and play? Why do we pay people for some kinds of work and not others? Are we all just naturally lazy, or do we really want to do something meaningful with our lives? Why do so many people hate their jobs? And does what you do make you who you are? We will explore these questions and many, many more through classic and contemporary readings, impassioned discussions, and a variety of in-class experiments. Three hours per week. *Four semester hours. (H, LINQ.)*

GWSS-250. Special Topics in Gender, Women's, and Sexuality Studies

A 200-level course dealing with special subject areas and periods that are not regularly taught. Three hours per week. *Four semester hours.*

HIST/GWSS-256. Wise Widows to Women Revolutionaries: Women in Chinese History

This course will examine the historical roles that women have played in Chinese civilization. Beginning with the emergence of patriarchy in early China, we will examine how early Chinese philosophical rhetoric created the conditions for the oppression of women. We will then examine historical narratives of powerful women, such as Empress Lu of Western Han Dynasty (ca. 202 BCE-9CE), and both Yang Guifei and Emperor Wu Zetian of the Tang Dynasty (ca. 618-904 CE), within the context of syncretic Buddhist, Confucian, and Daoist early and medieval Chinese culture. We will

focus on how these women utilized the political tactics of men to wrest control over imperial affairs. Our next unit will focus on the lives of common women during early modern period from the Song Dynasty (ca. 960-1279 CE) into the Qing period (ca. 1644-1912), examining how centuries of internalized patriarchy created limitations on the women's lives and how these women nevertheless operated under these conditions to achieve their own advantage in economic gain, individual autonomy, and happiness. Finally, we will examine women revolutionaries during the modern period who fought for such causes as the elimination of foot-binding, women's suffrage, and economic as well as sexual emancipation. Course readings will consist of scholarly monographs and journal articles and primary source documents. Three hours per week. *Four semester hours. (GN, H.)*

HIST/GWSS-360. African Colonialisms

This course explores the cultural, social, and political dynamics of the so-called "colonial era" of African history, roughly 1870 to 1980. Together, we will aim to answer two key questions: how did African people interact with European colonialism?; and how does Africa's colonial history help us to understand some of the continent's current predicaments? The class will progress chronologically and thematically, exploring themes such as resistance to colonial rule, religion, political identity, gender and sexuality, land and environment, decolonization, and post-colonial conditions. In doing so, it will emphasize the diversity of African experiences with colonialism and highlight the myriad ways in which African people negotiated, articulated, and challenged their place in a changing world. Three hours per week. *Four semester hours. (DN, GN, H, O.)*

GWSS/SOC-263. Sex, Gender, and the Politics of Bodies in American Society

After initial examination of the causes of sex differences, focus is placed on the modern American sex/gender role system: socialization and education; economic, political, religious, and family roles; sexual inequality; and gender-based public policy issues. Some cross-cultural and cross-national comparisons are made. Prerequisite: SOC-100, ANTH-100, or permission of the instructor. Three hours per week. *Four semester hours. (DN, SS.)*

Note: *Students who have taken SOC-110 have fulfilled the prerequisite for this course.*

GWSS/HIST-303. Women's Activist Auto/Biographies

Women in various geographic and political contexts have been central actors in the processes of history. However, because women have frequently been viewed as secondary to their male counterparts, their lives have not commanded the same amount of attention. This course seeks to broaden our understandings of the politics, cultures, and social justice initiatives of various societies by studying women's personal lives and political struggles. Through the life writing of women in places like Kenya, South Africa, India, and the United States of America, we will learn how their participation in social movements, state politics, and cultural work helped make women's and human rights a central topic in the broader march toward the liberation of their people. Three hours per week. *Four semester hours. (DN, GN, H.)*

Note: *Students who have completed HIST/GWSS-361 may not register for GWSS/HIST-303.*

GWSS/MUS-305. Women in Music

This course will examine the contributions of women as composers, performers, patrons and conductors of music from the Middle Ages through the twentieth century. The course will focus largely on the roles of women in the sphere of Western art music but will include some coverage of non-Western and popular music as well. The course

requires a variety of listening assignments and research projects. Three hours per week. *Four credit hours. (A.)*

GWSS/THEA-315. Butches, Bitches, & Buggers: Modern Queer Drama

This seminar explores provocative portraits of queer life in modern drama including the evolution, reclamation, and employment of gender- and sexuality-specific language and stereotypes within and outside of queer communities. How does the socio-historical environment in which a queer play is written inform its content and reception? Are plays about or written by queer individuals necessarily political? Does queer theatre intervene in culture differently from the manner in which other theatre does? And, of course, we will examine a broad range of butches, bitches, and buggers in queer drama. Three hours per week. *Four credit hours. (A, DN, H.)*

GWSS/PHIL-317. Trans Theory

The past few years have seen unprecedented conversations on a national scale about the fluidity of gender and what it means to be trans. Increasing awareness of the complexities of gender has saturated mainstream media and led to an explosion of scholarship in the field of transgender studies. Attending to individual narratives and artifacts of popular culture as well as to theories of embodiment, power, identity, and difference, this course surveys theoretical works alongside history, memoir, and fiction. We will pay specific attention to the intersections of gender identity and gender presentation with categories of race, class, and sexuality. Prior coursework in Gender, Women's, and Sexuality Studies will be useful but is not required. A willingness to grapple with difficult texts and concepts will, however, be an absolute necessity. Three hours per week. *Four credit hours. (H.)*

GWSS/MCS-319. Sex, Race and Comedy

Students will learn to critically analyze the subversive power of comedy in exploring issues of race, gender, sexual orientation and class in American media. Three hours per week. *Four credit hours. (DN, SS.)*

GWSS/HIST-332. Liberated Minds: African American Intellectual History

People of African descent have occupied a unique sociopolitical position in the United States. The realities of their captivity and enslavement, and their resilience in the face of discrimination and racial terrorism, have given them a distinct place in national and world history. Throughout their time in America, they developed a multitude of ideas about economics, citizenship and nationalism, legislation, U.S. foreign policy, education, health, and art and culture. This course will explore the diverse ideas that have developed from this distinct, yet internally diverse, community. We will read about the major bodies of African American thought and research specific aspects of Black intellectual production since the late nineteenth century, including Black nationalism, feminism, liberalism, conservativism, and radicalism. Special priority will be given to how sex and gender inform intellectual production. Three hours per week. *Four semester hours. (DN, H.)*

GWSS/MCS-340. Gender, Ethnicity and Communication

This course explores theories and research on gender, ethnicity and communication, with a particular focus on African American culture. Students will use two research methods to study the relationship between gender, ethnicity and communication: a discourse analysis and an auto-ethnography. The reading, writing, and discussions in the course will encourage students to cultivate more reflective communicative practice. Three hours per week. *Four semester hours. (DN, SS.)*

GWSS-350. Special Topics in Gender, Women's, and Sexuality Studies

A 300-level course dealing with special subject areas and periods that are not regularly taught. Three hours per week.*Four semester hours.*

GWSS-370. Research-Independent Study

Directed readings and research on a topic in Gender, Women's, and Sexuality Studies. A student wishing to register for this course must present to a member of the faculty a proposal outlining research to be completed, and submit the instructor's written agreement to supervise the project to the GWSS Coordinator. Prerequisites: GWSS-200 and status as a GWSS minor. *Four semester hours. (XLP.)*

GWSS/PHIL-371. Identity, Credibility, Knowledge, Power: Feminist Epistemologies

This course explores feminist approaches to questions concerning knowledge, justification, and rationality. We will look in particular at feminist standpoint theory, feminist empiricism, and feminist analyses of epistemic oppression and justice. In doing so, we will engage with the following questions: Does a person's social identity (e.g., gender or racialized identity) impact what they know? What are they justified in believing? Whether they are credible with respect to certain topics? Are certain social locations epistemically privileged? Is rationality gendered? Is knowledge socially constructed? Are we ever obligated to believe someone? Three hours per week.*Four credit hours. (DN, H, O.)*

GWSS/ART-373. Feminism and Gender in Art and Art History

This course investigates the influence of political, activist, and scholarly developments in feminist and gender theory on artistic practice and the discipline of art history. Course material explores how feminist consciousness and theories of gender have led artists, critics, and theorists to innovative representational strategies and to challenge, revise, and reinterpret art historical narrative. In the process, the course focuses on how such interventions alter the stories that artists and scholars tell. Prerequisite: ART-160, 290W, 371, or 372; or permission of the instructor. *Four semester hours. (A, D.)*

GWSS-375. Readings in Gender, Women's, and Sexuality Studies

In this directed readings course a student can further develop an interest begun in another course or explore an interest within the field of Gender, Women's, and Sexuality Studies not otherwise covered in the curriculum. A student may do independent readings with any member of the GWSS faculty, but must submit in advance the instructor's written agreement to supervise the project to the GWSS Coordinator. Prerequisite: GWSS-200. *Two semester hours.*

GWSS/HIST-377. Cold War in Europe: Immigrants, Labor, and Gender Cold War in Europe: Immigrants, Labor, and Gender

How did individuals experience the Cold War? Students will explore this question by studying how Eastern and Western European nations overtly politicized the bodies of every gender, as well as workers and immigrants, in order to fight the Cold War as substitute soldiers. Yet these communities developed individual and cultural agency in activities and behaviors that influenced their government's policies during this time. We will explore these themes against the backdrop of major moments, and will discuss the root ideas that informed states' policies that inequitably affected the lives of

immigrants and workers of all genders. Furthermore, we will consider how our Cold War biases continue to shape our obligations as historians towards Western versions of this history and as well as to each other. We will lastly reflect on how governments should care for their geopolitical status as well as their citizens' gender and labor rights, and how citizens should respond to government actions. Three hours per week. *Four semester hours. (H, DN, O.)*

GWSS-381. Internship

An academic/work experience under the supervision of an internship adviser and an on-site supervisor. Students must document their experience according to the requirements delineated in the College catalogue section on Internships. Contact the Gender, Women's, and Sexuality Studies Coordinator for further details. Open to juniors and seniors. The term during which the internship work is performed will be noted by one of the following letters, to be added immediately after the internship course number: A (fall), B (winter), C (spring), or D (summer). Internships undertaken abroad will be so indicated by the letter I. The intern must complete a minimum of 120 hours of work. Graded S/U. Prerequisites: GWSS-200 and approval of a faculty internship adviser. *Three semester hours. (XLP.)*

GWSS-382. Internship

An academic/work experience under the supervision of an internship adviser and an on-site supervisor. Students must document their experience according to the requirements delineated in the College catalogue section on Internships. Contact the Gender, Women's, and Sexuality Studies Coordinator for further details. Open to juniors and seniors. The term during which the internship work is performed will be noted by one of the following letters, to be added immediately after the internship course number: A (fall), B (winter), C (spring), or D (summer). Internships undertaken abroad will be so indicated by the letter I. The intern must complete a minimum of 160 hours of work. Graded S/U. Prerequisites: GWSS-200 and approval of a faculty internship adviser. *Four semester hours. (XLP.)*

GWSS/IDS-441. What Will I Do? Kin and Care

This course is a CCAP that considers "What will I do?" through exploration of families and parenting, and students' hopes and plans for their own families as they prepare for life after Ursinus. Beginning with a return to select CIE texts, the course then examines the present and future of family life through close readings of texts from the social sciences, journalism, and literary fiction. Themes addressed include climate change, gender and sexuality, labor, race, religion, and violence, among others. Students will reflect on their own desires and concerns regarding family and children, considering how those desires and concerns emerge from their own lived experiences and current social, environmental, and economic conditions. They will also contemplate the kinds of futures, individual and collective, in which they might construct and sustain their own families. Three hours per week. *Four semester hours. (CCAP, O.)*

GWSS-491W. Honors Research/Independent Work

This course is open to candidates for honors. Work should be comprised of an independent project that employs research methods in GWSS. Prerequisite: Status as a GWSS major and permission of the GWSS Advisory Council. Four semester hours. (XLP.)

GWSS-492W. Research/Independent Work

Continuation of GWSS-491. *Four semester hours. (XLP.)*

- Gender, Women's, and Sexuality Studies Program

Health Sciences

Faculty

- *Associate Professors Carpenter (Chair), Kolwicz, van de Ruit; Assistant Professors Beyer, Ivaska, Tindall; Instructors Bain, Felsenstein, Realbuto, Vande Berg.*

- The Department of Health Sciences offers a comprehensive curriculum focused on the study of the human body through concentrations in allied health (e.g., pre-physical therapy, nursing, pre-physician assistant, pre-occupational therapy pre-athletic training, corporate fitness, and graduate school preparation in exercise physiology and health sciences), public health, and Pennsylvania teacher certification (K-12) in Health and Physical Education. HS majors gain valuable clinical experiences working in a variety of health and exercise related settings settings through internships, volunteer, and shadowing opportunities. The educational goals of the department are to introduce students to current concepts in the fields of Health Sciences, to expose them to a variety of work-related experiences, and to involve them in various aspects of basic science and translational research. These experiences will foster a sense of responsibility and develop critical, independent thinking consistent with the objectives of a liberal arts education.

  I. Required Courses

  - HS-100, 202, 334
  - BIO-102Q
  - STAT-141Q

  II. Elective Course Requirements

  ## A. Allied Science (AH) Concentration

  All AH students must complete HS-150, 205, 205L, 206, 262, 351, 352Q, and four of the following courses, one of which must be a 400-level capstone course listed below.

  - HS-203, 220, 232W, 263, 275, 278, 298, 300, 333, 340, 360, 366, 413, 446, 447, 452, 460, 464, 490W or 491W

- Possible capstone courses with an oral presentation: HS-413, 415, 455, 446, 447, 490W or 491W. It is highly recommended that students research their individual prerequisite needs for graduate school no later than the end of their sophomore year and meet with their adviser to discuss them.

It is recommended that students seeking admission to graduate allied health programs should elect to take two or more upper-level BIO courses (300/400 level); CHEM-107/107L, 108/108L; MATH-111 and/or MATH/STAT-141Q; PHYS-111Q, 112; and various courses from the Humanities and Social Science Divisions.

B. Public Health Concentration (PH)

All PH students must complete the following courses:

- HS Introductory Courses: HS-150, 262
- HS Intermediate Natural Science Courses: HS-205, 205L, 206; or HS-207, 205L, 208
- One additional natural science course or four credits of research focus or outdoor leadership courses: HS-223, 224, 225, 232, 234, 235, 240, 245, 263W, 333, 351, 352, 370, 490W, 491, 492W
- Two Population-level/Synthesis courses: HS-320, 321
- One Intermediate Math Course: STAT-243W (prerequisites: STAT-141Q and STAT-142 or permission of the instructor)
- One Social Science/Humanities/Natural Science/HS Social Determinants Course from the following list: ANTH-100, ANSO-200, ANTH-235, ANTH/ENVS-230, ANTH/HSOC-283, ECON-311, ENVS-100, 110, 111, 112, 216, 238, 242, 244, HS-220, HS-275, HS/SOC-298, HSOC-100, PHIL-246, PHIL/ENVS-248, POL-218, 252, 254, PSYC-100, 240, PSYC/ENVS-260, PSYC-311, 312, SOC-100, SOC/ENV-220, SOC-255
- Capstone Courses: All HS majors must complete a capstone experience which includes an oral presentation by taking HS-413, 415, 446, 447, 455, 490W, or 491W.

C. Teaching Concentration (TC)

All TC students must complete the following courses:

- HS courses: HS-207 and 205L, 208, 220, 223, 235, 245, 333, 351, 352, 355, 356, 446 and 464

- HS course choices: HS-209 or 224, HS-232W or HS-298
- DANC/HS-200
- Capstone Courses: All TC must complete a capstone experience which includes an oral presentation by taking 446.

Note: Students wishing to obtain PA teacher certification for grades K-12 must take: EDUC-100, 265, 320, 360, 375, 453 or 493, and 454. In addition, students must complete the requirements for admission to the teaching certification program (see Education) and obtain passing scores on two Praxis II examinations.

Students must earn a cumulative 3.0 GPA (Pennsylvania Department of Education Standard) and a 2.8 GPA within the HS Department to receive the departmental recommendation to be eligible to student teach. Students and their advisers should consult the Education Department Program Guide on the Ursinus College website for further information.

Requirements for Minors

A minor concentration in **coaching** consists of HS-100, 220, 278, 365, 366W; select two of the following courses: 223, 224, 225, 226 or 245 (23 credits).

A minor concentration in health science consists of HS-100; a choice from one of the following 3 bullet points

- BIO-206 or 306, and HS-334
- BIO-205 and HS-205L, or BIO-305 and HS-351
- BIO-206, or BIO-306 and HS-352Q

and select two of the following courses: HS-202, 203, 232W, 275, 300, 366W, and 447 for a total of 20 hours. *Note: Allied science concentration majors cannot receive a health science minor.*

Courses

- **Activities Courses**

Students may elect activity courses listed at the 000 level. Students wishing to elect activity courses may not register for more than one activity course in any given semester and no more than 3 hours of activity courses may count toward the 128 semester hours required for graduation. The intent of activities courses will be to develop basic skills,

improve fitness, foster the concepts of wellness, provide enjoyment, and develop recreational and social competencies through participation in lifetime sports and leisure activities. Analysis and movement courses are designed for HS majors and will focus on movement analysis and teaching progression. Non-HS majors may elect to take these courses with the permission of the HS Department.

HS-007. Basic Swimming

Course is designed to meet the needs of the non-swimmer and the beginning swimmer. Emphasis will be on skill development and the ARC Basic Water Safety program. Graded S/U. *One semester hour.* (Offered occasionally.)

HS-008. Intermediate Swimming

Course is designed to meet the need of the intermediate level swimmer. Emphasis will be on skill development and the A.R.C. Emergency Water Safety program. Graded S/U. *One semester hour.* (Offered occasionally.)

HS-050. Special Activities

This course will focus on an activity not included in the current curriculum. Two hours per week. Graded S/U. *One semester hour.* (Offered occasionally.)

Theory Courses

HS-100. Concepts of Wellness and Fitness

An exploration of the various dimensions of wellness. Emphasis will be on the concepts of total fitness and wellness. wellness/fitness self-testing, self-evaluation, and self-care skills will be examined. (Offered spring and fall semesters.) Three hours per week. *Four semester hours.*

Note: *This course should be completed by HS majors in either the freshman or sophomore year.*

HS-150. Medical Terminology

The study of medical terminology introduces students to the language of healthcare and medical professionals. Students will gain an understanding of basic elements, rules of building and analyzing medical words, and medical terms associated with the body as a whole. Utilizing a systems-approach, the student will define, interpret, and pronounce medical terms relating to structure, function, pathology, diagnosis and clinical procedures. Emphasis will be placed on medical words and word parts as they pertain to the musculoskeletal, lymphatic/immune, cardiovascular, respiratory, digestive, urinary, nervous, integumentary, endocrine and reproductive systems. Two hours per week. *Two semester hours.*

HS/DANC-200. Fundamental Dance Technique

An introduction to dance and movement techniques. The class will focus on the basic principles of dance movement, including alignment, coordination, musicality, and locomotion through space. Students will develop increased body awareness, flexibility, strength, and ease within a broad movement vocabulary. This class is designed for students with no previous experience in dance technique. May be taken more than once for credit. Four hours per week. *Two semester hours. (A; may be used to partially fill requirement.)*

HS-202. Concepts in Public Health

This course will introduce the major concepts of public health, will provide students with an understanding of the competencies needed to enhance the health of the community, and introduce the theoretical foundation of community and population based health promotion. The value of evidence-based programs and policies in public health settings, the organization and financing of health services in the United States, along with the current strategies for advancing public health will be explored. Prerequisites: HS-100 or permission of department chair. (Offered spring and fall semesters.) Three hours per week. *Four semester hours.*

HS-203. Health in the City

Philadelphia, Rome, New Delhi, Johannesburg, Rio de Janeiro, and Montreal; cities in the Global North and South are microcosms for understanding how public health works. Public health is embedded in complex social systems comprising patients, public health organizations, health professions, and public policy processes. Philadelphia's diverse population has an array of health needs; this city is a strong case to study how health problems and processes interact. Public health practitioners from local Philadelphia health organizations will join our class meetings to provide insight about health problems among the communities they serve. Reading assignments and class discussions will connect theoretical frameworks on global health to the practical health problems facing Philadelphia and other large urban centers across the globe. Oral presentations and written work will provide students with opportunities to undertake their own case study research of Philly and beyond, critically examining the relations between illness, social inequality, and the social body. Three hours per week. *Four semester hours. (GN, SS.)*

HS/BIO-205. Human Anatomy & Physiology I

A study of the structure and function of the tissues and organs that compose the integumentary, skeletal, muscular, nervous, and special senses systems. We will explore the maintenance of homeostasis made by each of these systems. This is an approved elective course for the completion of the Biology minor but not the Biology major. Prerequisites: BIO-102; or permission of the department chair; must be taken concurrently with BIO-205L unless granted permission by instructor. Strongly Recommended: HS-150. Three hours of lecture per week. *Three semester hours. (S., if taken with HS/BIO-205L)*

Note: *Students who have taken HS/BIO-205 and/or HS/BIO-206 may not receive credit for completing BIO-305.*

HS/BIO-205L. Laboratory in Human Anatomy & Physiology I

Laboratory work related to BIO-205. Emphasis in the laboratory will be placed on histology, joints, muscles, bones and nervous system anatomy. Prerequisite: BIO-102; must be taken concurrently with BIO-205 unless granted permission by instructor. Strongly Recommended: HS-150. Three hours of laboratory per week. *One semester hour. (S., if taken with HS/BIO-205)*

HS/BIO-206. Human Anatomy & Physiology II

A study of the structure and function of the tissues and organs that compose the endocrine, pulmonary, cardiovascular, digestive, urinary, and reproductive systems. A case study approach will be utilized to explore the homeostatic contributions made by each of these systems under rest, exercise, and disease conditions. This is an approved elective course for the completion of the Biology minor but not the Biology major. Prerequisites: HS-205 or permission of the department chair. Three hours of lecture and three hours of laboratory per week. *Four semester hours.*

Note: *Students who have taken HS/BIO-205 and/or HS/BIO-206 may not receive credit for completing BIO-306.*

HS-207. Anatomy and Physiology for Health Educators I

Homeostasis is the unique quality of the body systems to work together to maintain internal stability. Loss of homeostasis leads to an unstable internal environment and likely disease. This course will use a systems approach to explore the basic anatomy and physiology of the integumentary, skeletal, muscular and nervous systems. Health educators have a unique responsibility to relay key science information to all levels of the public. This course will not only teach the basics of body structure and function but will specifically look at topics required for teaching health in elementary and secondary schools and to the lay public. Prerequisites: BIO-102; or permission of the department chair; must be taken concurrently with BIO-205L unless granted permission by instructor. Three lecture hours per week. *Three semester hours.*

HS-208. Anatomy and Physiology for Health Educators II

Homeostasis is the unique quality of the body systems to work together to maintain internal stability. Loss of homeostasis leads to an unstable internal environment and likely disease. This course will use a systems approach to explore the basic anatomy and physiology of the endocrine, digestive, pulmonary, cardiovascular, lymphatic, immune, urinary, and reproductive systems. Health educators have a unique responsibility to relay key science information to all levels of the public. This course will not only teach the basics of body structure and function but will specifically look at topics required for teaching health in elementary and secondary schools and to the lay public. Prerequisites: BIO-102; or permission of the department chair. Three hours of lecture and three hours of laboratory per week *Four semester hours.*

HS-209. Special Topics in Complementary Medicine and Holistic Health

An examination of a different holistic health or alternative medicine form will be studied each time this course is offered. Emphasis will be given to the relationship(s) between the identified health/wellness topic and traditional Western medical and wellness procedures. Topics may include Yoga, Tai Chi, Acupressure, Acupuncture, Therapeutic Massage. (Offered spring and fall semesters.) Three hours per week. *Two semester hours.*

HS-210. Special Topics in Exercise Science

This course will be periodically offered in an area of special interest to students by a staff member or adjunct professor. (Offered occasionally in fall or spring semesters.) Two hours per week. *Two semester hours.*

HS-220. Critical Components of Strength & Conditioning

This course is designed to introduce students to the concepts of conditioning as it relates to muscular strength and endurance as well as various forms of cardiovascular training. The course will emphasize the identification and analysis of the critical elements of weight training exercises, teaching progressions involved in conditioning, and safety and organizational implications of conditioning. Prerequisites: HS-100 and permission of instructor. (Offered spring and fall semesters.) Three hours per week. *Four semester hours.*

HS-223. Teaching Games for Understanding: Team Sports

This course will provide an introduction to teaching team sports. Skill analysis, teaching progressions, coaching strategies, organizational and safety considerations will be emphasized during this course. Lesson plan design and video analysis of

performance skills will be utilized to enhance each student's teaching skills. (Offered spring semesters.) Three hours per week. *Two semester hours.*

HS-224. Theory and Analysis of Teaching Individual/Dual Sports

This course will provide an introduction to teaching individual/dual sports. Skill analysis, teaching progressions, coaching strategies, organizational and safety considerations will be emphasized. Lesson plan design and video analysis of performance skills will be utilized to enhance each student's teaching skills. Prerequisites: HS-100 and permission of instructor. (Offered fall semesters.) Three hours per week. *Two semester hours.*

HS-225. Basic Movement Techniques in Individual and Team Sports

This course analyzes the basic concepts of movement and decision-making that are crucial to athletic success in all the most popular sports. Basic principles such as spatial awareness, timing, visual skills, angles of movement, and reading cues will be thoroughly discussed and practiced. The students will learn the importance of consistently including these concepts when coaching youngsters in drills, small games and full scrimmages and games. The class will equally consist of practical participation, discussions and video analysis. (Offered spring semesters.) Three hours per week. *Two semester hours.*

HS-226. Effective Coaching Strategies

This course is designed to broaden the knowledge of future athletic coaches of all levels. Topics covered include budget analysis, recruitment of student athletes, philosophies of athletic programs, video analysis, and various styles and systems of team sport. Other broad-based topics will also be covered. The class will consist of group work, practical participation, and discussion. Prerequisite: HS-225 or by permission of the instructor. (Offered occasionally) Three hours per week. *Two semester hours.*

HS-232W. Current Trends in Health

This course will focus on the promotion of health education as it relates to the individual and the community at large. Special emphasis will be placed upon family and community health, consumer health, human sexuality and environmental health issues. This course will function as one of the writing intensive courses for students in the HS Department. Prerequisite: permission of the department chair. Three hours per week. *Four semester hours. (DN.)*

HS-234. Water Safety Instructor

Course leads to the American Red Cross certification as a Water Safety Instructor (WSI.) (Offered occasionally.) Three hours per week. *Two semester hours.*

HS-235. Lifeguarding

This course leads to certification in American Red Cross standard first aid, CPR for Professional Rescuers, Lifeguard and Lifeguarding Instructor. (Offered fall semesters.) Three hours per week. *Two semester hours.*

HS-240. Stress Management

Problem-solving principles that underlie stress management will be introduced, coping strategies for managing stress will be explored, and a personal stress management plans for a variety of populations will be developed. (Offered fall semesters.) Two hours per week. *Two semester hours.*

HS-245. Leadership in Adventure Activities

Students will learn basic concepts of the leadership role in high-risk and adventure activities. A historical perspective, philosophical background, educational strategies and safety considerations will be discussed. Particular attention is given to the integration of environmental concerns, problem solving activities, group initiatives, and adventure activities in high-risk and adventure programming. (Offered spring semesters.) Three hours a week. *Two semester hours.*

HS-247. Body Recall

The course focus will be on the needs of special populations, especially the needs of elders and the very sedentary. How to develop safe and effective physical fitness programs for the more fragile populations will be explored. Activities will utilize a variety of recreation and physical therapy incentives such as chairs, ropes, balls, music, and wands to enhance muscular strength, flexibility, balance and coordination. Students preparing to work with geriatric populations and other special populations are encouraged to enroll in this course. (Offered occasionally.) Three hours per week. *Two semester hours.*

HS-261W. Research Methods in Health and Human Performance

This course will provide an introduction to research methodologies in health and human performance. Research design, problem selection, literature review; and acquisition, analysis, and presentation of data will be explored in both written and oral presentation formats. Prerequisite: HS-100; STAT-141Q or permission of the chair. Three hours of lecture. *Four semester hours.*

HS-262. Scientific Literacy

Scientific literacy is knowledge of science and the scientific framework that enables people to become and stay informed (and avoid being misinformed) on multifaceted scientific issues. It also encompasses skills emphasizing scientific ways of knowing and the process of thinking critically and creatively about the natural world. We will examine skills that span the "lifecycle" of science information, including how scientists produce scientific information, how it is repackaged and dispersed by the media, and how we as individuals form opinions on this evidence. Two hours a week. *Two credit hours.*

HS-263W. Research Design

This course will introduce research methodologies in health and human performance. Research design, problem selection, literature review, and acquisition, analysis, and presentation of data will be explored in both written and oral presentation formats. Prerequisites: HS-262. Co-requisite: At least 2 accumulated credit hours of research. Two hours a week. *Two credit hours.*

HS-270. Ergogenic Aids

The effect of nutritional supplements, performance enhancing drugs, and common over-the-counter/prescription drugs on human performance will be the focus of this course. Students will examine the relationship between an ergogenic aid's benefits versus its adverse health side effects. Students will also explore the ethical implications pertaining to the use of ergogenic aids in sports. Prerequisite: HS-100. (Offered occasionally.) Two hours per week. *Two semester hours.*

HS-275. Health Ethics

This course examines a broad range of health-related ethical problems. It considers conceptual frameworks in public health and medicine and applies these frameworks to real world examples. Topics include justice and access to health care, clinical and diagnostic decision-making, patient autonomy and cultural humility, public versus personal responsibility for health, research ethics, and environmental health. Prerequisites HS-100 or permission of the instructor. Three lecture hours per week. *Four semester hours. (GN, O.)*

HS-278. Current Trends in Sports Medicine

A survey of the various types of injuries/illnesses associated with participation in competitive athletics will be identified by age groups and gender. Current NATA sports medicine treatment standards will be introduced to expand awareness of proper care of athletic-related injuries. Prerequisite: HS-100 or permission of the department chair. Three hours per week. *Four semester hours.*

HS/SOC-298. Sociology of Health and Illness

Illness, health, and healing are social phenomena. In this class we focus primarily on the United States, studying the types of disease afflicting Americans, the distribution of disease among the population, and how medical care is organized to respond to population health problems. To understand the links between health and society we must also consider how wider social processes influence health, for instance the organization of the economy, the media, cultural representations about disease, and values and practices associated with caring for the sick. The course builds on sociological frameworks that ground understanding of 1) how patients experience illness; 2) situate health problems within the context of a society's history, social arrangements, and cultural values and; 3) for health reforms to be meaningful they necessarily need to be accompanied by societal change. Taken together these theoretical foundations enable a critical approach to the study of health and medical care. Three hours of lecture per week. *Four semester hours. (DN.)*

HS-300. Death, Dying, and Grief: Learning to Cope with Life Experiences

This course will provide students the opportunity to openly examine a variety of grief and loss situations and to learn strategies to better cope with such events. Cross-cultural studies emphasizing non-Western cultures will be utilized to study the various types of decisions healthcare professionals and laypersons choose relative to coping with death, dying, other types of losses, and bereavement. (Offered spring semesters.) Three hours per week. *Four semester hours. (GN.)*

HS-320. Community Needs and Health Assessment

This course will introduce students to concepts of human needs and assets assessment, including health assessment and environmental risk assessment. The course will emphasize the importance of using quantitative and qualitative results to make programmatic and policy decisions. These strategies improve demographic understanding of a community for the adoption of appropriate health interventions. Additionally, the research process and articulation of results will permit students to communicate their findings to audiences such as health professionals, policymakers, and members of the public. Prerequisite: HS-202. Three lecture hours per week. *Four semester hours.*

HS-321. Public Health Program Design and Evaluation (prerequisite: HS-202 Concepts in Public Health, HS-320 Community Needs and Health Assessment)

This course will provide an evidence-based approach to develop and implement various health plans according to the needs of the individual and/or community. Students will learn how to qualify research findings, develop issue statements, prioritize recommendations, develop a health program, implement an action plan, and create an evaluation plan for ethical sustainability. This course will also permit pedagogical development for students interested in community health education. Three lecture hours per week. *Four semester hours.*

HS-333. Drugs & Alcohol-use And Abuse In Modern Society

The significance of drug and alcohol use, misuse, and abuse in society is analyzed. Drugs and drug use today are addressed from several perspectives—historical, psychological, physiological, pharmacological, sociological, and legal. Prevention, intervention, treatment, and rehabilitation of drug and alcohol abuse is also discussed. Prerequisite: HS-100. Two hours per week. *Two semester hours.*

HS-334. Nutrition

The relationship between nutrition, exercise, and weight control will be examined from various perspectives: scientific principles, consumer protection, and holistic health concepts. The course will explore the principles of nutrition and the process of metabolism. Prerequisite: HS-100 or the permission of the department chair. (Offered both semesters.) Three hours per week. *Four semester hours.*

HS-340. Exercise Psychology

An in-depth examination of methods used when helping people change from sedentary to active living. Topics will include the psychological antecedents and consequences of physical activity relationships, intervention programs for individuals and groups in a variety of settings, gender and age differences in motivation and exercise behaviors, communication skills, goal setting, and addictive and unhealthy behaviors. Prerequisite: HS-100 or permission of the department chair. (Offered fall semesters.) Three hours week. *Four semester hours.*

HS-351. Structural Kinesiology

This course will examine how the neuromuscular and skeletal systems create volitional movement patterns. The execution of various sports skills will be utilized to identify joint motions, patterns of motor unit recruitment, and types of tension generation. Prerequisite: BIO-205 or permission of the department chair. Three hours of lecture and three hours of laboratory per week. *Four semester hours. (S.)*

HS-352Q. Exercise Physiology

The study of the physiological alterations and adjustments which occur in response to physical performance to defend homeostasis under a variety of environmental, training status, and nutritional conditions. Prerequisite: BIO-206 or permission of the department chair. (Offered fall semesters.) Three hours lecture and three hours laboratory per week. *Four semester hours. (S).*

HS-355. Methods of Teaching Secondary Health and Physical Education

This course will examine various philosophies of teaching health and physical education. Students will be introduced to various curriculum models in the discipline. Principles, methods, and strategies of teaching health and physical education at the secondary level will be established. Students will explore assessment strategies, unit and lesson planning, and classroom management intervention. (Offered spring semesters.) Three hours of lecture and two hours of laboratory per week. *Four semester hours.*

HS-356. Methods of Teaching Elementary Health and Physical Education

This course will investigate the history and development of teaching health and physical education. Principles, methods and strategies of teaching health and physical education at the elementary level will be established. This course includes analysis of the fundamental motor skills, examining elementary health issues and establishing developmentally appropriate instructional strategies for elementary games and gymnastics. Students will explore the spectrum of teaching styles, unit and lesson planning, and process-product analysis of learning experiences. (Offered fall semesters.) Three hours of lecture and two hours of laboratory per week. *Four semester hours.*

HS-360. Selected Topics in HS

A course offered periodically in an area of special interest to a student by a faculty member or a visiting lecturer. Prerequisite: permission of the department. Three hours per week, plus either intensive writing or three hours of laboratory, depending on the topic. *Four semester hours. (S, if lab associated with course.)*

HS-365. Philosophy and Principles of Coaching

This course is designed to develop a wholesome and positive philosophy for coaching young players. Students will learn how to teach techniques, tactics and strategies to various age groups. Organizing practices, setting individual and personal goals, evaluating players and basic administrative responsibilities will be covered. Prerequisite: HS-100. (Offered spring semesters.) Three hours per week. *Four semester hours.*

HS-366W. Sport Psychology

An examination of the critical elements of human excellence and the development of plans for obtaining maximum performance and goals. Topics will include self-perceptions, moral reasoning levels, enhancing dedication, goal setting, stress management, personality, motivation, social relations and group dynamics. Prerequisite: HS-100. (Offered spring semesters.) Three hours per week. *Four semester hours. (CCAP.)*

HS-370. Pharmacology and Public Health

This introductory pharmacology course will review the basic concepts of pharmacology and examine the effects of drugs on human body systems. The course topics will be presented through readings, lectures, interactive activities and case studies, interview projects, and case history reports. Topics include fundamentals of pharmacology, drug classifications, pharmacokinetics (the movement of a drug into, through, and out of the body) and pharmacodynamics (the physiological and biochemical effect of the drug on the human body), benefits and risks of drug therapy, and methods of recording and interpreting a case history / medication list. This course will also incorporate public health considerations of therapeutic prescription use including drug costs and health inequities. Three lecture hours per week. *Four semester hours.*

HS-381. Practicum

A practicum experience in a hospital, business, coaching position, clinic and/or geriatric care center under the supervision of a practicum adviser and an on-site supervisor. An in-service project is required. Open to juniors and seniors. The term during which the practicum work is performed will be noted by one of the following letters, to be added immediately after the practicum course number: A (fall), B (winter), C (spring), or D (summer). Practica undertaken abroad will be so indicated by the letter

I. The student must complete a minimum of 120 hours of work on-site. Graded S/U. *Three semester hours. (XLP.)*

HS-382. Practicum

A practicum experience in a hospital, business, coaching position, clinic and/or geriatric care center under the supervision of a practicum adviser and an on-site supervisor. An in-service project is required. Open to juniors and seniors. The term during which the practicum work is performed will be noted by one of the following letters, to be added immediately after the practicum course number: A (fall), B (winter), C (spring), or D (summer). Practica undertaken abroad will be so indicated by the letter I. The student must complete a minimum of 160 hours of work on-site. Graded S/U. *Four semester hours. (XLP.)*

HS-391. Introduction to Inquiry/Research

Introduction to fundamental research and data analysis techniques in public health, health and physical education, and/or exercise physiology under the direction of a faculty member. This course can be taken more than once. Prerequisite: Permission of the faculty supervisor. (Offered spring and fall semesters.) Graded S/U. Three investigative hours per week. *One semester hour.*

HS-392. Focused Inquiry/Research

Laboratory and/or field experiences under the direction of a faculty member designed to engage students in research and data analysis techniques applied to a specific project. This course can be taken more than once. Prerequisites: Permission of the faculty supervisor. Six investigative hours per week. Graded S/U. *Two semester hours.*

HS-413. Human Pathophysiology

A central theme to human anatomy and physiology is the idea that homeostasis is the unique quality of the body systems to work together to maintain internal stability. When the body loses the ability to maintain homeostasis, a pathology occurs. This course will use a systems- approach to explore the most commonly diagnosed clinical pathologies, including the top 10 leading causes of death in the United States. Students will conduct video interviews on individuals with diseases to be presented as part of a class presentation, create clinical brochures, and physically model a disease of choice. Prerequisites: BIO-205, 205L and 206; or BIO-305 and 306; or permission of the instructor; Three lecture hours per week. *Four semester hours. (CCAP.)*

Note: *Students who have completed HS-313 can not take HS-413.*

HS-415. Epidemiology

Epidemiology is the study of the distribution and determinants of health and disease in human populations. This course will introduce students in all fields of public health to the background, principles, and methods to prevent disease and improve disease outcomes. In order to accomplish this study, we will discuss the biological, behavioral, sociocultural, and environmental factors associated with etiology of disease. Through readings of scientific literature, class discussions, and applied learning activities, this Core/HS Capstone course will explore the field of epidemiology through the four foundational questions of the Ursinus Quest curriculum. Topics include frequency and distribution of disease, outbreak investigation, risk analysis, and epidemiological study designs. Prerequisites: HS-202, BIO-206 or BIO-306; or permission of the instructor. Three lecture hours per week. *Four semester hours. (CCAP.)*

HS-446. Principles and Foundations of Health Fitness Management

Standards, and guidelines relevant to health and fitness programs will be examined. Emphasis will be placed on identifying the policies and practices that enhance the safety and effectiveness of facilities and programs in allied health, fitness facilities and schools. Topics will include American College of Sports Medicine facilities guidelines, Americans with Disabilities Act implications, marketing strategies, risk management assessments and procedures, facility design and development, and operating policies and procedures. This is a capstone course which requires a written paper and an oral presentation and fulfills the core capstone requirement for all students. Prerequisites: HS-100 or the permission of the department chair. (Offered fall semesters.) Three hours per week. *Four semester hours (CCAP.)*

HS-447. Community Health

An in-depth analysis of health and wellness problems and needs of various populations. Building on principles of community health, a field of public health that focuses specifically on the different health characteristics of biological and social communities, special emphasis will be placed on the experience of health and ill health among populations across the life span and between groups divided by forms of difference such as ethnicity, race, class, citizenship/immigration status, and sexual orientation. In turn we examine how adequately health services are structured to support these populations. An oral presentation and a written report will be part of the course requirements. Prerequisites: HS-202 or permission of the instructor. Three hours per week. *Four semester hours. (DN.)*

HS-452. Principles and Practices of Exercise Assessment

This course will explore the role of exercise in wellness programming and necessary exercise testing in both healthy and disease models. Techniques of functional capacity measurements and health assessments will be explored and practiced. Students will develop a strong rationale for the role of exercise, exercise testing, and physical activity in the lives of healthy and diseased people. Three hours of lecture and three hours of laboratory per week. Prerequisites: BIO/HS-206 and HS-352; or permission of department chair. (Offered spring semester) *Four semester hours.*

HS-455. Clinical Exercise Physiology

This course will introduce students to the knowledge, skills, and abilities required to prescribe exercise training and lifestyle interventions for individuals with chronic diseases and conditions. Students will review the pathophysiology of chronic diseases and identify potential indications and contraindications to exercise testing and prescription in these populations. Students will be exposed to diagnostic tools, such as electrocardiography and cardiac stress testing, used by clinical exercise physiologists to evaluate, monitor, and prescribe exercise for patients. Students will be introduced to the pharmacology of frequently prescribed medications and discuss the potential implications for exercise training and performance. Through readings of scientific literature, class discussions, and applied learning activities, this Core/HS Capstone course will explore the field of clinical exercise physiology through the four foundational questions of the Ursinus Quest curriculum. Prerequisites: HS/BIO-206 or BIO-306; HS-352Q; or permission of the instructor. Three lecture hours per week. *Four semester hours. (CCAP.)*

HS-460. Advanced Cardiovascular Physiology

This course will provide an overview of cardiovascular physiology and the anatomy underlying cardiac function. Lectures will also focus on the structure, function, and disorders of the heart. The student will learn dynamic aspects of heart function, pathophysiology, diagnosis, and current interventions used by cardiologists. The course will include study of the pathological changes that affect the cardiovascular and vascular system including disease, pathophysiological mechanisms, signs, symptoms,

and post-treatment concerns. This will include an introduction to both non-invasive and invasive cardiology. The laboratory component will include current cardiovascular literature, 12-lead electrocardiography, pacemaker basics, holter monitoring, 24-hour blood pressure monitoring, operation of specialty catheters used in interventional cardiology, cardiac surgical procedures, introduction to echocardiography, and cardiac stress testing. Prerequisites: HS/BIO-206 or permission of instructor. Three hours of lecture and three hours of laboratory per week. *Four semester hours. (S.)*

HS-464. Adapted Physical Education

An analysis of conditions affecting the development of children with special needs. Methods for selecting and classifying such individuals will be explored, and strategies for adapting activities to meet the needs of differently-challenged individuals will be addressed and experienced. HS major or permission of department chair. (Offered spring semesters.) Three hours per week. *Four semester hours. (DN.)*

HS-482. Internship

A work-related experience within a Wellness/Allied Health setting, at a staff-approved site. Students must document their experience according to the requirements delineated in the College catalogue section on Internships. A research paper, one oral presentation, and a minimum of one in-service presentation are required. Each student is expected to be on-site a minimum of 160 hours per semester. Prerequisite: Open to senior HS majors with permission of his/her adviser. (Offered spring and fall semesters.) Graded S/U. *Four semester hours. (XLP.)*

HS-490W. Independent Research/Inquiry

Independent investigation in public health, health and physical education, and/or exercise physiology under the direction of a faculty mentor. Students will engage in a focused research experience. At completion, students must present the findings of the work in an oral format. A written paper may also be required. This course can be taken more than once. Prerequisite: Junior or Senior standing. (Offered fall and spring semesters.) Twelve investigative hours per week. *Four semester hours. (XLP.)*

HS-491W. Mentored Research

This course is open to candidates for departmental honors with a special interest in conducting a focused research project in the fields of public health and/or exercise physiology. Students must prepare both written and oral presentations to the department for approval in accordance with the College requirements. Prerequisite: Senior standing; Permission of the departmental chair and project adviser. (Offered spring and fall semesters.) *Four semester hours. (XLP.)*

HS-492W. Honors Research

This course is for departmental honors students that successfully fulfill the oral and written requirements of HS-491W. Prerequisite: HS-491W and approval of Department Chair. (Offered spring and fall semesters.) *Four semester hours. (XLP.)*

- Health and Exercise Physiology Department

Health and Society

Faculty

- *Professor Sorensen (Coordinator); Associate Professors Carpenter, Evans, van de Ruit, Wynne; Assistant Professor Reinka.*

- Health is a key human good – even a human right, some claim – and, in the last century, a center of gravity for vast economic and scientific investment. Infant mortality plummeted and human lifespans increased in some places, but not symmetrically across race, class, ethnicity, gender, age, religion, and culture. Some of the putative gains in health are contested: lives are longer, but more people die slowly and away from home; and the United States spends more per capita on health care than any country in the world but achieves only average public health results. This major offers multidisciplinary inquiry and reflection for students interested in the intersection of physiological, social, political and ethical factors concerning human health. The Health and Society major requires 40 credits (10 courses) plus an Applied Experience.

  Questions core to the major include:

  (I) What is human health and what about it should matter to us? Is health an intrinsic good, and instrumental good, or both? How do we reckon with health disparities induced by forms of social stratification including but not restricted to race, gender, sexuality and religion?

  (II) What are our responsibilities and obligations to each other about health? Is health care a right, as the United Nations' 1948 Declaration of Human Rights claims? How should scarce medical resources (like kidneys and livers for transplant) be distributed? How should health care system resources (like access to medical professionals) be distributed? What are the tradeoffs between public health and individual choices (in cases like vaccines)?

  (III) How can we understand human health – in terms of biological capability and function, in terms of social constructions, or both? How do understandings of health vary across and within cultures? How do biomedical models of health and health care accommodate alternate non-western perspectives? What are the implications for patients and providers when these perspectives on health diverge?

(IV) What should we do about this key human good? What are the strengths and limitations of policy reform to improve the health of human populations? What are the impacts of patient activism and health movements on health care reforms? How has biomedicine sought to integrate humanistic and social science perspectives into improving clinical work?

Requirements for Major

Notes:

- Health and Society majors should plan to take a Research Methods course (item 6 below) and a Capstone course (item 10 below) in the same or closely related disciplines. Students planning to declare a major should discuss their plans as early as possible with the coordinator.

- No more than 20 of the 40 credits for the major may come from any one department. A particular course may only fulfill one major requirement category.

Introductory courses (both courses required for all majors):

(1) HSOC-100
(2) STAT-141Q

Foundational courses (three courses, one from each list):

(3) ANTH-235; HS-202; POL-354; or SPAN-308
(4) PHIL-246 or POL/IDS-336
(5) BIO-102Q or 150

Research methods course (one course from the following list):

(6) ANSO-200; HS-261W; HIST-200W; PHIL-246; POL-300; PSYC-200Q; STAT-243W.

Interdisciplinary courses (note: no more than one may be taken at the 100- or 200-level):

Humanities (one course from the following list)

(7) ENGL-330*; HIST/HSOC-304; PHIL-240, 246, 354*; POL/IDS-336; SPAN-119, 308.

Social science (one course from the following list):

(8) ANTH-235; 242; ANTH/ENVS-230; ANTH/HSOC-283; ECON-311; ENVS-332; ENVS/SOC-220; HS-203, 275; HS/SOC-298; POL-343, 354; PSYC/GWSS/IDS-214, PSYC-275*, 311, 312, 320.

Natural science and mathematics (one course from the following list):

(9) BIO-102, 150, 201, 306, 350*; BIO/HS-205, 206; HS-334; STAT-243W.

Capstone course (one course from the following list):

(10) ANSO-460W; ECON-403; HS-413, 447, 452; POL-437W, 442W, 452W; PSYC-463, 471*. Additional substitutions may be approved by the coordinator on a case-by-case basis.

Note: Courses marked with an asterisk (*) may be counted in semesters when the topic is approved by the coordinator.

Applied Learning experience:
Students must complete an applied learning experience focusing on health and society, from among the following options, with the approval of the coordinator.

- Internships
- Bonner Leaders Program
- Melrose Fellows
- Model UN
- Semester-long research (with program faculty)
- Accredited off-campus research (ANTH/HSOC-283, BIO-485, others as appropriate)
- Parlee Center for Science and the Common Good Fellows
- U-Imagine
- Summer Fellows research
- Study Abroad

This applied learning experience may or may not satisfy the XLP Quest requirement.

Students fulfill the major W requirement by taking one of the listed W-courses. The major O requirement is fulfilled in the Capstone course.

Note: For students planning on obtaining a Master of Public Health degree, one semester of calculus (MATH-111 or 112) is highly recommended.

Health and Society Minor

A minor in Interdisciplinary Health Studies consists of 20 credits.

(1) HSOC-100

(2) Two of the following six courses:
ANTH-235; 242; BIO-150, 350*; HS-202, 275; HS/SOC-298; PHIL-246; POL-354.

(3) Two courses from the following list (or from among the remaining courses under Requirement (2)), where one of the two is either a Humanities ('H') or Science ('S') course:
ANTH/HSOC-283 ('SS'), BIO/HS-205 ('S'), 206 ('S'); BIO-305 ('S'), 306 ('S); ECON-311; ENGL-330 ('H'); ENVS/SOC-220 ('SS'); ENVS-332; HIST-304 ('H'); HS-203 ('SS'), 334 ('S'); POL-343 ('SS'), 336 ('SS'); PSYC-311, 312 ('SS'); SPAN-119, 308 ('H'), STAT-243W ('S).

Note: Courses marked with an asterisk (*) may be counted in semesters when the topic is approved by the coordinator.

At least 12 of the 20 credits for the minor must be in addition to credits already counting toward the student's major(s) and/or another minor.

Capstone courses, special topics courses, and independent study courses may also count toward the minor when the topic is appropriate and with prior approval from the coordinator.

Courses

- **HSOC-100. Introduction to Health Studies**
  In this course we study health and healing from interdisciplinary perspectives. Topics we will study include: suffering and the meaning of health, mental health and addiction, disability studies, infectious and chronic diseases, and food, nutrition, and obesity studies. Guided by the Ursinus Quest first question "What should matter to me?" and the third question "How can we understand the world?", we will read texts and debate ideas raised by diverse disciplines about why and how health presents such

important ethical and societal challenges. Three hours per week. *Four semester hours. (DN, O.)*

HSOC-150. Special Topics

An occasional course focusing on a special topic in health and society. Prerequisite: HSOC-100, or permission of the instructor. Three hours per week. *Four semester hours.*

HSOC/ANTH-283. Contemporary Issues in Public Health in the Yucatán

Students will explore matters related to health and healing in Mexico with a particular focus on the Yucatán Peninsula and Maya peoples. This faculty-led program will enable students to receive credit for a four-credit course, as well as complete their XLP. The course offers an examination of Mexico's medical system, structural factors that impact wellbeing in the region, and healers and healing approaches from biomedicine and indigenous traditions. Drawing on multiple academic disciplines we connect contemporary health and healing practices with national and local history, and wider transformations in global health. Topics of study include health inequity, traditional health beliefs and practices, reproductive health, mental health, and foodways and agriculture. Guest speakers and community site visits will enrich and deepen our understandings of health and wellbeing in this region. Includes travel to Mexico between the fall and spring semesters. Offered every two years. No prerequisites. *Four semester hours. (GN, LINQ, O, SS, XLP.)*

HSOC-301. Readings in Health and Society

Individual study of one or more selected topics in the relevant literature. May include preparation of a bibliography for a proposal for subsequent research. Requires consent of a member of the department who will serve as adviser. This course is graded S/U. *One semester hour.*

HSOC-302. Readings in Health and Society

Individual study of one or more selected topics in the relevant literature. May include preparation of a bibliography for a proposal for subsequent research. Requires consent of a member of the department who will serve as adviser. This course is graded S/U. *Two semester hours.*

HSOC/HIST-304. Mosquitoes, Miasmas & Madness: Disease and Public Health in World History

How has disease shaped the world we live in? Is sickness a great leveler that renders us all vulnerable, or does it exacerbate social inequities by harming some people more than others? Are some parts of the world naturally "unhealthy"? How have our understandings of illness, immunity, healthcare, and medicine changed over time? This course explores the history of disease and its impact upon human societies around the world. Key topics include "disease environments" and how people understood them; quarantine and reactions to medical detention; social and cultural understandings of illness and death; the rise of international, professional medical research; and the evolving meaning and purpose of public health. Race and colonialism are two central themes that propel this course. As we progress, we'll discuss how disease and health have influenced ideas about race and how the power dynamics of colonialism have shaped disease response, medical research, and access to health care. Three hours per week. *Four semester hours. (DN, GN, H.)*

HSOC-350. Special Topics

An occasional course focusing on a special topic in health and society. Prerequisite: HSOC–100, or permission of the instructor. Three hours per week. *Four semester hours.*

HSOC-381. Internship

An academic/work experience under the supervision of an internship adviser and an on-site supervisor. Students must document their experience according to the requirements delineated in the College catalogue section on Internships. Contact any member of the Department for further information. Open to juniors and seniors. The term during which the internship work is performed will be noted by one of the following letters, to be added immediately after the internship course number: A (fall), B (winter), C (spring), or D (summer). Internships undertaken abroad will be so indicated by the letter I. The intern must complete a minimum of 120 hours of work. Prerequisites: A major in health and society, junior standing, at least 12 credits in health and society, and approval of the Department internship adviser. A minimum of 120 hours. Graded S/U. *Three semester hours. (XLP.)*

HSOC-382. Internship

An academic/work experience under the supervision of an internship adviser and an on-site supervisor. Students must document their experience according to the requirements delineated in the College catalogue section on Internships. Contact any member of the Department for further information. Open to juniors and seniors. The term during which the internship work is performed will be noted by one of the following letters, to be added immediately after the internship course number: A (fall), B (winter), C (spring), or D (summer). Internships undertaken abroad will be so indicated by the letter I. The intern must complete a minimum of 160 hours of work. Prerequisites: A major in health and society, junior standing, at least 12 credits in health and society, and approval of the Department internship adviser. A minimum of 160 hours. Graded S/U. *Four semester hours. (XLP.)*

HSOC-391. Research

An opportunity to engage in independent empirical research on a topic of your choice. Before the course begins, the student's faculty supervisor must approve the student's research proposal. A final progress report is required. Prerequisite: appropriate research methods course from the following list (one course from the following list): ANSO-200; HEP-261W; HIST-200W; PHIL-246; POL-300; PSYC-200Q; STAT-243W. *Four semester hours. (XLP.)*

HSOC-491. Research/Independent Work

Open only to candidates for Honors in Health and Society: Research methods course (one course from the following list): ANSO-200; HEP-261W; HIST-200W; PHIL-246; POL-300; PSYC-200Q; STAT-243W. *Four semester hours. (XLP.)*

HSOC-492W. Research/Independent Work

A continuation of HSOC-491. Prerequisites: HSOC–491 and permission of the coordinator. *Four semester hours. (XLP.)*

History

Faculty

- *Associate Professors Chao, Daggar, Mellis, Onaci (Chair); Assistant Professors Prochnow; Instructor Schandler*

- **Mission Statement**

  The mission of the History Department is to cultivate within our community the lifelong habit of actively engaging and critically questioning the relationship between past, present, and future. We affirm that everyone has a history and that, as global citizens, exploring those histories matters.

  Requirements for Majors

  History majors must take a minimum of eleven courses that fulfill the following requirements:

  1. HIST-101 or 102

  2. HIST-125 or 126

  3. Three electives

  4. HIST-200W

  5. One 300-level U.S. and American history course

  6. One 300-level non-Western history course

  7. One 300-level world and comparative history course

  8. One 300-level European and Mediterranean history course

  9. One 400-level Capstone Seminar (HIST-425W, 426W, 450W, 451W, or 475W)

  The three electives must each come from a different geographic region, including U.S. and American history, European and Mediterranean history, non-Western history, and World and Comparative history. At

least two electives must be at the 200-level; the third elective may be at the 100-, 200- or 300-level.

History majors who are approved to register for HIST/IDS-492W may count HIST/IDS-491W as their third elective. History majors completing two or more majors may count a course outside the History Department as their third elective with approval of their History Department faculty advisor. History majors may petition their faculty advisor in the department to count one Advanced Placement or transfer course as their third elective, pending syllabus review. The History Department welcomes majors transferring to Ursinus College and encourages them to consult the department chair proactively regarding transfer credits and completion of the major.

HIST-150, HIST-250, and HIST-350 are topics courses that may also be used to fulfill major area distribution requirements relevant to their topics.

History course numbering:

- World/comparative history X01-X24
- U.S. and American history X25-X49
- Non-Western history X51-X74
- European and Mediterranean history X75-X79, X86-X99

The capstone, oral presentation, and writing requirements within the major are fulfilled by completing HIST-200W and HIST-425W, 426W, 450W, 451W, or 475W.

Concentrations

History majors who wish to pursue study in an area or topic in greater depth, including students who are considering graduate study in history or a related discipline, may choose to complete a Concentration. Concentrations are not a requirement for history majors.

A Concentration consists of three courses on the history of a particular area in addition to the requirements of the major, for a total of five courses in the Concentration area.

Concentrations include:

African and African-American history. Applicable courses include HIST-228, 260, 326, 332, 360, 426W.

East Asian history. Applicable courses include HIST-151, 152, 153, 252, 254, 256, 352, 354, 451W.

European and Mediterranean history. Applicable courses include HIST-286, 375, 376, 475W.

Non-Western history. Applicable courses include HIST-151, 152, 153, 252, 254, 256, 260, 352, 354, 360, 451W.

U.S. and American history. Applicable courses include HIST-125, 126, 212, 225, 227, 228, 330, 332, 326, 425W, 426W.

World and comparative history. Applicable courses include HIST-101, 102, 202, 303, 304, 307.

Student-Initiated Concentration: Three courses on the history of a particular area or topic in addition to two courses on the area or topic taken to fulfill the requirements of the major, for a total of five courses. Concentration and specific courses to be approved by the Chair of the History Department.

Note: With departmental permission, a student may substitute one course from outside the History Department (or one Advanced Placement or transfer course) in fulfillment of a Concentration. Also, when appropriate, HIST-150, 250, 350, 381, 382, 400W, 450W, 491W, and/or 492W may be included in a Concentration with departmental permission.

Requirements for Minors

Students seeking a minor in history must complete a minimum of five courses in the department, including HIST-200W and at least one course at the 300-level or higher. One Advanced Placement or transfer course may be counted towards a minor in History.

Courses

- 100-level courses are Historical Introductions. These courses serve to introduce students to the central historical narratives, debates, temporal constructs, habits of mind, and foundational skills within the discipline

of history. 100-level courses are most appropriate for first- and second-year students. A number of seats in 100-level courses will be reserved for first- and second-year students.

200-level courses are Historical Explorations. These courses allow students to practice and refine their historical skills and methods while they continue to expand their content knowledge. In addition, each 200-level course helps students explore one subfield or methodological approach within the discipline of history. 200-level courses are most appropriate for first- and second-year majors and non-majors of any year.

300-level courses are Historical Innovations. These courses challenge students to evaluate the relationship between historical theory and practice, and they emphasize independent research and original knowledge creation. 300-level courses are designed for majors in their second year or beyond. To ensure that students are prepared for advanced work, each 300-level course will have as prerequisite sophomore standing and any 200-level history course; or permission of the instructor.

HIST-425W, 426W, 450W, 451W, and 475W are Capstone Seminars for history majors. In these courses, students demonstrate their ability to complete collaborative and independent intellectual work of the highest caliber. The prerequisite for these courses is HIST-200W and at least one 300-level history course, or permission of the instructor.

HIST/GWSS-101. Empire, Patriarchy, and Race: People and Power in Premodern World History

Why did patriarchy emerge in human societies? What different ideas of gender, sexuality, and family shaped people's lives? How and why did empires form, and what social inequalities and cultural trends supported imperial power? What connected different regions of the globe and how did global and local environmental trends affect those connections? How have modern ideas of imperialism, gender, and race influenced our historical knowledge? Using these questions as a driving force, we will explore the history of the premodern world by examining the ever-changing relations between the powerful and seemingly-powerless. We will prioritize the perspectives of non-Western peoples in their cross-cultural encounters and exchanges, and we will analyze socio-political power structures, race and ethnicity, and patriarchy. Three hours per week. *Four semester hours. (DN, GN, H.)*

HIST/GWSS-102. Empire, Patriarchy, and Race: People and Power in Modern World History

How have modern individuals' lives been shaped by people in power throughout history? How did Westerners use the tools of empire, patriarchy, and race to dominate colonized groups? In what ways did colonized and non-hegemonic peoples attempt to assert agency over these tools and their lives? What are the environmental legacies of these processes? How have ideas of imperialism, gender, and race influenced our historical knowledge of the modern world? Using these questions as a driving force, we will explore the history of the modern world by examining the ever-changing relations between the powerful and seemingly-powerless. We will prioritize the perspectives of non-Western peoples in their cross-cultural encounters and exchanges and we will analyze socio-political power structures, race and ethnicity, and patriarchy. Three hours per week.*Four semester hours. (DN, GN, H.)*

HIST-103. GOAL! Sport in World History

As fans, gym-goers, parents, and athletes, millions of people across the globe spend a significant part of their life involved in sports and other kinds of physical activity. According to Western, Christian ideology, participating in sports teaches us the values of hard work and healthy patriotism. Yet non-Western people and minoritized societies have always influenced sport, from pre-invasion West Africa swimming communities to athlete-activists who have shown that participating in modern sports can never be apolitical. In this course, students will explore and reflect critically on how and why people have used and/or engaged in sporting practices to achieve political aims. We will focus special attention on how minoritized communities across the world have been discriminated against in sport, and also how they shaped sporting practices in order to fight back. In addition, we will explore how sporting ideas and practices circulated globally and were adapted by communities to fit their local conditions. Lastly, we will consider our obligations towards one another as citizens of the sporting world informed by sport-based inequities. Three hours per week.*Four semester hours. (DN, GN, H, O.)*

HIST-125. Defining America: Early American History in its Global Contexts

What does "America" mean? Who is "American"? How did inhabitants of the United States and the world come to define these terms and ideas? How have their meanings changed over time? By analyzing a series of defining moments in early American history—from Turtle Island and earliest times through the U.S. Civil War and Reconstruction—we will discuss, interrogate, and analyze varied and often competing perspectives on these questions. Struggles over land, citizenship, religion, freedom, rights, and power will be at the heart of our discussions. Three hours per week.*Four semester hours. (DN, H, O.)*

HIST/GWSS-126. Defining America: Modern U.S. History in its Global Contexts

What makes the United States of America unique, and what does it mean to be American? This course explores the stories of working people, economic elites, the descendants of the enslaved, government officials, cultural icons, and innovators of all races, genders, and physical abilities. Such stories offer us multiple perspectives on the past, and by understanding and questioning them, we will study the country's relationship to slavery, suffrage, civil and human rights, and accessibility, as well as its political, technological, economic, and ideological contributions, obligations, and shortcomings. Ultimately, we will gain an appreciation of what it means to be American and what America means to the world, beginning in the aftermath of the American Civil War and extending to the present. Three hours per week. *Four semester hours. (DN, H, O.)*

HIST-150. Introductory Special Topics in History

A 100-level course dealing with special subject areas and periods that are not regularly taught. Three hours per week. *Four semester hours. (DN, GN, or H, if so designated, contingent upon the topic.)*

HIST-151. From Genji to Godzilla: Japanese Society and Culture in Historical Perspective

What makes anime so fascinating to the world? How did Japan become one of the Axis powers during World War II? Why is Godzilla one of the most revered movie characters of all time? Why did the U.S. incarcerate over 120,000 Japanese immigrants and Japanese-American citizens during World War II? How did sushi get so global? In this course, we explore these questions from a variety of Japanese perspectives. Particular attention will be placed upon Japan's historical and modern relations with its neighbors in East Asia as well as with the world more broadly. We will assess scholarly literature, primary source documents, and contemporary digital and social media. Three hours per week. *Four semester hours. (GN, H.)*

HIST-152. Emperors, Warlords, and "Commies": China from 1644 to the Present

Is China a superpower? Who was Mao Zedong? Why were the 2008 Beijing Olympics such a big deal? These are some of the questions we seek to unravel in this course. Special attention will be paid to the formation of China's modern national borders and the problems inherent in this imperial expansion; China's experience of Western and Japanese imperialism and the scars these experiences left behind; the collapse of the country's dynastic structure and the emergence of the Chinese Communist Party; the upheavals of the Mao era; the effects of the post-1980s global economic boom; and international representations of China as simultaneously opaque and yet open, monolithic and yet dynamic. Three hours per week. *Four semester hours. (GN, H.)*

HIST-153. Governing "All Under Heaven": The Formation of Early Chinese Empires

Surveying the earliest two thousand years of China's history, this course explores the formation of China's earliest states and empires. From mythologies to theocracies, from clan rulers to hegemons, and from warring polities to a united empire, the course will introduce students to the many forms of social, cultural, and political organization that people in early China developed in the lead-up to its first imperial dynasties. We will also explore questions of kinship, technology, diplomacy, warfare, bureaucracy, and relations between humans and the supernatural as each affected and were affected by unique early Chinese lifeways. Students will also be introduced to some of the core philosophies, policies, and cultural tenets developed during this early era that became the foundation for later imperial history. Finally, students will learn to critically read and analyze different types of early Chinese historical materials, such as ancient inscriptions, art and archaeology, philosophical and religious writings, and early historical records. Three hours per week. *Four semester hours. (GN, H.)*

HIST-200W. Theories and Methods in History

What has been, is, and arguably should be "history"? How has the study and knowledge of history been connected to the exercise of power in societies past and present? How can we study and generate historical knowledge—i.e., how can we "do" history? In this course we consider the "history of history" from antiquity onwards and around the globe, analyzing in particular how cultural trends and theoretical approaches have affected the study of history and how power and privilege have influenced historical knowledge. We explore and acquire historical skills such as critical reading and analysis, argument construction, historical synthesis, and research, and we learn how to apply them in digital contexts. This course is open to History, American Studies, and

East Asian Studies majors and History minors with second-year standing or higher; and to other students with the permission of the instructor. Three hours per week. *Four semester hours.*

HIST-202. History of Stuff: Material Culture and Global History, 1500s–1900s

Why do we call our dinner plates "China"? Why do we associate silks and tea with East Asia? When did contact between East and West first occur and why? What was the opium war and what have been its consequences for global history? These are the kinds of questions we seek to answer in The History of Stuff. Through discussions of material culture history, we unravel the multitudinous linkages between people, things, and ideas that have always bound East Asia and the rest of the world together. In each unit, we look at a particular type of object (ie: tea, porcelains, silver, antiquities, opium, etc…), using each as a lens into the specific social, cultural, and historical situation(s) of China, Japan, and Southeast Asia vis-à-vis the world in which this material culture played a significant role. Themes of the course include early globalization, transculturation, material engagements, consumption, capitalism, and political economy. Readings will consist of historical monographs; the course will focus on historiographical analysis. Three hours per week. *Four semester hours. (GN, H.)*

HIST/ENGL-212. Bears Make History: U.S. Higher Education and Digital Entrepreneurship in the Archive and Online

Ursinus College has a history, and you're going to tell it. Using an array of digital media, students in this course will become part of the shaping and recounting of the history of Ursinus College and its community. We will consider Ursinus's place in a broader history of U.S. colleges and universities and will examine how digital humanities is influencing archival research. Students will learn a variety of digital tools, and will analyze and evaluate existing digital history projects. The final part of the semester will be devoted to the collaborative design, pitch, construction, and public dissemination of digital group project/s based on materials from the Ursinusiana Archive. This course is part of the IMPACT curriculum supported by the U-Imagine Center for Integrative and Entrepreneurial Studies. Prerequisite: One Ursinus ENGL or HIST course, or permission of the instructors. Three hours per week. *Four semester hours. (H, LINQ.)*

HIST-225. Native North America

This course examines Native American peoples' lives, cultures, and politics from earliest times to the present. By considering ethnohistory as a field and method, we will consider Indigenous peoples of North America on their own terms and will ask how they shaped the broader history of the continent and the world. We will discuss migration, disease, slavery, religion, and Native peoples' politics and encounters with imperial powers and European peoples during the sixteenth through eighteenth centuries. We will ask how Native Americans shaped the development of the U.S. in the nineteenth century and will consider the consequences of U.S. empire in North America in the twentieth century and to explore how Native peoples and communities continue to shape North American histories, cultures, and societies in the twenty-first century. Three hours per week. *Four semester hours. (DN, GN, H, O.)*

HIST/GWSS-227. Witches, Drudges, and Good Wives: Gender, Race, and Sex in Early America

How can we recover the experiences of individuals based upon archival fragments? How did social hierarchies based on the intersections of gender, race, and sex shape individuals' lives in early America and contribute to their historical erasure? While considering biography as a mode of historical investigation, we will work to define evolving conceptions of gender, race, and sex in early America, and we will uncover the

lives of individuals whose experiences were shaped by the communities in which they found themselves and whose stories some sought to appropriate, hide, or silence altogether. In doing so, we will learn much about these individuals and will better understand the forces that sought and perpetuated their erasure. Students will complete a biographical project on a figure of their choosing. Three hours per week. *Four semester hours. (DN, H.)*

HIST-228. Struggle & Triumph: Modern African American History

This course explores African Americans' contributions to the cultural, political, economic, and intellectual development of the United States of America and the world. By studying this history, we will learn about the varying perspectives that represent African Americans and gain a greater appreciation of the diversity within their communities. With the help of Africana political theory, this course will complicate our understanding of how the nation's laws operate in times of calm and crisis, who historically has been entitled to the rights of citizenship and why, and how the nation's people have viewed difference. We will emphasize African American leadership and participation in social justice activities, and will actively consider the various obligations of individuals, communities, citizens, and governments. Three hours per week. *Four semester hours. (DN, H, LINQ with ENGL-222.)*

HIST-250. Special Topics in History

A 200-level course dealing with special subject areas and periods that are not regularly taught. Three hours per week. *Four semester hours. (H; DN or GN, if so designated, contingent upon the topic.)*

HIST-252. This Course Ends in a Bloody Uprising: China to 1644

Culminating in a dramatic role-play of the Wanli Succession Crisis of 1587, this course charts the rise and fall of China's imperial dynasties beginning with the mythical Xia (ca. 2070-1600 BCE) and ending with the bloody uprising that ushered in the Qing empire (China's last dynasty) in 1644. In examining this "dynastic cycle," students will use the historical tools of role-playing, public speaking, and debate to explore important historical themes such as personhood, gender, religion, power, class, race, and ethnicity from a specifically Chinese viewpoint. They will also seek to answer, by taking on semester-long roles in pre-modern Chinese society, broad questions related to humans' obligations to each other. The course adheres to the Reacting to the Past model of historical learning. Three hours per week. *Four semester hours. (GN, H, O.)*

HIST/ENV-254. Timber, Water, and Toxins: Environment and History in China and Japan

This course examines the relationship between humans and the natural environment in China and Japan. Beginning with forestry, we examine how Qing China (1644-1912) and Tokugawa Japan (ca. 1603-1868) approached the issue of unsustainable deforestation, examining the interplay between state, society, and individuals in balancing resource extraction with conservation during the early modern period. We then examine the relationship each country has had with its most important bodies of water; for China, this is the Yellow River, which we will examine from a longue-durée perspective, and for Japan, these are its oceanic borderlands, which it has differentially used as resources, as wartime conquests, and as conservation spaces. Finally, we turn to look at industrialization during the mid-1900s, examining how each nation has attempted to extract as much from its environment as possible, and the resultant health and political legacies of these mid-twentieth century choices. Readings will consist of

selections from historical monographs; the course will focus on historiographical analysis. Three hours per week. *Four semester hours. (GN, H.)*

HIST-255. Rulers and Ruled: Authoritarianism in Postcolonial States

In this course, students will explore how Western colonial rule, foreign intervention, and domestic actors have contributed to authoritarian rule in postcolonial and post-imperial states from the nineteenth century onward. Students will examine the historical factors—colonial, international, and domestic—that can influence states' development of authoritarian practices. Each semester, course content will compare the histories of two states, including the nations' past histories with foreign rule. Examples include South Africa and Indonesia, or Fascist Spain and Communist China. Students will therefore gain the skills to be able to analyze holistically and comparatively the resurgence of authoritarianism and challenges to democracy in the twenty-first century. We will consider what contemporary post-colonial and post-imperial states and citizens should do in order to reconcile their complicated pasts and create more equitable societies. Three hours per week.*Four semester hours. (GN, H, O.)*

HIST/GWSS-256. Wise Widows to Women Revolutionaries: Women in Chinese History

This course will examine the historical roles that women have played in Chinese civilization. Beginning with the emergence of patriarchy in early China, we will examine how early Chinese philosophical rhetoric created the conditions for the oppression of women. We will then examine historical narratives of powerful women, such as Empress Lu of Western Han Dynasty (ca. 202 BCE-9CE), and both Yang Guifei and Emperor Wu Zetian of the Tang Dynasty (ca. 618-904 CE), within the context of syncretic Buddhist, Confucian, and Daoist early and medieval Chinese culture. We will focus on how these women utilized the political tactics of men to wrest control over imperial affairs. Our next unit will focus on the lives of common women during early modern period from the Song Dynasty (ca. 960-1279 CE) into the Qing period (ca. 1644-1912), examining how centuries of internalized patriarchy created limitations on the women's lives and how these women nevertheless operated under these conditions to achieve their own advantage in economic gain, individual autonomy, and happiness. Finally, we will examine women revolutionaries during the modern period who fought for such causes as the elimination of foot-binding, women's suffrage, and economic as well as sexual emancipation. Course readings will consist of scholarly monographs and journal articles and primary source documents. Three hours per week. *Four semester hours. (GN, H.)*

HIST-260. African Dominion: Histories, Mythologies and Global Connections

Far too often, "Africa" conjures up very negative images: poverty, disease, environmental disaster, military coups, and civil war. At the same time, the history of Africa tends to be obscured by generalities and dangerous assumptions about static, isolated, and "underdeveloped" societies. What do we know of Africa's past? Where does Africa fit within world history? And why do we hear so little good news from the continent that is home to some of the world's oldest civilizations, not to mention the cradle of humankind? This course places Africa's changes, challenges, and accomplishments in deep historical perspective. Together we will investigate some of the continent's mighty civilizations and empires, bustling trading centers, diverse belief systems, gender dynamics, and complex political structures, paying particular attention to the lives and experiences of ordinary people. Three hours per week. *Four semester hours. (DN, GN, H.)*

HIST-277. Martyrs, Victims, and Perpetrators: Nationalism and Memory in Modern European History

This course will explore how Europeans purposefully crafted their nations' histories and memories for political ends from 1789 until the present. In the process of designing official nationalisms and memories to portray certain national characteristics, they also purposefully selected and/or excluded the experiences of groups such as women, Jews, and other minoritized people. Students will examine the relationship between nationalism and memory through specific case studies, such as the French Revolution, the 1848 Revolutions, new imperialism, the Holocaust, Cold War, and decolonization. To apply our understanding of the connections between European nationalist history and memory, for the final project students will propose a meaningful, public commemoration of an under-represented community and its history. We will constantly ask ourselves how European governments and citizens should reconcile their discriminatory pasts through historical and commemorative practices in order to meaningfully create more equitable futures. Furthermore, we will examine Europeans' political, gendered, and racial beliefs and practices that created harmful injustices for their minoritized communities. Three hours per week. *Four semester hours. (DN, H, O.)*

HIST-286. Rule Britannia: War, Race and Empire in the Colonial World

Not very long ago, Great Britain – a small island nation with few natural resources of its own – claimed to control much of the world's land and people. From Jamaica to Canada to Kenya to Australia, British soldiers, merchants, settlers, and administrators installed regimes of extraction and labor exploitation that turned Britain into a global superpower. This course explores the history and enduring legacies of the British empire. Key themes include war, race, slavery, capitalism, colonialism, and decolonization. Throughout the semester we will jump back and forth between the British Isles and a few of Britain's colonies, comparing localized iterations of British rule and exploring how the empire changed over time. We will ask what Britons wanted to get out of the empire, how Britons governed the empire, and how colonized people reacted to and challenged British control. Three hours per week. *Four semester hours. (DN, GN, H.)*

HIST-299. History Tutorial

Individual study and directed reading on a selected historical topic and completion of an annotated bibliography of works read. Open only to students majoring in history. Offered as requested. Prerequisites: HIST-200W and prior consent of a member of the history department who agrees to serve as tutor. One hour per week. *One semester hour.*

HIST/GWSS-303. Women's Activist Auto/Biographies

Women in various geographic and political contexts have been central actors in the processes of history. However, because women have frequently been viewed as secondary to their male counterparts, their lives have not commanded the same amount of attention. This course seeks to broaden our understandings of the politics, cultures, and social justice initiatives of various societies by studying women's personal lives and political struggles. Through the life writing of women in places like Kenya, South Africa, India, and the United States of America, we will learn how their participation in social movements, state politics, and cultural work helped make women's and human rights a central topic in the broader march toward the liberation of their people. Prerequisite: sophomore standing and any 200-level history course; or permission of the instructor. Three hours per week. *Four semester hours. (DN, GN, H.)*

HIST/HSOC-304. Mosquitoes, Miasmas & Madness: Disease and Public Health in World History

How has disease shaped the world we live in? Is sickness a great leveler that renders us all vulnerable, or does it exacerbate social inequities by harming some people more than others? Are some parts of the world naturally "unhealthy"? How have our understandings of illness, immunity, healthcare, and medicine changed over time? This course explores the history of disease and its impact upon human societies around the world. Key topics include "disease environments" and how people understood them; quarantine and reactions to medical detention; social and cultural understandings of illness and death; the rise of international, professional medical research; and the evolving meaning and purpose of public health. Race and colonialism are two central themes that propel this course. As we progress, we'll discuss how disease and health have influenced ideas about race and how the power dynamics of colonialism have shaped disease response, medical research, and access to health care. Three hours per week. *Four semester hours. (DN, GN, H.)*

HIST-307. Revolutions in the Atlantic World

The eighteenth and nineteenth centuries were tumultuous. Revolutionaries in Haiti, France, the United States, and Latin America called and fought for rights and liberty, and worked to define what it meant to be both human and free. They did this work in times of great change: canals, railroads, Indigenous dispossession, and a "transportation revolution" facilitated the growth of markets in the new United States, while industrial revolutions and evolving ideologies of rights, labor, and colonialism competed to cultivate and define a new world order. By examining these moments of struggle and change, we will work to define what we—and historians—mean by "revolution," and we will ask how these moments both formed a foundation and left lingering consequences for the world we live in today. Prerequisite: sophomore standing and any 200-level history course; or permission of the instructor. Three hours per week. *Four semester hours. (GN, H.)*

HIST-308. A World at War: The Global History of WWI

This course will de-center Europe in the First World War by focusing primarily on the global, non-Western perspectives that shaped the conflict and its legacies. In 1914, British, French, German, Austro-Hungarian, Russian, and Ottoman empires had brutally colonialized much of the world. They then actively brought imperial soldiers and laborers to the front lines. Importantly, colonized people worldwide used the war as an opportunity to advocate for a myriad of ideals. Some sought more imperial rights, others rejected European violence, and still others spread anticolonial movements. We will primarily focus on the global, non-Western contexts where the impact of ideas about race, gender, and nationalism shaped the inequities in people's lives, as well as the impact of and responses to colonialism that shaped those ideas. Prerequisite: sophomore standing and any 200-level history course; or permission of the instructor. Three hours per week. *Four semester hours. (DN, GN, H.)*

HIST-326. From the Barrel of a Gun: Gender, Race, and Technologies of Violence

This course analyzes the history of firearms in the United States of America from moments of colonization through the twentieth century. It will provide students with an opportunity to learn about the development of firearms while devoting specific attention to the ways that the evolving U.S. population has used them to guide constructions of race and gender. Also of significance is how those constructs have been governed by legal statute and authoritarian will. Besides developing an understanding of specific technologies and their varied functions in the distinct societies in focus, we will analyze the obligations of states, as well as the rights and responsibilities of

subjects and citizens who are bound to them, in relation to notions about freedom and equality, protection, autonomy, and individual and collective empowerment. Prerequisite: sophomore standing and any 200-level history course; or permission of the instructor. *Four semester hours. (DN, H, O.)*

HIST-330. Street Scrapers, Seamstresses, and the Enslaved: Work, Labor, and Capitalism in the Early Republic

Prostitutes, street scrapers, enslaved laborers, textile workers: such diverse individuals contributed to the making of the U.S. economy. Throughout this course, we will work to uncover the lived experiences of these workers and examine the ways in which the early U.S. economy developed as a result of their labor. We will examine how ideas of race, class, and gender contributed to social hierarchies and a gap between the wealthy and impoverished, and we will analyze workers' and capitalists' roles in making the social and economic worlds of the early American republic. Prerequisite: sophomore standing and any 200-level history course; or permission of the instructor. Three hours per week. *Four semester hours. (DN, H.)*

HIST/GWSS-332. Liberated Minds: African American Intellectual History

People of African descent have occupied a unique sociopolitical position in the United States. The realities of their captivity and enslavement, and their resilience in the face of discrimination and racial terrorism, have given them a distinct place in national and world history. Throughout their time in America, they developed a multitude of ideas about economics, citizenship and nationalism, legislation, U.S. foreign policy, education, health, and art and culture. This course will explore the diverse ideas that have developed from this distinct, yet internally diverse, community. We will read about the major bodies of African American thought and research specific aspects of Black intellectual production since the late nineteenth century, including Black nationalism, feminism, liberalism, conservativism, and radicalism. Special priority will be given to how sex and gender inform intellectual production. Prerequisite: sophomore standing and any 200-level history course; or permission of the instructor. Three hours per week. *Four semester hours. (DN, H.)*

HIST-350. Advanced Special Topics in History

A 300-level course dealing with special subject areas and periods that are not regularly taught. Prerequisite: sophomore standing and any 200-level history course; or permission of the instructor. Three hours per week. *Four semester hours. (DN, GN, H, or O if so designated, contingent upon the topic.)*

HIST-352. Personhood in Classical East Asian Literary History

What does it mean to be human? To be good? To be a fully realized person? These and other questions are explored in this course from a specifically East Asian viewpoint. Covering imperial and pre-modern Chinese, Korean, and Japanese history, course readings draw upon religious, poetic, and fictional writings that convey foundational East Asian ideas of how to exist as part of complicated and ever-evolving social networks, to build and maintain social relationships, to love, to die, and to find meaning in life. Students will practice their skills in reading and writing analytically and comparatively about non-Western literature in translation and develop a thorough understanding of East Asian cultural history. Prerequisite: sophomore standing and any 200-level history course; or permission of the instructor. Three hours per week. *Four semester hours. (GN, H.)*

HIST-354. Monsters in East and Southeast Asia

Monsters represent deep fears and anxieties, and thus offer a space to consider the causes, consequences, and perceptions of social, cultural, political, and economic change. This course explores the history of east and southeast Asia through the lens of monstrosity. We will examine different contexts (including China, Japan, and Vietnam) in which monsters and ideas of monstrosity have been produced, seeking to understand underlying trends that may have shaped collective behavior. We will also endeavor to define and characterize the nature of monsters and monstrosity in east and southeast Asian contexts. Topics include monsters in the imagination, religious monsters, monsters in artistic and literary representation, the monstrous feminine, the monstrous other, human monstrosity and post-humanism, monsters on film, and monsters in popular culture. Prerequisite: sophomore standing and any 200-level history course; or permission of the instructor. Three hours per week. *Four semester hours. (H, GN.)*

HIST/GWSS-360. African Colonialisms

This course explores the cultural, social, and political dynamics of the so-called "colonial era" of African history, roughly 1870 to 1980. Together, we will aim to answer two key questions: how did African people interact with European colonialism?; and how does Africa's colonial history help us to understand some of the continent's current predicaments? The class will progress chronologically and thematically, exploring themes such as resistance to colonial rule, religion, political identity, gender and sexuality, land and environment, decolonization, and post-colonial conditions. In doing so, it will emphasize the diversity of African experiences with colonialism and highlight the myriad ways in which African people negotiated, articulated, and challenged their place in a changing world. Three hours per week. *Four semester hours. (DN, GN, H, O.)*

HIST/GWSS-377. Cold War in Europe: Immigrants, Labor, and Gender

How did individuals experience the Cold War? Students will explore this question by studying how Eastern and Western European nations overtly politicized the bodies of every gender, as well as workers and immigrants, in order to fight the Cold War as substitute soldiers. Yet these communities developed individual and cultural agency in activities and behaviors that influenced their government's policies during this time. We will explore these themes against the backdrop of major moments, and will discuss the root ideas that informed states' policies that inequitably affected the lives of immigrants and workers of all genders. Furthermore, we will consider how our Cold War biases continue to shape our obligations as historians towards Western versions of this history and as well as to each other. We will lastly reflect on how governments should care for their geopolitical status as well as their citizens' gender and labor rights, and how citizens should respond to government actions. Prerequisite: sophomore standing and any 200-level history course; or permission of the instructor. Three hours per week. *Four semester hours. (DN, H, O.)*

HIST-381. Internship

An academic/work experience under the supervision of a faculty internship adviser and an on-site supervisor. Students must document their experience according to the requirements delineated in the College catalogue section on Internships. Open to junior and senior history majors and minors; interested students should consult with a faculty member in the History Department before enrolling. The term during which the internship work is performed will be noted by one of the following letters, to be added immediately after the internship course number: A (fall), B (winter), C (spring), or D (summer). Internships undertaken abroad will be so indicated by the letter I. The intern must complete a minimum of 120 hours of work. Graded S/U. Prerequisites: a declared major or minor in history and approval of a faculty internship adviser. *Three semester hours. (XLP.)*

HIST-382. Internship

An academic/work experience under the supervision of a faculty internship adviser and an on-site supervisor. Students must document their experience according to the requirements delineated in the College catalogue section on Internships. Open to junior and senior history majors and minors; interested students should consult with a faculty member in the History Department before enrolling. The term during which the internship work is performed will be noted by one of the following letters, to be added immediately after the internship course number: A (fall), B (winter), C (spring), or D (summer). Internships undertaken abroad will be so indicated by the letter I. The intern must complete a minimum of 160 hours of work. Graded S/U. Prerequisites: a declared major or minor in history and approval of a faculty internship adviser. *Four semester hours. (XLP.)*

HIST/ANTH-385. Historical Archaeology Field School

A four-week summer archaeology course offered in conjunction with The Speaker's House, a non-profit that owns and is restoring the Frederick Muhlenberg house and property in Trappe, Pennsylvania. The field school course in Historical Archaeology will combine instruction in archaeological methods and theory with hands-on excavation training and experience at an important historical site. Through assigned readings and classroom discussions, on-site training and experience, and weekly laboratory study, field school students will learn historical archaeology techniques and develop the ability to identify and interpret discovered artifacts and place archaeological information within a cultural/historical framework. *Six semester hours (XLP.)*

HIST-400W. Research

Independent research, under the guidance of an adviser, directed toward the production and oral presentation of a historical project or paper. Prerequisite: HIST-200W, approval of a faculty adviser, and permission of the department. Prerequisite or co-requisite: a History Capstone Seminar. Offered as needed; in rare circumstances, a student may take this course more than once. *Four semester hours. (XLP.)*

Note: *HIST-400W does not fulfill the capstone requirement.*

HIST-425W. Native American Activism and Red Power

During the 1960s and 1970s, the American Indian Movement exploded onto the U.S. political scene with the occupation of Alcatraz Island and the dramatic standoff at Wounded Knee. Yet American Indian activism possessed a long history, from boarding school defiance to the birth of the National Congress of American Indians and the "Red Progressive" movement. This course will examine the Red Power moment in the context of that longer and ongoing history of activism in order to ask how and why American Indians fought for political rights, sovereignty, and cultural endurance. We will also consider and discuss various forms of activism and how historians have thus far theorized and examined Native peoples' activist pasts. Prerequisite: HIST-200W and at least one 300-level history course, or permission of the instructor. Three hours per week. *Four semester hours. (CCAP.)*

HIST-426W. Out of Place: The Historical Geography of African Americans

African Americans have often been seen as "out of place" due to the nature of their arrival and conditions of their residency in the U.S. Deeming them variously and simultaneously "criminals" and "enemies," "carefree" and "cool," the American mainstream has assigned Black people a multitude of competing and contradictory places. As a result, this marginalized group has had to carefully navigate uneven geographic and sociopolitical terrains. This course provides an in-depth exploration of Black people's agency and experiences in urban and rural spaces, especially

Philadelphia. We will analyze place-based conditions that have shaped people's lives and contributed to the reasons why they travel to, remain in, or leave a locale, and we will learn how "place" has helped mold self-perception, creativity, and collective actions for social justice. Prerequisite: HIST-200W and at least one 300-level history course, or permission of the instructor. Three hours per week. *Four semester hours. (CCAP.)*

HIST-450W. Seminar on Special Topics in History

A Capstone Seminar dealing with special subject areas and periods that are not regularly taught. The course devotes particular time and attention to the four open questions that frame the Ursinus Quest, in particular *What will I do?* Prerequisite: HIST-200W and at least one 300-level history course; or permission of the instructor. Three hours per week. *Four semester hours. (CCAP.)*

HIST-451W. Confucius in Context

In this capstone course, students will have the opportunity to truly understand one of the most enigmatic texts of CIE, Analects by Confucius. Written during the fourth century BCE, Analects has long been considered one of the foundation texts of Chinese culture, but it was also only the first of many texts that attempted to lay out a philosophical foundation for good governance and a moral life. In this course, students will be introduced to the long-durée historical context of Confucius to understand what Analects was attempting to do and why it was so groundbreaking. They will also critically read his later interpreters, such as Mencius, Mozi, and Han Feizi, among several others, within their own historical contexts of the Spring and Autumn (ca. 770-481 BCE) and Warring States periods (ca. 480-221 BCE). Special attention in our weekly discussions will be placed on putting the texts we read into dialogue with important themes from CIE 100 and 200 (such as the concept of worldviews, the nature of divinity and the supernatural, the importance of interpersonal and familial connections, the role and importance of proper governance and community, the appreciation of art and music, race and ethnicity, gender dynamics and inequalities, etc..), allowing space for students to reflect on the four core questions, especially the question of what will I do? Finally, students will learn the basic methods of conducting research on historical topics in early China in building towards their final research projects, which will ask them to write a guided research paper on early Chinese ideas concerning a major theme or topic mentioned above. Three hours per week. *Four semester hours. (CCAP.)*

HIST-491W. Research/Independent Work

This course is open to seniors who are candidates for departmental honors. Interested students should consult with their faculty adviser no later than October of their junior year. Prerequisite: HIST-200W, approval of a faculty adviser, and permission of the department. Prerequisite or co-requisite: a History Capstone Seminar. *Four semester hours. (XLP.)*

HIST-492W. Research/Independent Work

A continuation of HIST-491W. Prerequisites: HIST-491W, approval of a faculty adviser, and permission of the department. *Four semester hours. (XLP.)*

- History Department

Interdivisional Studies

- ## IDS-001–008 Bonner Leaders

  This course is designed for Bonner Leaders as an academic complement to their community service work, focusing on the Bonner Common Commitments—civic engagement, community building, diversity, international perspective, and social justice—and providing the students with opportunities for intentional reflection on their service experience. Prerequisites: Permission of the instructor. Graded S/U. One hour per week. *One semester hour.*

IDS-011–012 Sustainability Fellows Course

This course is a required component for Sustainability Fellows Program as an academic complement to their sustainability work. The course will cover directed readings and reflection on topics relating to sustainability theory and practice. Students will work closely with a member of the Office of Sustainability by reading about, discussing, and implementing practices related to sustainability planning. Students will be expected to conduct written and oral assignments in addition to individual practicum. Students may repeat this course for credit. Prerequisites: Acceptance into the Sustainability Fellows Program and permission of the instructor. Graded S/U *One semester hour.*

IDS-031–37. Peer Educator/Advocate Practicum

This course is designed for Peer Educators and Peer Advocates as an academic complement to their campus service. It focuses on theories related to their role and reflects on their applied understanding throughout the semester by answering the Ursinus Quest questions individually and as a group. This course integrates theory and research in classroom discussion with application and skill development in a professional setting. It seeks to develop the core skills needed to make them a better leader, role model, activist, and team member in a career within the health and social work fields. All students must pass the national exam to become Certified Peer Educators (CPE). Students may repeat this course for credit. Prerequisites: Acceptance into the Peer Advocate or Peer Education programs and permission of the instructor. Graded S/U. *One semester hour.*

IDS-055. Media on Main – A Student-Run Venture

This course allows students to cooperatively operate Media on Main, an Ursinus digital marketing agency, under the guidance of the Entrepreneur-in-Residence. Through an authentic learning experience, students develop an entrepreneurial mindset that focuses on action and ethical considerations. This work-oriented experiential learning opportunity encourages students to effectively communicate with and be accountable to external stakeholders, collaborate among teams, manage facets of a business, execute project plans independently, create digital media, and use digital tools. This course is open to all students and may be taken more than one time for credit. Graded S/U. *One hour per week. One semester hour. (XLP, if taken three times)*

IDS-060. Theory and Practice of Pedagogical Partnership

This course is a required component for Teaching and Learning Institute Student Consultant Program as an academic complement to their pedagogical partnerships. The course will cover directed readings and reflection on topics relating to theory and practice of pedagogical partnerships. Students will work closely with the Director(s) of the Teaching and Learning Institute by reading about, discussing, and implementing practices related to pedagogical partnership. Students may repeat this course up to four times for credit toward graduation. Prerequisites: Acceptance into the Teaching and

Learning Institute Student Consultant Program and permission of the instructor. Graded S/U. *One semester hour*.

IDS-089. Science and Mathematics in Society

This course is designed as an interdisciplinary academic component for "Fellowships in the Ursinus Transition to an Undergraduate Research Experience" (FUTURE) students participating in the "Center for Science and the Common Good" (CSCG) summer research program. Topics will include exploration of the intersection of science and mathematics on society. The class will reflect on ethical issues related to research in science and mathematics and on how science and society influence each other. Students will explore how scientists and mathematicians in different disciplines approach research questions and how scientific papers are written. The course meets during the summer and a final paper is due during the fall semester. Prerequisites: Permission of the instructor. Graded S/U. *One semester hour*.

IDS-095. Topics in Global Film

This course is offered in conjunction with the International Film Festival, which takes place in the Fall Semester. The festival presents six films, one for each of the six languages offered at Ursinus: Arabic, Chinese, French, German, Japanese and Spanish. The films are subtitled in English. The festival is usually organized around a theme, such as childhood and adolescence, gender and sexuality, war and conflict, or social justice, but may also present a genre, such as musicals or documentaries. Students are required to attend screenings of all six films, plus one additional film about the theme or topic of the festival, and participate in discussion after each screening. Students are also required to post on a discussion board. This course may be taken more than once for credit. Three hours per week (screening and discussion). Graded S/U. *One semester hour. (LINQ)*

IDS-099. Topics in Diversity

The exploration of readings, other texts, traditional or not, and activities related to diversity. Sample topics are issues concerning race, ethnic identity, sexual orientation, gender, or religion. This course is graded S/U. One hour per week. *One semester hour*.

IDS-110. Topics in Interdivisional Studies

This course will focus on a topic that is interdisciplinary in nature and is not covered in a similar fashion in other courses in the curriculum. Topics will vary, and students may repeat course when topics differ. Four hours per week. *Four semester hours*.

IDS-120. Introduction to American Culture for International Students

This course is to be taken during the first year at Ursinus by foreign students, including exchange students, in order to introduce them to the history, society and culture of the United States and the Philadelphia region. Assignments will provide practice in the structure and style of academic English, including oral and written communication. Limited to international students who are not native speakers of English. This course fulfills the core requirement in language for eligible students if approved by the chair of the Department of Modern Languages. Three hours per week plus one hour of additional work. *Four semester hours*.

IDS-130. COVID Public Health

Readings on the epidemiology, physiology, sociology, and politics of COVID-19. Ends with the development of guidelines for specific measures to control the spread of COVID-19 on the Ursinus campus, and a personal reflection by each student in the context of the four questions of Ursinus QUEST. Students completing this summer

online course will be eligible to participate in a COVID Student Health Corp on campus in the fall and spring semesters. Readings and quizzes over the span of 10 weeks in the summer. Prerequisite: permission of the instructor. Graded S/U. *Two semester hours.*

IDS-131. COVID Campus Health Corps

Alumni of IDS-130 will practice experiential learning by engaging in the following activities on campus in cooperation with the office of Student Affairs: educating about and advocating for safe behaviors on campus, monitoring student health (temperature checks), engaging in contact tracing. Occasional readings as appropriate. End-of-term reflection by each student in the context of the four questions of Ursinus QUEST. Three hours per week. Prerequisite: IDS-130. Graded S/U. Can be taken twice. *One semester hour.*

IDS-140. Career and Post-Graduation Planning

This course will introduce a career management model intended to provide the resources and skills necessary to manage decisions about careers, academic major choice, and graduate school planning. Career development theories will be considered within the context of The Four Questions. Students will explore college experiences, interests, skills, and values and learn how to apply self-knowledge to make decisions related to careers and graduate school. The course follows a comprehensive career management model to guide career decision making and development. Open to sophomores, juniors, and seniors. Graded S/U. Two hours per week. *Two semester hours*

IDS-201, 202, 203. Independent Study

Guided independent study involving more than one academic discipline for sophomores, juniors, seniors and second-semester freshmen. Projects will result in a major paper or creative project. The project proposal requires two faculty sponsors. *Four semester hours. (XLP.)*

IDS-210. Study Abroad Pre-departure Orientation

This course, required of all students approved by the College to participate in a semester or academic year-long study abroad program, is designed to help students prepare for the academic, intellectual, and personal challenges associated with study abroad. The course meets for 75 minutes per week during the last seven weeks of the semester. Students preparing to study in Japan take EAS-398 in lieu of this course. *One semester hour.*

IDS/GWSS/PSYC-214. Human Sexuality

A multidisciplinary study of the development and expression of human sexuality through the ages, across cultures, and through the lifespan of the individual. Topics include how is “having sex” defined, sexual anatomy and physiology, sexual behaviors and response cycles, development of gender identity, sexual orientations, relationships, atypical sexual practices, sexual dysfunctions, sexually transmitted infections, contraceptive methods, conception and birth. A working knowledge of sexual intelligence will be developed. Prerequisite: PSYC-100. Three hours per week. *Four semester hours.*

IDS-224. Human Rights and the Korea Experience

Students will explore matters related to human rights in the context of Korean history and culture in this faculty-led program in South Korea. Topics include the philosophy and history of concepts of human rights, human rights abuses and war on the Korean peninsula, rights against torture, women’s and LGBTQ rights, disability rights, reproductive rights, adopted children’s rights, aging people’s rights, and other issues.

The course includes visits to relevant sites and institutions. Generally offered over three weeks in May and June. No prerequisites. *Four semester hours. (GN, LINQ, O, XLP.)*

IDS/MCS-256. Decoding Science

This course teaches students the art of critically reading primary research articles and translating them into news articles, policy papers and advocacy pieces for non-science audiences. Three hours per week. *Four semester hours.*

IDS-290. Writing, Pedagogy, and Society

Students will explore theories about how to teach and tutor writing and speaking; how the writing process works; how writing centers can best support students and college communities; and how diverse educational, socio-economic, and linguistic backgrounds affect student learning and writing. Putting theory into practice through hands-on tutoring exercises and/or civic engagement, students will become prepared to work as Writing Fellows, either in the Center for Writing and Speaking or in partnership with faculty in writing-intensive courses. Prerequisite: permission of the instructor. Three hours per week. *Four semester hours. (O, SS.)*

IDS-301. Directed Readings

This course can be taken either as an individualized tutorial or as a group readings course. Students and faculty collaborate in designing a reading list of interdisciplinary materials and writing projects appropriate to the number of semester hours for which the course is being taken (eight to ten pages of formal and informal writing per credit hour). Permission of instructor required. *Two to four semester hours.*

IDS-381. Internship

Open to juniors and seniors of any major. This internship is of an interdisciplinary nature or otherwise falls outside the student's major department. Interns must engage a faculty advisor in a relevant department. Other qualifications are the same as for traditional internships. Students must document their experience according to the requirements delineated in the College catalogue section on Internships. Term will be designated by one of the following letters, which will be added immediately after the internship course number, A (fall), B (winter), C (spring) or D (summer). Internships undertaken abroad will be so indicated by the letter XLP. The intern must log a minimum of 120 hours of work. Graded S/U. *Three semester hours. (XLP.)*

IDS-382. Internship

Open to juniors and seniors of any major. This internship is of an interdisciplinary nature or otherwise falls outside the student's major department. Interns must engage a faculty advisor in a relevant department. Other qualifications are the same as for traditional internships. Students must document their experience according to the requirements delineated in the College catalogue section on Internships. Term will be designated by one of the following letters, which will be added immediately after the internship course number, A (fall), B (winter), C (spring) or D (summer). Internships undertaken abroad will be so indicated by the letter XLP. The intern must log a minimum of 160 hours of work. Graded S/U. *Four semester hours. (XLP.)*

IDS-402. What Will I Do?

A multidisciplinary course that asks students to bring to bear, on a special topic, the habits and skills of analysis and constructive thought that they have accumulated through other courses in the core curriculum. Students will bear the responsibility for collaboratively constructing the second half of the syllabus. Open to third- and fourth-year students. Two hours per week. *Two semester hours. (CCAP.)*

IDS-491. Research/Independent Work

Individual investigation of an interdisciplinary topic. Open to candidates for interdepartmental honors and to other students. *Four semester hours. (XLP.)*

IDS-492W. Research/Independent Work

Continuation of IDS-491. *Four semester hours. (XLP.)*

Washington Internship Institute

The Washington Internship Institute (WII) program has three components all of which must be taken concurrently and combine for a total of 14 credits (for the 15-week semester program) or 9 credits (for the 10-week summer program). The academic course forms the theoretical framework for the entire experience and is selected from one of several thematic tracks (IDS-361, 362, 363, 364, or 365). The academic course of the student's choosing is accompanied by an internship seminar (IDS-360) common to all program participants and is rounded out by an intensive internship placement in a relevant organization (IDS-386).

All WII participants take the following:

IDS-360. Washington D.C Internship Seminar

This course will explore how principles of active global citizenship can both advance your professional and career goals while also enabling you to serve as a leader in a rapidly globalizing community. This seminar is designed for small group interaction, reflection, and peer critiquing in order to enhance communication skills and the professional skills needed to transition from undergraduate course work into career-intensive tasks. At the end of the term, students will document their learning in accordance with the Essential Learning Outcomes described in the American Association of Colleges and Universities Liberal Learning and America's Promise (LEAP) Initiative by preparing posters to present at the Active Learning and Global Citizenship Forum. Co-requisites: IDS-386 and one of the following: IDS-361, 362, 363, 364, or 365. The term will be noted by one of the following letters, to be added immediately after the course number: A (fall), C (spring), or D (summer). Graded S/U. Three hours per week. *Two credit hours for semester seminar; one credit hour for summer seminar.*

All WII participants select one of the following courses which determines the thematic focus and placement options of the internship:

IDS-361. Environmental and Sustainability Policy Studies

This class will examine how the United States' environmental and energy policies are made; who and what influences policy; and the scope and breadth of some of those policies. While the class will focus on U.S. policy positions on matters such as climate change, energy, and endangered species, the international aspects of these issues

cannot be ignored and will also be addressed. Co-requisites: IDS-360 and 386. The term will be noted by one of the following letters, to be added immediately after the course number: A (fall), C (spring), or D (summer). Graded S/U. Three hours per week. *Four credit hours for semester course, two credit hours for summer course.*

IDS-362. Global Health Policy Studies

This course offers students the opportunity to look at the issues surrounding global health and the institutions and global structures that actively shape them. Students in this track enjoy close proximity to the National Institutes of Health and the Johns Hopkins University Hospital and will combine their academic study with an internship in the field of global health studies. Co-requisites: IDS-360 and 386. The term will be noted by one of the following letters, to be added immediately after the course number: A (fall), C (spring), or D (summer). Graded S/U. Three hours per week.*Four credit hours for semester course, two credit hours for summer course.*

IDS-363. Global Women's Leadership Development

In this course students will explore assumptions about gender worldwide alongside race, ethnicity, culture, sexuality, class, generation and other aspects of identity and community. Readings draw from texts in anthropology, history, sociology and cultural studies and serve to help students analyze policy papers, advocacy efforts, news media and other sources in order to identify obstacles to women's equitable global leadership, as well as avenues for encouraging women to be policy leaders. Co-requisites: IDS-360 and 386. The term will be noted by one of the following letters, to be added immediately after the course number: A (fall), C (spring), or D (summer). Graded S/U. Three hours per week.*Four credit hours for semester course, two credit hours for summer course.*

IDS-364. Inside Washington: Politics and Policy

This course has three primary goals: (1) to teach students the analytical, statistical, and political skills important for policy analysis; (2) to introduce them to a series of specific policy areas, and (3) to improve policy writing skills in various formats. The work in this course will be similar to that produced in a think tank, but the skills are applicable to a wide range of contexts. Co-requisites: IDS-360 and IDS-386. The term will be noted by one of the following letters, to be added immediately after the course number: A (fall), C (spring), or D (summer). Graded S/U. Three hours per week.*Four credit hours for semester course, two credit hours for summer course.*

IDS-365. International and Foreign Policy Studies

This course employs theories and concepts, the study of institutional architecture, and an examination of contemporary and historical issues in order to address questions about the role of the United States, its policies and practices and relations with allies and rivals. A running simulation of the National Security Council will challenge students to synthesize theory and institutions as they make decisions about how to respond to ongoing crises. Co-requisites: IDS-360 and 386. The term will be noted by one of the following letters, to be added immediately after the course number: A (fall), C (spring), or D (summer). Graded S/U. Three hours per week.*Four credit hours for semester course, two credit hours for summer course.*

All WII participants pursue a full-time internship. Individual placements are determined by the thematic track selected by the student and are made in consultation with WII staff.

IDS-386. Washington, D.C. Intensive Internship

The Washington Internship Institute's academic internship program is carefully designed to provide participants with practical, hands-on experience and academically rigorous courses emphasizing **public service, leadership, and professional development.** Interns spend four full days per week at an internship site in an area of special interest in a government office, nonprofit organizations, or for-profit company. Open to rising juniors and seniors. The term during which the internship work is performed will be noted by one of the following letters, to be added immediately after the internship course number: A (fall), C (spring), or D (summer). The intern completes 32 hours of work per week. Prerequisites: Students must apply to and be approved to participate in this program by the College committee that oversees it. Contact Career Services to learn how to apply. Co-requisites: IDS-360 and one of the following: IDS-361, 362, 363, 364, or 365. Graded S/U.*Eight credit hours for semester internship, six credit hours for summer internship. (XLP.)*

IDS-405. Who Do I Want to Be: Reflections on Your Ursinus Education from CIE to CCAP

In this course, students will reflect upon their growth over their time at Ursinus relative to the four questions through re-engagement with some CIE texts as well as with new texts that invite students to think about the purposes and experiences of liberal education. Students will be asked to consider: how has Ursinus helped you to think about your values, who you are, and where you want to go next in your future? In addition to reflecting on Ursinus's four questions, students will be asked to identify the questions that matter most to them and to think about the experiences that have most shaped them. Graded S/U. *Four semester hours. (CCAP.)*

IDS/GWSS-441. What Will I Do? Kin and Care

This course is a CCAP that considers "What will I do?" through exploration of families and parenting, and students' hopes and plans for their own families as they prepare for life after Ursinus. Beginning with a return to select CIE texts, the course then examines the present and future of family life through close readings of texts from the social sciences, journalism, and literary fiction. Themes addressed include climate change, gender and sexuality, labor, race, religion, and violence, among others. Students will reflect on their own desires and concerns regarding family and children, considering how those desires and concerns emerge from their own lived experiences and current social, environmental, and economic conditions. They will also contemplate the kinds of futures, individual and collective, in which they might construct and sustain their own families. Three hours per week. *Four semester hours. (CCAP, O.)*

Latin American Studies

Faculty

- *Associate Professors Cornelio, Evans, Ko (Coordinator), Shuru, Tierney, Wynne; Assistant Professors Fadellin, Kauffman-Berry; Visiting Instructor Davis.*

- Latin American Studies is an interdisciplinary minor that allows students to focus their studies on the literature, culture, arts, history, politics, and language of Latin America and the Caribbean, which includes Spanish-speaking, Francophone, and Lusophone countries of the Americas and Latino/a communities within the United States. The study of Latin America and the Caribbean not only offers insights into this region's many cultures but also deepens knowledge of U.S., European, and African history, culture, politics and international relations. In addition to taking courses offered at Ursinus, students are strongly encouraged to participate in a study abroad program in Latin America.

  ### Requirements for Minors

  A minor concentration in Latin American Studies consists of 20 credits. Required of all minors are LAS-200 or SPAN-251 and LAS-332. Twelve additional credits may come from the following courses: ANTH-221, 226; ANTH/HSOC-283; ART-220, 230, 240, 280, 320, 330, 340, 380; HIST- 307; LAS-215; SPAN-317, 251, 252; POL-343, 344, 345, 348. In addition, credit will be accepted from the following courses if the topic is on Latino/a and/or Latin American topics: ART-250, 350; FS-250, HIST-150, 250, 350; POL-299; SPAN-340. Other relevant topics courses in other departments and in study abroad programs will also count towards the minor with the approval of the coordinator. The minimum language requirement for minors is FREN- or SPAN-111, 112 or the equivalent. These courses do not count towards the course requirements for the minor. Students may also fulfill the language requirement with intermediate proficiency in other regional languages with the approval of the program coordinator.

Courses

- **LAS-100. Introduction to Latin American Studies**

An examination of the major social, political, and cultural issues that surrounded the formation of what we understand today as “Latin America.” The course follows a chronological framework from the arrival of the Europeans to the present, and attempts to understand the major developments of Latin American history by analyzing the ideological, social, and political debates and events that occurred on both sides of the Atlantic. Some of the major issues covered are the first encounters between Europeans and the native population, the violent colonization and transformation of Latin America, contemporary race relations, indigenous movements, and Latin America’s complicated relationship with the United States. The language of instruction is English. Three hours per week.*Four semester hours. (DN, GN.)*

Note: Students who have completed LAS-200 cannot enroll in LAS-100.

LAS-215. U.S. Latino/Latina Literature

An introduction to the works of U.S. Latino and Latina authors writing in English in the United States. Emphasis will be on political, social and economic conditions surrounding the literary experiences within the Chicano, Puerto Rican, and Cuban-American communities in the United States. Concepts such as assimilation, transculturation, racism, gender, ethnicity, language and identity will be examined. The language of instruction is English. Prerequisite: CIE-100. Three hours per week. *Four semester hours. (DN.)*

LAS-250. Topics in Latin American Studies

An interdisciplinary approach to the study of Latin America. Topics may include such issues as class, gender, and race relations as reflected in the history, politics, society, and literature and culture of Latin American nations. If this is a film topic, a two-hour screening may be required. The language of instruction is English. Course can be taken more than once as long as the topic is different Three hours per week. *Four semester hours. (GN.)*

Note: Students who have completed LAS-332 cannot enroll in LAS-250.

- Latin American Studies Program

Legal Studies

Faculty

- *A. Marks (Coordinator)*

- Legal Studies is an interdisciplinary minor through which students think critically about the law. Law embodies much of a society's answer or answers to the question, how should we live together? Traditionally, the study of law, or jurisprudence, has been not a narrow technical or pre-professional training but rather a study of the reasons behind laws, one approached especially by means of philosophy and political theory but today also approached by means of the social sciences and even literature. Understood in this sense, the study of law is an integral part of liberal education. The legal studies minor allows students to understand better the numerous ways in which law directs and is affected by society, the government, and individuals. And it develops critical thinking, writing, and speaking skills, which are important elements of a liberal education. Courses are drawn from the departments of philosophy and religious studies, politics, anthropology and sociology, media and communications, and psychology. The minor is a valuable supplement to a variety of undergraduate majors.

  Requirements for Minors

  A minor in Legal Studies consists of 20 credits. All students must take POL-218 and one of the following three courses: POL-320, 321, or 322. It is strongly recommended that one of these three 300-level courses be taken among the first 12 credit hours of the minor. The remaining credits must come from the following: ENVS/POL-326, ENVS/SOC-220; MATH/PHIL-260; MCS-201, 307, 315, 330, 358; PHIL-240; PHIL/POL-237; POL-310, 314, 316, 320, 321, 322, 325, 330, 356; PSYC-262. No more than 12 credits toward the Minor can come from or be cross-listed in a single department. Internships, seminars, special topics courses, and up to four credits of independent study projects above the 100- level may be substituted for the courses listed above with the approval of the course instructor and the coordinator of Legal Studies. For Politics majors wishing to minor in Legal Studies, no more than eight of the 20 credits for the minor can count toward the major.

Pre-Law Website

Marine Science

- *Associate Professor Joseph (Coordinator).*

- Marine science is an interdisciplinary minor designed for students interested in oceanography and related fields. Incorporating aspects of biology, environmental/geological science, and environmental studies, this minor program provides students with the opportunity to develop knowledge about oceanic processes and organisms, including important intersections of human-ocean systems. A minor in marine science consists of 28 credits plus an applied learning experience. Required courses include:

  Foundational Studies (2 of 2)

  - BIO-101
  - ENVS-100

  Marine Systems Basics (2 of 2)

  - BIO/ENVS-330
  - ENVS-372

  Marine Life (1 of 2)

  - BIO/ENVS-360
  - BIO/ENVS-375

  Oceans and People (1 of 2)

  - ENVS-266
  - ENVS-364

  Related Systems (1 of 5)

  - ENVS-268
  - ENVS-370
  - BIO/ENVS-415W (F'24 or after)
  - BIO/ENVS-419W
  - Courses from any of the above listings not already used for one of the Marine Science requirements

Marine-Focused XLP

- XLP or similar experience, germane to marine science (see additional information below)

Special topics and other new courses may count towards the marine science minor with permission of the marine science coordinator. Similarly, courses taken during a study abroad or off campus program may also count towards the minor with approval from the marine science coordinator.

For Biology or Environment and Sustainability majors or minors (or BIO/ENVS double majors) at least 12 of the 28 credits for the marine science minor must be in addition to credits already counting towards a BIO and/or ENVS degree (major, minor, or double major in BIO/ENVS). Credit-bearing XLP's do not count towards these 12 credits.

To fulfill the minor, students must also complete an experiential learning project (XLP) or similar experience, the focus of which is germane to marine science. Options include: IDS-381, IDS-382, ENVS-381, ENVS-382, ENVS-481, ENVS-491, BIO-382; BIO-481, BIO-485, BIO-491, Summer Fellows research, or other non-XLP experience approved by the marine science coordinator (and director or advisor of the experience, as needed). A 3- or 4-credit accumulated sequence of ENVS-391/ENVS-392 or BIO-391/BIO-392 that leads to a coherent project progression within the field of marine science may also fulfill this requirement, with approval from the marine science coordinator and the overseeing research faculty member.

Students who plan to continue on in fields of marine science/oceanography after graduation are advised to select a marine science advisor who is most closely related to their field of interest and to work with this advisor to determine the courses that may be recommended for continuing on in this field. Stat-141Q, taken concurrently with Stat-142, is recommended for all marine science minors.

Mathematics, Computer Science and Statistics

Faculty

- *Professor Scoville (Chair); Associate Professors Kozhushkina, Mongan, Montesinos-Yufa, New, Sadowski; Assistant Professors Grossbauer, Takyi; Visiting Assistant Professor Grippo; Instructors Adam, Henry, Krise.*

- The Ursinus Department of Mathematics, Computer Science, and Statistics offers majors in both mathematics, computer science, and statistics. It also offers minors in computer science, mathematics, statistics, biostatistics and scientific computing. The mathematical sciences make significant contributions to society, engineering, medicine, physics, economics, and politics, and to other fields in the sciences and social sciences. The programs in the Department of Mathematics, Computer Science, and Statistics provide students with the tools for analyzing and organizing data, as well as the theoretical underpinnings for modeling important and interesting concepts. These programs provide strong backgrounds in logical reasoning, excellent analytical skills, and the ability to learn new techniques and technologies. All of these attributes are sought after in current and emerging fields and careers.

  For students majoring in mathematics, computer science, or statistics, the department aims to provide preparation for (1) continued study at the graduate level; or (2) effective teaching in the secondary schools; or (3) employment in business, industry, statistics, computing, or actuarial sciences. For other majors, it seeks to provide the mathematical competence required by the increasing quantitative and analytical emphasis required in many disciplines and careers.

Computer Science

Upon graduation students majoring in computer science should be able to:

- Engineer multiple-component systems that solve real-world problems
- Program, test and debug in a variety of languages

- Learn new technologies and tools on their own
- Design, implement and analyze algorithms and data structures
- Describe the concept of computability
- Communicate to technical and non-technical audiences, verbally and in writing
- Work independently and in groups
- Articulate the social and ethical issues pertaining to the creation and use of technology

Requirements for Majors

A student majoring in computer science is required to take:

- CS-173, 174, 271, 274
- CS-373 or 374
- CS-375
- CS-350 or MATH-350
- At least three other computer science courses at the 300- or 400-level, one of which must be a 400-level capstone course
- MATH-236W
- One other course in mathematics numbered 112 or above, excluding MATH/PHIL-260.

Internships (CS-381, 382) and one-credit and two-credit research/independent work courses (CS-391-392) do not fulfill any requirements for the major. Computer Science majors can fulfill the requirement for an oral presentation in the major by taking CS-350 or MATH-350 and the capstone requirement by taking one of the following: CS-474, 475, 476, 477, or 492W.

While CS-394 always fulfills the ILE requirement for the college, CS-394 may satisfy an elective requirement for the major only with prior permission of the department chair.

Regardless of track, students must ensure that the major requirements are completed. The following tracks are intended to provide guidance for special career interests, not to substitute for the major requirements.

Track 1. Specialization in Software Engineering Students interested in software engineering should take CS-377, 474, either 476 or 477, and should complete at least one internship (CS-381 or 382).

Track 2. Specialization in Theoretical Computer Science Students interested in theoretical computer science should take CS-373, 374; MATH-235, 341, and 361. This track will be particularly useful for students who are interested in pursuing graduate study in computer science.

Track 3. Specialization in Game Design Students interested in working in the game industry should take ART-110; 225; CS-377, 476, 477; MATH-235, 361; DIGS-250; and should consider a minor in media studies or studio art.

Track 4. Specialization in Machine Learning Students interested in machine learning should take CS-372, 377, 477; STAT-141Q, 242; MATH-235, 341, 361; and independent study or independent research project in data mining is also recommended.

Track 5. Specialization in Systems Students interested in systems should take CS-376, 377, and 475.

Recommendations for Majors

Students are encouraged to elect either a minor in another discipline or additional courses in mathematics, statistics and computer science. The latter is especially recommended for students planning to do graduate work in computer science or related disciplines. Additional recommended mathematics courses are MATH-112, 211, 235, 310, 341, 361 and 413, and STAT-141Q. Recommended ancillary courses are PHYS-111, 112, and introductory and intermediate-level economics courses.

Requirements for Minors

A minor in computer science consists of CS-173, 174; and three additional courses chosen from MATH-236W, CS-271, 272, 274, 372, 373, 374, 376, 377, 472, 474, 475, 476, 477.

Mathematics

Requirements for Majors

Upon graduation students majoring in mathematics should be able to:

- Organize and synthesize evidence to identify patterns and formulate conjectures
- Demonstrate mastery of the standard proof techniques
- Solve problems with mathematical components, and use standard software packages when appropriate
- Communicate to technical and non-technical audiences, verbally and in writing
- Work independently and in groups
- Articulate the importance of mathematical and analytical reasoning as a fundamental skill that is one of the hallmarks of a liberal education

A student majoring in mathematics is required to take:

- MATH-112, 211, 235, 236W, 311, and 335
- CS-350 or MATH-350
- At least four other mathematics courses at the 300- or 400-level, one of which must be a 400-level capstone course. MATH-400 does not count as an elective towards the math major.
- CS-173

Internships (MATH-381, 382), one-credit and two-credit research/independent work courses (MATH-391-392), and MATH-400 do not fulfill any requirements for the major. Mathematics majors fulfill the requirement for an oral presentation in the major by taking MATH-350 or CS-350 and the capstone requirement by taking one of the following: MATH-413, 421, 434, 442 or 492W.

While MATH-394 always fulfills the ILE requirement for the college, MATH-394 may satisfy an elective requirement for the major only with prior permission of the department chair. A student who is not prepared to take MATH-112 will need to take MATH-111.

Regardless of track, students must ensure that the major requirements are completed. The following tracks are intended to provide guidance for special career interests, not to substitute for the major requirements.

Track 1. Specialization in Pure Mathematics Students interested in Pure Mathematics should take MATH-312, 336, 411 and 421. This track will be particularly useful for students who are interested in pursuing graduate study in in pure mathematics or other theoretical fields.

Track 2. Specialization in Applied Mathematics Students interested in Applied Mathematics should take MATH-312, 413, 434 and 442. This track will be particularly useful for students who are interested in pursuing graduate study in all areas of applied mathematics and for students planning to seek jobs in industry or government. Additional courses in the sciences or social sciences are recommended.

Track 3. Requirements for Students Pursuing Teaching Certification in Mathematics Students preparing for secondary teaching must major in mathematics, and take MATH-322, 341, and 442 to satisfy the mathematics part of the certification requirements. In addition, the topic of the student's MATH-350 oral presentation must be on some aspect of the history of mathematics. As many of the following as possible are strongly recommended: MATH-310, 434, and STAT-141Q, 242. If the student can take STAT-141Q and 242, they should be taken before MATH-341 and 442. Details may be obtained from the Mathematics and Computer Science Department or Education. Those students preparing for secondary teaching should consult the Ursinus College Education Department. There is both a departmental and college minimum GPA requirement for student teaching.

Pre-Engineering

Students interested in pursuing pre-engineering should contact the departmental chair at the earliest opportunity to plan a program of study.

Actuarial Science

Due to the interdisciplinary nature of actuarial science, interested students are also encouraged to speak with departmental faculty early in their Ursinus career about the possibility of a student-initiated major in actuarial science and/or additional courses that may be relevant to actuarial science. Regardless of track, students must ensure that the

major requirements are completed. The following tracks are intended to provide guidance for special career interests, not to substitute for the major requirements.

Track 1. Specialization in Pure Mathematics
Students interested in Pure Mathematics should take MATH-312, 336, 411 and 421. This track will be particularly useful for students who are interested in pursuing graduate study in in pure mathematics or other theoretical fields.

Track 2. Specialization in Applied Mathematics
Students interested in Applied Mathematics should take MATH-310, 341, 361, 413, and 442. This track will be particularly useful for students who are interested in pursuing graduate study in all areas of applied mathematics and for students planning to seek jobs in industry or government. Additional courses in the sciences or social sciences are recommended, as is minoring in computer science and/or statistics.

Track 3. Specialization in Business and Industry
Students interested in entering the workforce immediately upon graduation should consider taking: CS-174, CS-375, STAT-141Q, MATH-310, 341, 442 as well as courses offered in the Business and Economics and the Media and Communication studies departments. A management studies minor is strongly recommended.

Recommendations for Majors

Students are encouraged to elect either a minor in another discipline or additional courses in mathematics, statistics and computer science. PHYS-111 and 112, are recommended.

Requirements for Minors in Mathematics

A minor in mathematics consists of MATH-112, 211, 235; and two additional courses in mathematics chosen from MATH-236W, 310, 311, 312, 322, 335, 341, 361, 411, 413, 421, 434, 442, 451, 452.

Statistics

Requirements for Majors in Statistics

A student majoring in statistics is required to take:

- MATH-112
- STAT-141
- STAT-142
- MATH-211
- MATH-235
- STAT-240 or DATA/STAT-150
- STAT-242W or STAT-243W
- MATH-341
- STAT-342
- STAT- 350, CS-350 or MATH-350
- MATH-442
- STAT-443W
- At least two of the following: MATH-311, MATH/STAT-343, STAT- 244, STAT-444, CS-377, CS-477, ECON-300Q

Internships (STAT-381, 382) and one-credit and two-credit research/independent work courses (STAT-391-392) do not fulfill any requirements for the major. Statistics majors can fulfill the requirement for an oral presentation in the major by taking STAT-350, CS-350, or MATH-350 and the capstone requirement by taking STAT-443W. While STAT-394 always fulfills the XLP requirement for the college, STAT-394 may satisfy an elective requirement for the major only with prior permission of the department chair.

Requirements for Minors in Statistics

A minor concentration in statistics consists of:

- STAT-141Q, 142, 240
- STAT-242W or 243W
- Two additional courses selected from among MATH-341, 442; DATA/STAT-150, STAT-244, 342, 343, 382, 441, 451; or 4 credit hours of independent study/research consisting of any combination of STAT-391, 392, and 394.

Requirements for Minors in Biostatistics

A minor concentration in biostatistics consists of

- One course in an area of application selected from among BIO-101Q, 102Q; PSYC-100; HS-100; or ENVS-100
- STAT-141Q, 142, 240, 243W

- one course selected from among STAT-342, 384, or 441.

Computational Biology

Computational biology is an interdisciplinary minor consisting of courses in biology, computer science, and statistics. It is only available for students majoring in either biology, BCMB, computer science, or statistics.

Requirements for Minors in Computational Biology (Biology or BCMB Major, 25 Credits)

- CS-173, 174, 274
- STAT-141, 142, 243
- DATA/STAT-150 or STAT-240

Requirements for Minors in Computational Biology (Computer Science Major, 25 Credits)

- STAT-141, 142, 243
- DATA/STAT-150 or STAT-240
- BIO-101, 101L, 102, 102L
- BIO-201W or 225

Requirements for Minors in Computational Biology (Statistics Major, 24 Credits)

- CS-173, 174, 274
- BIO-101, 102,
- BIO-201W or 225

Courses

• Computer Science

CS-010. Computational Problem Solving

This workshop course offers a structured environment for helping students become better and more efficient computational problem-solvers. Focus is on the computing techniques and tools for advanced productivity in the rapid development of software, and on providing an equitable and inclusive computing environment for collaborative problem solving. May be repeated four times for credit toward graduation. Graded S/U. One hour per week *One semester hour*.

CS-170Q. Programming for the World around Us

An introduction to programming and computer science as a tool for solving problems, automating work, and analyzing and working with data. The course introduces Python and studies its applications in various domains including bioinformatics, the physical sciences, business, and humanities by looking at a variety of problems drawn from these domains. The lab will involve the implementation of algorithms and analysis on data sets drawn from these areas. Also, the ethics of data use are covered via discussion of relevant articles and media. No prior programming experience is assumed. Offered every Fall. Three hours of lecture and one hour of laboratory per week. *Four semester hours. (R.)*

Note: *CS-170Q may not be used as elective credits for computer science majors or minors. It cannot be taken for credit after or concurrently with any other computer science course, including AP Computer science.*

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CS-173. Introduction to Computer Science

Introduction to the field of computer science. Topics include: methods for computational problem solving, algorithm development techniques, processes for development of new technologies, and programming projects of increasing complexity in a high-level language with emphasis on good programming style. The course also includes exposure to advanced topics in computer science such as graphics, human-computer interaction, and software engineering. Recommended for students in mathematics; business and economics; and the natural sciences. No prior computer programming experience is assumed. Offered every semester. Three hours of lecture and one hour of laboratory per week. *Four semester hours. (Q, R.)*

CS-174. Object-Oriented Programming

A continuation of CS-173. More detailed exploration of classes and instances. An introduction to collection classes such as vectors, arraylists, linked lists, stacks, queues, maps, sets, and trees. Larger programs and/or team projects. Prerequisite: A grade of C– or higher in CS-173. Offered every semester. Three hours of lecture and one hour of lab per week. *Four semester hours. (R.)*

CS/PHIL-243. Technology and Ethics

Data privacy, digital surveillance, data mining, self-driving cars, artificial intelligence, algorithms used by government and law enforcement, doxxing - technology raises many new and old ethical questions. In this core capstone course we use a variety of ways of asking to address these ethical questions: empirical, philosophical, political, creative, and other ways of asking. Three hours per week. *Four semester hours. (CCAP, H, O.)*

CS-271. Data Structures and Algorithms

Introduction to algorithm analysis and data structures. Complexity of algorithms, analyzing basic data structure operations, searching and sorting algorithms, tables, hashing, recursion, dynamic programming, tree and graph algorithms. Prerequisites: MATH-111 or equivalent and a grade of C– or higher in CS-174, or permission of the instructor. Offered in the fall semester. Three hours per week. *Four semester hours.*

Note: *Students who completed CS-371W can not enroll in CS-271.*

CS-272. Seminar in Computer Science I

A detailed study of a selected topic in computer science, such as computational geometry, compilers, data mining, robotics or distributed technology. May be repeated for credit. Three hours per week. *Four semester hours.*

CS-274. Computer Architecture and Organization

Hierarchical structure of computer architecture, number systems, arithmetic operations, codes, switching algebra, logic gates, assembly language programming. Prerequisite: CS-174. Offered in the spring semester. Three hours of lecture and one hour of laboratory per week. *Four semester hours.*

CS-350. Oral Presentation

A computer science oral presentation. This course will satisfy the College requirement for an oral presentation in the major. Prerequisite: written consent of a department faculty member. Graded S/U. *Zero semester hours.*

Note: *This course is usually taken in conjunction with internships (CS-381, 383) and research/independent work (CS-391-394, 491, 492).*

CS-352. Computer Science Pedagogy

This course is a collaborative service-learning effort among students with an interest in computing and in education. The course is intended to prepare pre-service teachers for certification in K-12 Computer Science in Pennsylvania, and to provide students with a research-based background in science communication and pedagogy. We explore unique aspects of educational design in a computing environment, as well as current challenges, trends, and opportunities in computing education. Particular emphasis will center upon equitable computing pedagogy and practice, and creating a classroom environment that is inclusive of diverse learning needs, culturally relevant, and learner-centric. Students will design educational activities according to pedagogical best practices, and work with K-12 teachers at local schools to deliver and assess those educational materials. Students will collectively create a portfolio of open-source curricular materials for teaching computing in the K-12 classroom for subsequent adoption and revision. Offered in the fall of odd years. Three hours per week.*Four semester hours. (LINQ with EDUC-350W.)*

CS-372. Digital Musical Audio Processing

This hands-on course will take a broad overview of how to represent, analyze, and morph/transform digital musical audio with a computer. Topics include time-domain audio processing, digital instrument synthesis (including FM synthesis), frequency domain audio processing and Fourier analysis, vocoders and cross-synthesis, audio novelty for tempo estimation / beat-tracking, pitch and timbre features, content-based music audio retrieval (e.g., version identification and the “Shazam algorithm”), automatic source separation, and audio mosaicing. Prerequisite: MATH-111 and CS-174 (or CS-173 with permission of the instructor). Offered in spring of odd years. Three hours per week. *Four semester hours.*

CS-373. Theory of Computation

Formal introduction to the limits of computation using mathematical models of computation. Topics include finite state automata, the pumping lemma, context free grammars, pushdown automata, Turing machines, recognizability and decidability, computational complexity, and the Cook-Levin theorem. Emphasis on writing proofs of theorems. Prerequisites: MATH-236W, a grade of C– or higher in CS-174. Offered in the fall of odd years. Three hours per week. *Four semester hours.*

CS-374. Principles of Programming Languages

Syntax, processors, representations and styles of programming languages. Study and comparison of several modern programming languages. Prerequisite: A grade of C– or higher in CS-174. Offered in the fall of even years. Three hours per week. *Four semester hours.*

CS-375. Software Engineering

Topics integral to the design, implementation and testing of a medium-scale software system combined with the practical experience of implementing such a project as a member of a programming team. Use of the Unified Modeling Language (UML) for software design. Prerequisite: A grade of C– or higher in CS-271. Offered in the spring semester. Three hours per week. *Four semester hours. (Q.)*

Note: *Students who completed CS-275 cannot enroll in CS-375.*

CS-376. Operating Systems

Fundamental concepts of operating systems. Sequential processes, concurrent processes, resource management, scheduling, synchronization, file systems, and computer security. Projects include writing of a program to simulate major components of an operating system. Pre- or co-requisite: CS-274. Offered in the spring of even years. Three hours per week. *Four semester hours.*

CS-377. Database Design

The concepts involved in designing and using a database management system. Logical and physical database design. Entity-Relational Modeling. Various types of database structures, manipulations of a database structure through applications, query techniques, and programming in a database language. Prerequisite: CS-271. Offered in the fall of odd years. Three hours per week. *Four semester hours.*

CS-381. Internship

An academic/work experience under the supervision of an internship adviser and an on-site supervisor. Students must document their experience according to the requirements delineated in the College catalogue section on Internships. An oral presentation to the department is required. Contact the chair of the department for further details. Open to juniors and seniors. The term during which the internship work is performed will be noted by one of the following letters, to be added immediately after the internship course number: A (fall), B (winter), C (spring), or D (summer). Internships undertaken abroad will be so indicated by the letter I. The intern must complete a minimum of 120 hours of work. Graded S/U. Prerequisites: three courses in computer science and approval of a faculty internship adviser. *Three semester hours. (XLP.)*

CS-382. Internship

An academic/work experience under the supervision of an internship adviser and an on-site supervisor. Students must document their experience according to the requirements delineated in the College catalogue section on Internships. An oral presentation to the department is required. Contact the chair of the department for further details. Open to juniors and seniors. The term during which the internship work is performed will be noted by one of the following letters, to be added immediately after the internship course number: A (fall), B (winter), C (spring), or D (summer). Internships undertaken abroad will be so indicated by the letter I. The intern must complete a minimum of 160 hours of work. Graded S/U. Prerequisites: three courses in computer science and approval of a faculty internship adviser. *Four semester hours. (XLP.)*

Note: *Students may receive credit for two internships that meet the conditions described in this catalogue.*

CS-391. Research/Independent Work

Independent investigation of an area of computer science not covered in regular courses. Prerequisite: Written consent of a department faculty member. Graded S/U. *One semester hour.*

Note: *This course may be taken more than once.*

CS-392. Research/Independent Work

Independent investigation of an area of computer science not covered in regular courses. Prerequisite: Written consent of a department faculty member. Graded S/U. *Two semester hours.*

Note: *This course may be taken more than once.*

CS-394. Independent Study

Independent investigation of an area of computer science not covered in regular courses. Students will present a proposal to a faculty member that outlines the research questions, background study, and final products of the project. It is recommended that students first pursue an exploratory independent study project with that faculty member in CS-391 or 392 as they develop this proposal. Prerequisite: Written consent of a department faculty member. An oral presentation to the department is required. *Four semester hours. (XLP.)*

Note: *This course may be taken more than once. This course always fulfills the XLP requirement for the college, but may satisfy an elective requirement for the major only with prior permission of the department chair*

CS-472. Advanced Seminar in Computer Science

A detailed study of an advanced topic in computer science that builds upon foundational study in the major. The course will cover topics similar to those listed in CS-272. May be repeated for credit. Three hours per week. *Four semester hours.*

CS- 474. Human-Computer Interaction

The study of human-computer interaction enables system architects to design useful, efficient, and enjoyable computer interfaces. This course teaches the theory, design procedure, and programming practices behind effective human interaction with computers. This course satisfies the College requirement for a capstone experience in the major. Prerequisite: CS-375. Offered in the spring semester of even years. Three hours per week. *Four semester hours.*

CS-475. Computer Networks

Architecture and protocols of computer networks. Protocol layers; network topology; data-communication principles, including circuit switching, packet switching and error control techniques; sliding window protocols, protocol analysis and verification; routing and flow control; local and wide area networks; network interconnection; client-server interaction; emerging networking trends and technologies; topicsin security and privacy. This course will satisfy the College requirement for a capstone experience in the major. Prerequisite or co-requisite: CS-274. Offered in the spring of odd years. Three hours per week. *Four semester hours.*

CS-476. Computer Graphics

A broad introduction to computer graphics via study and implementation of algorithms for 3D rendering, 3D shape manipulation, and 3D animation. Rendering topics include geometric primitives, scene graphs, 3D perspectives, ray tracing, the object-first graphics pipeline (including projection, clipping, shading, hidden surface removal, and displacement maps), antialiasing, texture maps, shadows, specular reflection, and global illumination. Shape manipulation topics include data structures for 2D surfaces (triangle meshes, subdivision surfaces, splines) and volumetric/levelset data structures (implicit surfaces). Animation topics include rotation interpolation, rigging/skinning, and particle/spring simulations. Students will also learn real-time software implementations of shading via the OpenGL Shading Language (GLSL). Prerequisites:

CS-271 or 274. Offered fall of even years. Three hours per week. *Four semester hours. (LINQ if concurrently enrolled in DIGS-250).*

CS-477. Artificial Intelligence

This course explores principles and methods for knowledge representation, reasoning, learning, problem solving, planning, heuristic search, multimedia data processing, and natural language processing. These principles are applied to problems which require building intelligent systems in a variety of domains. Ethical considerations in developing responsible AI will also be explored. This course will satisfy the College requirement for a capstone experience in the major. Prerequisite: MATH-111 or equivalent; CS-271 or 274. Offered in fall of odd years. Three hours per week. *Four semester hours. (O.)*

CS-491. Research/Independent Work

Independent research in computer science. This course is appropriate for students pursuing departmental honors and distinguished honors projects, and is open to other students interested in research in computer science. An oral presentation to the department is required. Prerequisites: Written consent of a member of the faculty to serve as an advisor. *Four semester hours. (XLP.)*

Note: *This course may be taken more than once.*

CS-492W. Research/Independent Work

Independent research in computer science. This course serves as the culminating course for departmental honors and distinguished honors projects. This course will satisfy the college requirement for a capstone experience in the major. Prerequisites: CS-491, meets college and departmental requirements for honors, and written consent of a member of the faculty to serve as an advisor. *Four semester hours. (XLP.)*

Mathematics

MATH-010. Problem-Solving

A structured seminar, focusing on problem-solving. Students are encouraged to work collaboratively and individually on challenging mathematical problems that are presented without the context of techniques from a specific course. Problem-solving skills are enhanced, through using higher level thinking and applying techniques to different problem types. Problems in the fall semester include those from past Putnam exam while in the spring semester problems are drawn largely from professional journals. May be repeated for credit. Graded S/U. Three hours per week. *One semester hour.*

MATH-105. Calculus Stretch I

Analytic geometry, the derivative and differential, polynomials, algebraic functions, exponential and logarithmic functions, limits, continuity, and applications. This course is part 1 (of 2) of a yearlong sequence in differential calculus. At the end of this two-course sequence, students will tackle all the topics above included in differential calculus. Completion of this year-long sequence is equivalent to completion of MATH-111. Four hours per week. *Four semester hours. (Q, R.)*

Note: *A student who did not place into MATH-111 will be required to take MATH-105 and 106.*

MATH-106. Calculus Stretch II

This course is the second semester of a year-long sequence in Differential Calculus. Topics in this course include trigonometry, derivatives of trigonometric functions, conic sections, implicit differentiation, and limits at infinity. The semester will conclude with the Fundamental Theorem of Calculus. Completion of this year-long sequence is equivalent to completion of MATH-111. Prerequisite: MATH-105. Four hours per week. Four semester hours.

MATH-111. Calculus I

Limits; derivatives; applications of derivatives; trigonometric, inverse trigonometric, logarithmic, and exponential functions; applications of these functions; indeterminate forms; the Fundamental Theorem of Calculus. Use of a computer algebra system. Prerequisite: Placement based on the high school record and a placement test. Offered both semesters. Four hours per week. Four semester hours. (Q, R.)

***Note:** A student who has received credit for MATH-111 may not enroll in MATH-105 or 106*

MATH-112. Calculus II

A continuation of MATH-111 or 105 and 106. Techniques of integration, applications of integration, improper integrals, polar coordinates, parametric equations, infinite sequences and series. Use of a computer algebra system. Prerequisite: Placement based on the high school record and a placement test, or a grade of C- or better in MATH-105 and MATH-106, or MATH-111. Offered both semesters. Four hours per week. *Four semester hours. (Q, R.)*

MATH-211. Multivariable Calculus

Functions of several variables, including three-dimensional geometry and vectors, space curves and motion in space, partial differentiation, multiple integration, line and surface integrals, and the theorems of Green, Gauss, and Stokes. Use of a computer algebra system. Prerequisite: A grade of C- or better in MATH-112, or permission of the department. Offered both semesters. Four hours per week. *Four semester hours. (Q, R.)*

MATH-235. Linear Algebra

Systems of linear equations, matrix algebra, vector spaces, linear transformations, eigenvectors and eigenvalues, inner products and orthogonality, applications. The computer as a computational tool. Prerequisite: MATH-112 or 236W, or permission of the instructor. Offered in the fall semester. Four hours per week. *Four semester hours. (R.)*

MATH-236W. Discrete Mathematics

A course designed to bridge the gap between computation-oriented introductory courses and proof-oriented advanced courses. The language of contemporary mathematics, including the proper way to write mathematics, and the nature of mathematical reasoning. Extensive writing projects. Topics studied may include axiomatic systems, logic, set theory, functions, mathematical induction, graph theory and trees, permutations and combinations. Prerequisite: MATH-105 and 106, or MATH-111; placement; or permission of the instructor. Offered in the spring semester. Three hours per week. *Four semester hours. (R.)*

MATH/PHIL-260. Logic

An introduction to the concepts and techniques used in symbolic reasoning, primarily through the study of first-order logic, the translation of sentences of ordinary English into a formal language, and the construction of derivations. Topics include:

formalization, proofs, mathematical induction, propositional and predicate logic, quantifiers, and sets. Three hours per week. *Four semester hours. (R.)*

MATH-310. Differential Equations and Mathematical Models

Mathematical methods for developing models in the physical, biological, and social sciences. Emphasis on models involving differential equations. Solutions, visualizations, and interpretations of first order, second order, and systems of linear and non-linear differential equations. Numerical, graphical and analytic methods, with extensive qualitative analysis approaches. Laplace transforms. Independent projects. Additional topics chosen from forcing and resonance, discrete dynamical systems, and power series solutions. Use of a computer algebra system. Prerequisite: MATH-211 and 235. Offered in the spring semester. Three hours per week. *Four semester hours.*

MATH-311W. Analysis I

An introduction to the real number system and set operations; theoretical treatment of supremum, infimum, countability, sequences, limits, continuity, and differentiability. Additional topics may include series, structure of point sets and abstract metric spaces. Emphasis on writing mathematical proofs. Prerequisite: MATH-211 and 236W. Offered in the fall semester. Three hours per week. *Four semester hours.*

MATH-312. Analysis II

A continuation of MATH-311. The Riemann and Riemann-Stieltjes integral; infinite series, sequences and series of functions; introduction to metric spaces. Additional topics may include Lebesgue measure and integration, orthogonal functions and Fourier series. Prerequisite: MATH-311. Offered as needed.Three hours per week. *Four semester hours. (R.)*

MATH-322. Modern Geometry

Topics in Euclidean and non-Euclidean geometry, including some of the following: geometry from an axiomatic viewpoint, synthetic Euclidean geometry, transformation geometry and symmetry, affine and projective geometry, inversive geometry, spherical geometry, and hyperbolic geometry. Prerequisites: MATH-235 and 236W, or permission of the instructor. Offered in the spring of odd years. Three hours per week. *Four semester hours. (R.)*

MATH-335. Abstract Algebra

An introduction to algebraic structures, with emphasis on groups: Subgroups, quotient groups, homomorphisms, isomorphism theorems, Cayley's theorem, permutation groups. An introduction to the theory of rings. Additional topics may include: series of groups, free groups, and the Sylow theorems. Prerequisites: MATH-235 and 236W. Offered in the spring semester. Three hours per week. *Four semester hours.*

MATH-336. Abstract Algebra II

An introduction to algebraic structures, with emphasis on rings: subrings, ideals, quotient rings, homomorphisms, isomorphism theorems, integral domains, unique factorization domains, Euclidean domains. Additional topics may include: fields and field extensions, Galois theory. Prerequisite: MATH-335. Offered in the fall of odd years. Three hours per week. *Four semester hours. (R.)*

MATH-341. Probability

An introduction to probability theory, discrete and continuous probability distributions, moments and moment-generating functions of random variables, and transformations of random variables. Prerequisite: MATH-211. Offered in the fall semester. Four hours per week. *Four semester hours.*

MATH/STAT-343. Math for Data

An introduction to the mathematical foundations of computational data analysis. Topics may include Singular value decomposition, principal component analysis and dimensionality reduction, gradient descent, Markov chains, logistic regression, and classification and clustering as they relate to deep learning and neural nets. Offered in the fall of odd years. Prerequisites: MATH-235 or permission of instructor. Three hours per week. *Four semester hours.*

MATH-350. Oral Presentation

A mathematics oral presentation. This course will satisfy the College requirement for an oral presentation in the major. Prerequisite: written consent of a department faculty member. Graded S/U. *Zero semester hours.*

Note: *This course is usually taken in conjunction with internships (MATH-381, 383, 384, 441) and research/independent work (MATH-391-394, 441, 491, 492W).*

MATH-361. Graph Theory

Elements of graph theory, including the study of Eulerian graphs, planar graphs, trees, connectivity, colorings, algorithms, domination, and the applications of graphs to computer science. Prerequisite: MATH-236W. Offered in the fall semester of even years. Three hours per week. *Four semester hours.*

MATH-381. Internship

An academic/work experience under the supervision of an internship adviser and an on-site supervisor. Students must document their experience according to the requirements delineated in the College catalogue section on Internships. An oral presentation to the department is required. Contact the chair of the department for further details. Open to juniors and seniors. The term during which the internship work is performed will be noted by one of the following letters, to be added immediately after the internship course number: A (fall), B (winter), C (spring), or D (summer). Internships undertaken abroad will be so indicated by the letter I. The intern must complete a minimum of 120 hours of work. Graded S/U. Prerequisites: three courses in mathematics and approval of faculty internship adviser. *Three semester hours. (XLP.)*

MATH-382. Internship

An academic/work experience under the supervision of an internship adviser and an on-site supervisor. Students must document their experience according to the requirements delineated in the College catalogue section on Internships. An oral presentation to the department is required. Contact the chair of the department for further details. Open to juniors and seniors. The term during which the internship work is performed will be noted by one of the following letters, to be added immediately after the internship course number: A (fall), B (winter), C (spring), or D (summer). Internships undertaken abroad will be so indicated by the letter I. The intern must complete a minimum of 160 hours of work. Graded S/U. Prerequisites: three courses in mathematics and approval of faculty internship adviser. *Four semester hours. (XLP.)*

Note: *Students may receive credit for two internships that meet the conditions described in this catalogue.*

MATH-391. Research/Independent Work

Independent investigation of an area of mathematics not covered in regular courses. Prerequisite: Written consent of a department faculty member. Graded S/U. *One semester hour.*

Note: *This course may be taken more than once.*

MATH-392. Research/Independent Work

Independent investigation of an area of mathematics not covered in regular courses. Prerequisite: Written consent of a department faculty member. Graded S/U. *Two semester hours.*

Note: *This course may be taken more than once.*

MATH-394. Independent Study

Independent investigation of an area of mathematics not covered in regular courses. An oral presentation to the department is required. Prerequisite: Written consent of a department faculty member. *Four semester hours. (XLP.)*

Note: *This course may be taken more than once. This course always fulfills the ILE requirement for the college, but may satisfy an elective requirement for the major only with prior permission of the department chair.*

MATH-400. Mathematics for Human Flourishing

Many people today consider mathematics a tool of the physical sciences at best and a pointless exercise in rote memorization at worst. But is there anything more to math than this? Can mathematics contribute to basic human desires such as play, beauty, freedom, justice, and love? Is there any sense in which mathematics can contribute to human flourishing? How does our view of the nature of mathematics affect things like education, personal growth, and human flourishing? This course explores ways in which mathematics can be linked to what it means to be human. Through a series of readings, both ancient and modern, covering history, philosophy, logic, and personal anecdotes, this course challenges our assumptions about how mathematics fits into the modern world and how mathematics calls us to action, even the most math-phobic. Three hours per week. *Four semester hours. (CCAP.)*

Note: *MATH-400 does not count as an elective towards the math major or minor. The course does not count towards the (R) college core requirement.*

MATH-411. Complex Numbers

Complex numbers; polar representation; stereographic projection; the exponential and logarithm functions; analytic functions; the Cauchy-Riemann Equations; fractional linear transformations; Cauchy's integral formula; the theorems of Cauchy, Liouville, Morera, and Goursat; power series expansions; the Residue Theorem. Rouche's Theorem, the Schwartz Reflection Principle, and the Riemann Mapping Theorem. Prerequisites: MATH-236W and 211. Offered in the spring semester of even years. Three hours per week. *Four semester hours.*

MATH-413. Numerical Analysis

Selected topics from numerical analysis, which may include systems of linear equations, linear and nonlinear differential equations, numerical integration and differentiation, eigenvalue problems, error analysis, interpolation and approximation. The computer will be used. This course will satisfy the college requirement for a capstone experience in the major. Prerequisite: MATH-211. Offered in the fall semester of even years. Three hours per week. *Four semester hours. (R.)*

MATH-421. Topology

Elementary point set topology; metric spaces; topological spaces, quotient spaces, compactness, and connectedness. Additional topics may include homology or the fundamental group. This course will satisfy the College requirement for a capstone experience in the major. Prerequisite: MATH- 236W. Offered in the spring semester of even years. Three hours per week. *Four semester hours.*

MATH-434. Number Theory

Divisibility; factorization; distribution of primes; modular arithmetic; Diophantine equations; theorems of Fermat, Euler and Wilson; primitive roots; public-key cryptography, quadratic reciprocity. Additional topics may include: applications to cryptography; digital signatures; algebraic and transcendental numbers; continued fractions; elliptic curves. This course will satisfy the College requirement for a capstone experience in the major. Prerequisite: MATH-236W. Offered in the fall semester of odd years. Three hours per week. *Four semester hours.*

MATH-442. Mathematical Statistics

The mathematical background of modern statistics, including the development of sampling distributions, the theory and application of estimation, tests of hypotheses. This course will satisfy the College requirement for a capstone experience in the major. Prerequisite: MATH-341. Offered in the spring semester. Three hours per week. *Four semester hours.*

MATH-451. Topics in Advanced Mathematics I

A course designed to acquaint the student with modern trends in advanced topics in mathematics and its applications. The course will be adapted to the students' preferences and needs. Prerequisite: Permission of the instructor. Three hours per week. *Four semester hours. (R.)*

MATH-452. Topics in Advanced Mathematics II

A course designed to acquaint the student with modern trends in advanced topics in mathematics and its applications. The course will be adapted to the student's preferences and needs. Prerequisite: Permission of the instructor. Three hours per week. *Four semester hours. (R.)*

MATH-491. Research/Independent Work

Independent research in mathematics. This course is appropriate for students pursuing departmental honors and distinguished honors projects, and is open to other students interested in research in mathematics. An oral presentation to the department is required. Prerequisites: Written consent of a member of the faculty to serve as an advisor. *Four semester hours. (XLP.)*

Note: *This course may be taken more than once.*

MATH-492W. Research/Independent Work

Independent research in mathematics. This course serves as the culminating course for departmental honors and distinguished honors projects. This course will satisfy the college requirement for a capstone experience in the major. Prerequisites: MATH-491, meets college and departmental requirements for honors, and written consent of a member of the faculty to serve as an advisor. *Four semester hours. (XLP.)*

Statistics

STAT-140Q. Statistical Reasoning

A study of the role of statistics in a wide variety of academic fields and in everyday life. This course is intended for students who want an appreciation of statistics, but do not imagine that they will ever need to carry out statistical analyses themselves. Emphasis is placed on the ability to interpret and critically evaluate statistical claims. Offered both semesters. Three hours per week. *Four semester hours (R.).*

Note: *This course cannot be counted toward a major or a minor in mathematics, a minor in statistics, or a minor in biostatistics. It is not a prerequisite for any other course. It cannot be taken for credit after or concurrently with any other statistics course, including AP Statistics.*

STAT-141Q. Statistics I

A study of the fundamental concepts of statistical analysis using a simulation based approach in addition to the traditional theory based approach. This course prepares students to carry out basic descriptive and inferential statistical analyses with the aid of computer software. Topics include an introduction to the nature of statistical reasoning, graphical and descriptive statistics, and design of experiments, sampling methods, probability, probability distributions, sampling distributions, and statistical inference based on confidence intervals and hypothesis tests. Examples will be drawn from a wide variety of disciplines. Offered both semesters. Four hours per week. *Four semester hours. (R.)*

Note: *This course cannot be counted toward a major or a minor in mathematics. It cannot be taken for credit after or concurrently with any other statistics course, including AP Statistics.*

STAT-142. R Lab

Introduction to the use of computer program R to implement basic statistical techniques. Topics include: graphics, correlation, t-tests, significance testing for proportions and regression. Students pursuing a statistics major or minor should take this concurrently with STAT-141Q. Offered every semester. One hour per week. *One semester hour.*

STAT/DATA-150. R for Data Science

A hands-on study of the statistical programming language R for liberal arts students. This course prepares students to collect, manipulate, analyze, and visualize real-world data using R with a focus on data science applications. A final project will consist of analyzing and visualizing CIE readings statistically. Key R packages to use include (and will not be limited to) base, readr, readxl, stringr, knitr, dplyr, dbplyr, lubridate, ggplot2, tidytext, mlr3, caret, rmarkdown, data-table, and the tidyverse suite. Examples will be drawn from various disciplines centered on students' interests. Offered in Spring. Prerequisites: STAT-142 and either CIE-100 or CIE-150 or CIE-200, or permission from the instructor. Four hours per week. *Four semester hours.*

STAT-240. Computational Statistics (SAS)

Statistical analysis using statistical software. Design, collection, organization, and storage of data sets. Statistical programming, debugging, analysis of output and interpretation of results. Prerequisite: MATH/STAT-141Q. Offered in the spring semester. Four hours per week. *Four semester hours.*

Note: *STAT-240 does not fulfill the College Core Mathematics requirement.*

STAT-242W Statistics II

A continued study of basic statistical techniques. Topics include: regression analysis, chi-square tests, nonparametric statistics, and the use of statistical software for data analysis. Prerequisite: STAT-142 and STAT-141Q or MATH-442. Offered in the spring semester. Four hours per week.*Four semester hours.*

Students may not receive credit for both STAT-242W and STAT-243W

STAT-243W Biostatistics

A study of inferential statistical techniques appropriate to the biological sciences. This course employs a case-study approach in which students use statistical software to examine real world data. Students will be required to produce statistical reports summarizing their statistical methods and results. Prerequisites: STAT-141Q and STAT-142. Offered in the fall semester. Four hours per week. *Four semester hours. (R.)*

Note: *Students may not receive credit for both STAT-242W and STAT-243W.*

STAT-244 Decision making under uncertainty

A study of the tools and processes for dealing with uncertainty. Topics include the use of prior belief in decision making, updating belief based on evidence, and some of the different methodologies for analyzing data to achieve these aims. Prerequisite: None. Offered in the Spring semester. Three hours per week. *Four semester hours.*

STAT-342. Applied Regression Models

A study of regression models. This course will begin by reviewing simple linear regression and progress to more general modeling approaches including multiple regression models and generalized linear models. Models, inferences, diagnostics, and remedial measures for dealing with invalid assumptions will be examined. Prerequisites: STAT-242W or 243W or ECON-300Q or permission of instructor. Offered in the spring semester of even years. Three hours per week. *Four semester hours.*

STAT-350 Oral Presentation

A statistics oral presentation. This course will satisfy the College requirement for an oral presentation in the major. Prerequisite: written consent of a department faculty member. Graded S/U. *Zero semester hours.*

Note: *This course is usually taken in conjunction with internships (STAT-381, 383) and research/independent work (STAT-391-394, 491, 492).*

STAT-382. Internship

An academic/work experience related to statistics conducted under the supervision of an internship adviser and an on-site supervisor. Students must document their experience according to the requirements delineated in the College catalogue section on Internships. An oral presentation to the department is required. Contact the chair of the department for further details. Open to juniors and seniors. The term during which the internship work is performed will be noted by one of the following letters, to be added immediately after the internship course number: A (fall), B (winter), C (spring), or D (summer). Internships undertaken abroad will be so indicated by the letter I. The intern must complete a minimum of 160 hours of work. Graded S/U. Prerequisites: MATH/STAT-242 or 243(W), and approval of a faculty internship adviser. *Four semester hours. (XLP.)*

STAT-384. Internship in Biostatistics

An academic/work experience related to statistics conducted under the supervision of an internship adviser and an on-site supervisor. Students must document their experience according to the requirements delineated in the College catalogue section on Internships. An oral presentation to the department is required. Contact the chair of the department for further details. Open to juniors and seniors. The term during which the internship work is performed will be noted by one of the following letters, to be added immediately after the internship course number: A (fall), B (winter), C (spring), or D (summer). Internships undertaken abroad will be so indicated by the letter I. The intern must complete a minimum of 160 hours of work. Graded S/U. Prerequisites: MATH/STAT-242 or 243(W), and approval of a faculty internship adviser. *Four semester hours. (XLP.)*

STAT-392. Research/Independent Work

Independent investigation of an area of statistics not covered in regular courses. Prerequisite: Written consent of a department faculty member. Graded S/U. *Two semester hours.*

Note: *This course may be taken more than once.*

STAT-394. Independent Study

Independent investigation of an area of statistics not covered in regular courses. An oral presentation to the department is required. Prerequisite: Written consent of a department faculty member. *Four semester hours. (XLP.)*

Note: *This course may be taken more than once. This course always fulfills the ILE requirement for the college, but may satisfy an elective requirement for the major only with prior permission of the department chair.*

STAT-441W. Applied Research Seminar in Biostatistics

A study of current problems in biostatistics. The course will introduce students to fundamental research procedures and data analysis. Students will work independently on a research problem of their choosing. Each student will be required to present on their progress throughout the semester and produce a culminating statistical report on their project. Students should expect to spend at least 12 hours per week working on their research project. Prerequisites: MATH/STAT-242 or MATH/STAT-243W and written permission of a department faculty member required. *Four semester hours. (R.)*

STAT-443W. Statistical Modeling

This course will delve into the mathematical and theoretical underpinnings of linear regression, Analysis of Variance (ANOVA), non-parametric statistics and Bayesian methods for statistical inference. This course will satisfy the college requirement for a capstone experience in the major. Prerequisite: MATH 235 and MATH 442 or permission of the instructor. Offered in the fall semester. Three hours per week. *Four semester hours.*

STAT-444. Applied Consulting

The aim of this course is for students to gain practical experience in the application of statistical methods to real data, as well as how to engage with collaborators in a professional setting. Prerequisite: STAT 342 or permission of the instructor. Three hours per week. *Four semester hours.(XLP, if approved).*

STAT-451. Topics in Advanced Statistics *Faculty*

A course designed to acquaint students with advanced topics in statistics and its applications. The course will be adapted to students' preference and needs. Prerequisite: Permission of the instructor. Three hours per week. *Four semester hours. (R.)*

- Mathematics and Computer Science Department

Media and Communication Studies

Faculty

- *Professors Edwards, Nadler; Associate Professors Goodman, Leppert (Chair), Taussig, Woodstock; Assistant Professor Dienstfrey, Quanz.*

- Based in the liberal arts, our program focuses on the creation, criticism, and impact of communication in our global society. This program emphasizes the role of media as it intersects with technological and social change and the centrality of communication to identity, social order, and democratic processes.

  Drawing upon social scientific and humanistic traditions, students in Media & Communication Studies explore the breadth of the field—from oral and written language, to television, film and digital media. Students may opt to concentrate in one or more of the following areas: (1) journalism, (2) digital media studies, (3) communication and culture, and/or (4) screen studies. The major provides students with experience in media-making, qualitative and quantitative research methods, as well as critical thinking, speaking and writing competencies, which together are vital to professional success and to full membership in our participatory democracy. Students in this major are prepared for graduate study or employment in journalism, law, media industries, public policy and politics, public relations and advertising, as well as corporate communications and human resources.

  Majors are encouraged to study abroad and to complete an internship as part of their department and college requirements. Only one internship may count toward the MCS major. The College's proximity to Philadelphia, the nation's fourth largest media market, offers our students a range of internship opportunities in print, broadcast, cable, film, advertising, public relations and digital media.

  Majors are expected to participate actively in and to assume leadership roles with campus organizations associated with the field of communication. These include The Grizzly, the campus newspaper both print and online; WVOU, the campus online radio station; and BearVision, the campus YouTube network.

  ### Requirements for Majors

A major in Media and Communication Studies consists of 40 semester hours of credit, including: MCS-201, 205, and 292W; one course selected from MCS-206–290; two courses selected from MCS-300–375; one capstone senior seminar selected from MCS-460W, 462W, 463W, or 464W, or completion of an Honors project in 492W; and at least three additional MCS elective courses. Any two courses from Film Studies (FS) and/or THEA-260, 261; TD-231, 232, or 233 may count towards the MCS elective requirement. Students who wish to focus on screen studies may request permission from the Chair to count additional FS classes toward the major.

Majors are strongly encouraged to complete an internship (MCS-381 or 382); however, only one internship may count toward the MCS major. Up to four credits from MCS-001–016 may count towards the major. Students are encouraged to take STAT-140Q or 141Q to fulfill the college mathematics and "Q" requirement. Media and Communication Studies majors can fulfill the college oral presentation and capstone requirements by taking one of the following: MCS-460W, 462W, 463W, 464W, or 492W.

Requirements for Minors

A minor in media and communication studies consists of 20 credit hours including MCS-205, two MCS courses between 300–375 and two electives, one of which may be a Film Studies course or THEA-260, 261; TD-231, 232, or 233.

Four MCS Areas of Concentration Within the Major

These four areas of concentration are a guide for students who want to pursue a specific area within the communication field in greater depth based on interest and/or future plans. Students are not required to select concentrations and may fulfill the requirements for the major taking the core requirements and courses from any of the four areas.

1. Journalism

Courses in this concentration provide students with a foundation in both the theoretical and practical aspects of journalism. Specifically, students develop skills that cross media platforms, and are encouraged to be conscientious and responsible media producers and citizens. Students

interested in journalism are strongly recommended to include MCS-207 and a journalism-related internship in their course of study.

MCS-206, 207, 208; MCS/ART-209; MCS-210, 250, 315, 330, 360, 363, 366

2. Digital Media Studies

Courses in this concentration critically explore the interaction among emerging media technologies' content, production, diffusion, and consumption across cultures. Whether analyzing social media friend networks, race/class/gender digital divides on the Internet, the impact of television's move to streaming video, or producing and disseminating news and fiction online, students are challenged to ethically and thoughtfully produce content on these platforms while critically analyzing their social, economic, and political impact on audiences.

MCS-208, 220, 225, 318, 321, 327, 348, 355, 366

3. Communication and Culture

Courses in this concentration explore how communication produces, affirms and transforms culture and expresses the core values of our society. Students examine a broad range of human activities and practices, from how families communicate to advertising and political debates in order to understand how communication can be used to exercise power, to develop and affirm identities, and foster connections with others. Research approaches such as ethnography, discourse and textual analysis, and phenomenology provide a means to understand multiple perspectives on communication.

MCS/ART-209; MCS/PSYC-268; MCS-302, 305, 307, 340, 342, 348, 330, 350, 358, 462W

4. Screen Studies

Courses in this concentration are designed to help students achieve a critical and historical understanding of film, television and other visual media, as well as gain experience in media production. Students will examine how visual, audio and narrative elements produce meaning, and the relationship between visual studies and culture.

MCS-225; MCS/GWMS-319; MCS-321, 344, 351, 352, 360, 363; FS-101, 235, 250, 251, 252, 253, 265, 305

S/U Guidance

The only S/S-/U courses that can count towards the major or minor are those MCS courses that are designated as S/S-/U in the catalog.

Courses

- ### MCS-001–008. Journalism Practicum
  A learning experience in which students assume primary responsibility for editorial positions related to the publication of the print and online versions of The Grizzly. Prerequisites: MCS-207 or permission of the instructor. Graded S/U. *One semester hour.*

MCS-009–016. Media Practicum
A learning experience in which students assume primary responsibility for an applied media project. Student project proposals must be approved by the instructor. Prerequisites: any of the following: MCS-209, 210, 220 or 225 or permission of the instructor. Graded S/U. *One semester hour.*

MCS-201. Public Speaking: Speech and Criticism in a Democratic Society
Students construct, deliver, and critique speeches about significant public issues of the day. The course includes an introduction to rhetorical theory and criticism, as well as an introduction to the fundamentals of speech preparation and presentation. Four hours per week. *Four semester hours.*

MCS-205. Media and Society
This course explores the role and influence of media in shaping social norms, political decision making, and individual beliefs and practices. In addition to a consideration of historical developments, the course engages contemporary issues such as corporate conglomeration, globalization, media convergence, digital culture, audiences as producers and receivers, and consumer culture. Three hours per week. *Four hours per week (SS).*

MCS-206. Sports Journalism
This course introduces students to the principles and practice of sports journalism. Students consider the social roles of sports journalism, examine the changing contexts in which it is produced, and gain experience conceiving, reporting, and producing sports-related journalistic content. After studying fundamental skills and contexts in the early part of the semester, this class will alternate between focusing on specific genres of sports journalism, such as game stories and podcasts, and considering issues in sports coverage such as the “Moneyball” revolution and labor disputes. Three hours per week. *Four hours per week.*

MCS-207. Introduction to Journalism
This course introduces students to the principles of journalism, including: information gathering, writing, editing and presentation of news under deadline. Students also explore issues related to libel, visual literacy, and changing audience demographics

through the critical analysis, interpretation, and evaluation of various media outlets. Three hours per week. *Four semester hours.*

MCS-208. Journalistic Storytelling in the 21st Century

In this course, students will consider how the digital era has brought upheaval to the world of journalism, including changes to the ways journalists report, tell stories, and relate to audiences. In the second half of the semester, students will create multimedia content that meets the challenges and takes advantage of the opportunities of digital media. Prerequisite: MCS-207 or permission of instructor. Three hours per week. *Four semester hours.*

MCS/ART-209. Documentary Photography

This course introduces students to the concepts of visual documentation, social documentary style, photojournalism and ethics in photography as well as an historical perspective on the works of visual social documentarians. Students are required to conduct field work collecting digital still images to create visual narratives on a range of issues. Students enrolled in this course will need access to a digital camera to complete assignments. Three hours per week plus extensive individual work. *Four semester hours. (A.)*

MCS-210. Television Studio Production

An overview of the principles and techniques of studio television production. Emphasis is placed on translation of ideas into a visual format, program conceptualization, preproduction planning, script writing, critical analysis of the visual image, group work and peer review of programs. Three hours of lecture and two hours of lab per week. *Four semester hours.*

MCS-220. Introduction to New Media

This course explores relationships between social change and emerging media while offering students a chance to create their own digital media projects. Students will learn how to construct and analyze digital media and interactive web-based content. Projects may include the production of podcasts, websites, idea maps, blogs, and other new media forms. Three hours per week. *Four semester hours.*

MCS-225. Digital Filmmaking

Introduces students to all stages of digital video production. Students will learn how to conceptualize, write, and develop a script, design a storyboard and visual treatment, and shoot and edit a digital short film. There will also be weekly readings, viewings, and discussions focused on the history and language of film. Four hours per week. *Four semester hours.*

MCS-250. DAMP: Drugs and Media Production

Students in this LINQ course will collaborate with students in BIO/NEURO 350 to examine the pharmacodynamics and pharmacokinetics of various drugs in the central nervous system and translate this information into educational and persuasive messages for a non-science audience. Please note: Students do not need to also enroll in BIO-350 /Neuro-350 in order to earn LINQ credit. Three hours per week. *Four semester hours. (LINQ.)*

MCS-260. From Stage to Studio

This course will focus on specific media productions linked with THEA-260. Students in this course with collaborate extensively and meaningfully on the study, analysis and production of monologues with students enrolled in THEA-260. Note: Students are not

required to enroll in both courses to meet the LINQ requirement. Three hours per week. *Four semester hours. (LINQ.)*

MCS-261. From Stage to Studio 2: Building Characters

This course will focus on specific media productions linked with THEA-261. Students in this course with collaborate extensively and meaningfully on the study, analysis and production of improvisational works with students enrolled in THEA-261. (Note: Students are not required to enroll in both courses to meet the LINQ requirement.) Three hours per week. *Four semester hours. (LINQ.)*

MCS/PSYC-268. In Their Voices: Disability, Media, and Me

Students will be encouraged to meaningfully explore the intersection of disability and national discourse by synthesizing multiple perspectives from humanities and social science disciplines. We will consider representation of four types of disabilities: physical or mobility disabilities, sensory disabilities, mental health conditions or psychiatric disabilities, and the autism spectrum using film, media, and print narratives. Students will produce podcasts and participate in analytic discussions throughout their journey. Prerequisite: PSYC-100 or MCS-205. Three hours of lecture. *Four semester hours. (DN, LINQ, O.)*

MCS-275. Topics in Media Production

This course will focus on specific media production areas not covered in other production courses in the MCS department. Three hours per week *Four semester hours. (May be designated A. depending on topic)*

MCS-292W. Communication Theory and Research

This writing-intensive course introduces students to a range of theories and research methods in the field of communication and media studies. Students will workshop and conduct research using a variety of methods used in the discipline. Three hours per week. *Four semester hours.*

MCS/ENV-302. Climate and Communication

In this interactive course, we study successful climate change communication strategies, practice how to effectively communicate about climate change to various constituencies, consider the relative strengths of a range of climate communication genres, and develop a deeper understanding of the complex dynamics between scientists, media industries, people, and politics impacting climate communication. Three hours per week. *Four semester hours. (SS. O.)*

MCS-305. Therapeutic Culture and Self-Help

In this class we engage self-help historically, theoretically, and as a set of embodied practices. Students undertake applied individual projects, testing the impact of self-help advice on themselves, as well as group projects, offered as a workshop series to the community. We critically analyze classic bestselling self-help books, contemporary podcasts, and self-care products to unpack their meaning and consider their social impact. Three hours per week. *Four semester hours. (O, SS.)*

MCS-307. Conflict and Communication

Taking a communication perspective, this course examines the nature of conflict in American society and offers alternatives to unilateral power based strategies of conflict resolution. Students are introduced to theories about the nature and kinds of conflict, as well as differing models for managing conflicts. They learn to map and analyze real life conflict situations in interpersonal, inter-group, and organization contexts and

work with skills and models for conflict resolution. Three hours per week. *Four semester hours. (SS.)*

MCS-315. Media Ethics

This course addresses ethical issues across media platforms in news, entertainment, public relations and advertising. Students think through ethical challenges such as the use of anonymous sources in journalism, editing images in advertising and crisis management. Students will conduct case study analyses of ethical dilemmas in the media. Three hours per week. *Four semester hours. (H, O.)*

MCS-318. Facebook Nation

This course explores the rise of social media in our personal, social, political and economic relationships. Specifically, students explore the impacts of social media on ethical obligations to our digital selves and to the world around us as we challenge ourselves to answer the question: What will we do about these impacts and obligations? These issues will be explored through the lens of the four questions that are the foundation of the Ursinus Quest. Three hours per week. *Four semester hours. (CCAP, O, SS. (junior or senior only).)*

MCS/GWSS-319. Sex, Race and Comedy

Students will learn to critically analyze the subversive power of comedy in exploring issues of race, gender, sexual orientation and class in American media. Three hours per week. *Four semester hours. (SS, DN.)*

MCS-321. Sci Fi and Fantasy Film

This course explores the cultural myths about race, gender and technology found in science fiction television and film and what they say about our past, present, and future. Three hours per week. *Four semester hours. (H.)*

MCS-327. Remix Culture

From musical mash-ups to video parodies, disputes about authorship, remixes, and copyright have become increasingly prominent in our digital media landscape. This course takes a humanistic approach to explore questions about originality and derivation in art and cultural production and the place of copyright and intellectual property in laying the groundwork for creative culture. We will examine ideas about and legal approaches to authorship and intellectual property from historical and philosophical perspectives; we will also look closely at contemporary controversies regarding piracy, file-sharing, culture jamming, sample-based art, and equally controversial efforts on the part of policymakers and corporations to limit or curtail these practices. We will not only discuss remix and the digital tools that are enabling a profusion of new expressive forms, but students will use some of these very tools to create media projects that analyze and comment upon contemporary debates. Three hours per week. *Four semester hours.*

MCS-330. Freedom of Expression

This course examines the theoretical and historical underpinnings of how we think about freedom of expression and its importance to societies organized around the idea of democracy. The course will contrast two intellectual approaches to the role of expression in Western society: the classical liberal and the romantic. We will explore the historical development of these ideas, analyze how they were applied in landmark cases, as well as challenge ourselves to apply these systems of logic to contemporary speech controversies. We engage current concerns such as corporate power, digital media, and free speech on campus. Three hours per week. *Four semester hours. (H, O.)*

MCS-335. Media, Activism, and Social Change

This course will explore how social movement activists have sought to engage popular media to promote social change as well as to change media structures themselves. What kind of tactics and strategies have different movements developed to influence corporate media? What strategies have they developed for creating alternative media and public forums? What insights can activists, social critics, and media theorists offer about media's role in promoting and resisting social transformation? While we will focus mostly on media savvy U.S.-based social movements that began since the 1960s, we will also discuss the global influences and alliances of these U.S. movements. Some of the movements we will examine include: the civil rights and Black liberation movements; anti-war movements; feminist movements; LGBTQ rights,ACT-UP; the evangelical New Right; Occupy Wall Street; BlackLives Matter. There is no prerequisite for this course. Three hours per week. *Four semester hours. (CCAP, SS.)*

MCS/GWSS-340. Gender, Ethnicity and Communication

This course explores theories and research on gender, ethnicity and communication, with a particular focus on African American culture. Students will use two research methods to study the relationship between gender, ethnicity and communication: a discourse analysis and an auto ethnography. The reading, writing, and discussions in the course will encourage students to cultivate more reflective communicative practice. Three hours per week. *Four semester hours. (DN, SS)*

MCS-342. Difficult Dialogues

This course explores dialogue as a means of promoting understanding among individuals and groups and its potential to foster collaboration and problem solving in relationships and in the community. To do this, we will read about and discuss a range of topics and issues related to politics and various aspects of identity (e.g., gender, class, race, religion). We will consider the purpose of engaging in dialogue about these topics, especially on college campuses, as we reflect back on discussions in the Common Intellectual Experience and the first core question: "What should matter to me?" We will examine theoretical approaches to dialogue and various positions on the ideal nature of such conversations, as well as approaches to facilitate and participate in them. Students will reflect on the final core question: "What will I do?" as they analyze their own and others' communicative behavior in these discussions and through the facilitation of a public dialogue about a divisive/controversial issue on campus that is designed to achieve specific goals. This course fulfills the Core Capstone requirement. Three hours per week. *Four semester hours. (CCAP.)*

MCS-344. Childhood and Media

This class explores how the meaning and value of childhood is negotiated in screen media. The course takes a chronological approach, beginning with literature and portraiture before moving to cinema, television, and gaming.?It is?divided into units on such topics as the invention of childhood, the work of childhood, and media regulation so that students will interrogate how children are represented, taught, and entertained from the 17th-21st?centuries. In written papers and presentations?students?will grapple with the many conflicts and controversies that plague the history of children on screens. Four hours per?week. *Four semester hours. (H.)*

MCS-345. Voice in Media

This course considers the relationship between the voice and identity in order to examine how voices are interpreted in a variety of cultural contexts. We will examine voices floating on the airwaves of talk radio, belting from stages of televised singing competitions, occupying the soundtracks of the cinema, coughing in the lecture hall, pranking with the telephone, soaring at a football game, and soothing the nerves

through a podcast late at night. Students will produce projects that engage with questions of vocal representation, creating media texts that demonstrate standard modes of constructing the mediated voice and suggest routes for destabilizing these rules. We will also analyze and write about voices, our own and those of others, situated in the present and beyond the grave. Three hours per week. *Four semester hours. (H.)*

MCS-350. Intercultural Communication

An examination of face-to-face communication between people of different cultural backgrounds. Case studies are analyzed to identify differences in expectations, practices, and interpretations. Topics include cross-cultural comparisons of conversational style, power relations, language, and perception in educational, organizational, and social settings. This course may be a particular interest to students preparing to study abroad as well as those planning to work in international business, education, and politics. Three hours per week. *Four semester hours. (DN, GN, SS.)*

MCS-351. Hollywood Stardom and Celebrity Culture

This course will examine the role of stars in the history of Hollywood film. We will investigate how film studios went from not publicly naming their performers, to tightly controlling their stars' images and carefully promoting them to moviegoers, to relying on stars to sell movies and thus negotiating hefty paychecks and profit-sharing deals through talent managers. In addition to considering how stars function within the film industry, we will also study celebrity culture more broadly. Why do we care about celebrities, what do they mean to us, and why do so many people despise celebrities who are "famous for being famous"? While our primary focus will be on film stars, we will also consider music and television as star-making platforms. Three hours per week. *Four semester hours. (H.)*

MCS-352. Teen Film and Television

This course studies the development and proliferation of films and television programs about and marketed toward American teenagers. We will trace teen film and television's origins and their reformulations through U.S. film and television history, while studying teen film and television's generic conventions and their relation to other genres such as the musical, the gangster film, and the soap opera. The course will examine Hollywood's representations of and attempts to appeal to the American teenager, paying special attention to issues of delinquency and rebellion, burgeoning sexuality, the social politics of high school, and nostalgia. We will also consider teen film and television's intersections with subcultures, popular music, and consumer culture. Three hours per week. *Four semester hours. (H.)*

MCS-354. Sex, Gender and the 1980s

The 1980s are often remembered as a socially conservative decade, characterized by the immense popularity of Ronald Reagan and a cultural obsession with traditional "family values." This course will interrogate this popular memory, examining the ways conflicting ideas about gender and sexuality were constructed and expressed in the films, television, and popular music of the 1980s. Through studying phenomena such as "hard body" films (e.g. the Rocky series), MTV, the increasing visibility of LGBT issues, representations of "career women," family sitcoms, and the AIDS crisis, we will gain a more nuanced understanding of the decade's gender and sexual politics. Three hours per week. *Four semester hours. (DN, H.)*

MCS-355. Technology and Culture

This class focuses on the dynamics between communication technologies and culture and asks three questions: How are communication technologies revolutionary? How are they continuities of traditional media in terms of content, audiences, advertising, and corporate ownership? Do cultural changes determine advancements in

communication technologies or do changes in communication technologies determine cultural changes? Three hours per week. *Four semester hours. (SS.)*

MCS-358. Persuasion: Critical studies in Advertising and Propaganda

Every day, each of us is the targets of countless media messages meant to persuade us and change our behavior. This course explores the workings of media persuasion with a special focus on advertising, political campaigning, and propaganda. We will examine the modern historical development of these forms and explore critical theories attempting to understand their social significance, while building skills for analyzing and decoding advertising and propaganda messages in various guises. Three hours per week. *Four semester hours. (H.)*

MCS-360. News Analysis

A critical exploration of news culture. Students work with quantitative and qualitative methodologies to explore issues related (but not limited) to race, gender, class, and nationality in the production and consumption of American news. Three hours per week. *Four semester hours. (SS.)*

MCS-363. Audience Studies

A qualitative and quantitative examination of the "audience" construct in historical and new media contexts. Specifically, this course uses the four big QUESTions to interrogate and critique the power relations among individuals, institutions, and audiences, as well as the ethical dilemmas that arise from these relationships. Three hours per week. *Four semester hours. (CCAP, O, SS. (junior and senior only).)*

MCS-365. Political Communication

This course is an overview of the field of political communication, including campaign advertising, debates, speeches, and candidates' and officeholders' uses of the news. We'll examine questions like these through a history of presidential elections in the television age, starting with 1952 and continuing to the present. Three hours per week. *Four semester hours. (SS.)*

MCS-366. Digital Democracy

This class explores uses of new communication technology in political and social organizing, with particular attention to subgroups within the US population and how issues of race, class, and gender interact with the opportunities and constraints of our digital democracy. The class emphasizes the theoretical and historical role of democracy in US society, and more specifically, of the role of media in fostering and/or inhibiting democratic participation. Three hours per week. *Four semester hours. (May be designated DN, GN, H. depending on topic)*

MCS-375. Special Topics in Media and Communication Studies

This course will focus on a specific topic at an advanced theoretical or critical level within media and communication studies not covered in the other courses in the curriculum. Three hours per week. *Four semester hours. (May be designated H or SS depending on topic)*

MCS-381. Internship

A work experience under the supervision of a faculty adviser and an on-site supervisor. Students must document their experience according to the requirements delineated in the College catalogue section on Internships. Includes periodic meetings with the

faculty adviser and completion of a work log and a final poster presentation. Open to juniors and seniors. The term during which the internship work is performed will be noted by one of the following letters, to be added immediately after the internship course number: A (fall), B (winter), C (spring), or D (summer). Internships undertaken abroad will be so indicated by the letter I. The intern must complete a minimum of 120 hours of work. Graded S/U. Prerequisites: major or minor in MCS, three courses completed in the department, and approval of a faculty internship adviser. *Three semester hours. (XLP.)*

MCS-382. Internship

A work experience under the supervision of a faculty adviser and an on-site supervisor. Students must document their experience according to the requirements delineated in the College catalogue section on Internships. Includes periodic meetings with the faculty adviser and completion of a work log and a final poster presentation. Open to juniors and seniors. The term during which the internship work is performed will be noted by one of the following letters, to be added immediately after the internship course number: A (fall), B (winter), C (spring), or D (summer). Internships undertaken abroad will be so indicated by the letter I. The intern must complete a minimum of 160 hours of work. Graded S/U. Prerequisites: major or minor in MCS, three courses completed in the department, and approval of a faculty internship adviser. *Four semester hours. (XLP.)*

MCS-391. Research in Media and Communication Studies

Independent research under the supervision of a faculty adviser. A final product and an oral presentation to the department on a specific topic in media and communication studies is required. Prerequisites: eight credits of course work (MCS-300-375) in media and communication studies, demonstrated competence in the specific area of a study, a written project proposal, and permission of a department faculty member who will serve as project adviser. Offered in the fall semester. *Four semester hours (XLP.)*

MCS-392. Research in Media and Communication Studies

Content, prerequisites, and requirements are the same as MCS-391. Offered in spring semester. *Four semester hours. (XLP.)*

MCS-411. Projects in Media and Communication Studies

Advanced individual work in media production. Prerequisites: eight credits of course work in media and communication studies between MCS 207-290, demonstrated competence in the specific area of production, a written project proposal, and permission of a department faculty member who will serve as project adviser. Course may be taken two times for credit. *Four semester hours. (XLP.)*

MCS-412. Projects in Media and Communication Studies

Content, prerequisites, and requirements are the same as MCS-411. Course may be taken two times for credit. *Four semester hours (XLP.)*

MCS-460W. Seminar in Media Criticism

Students study the theories and practices of media criticism, applying them to historical or contemporary texts, such as popular music, films, news reportage, and fictional television. Students engage in research and writing and make an oral presentation of their findings. Prerequisites: MCS-201, MCS-205, MCS-292W, and one 300 level course between 300 and 375. Senior standing or permission of instructor. Three hours per week. *Four semester hours.*

MCS-462W. Seminar in Communication and Culture

Students work with ethnographic methods as a means to explore the communicative patterns and processes of groups, organizations, and institutions. Students will conduct fieldwork, analyze data, and write a research paper as well as make an oral presentation of their findings. Prerequisites: MCS 201, MCS-205, MCS-292W, and one 300 level course between 300 and 375. Senior standing or permission of instructor. Three hours per week. *Four semester hours.*

MCS-463W. Seminar in Audience Analysis

Students work with survey methodologies to explore relationships between audiences and media use. Students conduct original research, complete a research paper and make an oral presentation of their final recommendations. Prerequisites:?MCS-201, 205, 292W, and one 300-level MCS course between 300 and 375. Senior standing or permission of instructor. Three hours per week. *Four semester hours.*

MCS-464W. Seminar in Media Analysis

Using quantitative and qualitative research methods, students analyze messages embedded in the entertainment, persuasive and information media. Focus is on the content and effects of television, film, recordings, and the internet. Students complete a research paper and make an oral presentation of their findings. Prerequisites: MCS-201, MCS-205, MCS-292W, and one 300 level course between 300 and 375. Senior standing or permission of instructor. Three hours per week. *Four semester hours.*

MCS-491. Research/Independent Work

This course is open to candidates for departmental honors with the permission of the instructor and the departmental chair. Prerequisites: MCS-201, MCS-205, MCS 292W, and one 300 level course between 300 and 375. *Four semester hours. (XLP.)*

MCS-492W. Research/Independent Work

A continuation of MCS-491. Prerequisite: MCS-491. *Four semester hours. (XLP.)*

- Media and Communication Studies Department

Modern Languages

Faculty

- *Associate Professors Cornelio, Ko (Chair), Mizenko, Shuru; Assistant Professors Brossillon, Fadellin, Jones, McCarthy; Instructors Ballesteros, Davis, DeLuca, Laraki, Luttcher-Hoorfar, Mo, Steyaert, Sun, Tanaka Goda.*

- ## Modern Languages

  The Modern Languages Department offers courses in Arabic, Chinese-Mandarin, French, German, Japanese, and Spanish. Through language study, cultural exploration, and the analysis of cultural expressions—such as visual artifacts, cinema, and literature, among others—students develop essential communication skills in their target languages, critical thinking abilities, and an appreciation for the richness and diversity of heterogenous global traditions, histories, and worldviews.

  Our program emphasizes the value of intercultural dialogue, fosters a global mindset, and equips students with the tools to navigate cultural differences, empowering them to become active participants and insightful leaders in an interconnected world.

  In addition to the languages listed above, the Department regularly offers a full curriculum in Arabic which can be taken to fulfill the language requirement, even though a major or minor is not offered in this language. Students who wish to satisfy the language requirement in a modern language will be placed in the appropriate language class based on background and the results of the Foreign Language Placement Test.

- **English for International Students**

  IDS-120 is meant to be taken by international students, including exchange students, during the first year at Ursinus, in order to introduce them to the academic culture of Ursinus College and to the society and culture of the United States and the Philadelphia region. For eligible non-native speakers of English, this course may fulfill the core requirement for language study, if approved by the chair of the Department of Modern Languages.

IDS-120. Introduction to American Culture for International Students

This course is to be taken during the first year at Ursinus by foreign students, including exchange students, in order to introduce them to the history, society and culture of the United States and the Philadelphia region. Assignments will provide practice in the structure and style of academic English, including oral and written communication. Limited to international students who are not native speakers of English. This course fulfills the core requirement in language for eligible students if approved by the chair of the Department of Modern Languages. Three hours per week plus one hour of additional work. Four semester hours.

ML-100, 110, 200 and 300. Modern Languages

Individualized or off-campus study of modern languages not offered at Ursinus College, such as Hebrew, Russian, Swahili, Hindi, American Sign Language (ASL) and others. Prerequisites: Permission of the instructor (when offered by Ursinus faculty), or permission of the department chair (when offered by non-Ursinus faculty). These courses may be repeated for credit. *Four semester hours.*

Note: *These courses do not satisfy the College language requirement for graduation unless specifically authorized by the Modern Languages department chair in response to a student petition.*

- Arabic
- Chinese
- French
- German
- Japanese
- Spanish

Arabic Courses

- ### ARA-101. Elementary Arabic I

  An introduction to the Arabic language. This course will allow the student to master the Arabic alphabet and to learn elementary speaking, writing, and reading in Arabic. Four hours of instruction plus one hour of supervised work with the textbook's DVD material. *Four semester hours. (L.)*

ARA-102. Elementary Arabic II

Continuation of ARA-101. Emphasis on communication and cultural uses of the language. Four hours of instruction plus one hour of supervised work with the textbook's DVD material. *Four semester hours. (L.)*

ARA-111. Advanced Elementary Arabic I

In this second-year-level course, students will continue to develop their four language skills (speaking, listening, reading and writing), vocabulary, and grammar. This course is designed to enable students to communicate in Arabic in everyday situations and to present and interpret information using their inventory of Arabic vocabulary. Prerequisite: ARA-102 or placement by instructor. Four hours per week. *Four semester hours. (L.)*

ARA-112. Advanced Elementary Arabic II

In this course, students will further improve their four language skills (speaking, listening, reading and writing) with an emphasis on comprehension and speaking. Students will also continue to develop their knowledge and application of vocabulary and grammar. Prerequisite: ARA-111or placement by instructor. Four hours per week. *Four semester hours. (L.)*

ARA-220. Topics in Intermediate Arabic

In this course, students will further advance their Arabic language skills in listening, speaking, writing as well as reading. In addition, students will improve their ability to communicate at an intermediate level by interpreting and presenting information in different tenses and contexts. Prerequisite: ARA-112 or equivalent, or permission of instructor. This course may be taken more than once for credit. Four hours per week. *Four semester hours. (H, L.)*

ARA-320. Topics in Advanced Arabic

This course introduces new vocabulary, develops students' listening and oral skills, and expands their knowledge and understanding of the culture and history of the Arabic-speaking world. Prerequisite: two 200-level courses or permission of instructor. This course may be taken more than once for credit. Four hours per week. *Four semester hours. (H, L.)*

ARA-335. Independent Study in Arabic

Independent study of topics in Arabic linguistics, literature, society or culture. Offered upon request. Prerequisite: one 300-level course and permission of instructor. *Two to four semester hours. (XLP, if 4 credits.)*

Chinese Requirements and Courses

- Ursinus College offers a full, four-year curriculum in the Chinese language, along with courses on Chinese history, society, and culture. The Chinese language curriculum is designed to develop the five language skills: speaking, listening, reading, writing, and culture. Students of the Chinese language are encouraged to consider majoring or minoring in East Asian Studies and/or such departments as History and International Relations. Students may also pursue a student-initiated major that includes the study of Chinese. In all courses, students work with authentic materials and teaching assistants who are native speakers. Ursinus offers carefully selected study abroad opportunities for summer, semester, and full-year programs.

Requirements for Chinese Language Minor

A minor in Chinese consists of 20 semester hours, including CHN-211, 212, eight additional credits at the 300-level, and one of the following: HIST-152, 252, 254, 352, 354, 451W, or another non-language course on

China as approved by the Modern Languages chair in consultation with Chinese-language faculty.

Requirements for Chinese Studies Minor

A minor in Chinese Studies consists of 20 credits. Required of all minors are CHN-211, 212, and 335. The remaining credits can come from the following: HIST-152, 202, 252, 254, 352, 354, 451W or other China-related courses.

- The Chinese language courses are designed to develop linguistic skills and an understanding of Chinese culture. The study of Chinese is recommended for students interested in majoring in East Asian Studies, International Relations, Business and Economics, and other disciplines. Students may also pursue a student-initiated major that includes the study of Chinese. In all courses, students work with computers, and authentic video, audio and written materials, as well as language assistants who are native speakers.

CHN-101. Elementary Chinese I

An introduction to the Chinese language. The course is designed to introduce the student to the basic rules of spoken and written Chinese while providing basic communicative skills. Four hours per week plus one hour of practice with the language assistant. *Four semester hours. (L.)*

CHN-102. Elementary Chinese II

Continuation of CHN-101. The focus is placed on situation-sensitive language use and the systematic introduction of basic grammar and sentence patterns, along with continued study of characters. Prerequisite: CHN-101 or equivalent. Four hours per week plus one hour of practice with the language assistant. *Four semester hours. (L.)*

CHN-111. Advanced Elementary Chinese I

Continued introduction of the fundamental structures of spoken and written Chinese. Development of interpersonal communication skills beyond the functional level. Prerequisite: CHN-102 or equivalent. Four hours per week plus one hour of practice with the language assistant. *Four semester hours. (L.)*

CHN-112. Advanced Elementary Chinese II

Continuation of CHN-111. Development of more sophisticated structures and patterns, moving towards conversational fluency. Continued study of reading and writing. Four hours per week plus one hour of practice with the language assistant. *Four semester hours. (L.)*

CHN-211. Intermediate Chinese I

Review of basic structures combined with further enhancement of oral and written communication skills. Continued expansion of knowledge of characters, plus development of ability to handle complicated situations. Prerequisite: CHN-112 or equivalent. Four hours per week plus one hour of practice with the language assistant. *Four semester hours. (H, L.)*

CHN-212. Intermediate Chinese II

Continuation of CHN-211. Completion of study of fundamentals of Chinese language. Development of ability to read and discuss authentic texts, and to handle a wide range of conversational situations. Prerequisite: CHN-211 or equivalent. Four hours per week plus one hour of practice with the language assistant. *Four semester hours. (H, L.)*

CHN-311. Advanced Chinese I

Study of complex linguistic structures in the context of the development of an analytical understanding of the Chinese language. Reading and viewing of advanced-level authentic materials in written and video texts, with an emphasis on a nuanced understanding and an ability to discuss and write about the texts in depth. Three hours per week plus one hour of practice with the language assistant. Prerequisite: CHN-212 or equivalent. *Four semester hours. (H, L.)*

CHN-312. Advanced Chinese II

Continuation of CHN-311. Upon completion of this course, students should have developed the resources to handle most conversational situations or modern texts. Three class hours per week plus one hour of practice with the language assistant. *Four semester hours. (H, L.)*

CHN-328. Advanced Chinese Grammar

In-depth study of Chinese phonetics, morphology and syntax with special emphasis on the problems related to the teaching of the language. Prerequisite: CHN-312 or permission of the instructor. Four hours per week. *Four semester hours.*

CHN 335. Independent Study in Chinese

Individual study of topics in Chinese linguistics, literature, society or culture. Prerequisite: CHN-312 and permission of the instructor. *Two to four semester hours. (XLP, if 4 credits.)*

CHN-381. Internship

An academic work/experience under the supervision of an internship adviser and an on-site supervisor. Students must document their experience according to the requirements delineated in the College catalogue section on Internships. Contact the chair of the department for further details. Open to juniors and seniors. The term during which the internship work is performed will be noted by one of the following letters, to be added immediately after the internship course number: A (fall), B (winter), C (spring), or D (summer). Internships undertaken abroad will be so indicated by the letter I. The intern must complete a minimum of 120 hours of work. Graded S/U. Prerequisites: four courses in Chinese and approval of a faculty internship adviser. *Three semester hours. (XLP.)*

CHN-382. Internship

An academic work/experience under the supervision of an internship adviser and an on-site supervisor. Students must document their experience according to the requirements delineated in the College catalogue section on Internships. Contact the chair of the department for further details. Open to juniors and seniors. The term during which the internship work is performed will be noted by one of the following letters, to be added immediately after the internship course number: A (fall), B (winter), C (spring), or D (summer). Internships undertaken abroad will be so indicated by the letter I. The intern must complete a minimum of 160 hours of work. Graded S/U. Prerequisites: four courses in Chinese and approval of a faculty internship adviser. *Four semester hours. (XLP.)*

CHN-491. Research/Independent Work

This course is open to candidates for departmental honors and to other students with the permission of the department chair. This course does not satisfy the College requirement of a capstone experience. *Four semester hours. (XLP.)*

CHN-492W. Research/Independent Work

A continuation of CHN-491. This is a writing intensive course and at least one formal oral presentation is required. This course satisfies the College requirement of a capstone experience. Prerequisites: CHN-491 and permission of the department chair. MCS-201 is strongly recommended. *Four semester hours. (XLP.*)

French Requirements and Courses

- **Requirements for Majors**

  French majors are required to take at least 36 credit hours in French and Francophone Studies courses above the 100 level. FREN-251 and 252 and at least one 400-level W course are required, as well as a study abroad experience as approved by the department. French majors can fulfill the requirement for an oral presentation in the major and the capstone requirement by taking FREN 440W or 492W.

  Secondary School Certification:

  Students planning to obtain certification for secondary-school teaching in French must take a minimum of 24 credit hours in French at the 200, 300 and 400 levels. The following courses are required: FREN-251; 252, 317, 328, and at least two 300- or 400-level courses. In addition to the course requirements, students are required to pass a qualifying examination before they will be admitted to candidacy for certification and a competency examination before being certified.

  These tests will examine students' linguistic competence, orally and in writing, testing phonetics, conversation, grammar and composition. The exit exam will also check their knowledge of French literature and culture, including the arts, history and geography. Students and their advisers should consult the Ursinus College Education Department. Language majors and students preparing for certification are required to supplement their work at Ursinus by spending a summer, a semester or an entire year in a foreign country with a program approved by the department. Exceptions to this policy may be made by petition to the department chair.

  Requirements for Minors

A minor in French consists of 20 credits. Required of all minors are FREN-251 or FREN-252. The remaining credits can come from intermediate-level courses (FREN-111, 112), and any FREN courses at the 200-, 300-, or 400-levels.

- **FREN-101. Introduction to French Language and Francophone Cultures I**

  Development of the four skills of listening, speaking, reading and writing. Designed for beginners. Four hours per week plus plus one hour with interactive technologies or in teaching-assistant-led conversation. *Four semester hours. (L.)*

FREN-102. Introduction to French Language and Francophone Cultures II

Continuation of FREN-101. Four hours per week plus one hour of work with interactive technologies or in teaching-assistant-led conversation. *Four semester hours. (L.)*

FREN-103. Intensive Beginner Studies of French Language and Francophone Cultures

This course is intended for students who have previous experience in the language, but who lack the foundational knowledge for the intermediate level. It is designed to be an intensive review that covers the entire beginning sequence seen in FREN-101 and 102 in one semester. The course combines development of the four skills (listening, speaking, reading and writing) with a grammar review. It is followed by FREN-111. Four hours per week plus one hour with interactive technologies or in teaching-assistant-led conversation. *Four semester hours. (L.)*

FREN-111. Intermediate Studies in French Language and Francophone Cultures I

Conversation and vocabulary development; grammar review, written work and discussions are based on cultural, social and literary selections. Prerequisite: FREN-102, FREN-103, or the equivalent. Four hours per week plus one hour with interactive technologies or in teaching-assistant-led conversation. *Four semester hours. (L.)*

FREN-112. Intermediate Studies in French Language and Francophone Cultures II

Continued emphasis on comprehension and speaking. Reading of literary and cultural texts and longer writing assignments. Introduction to elementary Francophone literature. Prerequisite: FREN-111 or the equivalent. Four hours per week plus one hour with interactive technologies or in teaching-assistant-led conversation. *Four semester hours. (L.)*

FREN-201. Communicating in French

How is the world shaped by the language we speak? To explore this question, students engage in conversations on a range of French and Francophone cultural themes, while developing their ability to understand authentic spoken French in its many varieties. Prerequisite: FREN-112 or the equivalent. Four hours per week. *Four semester hours. (H, L.)*

FREN-202. Storytelling in French

How is the world shaped by written language? To explore this question, students practice formal, informal, and creative writing (short essays, short stories, poetry) while developing strategies for incorporating previously learned grammar into written and oral expression. Prerequisite: FREN-112 or the equivalent. Four hours per week. *Four semester hours. (H, L.)*

FREN-251. Exploring Literature in French from the Middle Ages to the Present

How does literature help us understand the world? What role does literature have in our life together? To reflect on these questions, students read and analyze a selection of major literary works written in French from the Middle Ages to the present. Special attention will be given to the socio-cultural context from which the narratives emerged. Prerequisites: FREN-202 or permission of the instructor. Three hours per week. *Four semester hours. (H, L, GN.)*

FREN-252. Living Together in the Francophone World

What is the Francophone World? What does it mean to live in it? By examining the global interconnections created by a variety of French-language authors and filmmakers from around the globe, this course invites students to question how we should live together in a world haunted by past traumas such as French colonialism. Students consider the role of literature and cinema in everyday life together, reflecting on how language constructs identity and community. Prerequisite: FREN-202 or permission of instructor. Three hours per week. *Four semester hours. (H, GN, L.)*

FREN-255. Investigating French and Francophone Cultures

A thematically driven course in which students investigate how we should live together by analyzing the operation of privilege as it relates to diversity and inequality within the political, social, economic, and cultural history of France and the Francophone World from the Revolution of 1789 to the present day. Themes may include the Haitian Revolution, France during the World Wars, or a critical interrogation of the French motto: "liberté, égalité, fraternité." FREN-202 or permission of the instructor. Three hours per week. Three hours per week. *Four semester hours. (H, L.)*

Note: *This course will be offered in the spring term of even-numbered years and will alternate with FREN-252. All 300-level courses are offered in rotation.*

FREN-317. Contemporary France and Francophone Europe

This course introduces students to the culture of France, Belgium and Switzerland through the study of a number of different printed and video "texts" to discuss major social, political, economic, and cultural forces that structure life in Francophone Europe today. Students draw on a variety of disciplines (history, sociology, anthropology, economics, political science) and their interrelations in order to acquire a certain familiarity with the nature of French, Belgian, and Swiss "identities" today and the forces that are challenging those identities. Topics addressed are politics, issues of immigration and education, and regionalism. Prerequisite: one 250-level French course or permission of the instructor. Three hours per week. Four hours per week. *Four semester hours. (H, L.)*

FREN-318. French for Professional Purposes

Students perform tasks related to their future professions: writing, presentations, CVs, resumes, cover letters, interviewing skills, cultural considerations, and career development. The final project is an oral presentation of a final paper in the student's professional field. Prerequisite: one 250-level French course or permission of the instructor. Three hours per week. *Four semester hours. (H, L.)*

FREN-328. Advanced Grammar and Translation

French phonetics, morphology and syntax, with emphasis on problems related to the teaching of the language. Frequent translations focus on structural differences between French and English. Prerequisite: one 250-level French course or permission of the instructor. Offered upon request. Three hours per week. *Four semester hours. (H, L.)*

FREN-335. Independent Study in French and Francophone Studies

Individual study of topics in French and Francophone literature, cinema, and culture. May also be used in preparation for research or internship abroad. Prerequisites: one 250-level French course and permission of instructor. *Two to four semester hours. (L, XLP, if 4 credits.)*

FREN-341. Seminar in French and Francophone Studies

This course is for students who wish to take the senior seminar taught in the same semester but are not yet seniors. Assignments for students of FREN-341 will correspond to the workload of a 300-level course. FREN-341 is offered concurrently with FREN-440W. Prerequisites: one 250-level French course or permission of the instructor. Does not fulfill the capstone requirement for the French major. Three hours per week. *Four semester hours. (H, L.)*

FREN-342. Gender and Sexuality Studies in French

This course explores the literary representations of gender and sexuality in France from the nineteenth century to the present. Through the interdisciplinary study of literary works, the history of sexuality and feminist theory, this course addresses important questions on the politics of queer sexuality as well as gender dynamics and sexual identities in modern French culture. The aim of this course is to bridge literature in French with gender and sexuality studies. Prerequisites: one 250-level French course or permission of the instructor. Three hours per week. *Four semester hours. (H, L.)*

FREN-345. Topics in French and Francophone Studies

This course focuses on a specific topic or theme not otherwise treated in the curriculum. Topics will vary from year to year. Previous topics have included « Regard sur/des Autres dans la société française » and « Hidden Stories of World War II ». Independent written work is required. Prerequisites: one 250-level French course or the permission of the instructor. Three hours of class per week, and in some cases two-hour film screenings per week, depending on the topic. *Four semester hours. (H, L.)*

FREN-352. Transnational Francophone Studies

What borders does the French language transcend? What barriers does it create? Through a study of French and Francophone literature, cinema, and culture, this course questions the relationships between nation, location, language, and identity across borders and within contexts of immigration and exile. Prerequisites: one 250-level French course or permission of the instructor. Three hours per week. *Four semester hours. (H, O, L.)*

FREN-362. French and Francophone Thought

How does thinking in French help us understand the world? What does French-language thought contribute to our reflection on the core questions of the Ursinus quest? Beginning with these broad questions, this course invites students to reflect on philosophical and theoretical texts written in French. Students also more narrowly probe how French and Francophone thinkers have theorized our obligations to others.

Prerequisites: one 250-level French course or permission of the instructor. Three hours per week. *Four semester hours. (H, L.)*

FREN-372. Masterpieces of French and Francophone Literature and Cinema

In this course, students develop their advanced analytical skills by closely studying texts and/or films from significant authors and filmmakers centered around a theme, movement, person, or region. Prerequisites: one 250-level French course or permission of the instructor. Three hours per week. *Four semester hours. (H, L.)*

FREN-381. Internship

An academic work/experience under the supervision of an internship adviser and an on-site supervisor. Students must document their experience according to the requirements delineated in the College catalogue section on Internships. Contact the chair of the department for further details. Open to juniors and seniors. The term during which the internship work is performed will be noted by one of the following letters, to be added immediately after the internship course number: A (fall), B (winter), C (spring), or D (summer). Internships undertaken abroad will be so indicated by the letter I. The intern must complete a minimum of 120 hours of work. Graded S/U. Prerequisites: one 250-level French course and approval of a faculty internship adviser. *Three semester hours. (XLP.)*

FREN-382. Internship

An academic work/experience under the supervision of an internship adviser and an on-site supervisor. Students must document their experience according to the requirements delineated in the College catalogue section on Internships. Contact the chair of the department for further details. Open to juniors and seniors. The term during which the internship work is performed will be noted by one of the following letters, to be added immediately after the internship course number: A (fall), B (winter), C (spring), or D (summer). Internships undertaken abroad will be so indicated by the letter I. The intern must complete a minimum of 160 hours of work. Graded S/U. Prerequisites: one 250-level French course and approval of a faculty internship adviser. *Four semester hours. (XLP.)*

FREN-440W. Senior Seminar in French and Francophone Studies

In-depth examination of a theme in French and Francophone Studies that invites students to reflect on their quest through the French and Francophone Studies curriculum as well as their liberal arts education holistically. Focused attention will be given to the core question of "What will I do?" within the sphere of the chosen theme. This course satisfies the capstone requirement for the French major. Prerequisites: One 300-level French course and senior status or permission of the instructor. Three hours per week, and in some cases two-hour film screenings per week, depending on the topic. *Four semester hours. (H, L.)*

FREN-491. Research/Independent Work

This course is open to candidates for departmental honors and to other students with the permission of the department chair. Prerequisites: one 300-level French course. *Four semester hours. (XLP.)*

FREN-492W. Research/Independent Work

A continuation of FREN-491. This is a writing-intensive course and at least one formal oral presentation is required. This course satisfies the capstone requirement for the

French major. Prerequisites: FREN-491 and permission of the department chair. *Four semester hours. (XLP.)*

German Requirements and Courses

- **Requirements for Majors**

  German majors are required to take a minimum of 36 credit hours in German beyond the 100 level. GER-251, 252 and at least one 400-level W course are required, as well as a study abroad experience as approved by the department. German majors can fulfill the requirement for an oral presentation in the major and the capstone requirement by taking GER-440W or 492W.

  ### Secondary School Certification

  Students planning to obtain certification for secondary-school teaching in German must take a minimum of 24 credit hours in German at the 200, 300 and 400 levels. The following courses are required: GER-251 and 252; 313 or 314; 328 and at least two 300- or 400-level courses. In addition to the course requirements, students are required to pass a qualifying examination before they will be admitted to candidacy for certification and a competency examination before being certified.

  These tests will examine students' linguistic competence, orally and in writing, testing phonetics, conversation, grammar and composition. The exit exam will also check their knowledge of German literature and culture, including the arts, history and geography. Students and their advisers should consult the Ursinus College Education Department. Language majors and students preparing for certification are required to supplement their work at Ursinus by spending a summer, a semester or an entire year in an academic program in a German-speaking country approved by the department.

  ### Requirements for Minors

  #### German Minor

  A minor in German consists of 20 credits. Required of all minors are GER-251 or GER-252. The remaining credits can come from intermediate-level courses (GER-111, 112), and any GER courses at the 200-, 300-, or 400-levels.

German Studies Minor

A minor concentration in German Studies consists of six courses, two of which must be taken in the History department and two in the German Section of Modern Languages, including GER-252. Two additional courses, one in German, one in History or an independent study project addressing a topic either in History or German, may be taken through any Ursinus approved study- abroad program. Students may choose from among the following courses at Ursinus: HIST/GWSS-102, GER-201, 202, 251, 252, 314, 315.

- **GER-101. Elementary German I**
  Development of the four skills of listening, speaking, reading and writing. Designed for beginners or students with little or no recent study of the language. Four hours per week. *Four semester hours. (L.)*

GER-102. Elementary German II

Continuation of GER-101. Four hours per week. *Four semester hours. (L.)*

GER-111. Intermediate German I

A review of basic grammar concepts and development of listening and communication skills. Texts of social and cultural interest provide the focus for class discussion and writing exercises. Prerequisite: GER-102 or equivalent. Four hours per week. *Four semester hours. (L.)*

GER-112. Intermediate German II

A continuation of GER-111. A review of selected advanced grammar concepts and further development of listening and communication skills. Prerequisite: GER-111 or equivalent. Four hours per week. *Four semester hours. (L)*

GER-201. Conversation and Composition I

Intensive review of grammar to perfect oral and written communication. Literary texts, newspaper articles, and German films will be discussed. Course includes formal and informal writing exercises and student presentations. Prerequisite: GER-112 or equivalent. Four hours per week. *Four semester hours. (H, L.)*

GER-202. Conversation and Composition II

Intensive review of grammar to perfect oral and written communication. Course includes formal and informal writing exercises and student presentations. Prerequisite: GER-201 or permission of instructor. Four hours per week. *Four semester hours. (H, L.)*

GER-251. Introduction to German Literature

A survey of the works of major German writers from the Middle Ages to the 18th century. Special emphasis will be given to the socio-cultural context in which their writing is embedded. Students will also be introduced to literary analysis and formal writing. Prerequisite: GER-202 or permission of instructor. Three hours per week. *Four semester hours. (H, L.)*

GER-252. German Literature and Film

The works of 18th, 19th, and 20th-century authors will be discussed in the context of the times in which they were written. Students will analyze these works and familiarize themselves with the politics, art, and film of Germany. Prerequisite: GER-251 or permission of instructor. Three hours per week. *Four semester hours. (H, L.)*

GER-313. German Studies in Literature

Topics vary. Prerequisite: GER-251 and 252 or permission of instructor. Three hours per week. *Four semester hours. (H, L.)*

GER-314. German Studies in Culture

Topics vary. Topics include a study of German cinema, scientific German, and environmental German, among others. Texts will come from a variety of sources. Prerequisites: GER-251 and 252, or permission of instructor. Three hours per week. *Four semester hours. (H, L.)*

GER-315. Germany Today

A study of contemporary German politics, economics and society. Prerequisites: GER-251 and 252 or permission of the instructor. Four hours per week. *Four semester hours. (SS.)*

GER-318. Commercial and Economic German

Study of contemporary economic issues and events in German-speaking countries. Prerequisites: GER-251 and 252; or permission of the instructor. Four hours per week. *Four semester hours. (H, L.)*

GER-319. Twentieth-century German Short Story

Readings in the twentieth-century German short story. Students will read, discuss and analyze stories by major German writers. Prerequisites: GER-251, 252, or permission of the instructor. Three hours per week. *Four semester hours. (H, L.)*

GER-320. German Novelle

History and development of the German Novelle from Goethe to the 20th century. Prerequisites: GER-251, 252, or permission of instructor. Three hours per week. *Four semester hours. (H, L.)*

GER-328. Advanced German Grammar

In-depth study of German phonetics, morphology and syntax with special emphasis on the problems related to the teaching of the language. Prerequisites: GER-201, 202 or permission of instructor. Four hours per week. *Four semester hours. (H, L.)*

GER-335. Independent Study in German

Individual study of topics in German literature and civilization. Prerequisites: GER-251 and 252; or permission of instructor. *Two to four semester hours. (H, L, XLP, if 4 credits.)*

GER-340. Das deutsche Märchen

A study of the German Fairy Tale from the Brothers Grimm through the 20th century. Oral antecedents, the literary fairy tale, and satirical fairy tales will be treated. Prerequisite: GER-251 and 252. Three hours per week. *Four semester hours. (H, L.)*

***Note:** 300- and 400-level courses are offered in rotation.*

GER-381. Internship

An academic work/experience under the supervision of an internship adviser and an on-site supervisor. Students must document their experience according to the requirements delineated in the College catalogue section on Internships. Contact the chair of the department for further details. Open to juniors and seniors. The term during which the internship work is performed will be noted by one of the following letters, to be added immediately after the internship course number: A (fall), B (winter), C (spring), or D (summer). Internships undertaken abroad will be so indicated by the letter I. The intern must complete a minimum of 120 hours of work. Graded S/U. Prerequisites: three courses in German and approval of a faculty internship adviser. *Three semester hours. (XLP.)*

GER-382. Internship

An academic work/experience under the supervision of an internship adviser and an on-site supervisor. Students must document their experience according to the requirements delineated in the College catalogue section on Internships. Contact the chair of the department for further details. Open to juniors and seniors. The term during which the internship work is performed will be noted by one of the following letters, to be added immediately after the internship course number: A (fall), B (winter), C (spring), or D (summer). Internships undertaken abroad will be so indicated by the letter I. The intern must complete a minimum of 160 hours of work. Graded S/U. Prerequisites: three courses in German and approval of a faculty internship adviser. *Four semester hours. (XLP.)*

GER-440W. Advanced Seminar

Topics vary. This course satisfies the College requirement of a capstone experience. Prerequisites: GER-251, 252, and three 300 level courses; or permission of instructor. MCS-102 is strongly recommended. Three hours per week. *Four semester hours. (H, L.)*

GER-491. Research/Independent Work

This course is open to candidates for departmental honors and to other students with the permission of the department chair. This course does not satisfy the College requirement of a capstone experience. *Four semester hours. (XLP.)*

GER-492W. Research/Independent Work

A continuation of GER-491. This is a writing-intensive course and at least one formal oral presentation is required. This course satisfies the College requirement of a capstone experience. Prerequisites: GER-491 and permission of the department chair. MCS-102 is strongly recommended. *Four semester hours. (XLP.)*

Japanese Requirements and Courses

- Ursinus College offers a full four-year curriculum in the Japanese language, along with courses on Japanese history, society, and culture. The Japanese language curriculum is designed to develop the five language skills—speaking, listening, reading, writing, and culture. Students of the Japanese language are encouraged to consider majoring or minoring in East Asian Studies and/or such departments as History and International Relations. Students may also pursue a student-

initiated major that includes the study of Japanese. In all courses, students work with authentic materials and teaching assistants who are native speakers. Ursinus offers carefully selected study abroad opportunities for summer, semester, and full-year programs, and is one of three institutions in Pennsylvania to offer a teacher certification program in Japanese.

Requirements for Minors

A minor in Japanese consists of 20 semester hours, including JPN-211, 212, eight additional credits at the 300-level, and one of the following: EAS-224, 299 (when topic is on Japan), 314; HIST-151, 254, 352, 354, or another non-language course on Japan as approved by the Modern Languages chair in consultation with Japanese-language faculty.

Secondary School Certification

Students planning to obtain certification for secondary-school teaching in Japanese are required to take the following courses: JPN-211, 212, 301, 328; ENGL-224; HIST-151 or POL-346; and EAS-299, 314, or 401. In addition to the course requirements, students are required to pass a qualifying examination before they will be admitted to candidacy for certification and a competency examination before being certified.

These tests will examine students' linguistic competence, orally and in writing, testing phonetics, conversation, grammar and composition. The exit exam will also check their knowledge of Japanese literature and culture, including the arts, history and geography. Students and their advisers should consult the Ursinus College Education Department. Language majors and students preparing for certification are required to supplement their work at Ursinus by spending a summer, a semester or an entire year in a foreign country with a program approved by the department. Exceptions to this policy may be made by petition to the department chair.

- **JPN-101. Elementary Japanese I**

  An introduction to the Japanese language. The course is designed to introduce the student to the basic rules of spoken and written Japanese while providing basic communicative skills. Four hours per week plus one hour of practice with the language assistant. *Four semester hours. (L.)*

JPN-102. Elementary Japanese II

Continuation of JPN-101. The focus is placed on situation-sensitive language use and the systematic introduction of basic grammar and sentence patterns. Basic kanji characters are introduced. Prerequisite: JPN-101 or equivalent. Four hours per week plus one hour of practice with the language assistant. *Four semester hours. (L.)*

JPN-111. Advanced Elementary Japanese I

Continued introduction of the fundamental structures of spoken and written Japanese. Development of interpersonal communication skills beyond the functional level. Prerequisite: JPN-102 or equivalent. Four hours per week plus one hour of practice with the language assistant. *Four semester hours. (L.)*

JPN-112. Advanced Elementary Japanese II

Continuation of JPN-111. Development of more sophisticated structures and patterns, moving towards conversational fluency. Continued study of reading and writing, with knowledge of 200-300 kanji characters by end of course. Four hours per week plus one hour of practice with the language assistant. F*our semester hours. (L.)*

JPN-211. Intermediate Japanese I

Review of basic structures combined with further enhancement of oral and written communication skills. Continued expansion of knowledge of kanji characters, plus development of ability to handle complicated situations. Prerequisite: JPN-112 or equivalent. Four hours per week plus one hour of practice with the language assistant. *Four semester hours. (H, L.)*

JPN-212. Intermediate Japanese II

Continuation of JPN-211. Completion of study of fundamentals of Japanese language. Development of ability to read and discuss authentic texts, and to handle a wide range of conversational situations. Prerequisite: JPN-211 or equivalent. Four hours per week plus one hour of practice with the language assistant. *Four semester hours. (H, L.)*

JPN-311. Advanced Japanese I

Study of complex linguistic structures in the context of the development of an analytical understanding of the Japanese language. Reading and viewing of advanced-level authentic materials in written and video texts, with an emphasis on a nuanced understanding and an ability to discuss and write about the texts in depth. Three hours per week plus one hour of practice with the language assistant. Prerequisite: JPN-212 or equivalent. *Four semester hours. (H, L.)*

JPN-312. Advanced Japanese II

Continuation of JPN-311. Upon completion of this course, students should have developed the resources to handle virtually any conversational situation or modern text. Three class hours per week plus one hour of practice with the language assistant. *Four semester hours. (H, L.)*

JPN-328. Advanced Japanese Grammar

In-depth study of Japanese phonetics, morphology and syntax with special emphasis on the problems related to the teaching of the language. Prerequisite: JPN-312 or permission of the instructor. Four hours per week. *Four semester hours. (H, L.)*

JPN 335. Independent Study in Japanese

Individual study of topics in Japanese literature, society or culture. Prerequisite: JPN-312 and permission of the instructor. *Two to four semester hours. (XLP, if 4 credits.)*

JPN-381. Internship

An academic work/experience under the supervision of an internship adviser and an on-site supervisor. Students must document their experience according to the requirements delineated in the College catalogue section on Internships. Contact the chair of the department for further details. Open to juniors and seniors. The term during which the internship work is performed will be noted by one of the following letters, to be added immediately after the internship course number: A (fall), B (winter), C (spring), or D (summer). Internships undertaken abroad will be so indicated by the letter I. The intern must complete a minimum of 120 hours of work. Graded S/U. Prerequisites: Four courses in Japanese and approval of a faculty internship adviser. *Three semester hours. (XLP.)*

JPN-382. Internship

An academic work/experience under the supervision of an internship adviser and an on-site supervisor. Students must document their experience according to the requirements delineated in the College catalogue section on Internships. Contact the chair of the department for further details. Open to juniors and seniors. The term during which the internship work is performed will be noted by one of the following letters, to be added immediately after the internship course number: A (fall), B (winter), C (spring), or D (summer). Internships undertaken abroad will be so indicated by the letter I. The intern must complete a minimum of 160 hours of work. Graded S/U. Prerequisites: Four courses in Japanese and approval of a faculty internship adviser. *Four semester hours. (XLP.)*

JPN-491. Research/Independent Work

This course is open to candidates for departmental honors and to other students with the permission of the department chair. This course does not satisfy the College requirement of a capstone experience. *Four semester hours. (XLP.)*

JPN-492W. Research/Independent Work

A continuation of JPN-491. This is a writing intensive course and at least one formal oral presentation is required. This course satisfies the College requirement of a capstone experience. Prerequisites: JPN-491 and permission of the department chair. MCS-102 is strongly recommended. *Four semester hours. (XLP.)*

Spanish Requirements and Courses

- **Requirements for Majors**

  Spanish majors are required to take a minimum of 36 credit hours in Spanish at the 200-, 300- and 400-levels. Students may also take SPA-119 and/or SPAN-150 toward fulfilling the major requirements. SPAN-251, 252, and at least one 400-level W course are required, as well as a study abroad experience as approved by the department. Spanish majors can fulfill the requirement for an oral presentation in the major and the capstone requirement by taking SPAN-401W, 402W, 440W or 492W.

Secondary School Certification

Students planning to obtain certification for secondary-school teaching in Spanish must take a minimum of 24 credit hours in Spanish at the 200-, 300- and 400-levels. The following courses are required: SPAN-251, 252, 317, 328 and at least two 300- or 400-level courses. In addition to the course requirements, students are required to pass a qualifying examination before they will be admitted to candidacy for certification and a competency examination before being certified.

These tests will examine students' linguistic competence, orally and in writing, testing phonetics, conversation, grammar and composition. The exit exam will also check their knowledge of Spanish literature and culture, including the arts, history and geography. Students and their advisers should consult the Ursinus College Education Department. Language majors and students preparing for certification are required to supplement their work at Ursinus by spending a summer, a semester or an entire year in a foreign country with a program approved by the department. Exceptions to this policy may be made by petition to the department chair.

Requirements for Minors

A minor in Spanish consists of 20 credits. Required of all minors are SPAN-251 or SPAN-252. The remaining credits can come from intermediate-level courses (SPAN-111, 112), SPAN courses for the professions (SPAN-119, 150), and any SPAN courses at the 200-, 300-, or 400-levels.

- **SPAN-100. Elementary Spanish I for Absolute Beginners**
  Development of the four skills of listening, speaking, reading and writing. Designed for beginners of the language with no prior study of the language. This course is normally followed by SPAN-102. Four hours per week plus one hour of work with interactive technologies. *Four semester hours. (L.)*

  Note: *Students who took SPAN-100 cannot take SPAN-101 and vice versa.*

SPAN-101. Elementary Spanish I for High Beginners

Development of the four skills of listening, speaking, reading and writing. Designed for beginners of the language with prior study of the language. This course is normally followed by SPAN-102. Four hours per week plus one hour of work with interactive technologies. *Four semester hours. (L.)*

SPAN-102. Elementary Spanish II

Continuation of SPAN-100 or SPAN-101. Four hours per week plus one hour of work with interactive technologies. *Four semester hours. (L.)*

SPAN-111. Intermediate Spanish I

A review of the basic grammatical structures of Spanish, with emphasis on the use of tenses and the subjunctive mode, vocabulary development through readings and use of authentic materials, and cultural and elementary literary readings. Prerequisite: SPAN-102. Four hours per week plus one hour of work with interactive technologies. *Four semester hours. (L.)*

SPAN-112. Intermediate Spanish II

Although Intermediate Spanish II is a continuation of Intermediate Spanish I, students may be placed in this course if they can demonstrate a good command of the basic structures of the Spanish grammar. The main focus of this course will be in the strengthening of vocabulary and the written command of the language through the use of authentic materials, literary readings, and writing of short compositions. Prerequisite: SPAN-111 or equivalent. Four hours per week plus one hour of work with interactive technologies. *Four semester hours. (L.).*

SPAN-119. Spanish for Health Professions

This course is designed for students interested in the health professions. Students will acquire fundamental Spanish medical vocabulary, practical communication skills and the cultural competence necessary to engage with U.S. Hispanic and Latinx populations in various healthcare contexts. Prerequisite: SPAN-112 or the equivalent completed at the college level. Three hours per week. *Four semester hours. (DN, L, O.).*

SPAN-150. Topics in Spanish for the Professions

The course explores topics in Spanish for the Professions, such as Spanish for Business, Spanish for Public Health, or Spanish for Social Justice and Advocacy. This course aims to help students acquire the Spanish vocabulary, communication skills, and cultural competence necessary in specific professional fields. Prerequisite: SPAN-112 or the equivalent completed at the college level. Three hours per week. *Four semester hours. (L.).*

SPAN-201. Conversation and Composition I

Intensive review of the grammar to perfect oral and written communication. Materials used will be taken from a wide array of journalistic, literary, cinematic, and other forms of cultural expressions. Writing will be both formal and informal. Four hours per week plus one hour of conversation with the language assistant. Prerequisite: SPAN-112 or equivalent. *Four semester hours. (H, L.)*

SPAN-202. Conversation and Composition II

Continuation of SPAN-201. Prerequisite: SPAN-201 or permission of the instructor. Four hours per week plus one hour of conversation with the language assistant. *Four semester hours. (H, L.)*

SPAN-207. Spanish Civilization and Culture

A chronological introduction to Spanish history, culture and civilization from its beginnings to the present time. Recommended for students planning to study in Spain. May be taken in place of SPAN-202. Prerequisite: SPAN-201 or permission of the instructor. Four hours per week. *Four semester hours. (H, L.)*

SPAN-251. Survey of Hispanic Cultures

This course introduces students to the major historical events and cultural trends of the Hispanic world. Students will analyze a range of key cultural products—from chronicles to literary works, architecture and film—within their social and historical contexts. This

course will prepare students with the historical and cultural knowledge necessary for the advanced study of Hispanic cultures. Prerequisite: SPAN-202 or equivalent. Three hours per week*Four semester hours. (GN, H, L.)*

SPAN-252. Introduction to Hispanic Cultural Studies

This course introduces students to the major theoretical concepts and analytical tools necessary for the study of Hispanic cultural productions. Students will analyze Hispanic cultural products from a range of key analytical categories (e.g. race, nation, mass culture) and examine some major developments in the Hispanic world (e.g. migration, globalization, neoliberalism). This course will prepare students with the theoretical and analytical tools necessary for the advanced study of Hispanic cultures. Prerequisite: SPAN-202 or equivalent. Three hours per week. *Four semester hours. (GN, H, L.)*

Note: *300- and 400-level courses are offered in rotation.*

SPAN-308. Culture and Medicine

This course is designed for students interested in medicine or allied health fields. Students will use Spanish by engaging in specialized vocabulary and a variety of cultural and technical texts. The content of the course will emphasize traditional medical and non-traditional healing practices. Prerequisite: SPAN-119 or SPAN-201 or the equivalent. Three hours per week. *Four semester hours. (H, L.)*

SPAN-317. The Hispanic World

The development of the Hispanic Culture as a conjunction of Eastern and Western experiences and its subsequent expansion and transformation in the Americas. The creation of the American republics, the political and socio-economic crisis of the 20th century and the challenges of the future. Prerequisite: Two of the following: SPAN-201, 202, 251, 252 or permission of the instructor. Three hours per week. *Four semester hours. (GN, H, L.)*

SPAN-328. Advanced Spanish Grammar

In-depth study of the main grammatical aspects of the Spanish language with an emphasis on the verb system and syntax. Prerequisite: SPAN-201 or equivalent. Four hours per week. *Four semester hours. (H, L.)*

SPAN-335. Independent Study in Spanish

Individual study of topics in Spanish or Latin American literature or culture. Prerequisites: two 200-level courses and permission of the instructor. *Two to four semester hours. (H, L, XLP, if 4 credits.)*

SPAN-340. Topics in Hispanic Studies

The course explores topics in linguistics, literary, and cultural studies in the Hispanic world. Recent topics have included “Love, Sex and Marriage in Nineteenth-century Spanish Literature” and “Performance and Literature.” Prerequisite: SPAN-251 or 252, or permission of the instructor. Three hours per week, and in some cases two-hour film screenings per week, depending on the topic. *Four semester hours. (H, L.)*

SPAN-350. Spanish-English Translation

Practical introduction to translation from Spanish to English of literary, medical, cultural and consumer-oriented texts. It will have an individual final project consisting of the translation of a complete text —such as a research article, a short story, a video clip, etc.—of interest for the student. Prerequisites: SPAN-328, or permission of the instructor. Three hours per week. *Four semester hours. (H, L.)*

SPAN-352. Contemporary Hispanic Novel

Close readings of texts from a variety of perspectives (including gender, race, class), representing major trends in contemporary fiction (Spain and Latin America). Prerequisite: SPAN-251, 252, or permission of the instructor. Three hours per week. *Four semester hours. (GN, H, L.)*

SPAN-381. Internship

An academic work/experience under the supervision of an internship adviser and an on-site supervisor. Students must document their experience according to the requirements delineated in the College catalogue section on Internships. Contact the chair of the department for further details. Open to juniors and seniors. The term during which the internship work is performed will be noted by one of the following letters, to be added immediately after the internship course number: A (fall), B (winter), C (spring), or D (summer). Internships undertaken abroad will be so indicated by the letter I. The intern must complete a minimum of 120 hours of work. Graded S/U. Prerequisites: three courses in Spanish and approval of a faculty internship adviser. *Three semester hours. (XLP.)*

SPAN-382. Internship

An academic work/experience under the supervision of an internship adviser and an on-site supervisor. Students must document their experience according to the requirements delineated in the College catalogue section on Internships. Contact the chair of the department for further details. Open to juniors and seniors. The term during which the internship work is performed will be noted by one of the following letters, to be added immediately after the internship course number: A (fall), B (winter), C (spring), or D (summer). Internships undertaken abroad will be so indicated by the letter I. The intern must complete a minimum of 160 hours of work. Graded S/U. Prerequisites: three courses in Spanish and approval of a faculty internship adviser. *Four semester hours. (XLP.)*

SPAN-440W. Senior Seminar in Hispanic Studies

This course satisfies the College requirement for a capstone experience. It will explore topics in linguistic, literary, and cultural studies in the Hispanic world. Prerequisites: SPAN-251, 252 and senior status or permission of the instructor. MCS-102 is highly recommended. Three hours per week, and in some cases two-hour film screenings per week, depending on the topic. *Four semester hours. (H, L.)*

SPAN-491. Research/Independent Work

This course is open to candidates for departmental honors and to other students with the permission of the department chair. This course does not satisfy the College requirement of a capstone experience. *Four semester hours. (XLP.)*

SPAN-492W. Research/Independent Work

A continuation of SPAN-491. This is a writing-intensive course and at least one formal oral presentation is required. This course satisfies the College requirement of a capstone experience. Prerequisites: SPAN-491 and permission of the department chair. MCS-102 is highly recommended. *Four semester hours. (XLP.)*

Museum Studies

- *Associate Professor Barkun (Coordinator), Tierney.*

- Museums shape and at times challenge how we see objects and ourselves in relation to community, culture, and the world. They preserve, display, and interpret an astonishing array of materials of educational value. Museums come in many forms, and are cross-disciplinary. They involve different ways of knowing and doing. The Museum Studies minor enables students to investigate that vibrant world and its various professional paths. Minors and other students will understand how museums developed historically and what thinking informs current exhibition practices. Minors will also gain first-hand experience in one or more areas of museum work, such as curating, education, registration, collections management, conservation, or technology. Optional discipline-specific tracks allow minors and all students to bring what they learn about museums into alignment with their primary academic interest.

  Requirements for Minors

  A minor concentration in Museum Studies consists of five courses (combining for a total of 16 credits), one applied learning experience in a museum (three or four credits), plus an oral presentation, for a total of 19 or 20 credits. All students must take MS-100 Museum Studies (four credits), MS-200A (two credits) and B Curatorial Practice (two credits), and MS-350 Oral Presentation (zero credits). The applied learning experience (MS-381 or 382) must be an off-campus internship or curatorial experience and should focus on collections, conservation, education, interpretation, and/or research. The experience must be approved by the Museum Studies Coordinating Group. The remaining credits (elective) must come from two of the following: ACCT-140, ANTH-100, ANTH-205, any 100- or 200-level Art History course, ART-371, ART-372, EDUC-100, EDUC-265, EDUC-350W, any 300-level History course, MS-001, MCS-201, MCS-220, MCS-254, MCS-330, MCS-363, MS-250 or another course approved by the Museum Studies Coordinating Group. In the spring semester of their senior year, Museum Studies minors must also give an oral presentation at a Museum Studies session at the Celebration of Student Achievement, thus fulfilling MS-350.

As an option, students may choose to pursue a discipline-specific track in the Museum Studies minor. Each track consists of two courses from a list of relevant courses. Students who choose not to do a track can take elective credits in two separate track areas.

Elective course options for each track are:

- Anthropology: ANTH-100, 205
- Art History: ART-100, 150, 160, 230, 290, 371, 372
- Business and Economics: ACCT-140, MGT-200, MKT-250
- Education: EDUC-100, 265, 350W
- Environment and Sustainability: ENVS-242 or 272; ENVS-332, 338, 340, 360, or 366
- History: Any two History courses in the same area of concentration (U.S. and American, European and Mediterranean, non-Western, or world and comparative), one of which must be at the 300- or 400-level.
- History track for non-History majors: HIST-200W and one, 300-level History course
- Media and Communications Studies: MCS-201, 220, 254, 330, 363

Courses

- **MS-001. Museum Studies Practicum**
  A hands-on learning experience on a project related to the preparation of an exhibition. Prerequisites: Written consent of a Museum Studies faculty member. Graded S/U. Four hours per week. *One semester hour. (A.)*

Note: This course may be taken more than once.

MS-100. Museum Studies

An introduction to the social and political history of museums, as well as the structure, function and practices of museums in America and Europe. The Berman Museum will be our laboratory, and independent projects will focus on objects from the Museum's collections. Outside scholars and specialists will offer in-depth examination of selected topics. Visits are made to regional museums. The course will run Spring semester every two years, beginning Spring 2016. Three hours per week. *Four semester hours. (A.)*

Note: MS-100 may count as an elective for the Art and Art History major or minor.

MS-200A. Curatorial Practice

This course introduces students to activities, processes, challenges, skills, and thinking that initiate and develop the display and interpretation of objects in museums. Students

will collaboratively create an exhibition to open in The Berman Art Museum the January following the fall semester course. Visits to area museums. Students must take MS-200A and B to receive credit for one required course in the Museum Studies minor. MS200A will run Fall semester every two years, beginning Fall 2016. Prerequisite: MS-100 or permission of instructor. Two hours per week. *Two semester hours*.

MS-200B. Curatorial Practice

A continuation of MS-200A. This course involves the final preparations for the exhibition, its promotion, and its documentation. MS-200B will run Winter break every two years, beginning December 2016. Prerequisite: MS-200A or permission of instructor. Students must take MS-200A and B to receive credit for one required course in the Museum Studies minor. Two hours per week. *Two semester hours*.

MS-250. Special Topics in Museum Studies

A focused exploration of special subject areas in museum practice: curatorial, collections and archives, visitor experience, technologies, communications, or administration. Students will utilize on-campus resources or regional museums and archives for individual research projects. Museum trips required. This course could also be held off campus. Open to all students. A previous course in museum studies or art history is strongly recommended. Three hours per week. *Four semester hours*.

Note: This course may be taken more than once.

MS-350. Oral Presentation

A museum studies oral presentation. This course will satisfy the Museum Studies minor requirement for an oral presentation. Prerequisite: written consent of a member of the Museum Studies Coordinating Group. Graded S/U.*Zero semester hours*.

Note: This course is usually taken in spring semester of the student's senior year, and the oral presentation usually takes place at the Celebration of Student Achievement, held in April of that semester.

MS-381. Museum Studies Internship

An academic/work experience at a museum under the supervision of an internship adviser on the Museum Studies Coordinating Group and an on-site supervisor. Students must document their experience according to the requirements delineated in the College catalogue section on Internships. The Berman Museum of Art is not a possible site for MS-381. The intern must complete a minimum of 120 hours of work. Open to rising juniors and seniors. The term during which the internship work is performed will be noted by one of the following letters, to be added immediately after the internship course number: A (fall), B (winter), C (spring), or D (summer). Internships undertaken abroad will be so indicated by the letter I. Prerequisites: MS-100 and approval of the Museum Studies Coordinating Group. 120 hours. Graded S/U.*Three semester hours. (XLP.)*

MS-382. Museum Studies Internship

An academic/work experience at a museum under the supervision of an internship adviser on the Museum Studies Coordinating Group and an on-site supervisor. Students must document their experience according to the requirements delineated in the College catalogue section on Internships. The Berman Museum of Art is not a possible site for MS-382. The intern must complete a minimum of 160 hours of work. Open to rising juniors and seniors. The term during which the internship work is

performed will be noted by one of the following letters, to be added immediately after the internship course number: A (fall), B (winter), C (spring), or D (summer). Internships undertaken abroad will be so indicated by the letter I. Prerequisites: MS-100 and approval of the Museum Studies Coordinating Group. 160 hours. Graded S/U. *Four semester hours. (XLP.)*

- Art and Art History

Music

Faculty

- *Professor Hubbs; Associate Professor Abrahams (Chair); Assistant Professor Davis; Instructors Ashby, M. Favero, Langdon, Oehler, Rice, Snodgrass.*

- **Learning Goals**

  Students majoring in Music will:

  1. Develop the ability to hear, identify, and work conceptually with elements of music such as rhythm, melody, harmony, timbre, texture, and form.
  2. Develop an understanding of and the ability to read and realize a range of musical notation styles.
  3. Become familiar with a wide array of musical styles and genres and their cultural and historical sources.
  4. Develop the ability to theoretically analyze a variety of musics.
  5. Hone skills in basic music writing, creation, and composition.
  6. Expand their skill level in researching and writing critically about music.
  7. Develop skills of collaborative musicianship through participation in ensemble contexts or applied study.
  8. Work with and understand music technology and computers in the context of composition, songwriting, and historical practice.

  Music department offerings are designed to provide an understanding of music through a study of music history, culture, theory, technology, and creation, as well as performance opportunities. The curriculum is designed to integrate musicology, music theory, music technology, and music creation across a range of musical genres and styles, while providing ensemble and applied music instruction as a basis for connecting practical and analytical aspects of the discipline. Students who complete a music major can pursue graduate study but can also apply their knowledge of music to performing arts administration, music therapy, sound engineering, and music business applications.

  Requirements for Majors

  All students majoring in music will:

- Take core coursework in each of three concentration areas of music studies—music theory & cognition, music history & culture, and music technology & creation.
- Take additional coursework in one self-selected concentration area to deepen their understanding and skills in this area.
- Complete their degree with a capstone project in their concentration area.
- Participate in four semesters of either ensemble performance or applied lesson study.
- Attend two departmental concerts each semester following their major declaration.

A major in Music consists of 40 credits in both academic (36 hours) and applied/ensemble (4 hours) music courses.

- Two semesters (8 semester hours) of Music Theory courses: MUS-221 and 222W.
- Two semesters (8 semester hours) of Music History & Culture courses: MUS-205 and 206.
- Two semesters (8 semester hours) of Music Technology & Creation courses: MUS-226 and either MUS-227 or 321.
- One elective course in the student's chosen concentration area (4 semester hours) at the 300-level.
- One elective course from any concentration area (4 semester hours).
- Either MUS-401 or 491 (4 semester hours). MUS-401 is the major capstone and must be taken in the student's chosen concentration area. MUS-491 is reserved for Honors Research and may be substituted for MUS-401 with permission of department chair.
- Four semesters (4 semester hours) of music ensemble and/or applied music chosen from the following: MUS-00X, MUS-01X, MUS-02X, 03X, 04X, 05X, or 06X. Students may only count one credit per semester towards this requirement for a total of two years of ensemble participation.

*MUS-222W, MUS-305W, MUS-306W, or MUS-326W will fulfill the writing-intensive (W) requirement.

*MUS-401 will fulfill the oral presentation requirement as all students enrolled will present their research at an end-of-year symposium.

Requirements for Minor

A minor concentration in music consists of a minimum of five courses in music, with coursework taken in each concentration area.

Requirements include:

- One course (MUS-221) from the music theory & cognition concentration area.
- One course from the music history & culture concentration area.
- One course (MUS-226) from the music technology & creation concentration area.
- Two additional courses selected from any concentration area.
- One course MUST be chosen from the 300-level.

Courses

- ### MUS-121. Foundations of Music Theory

  Foundations of Music Theory An introductory course in music theory which presents essential basic concepts in music through composition, analysis, and listening. The course consists of a study of musical elements, terminology, rhythm, and five-line staff notation, including clefs, notes, intervals, scales, modes, chords, keys, and key signatures. Additional emphasis on the acquisition of aural skills through ear-training. Three hours per week. *Four semester hours. (A.)*

  Note: Students who have completed MUS-100 cannot enroll in MUS-121.

MUS-200. Topics in Music

A study of a specific musical topic that is interdisciplinary in nature. The course will place emphasis on independent research as well as required listening. No Prerequisite. Three hours per week. *Four semester hours. (A.)*

MUS-203. The Expense of Musical Appropriation and the Dividends of Collaboration

There is a rich history of people from different nations, ethnicities, and races exchanging ideas and sharing cultures. For African peoples and their descendants in the diaspora, such exchanges became tools that helped them survive oppression and overcome marginalized positionalities, even as they made contributions to the global pop industry. This course studies local musical cultures in Africa, the Caribbean, and the United States, and their global circulation, to question the appropriation, adaptation, and commercialization of music. It asks what the term “appropriation” means and how one may distinguish borrowing and collaboration from theft and exploitation. We will learn basic music theory and use introductory digital music production tools to translate what we learn into audio projects and civic engagement workshops. We strongly encourage the participation of those with no music experience. Three hours per week. *Four semester hours. (GN, H.)*

MUS-205. Music History and Culture I

An examination of the history of music, beginning with pre-human natural soundscapes and continuing through approximately the 18th century. This course will examine the music of Western cultural elites, as well as music of previously suppressed outsiders and rebels who created music revolutions. This course focuses on the

subversive as a catalyst for change in music and society. Topics may include music's relationship to sexuality, violence, social control, generational conflict, and political unrest. Intensive listening assignments and research projects are required for the course. Three hours per week. *Four semester hours. (A, H.)*

MUS-206. Music History and Culture II

An examination of the history of music, beginning in the mid-18th century through the 21st-century. This course will examine music intended as a catalyst for change, music that challenged conventions and conveyed coded messages. Topics may include an exploration of how music will evolve in the future and creating musical soundscapes in the digital age. Intensive listening assignments and a research project are required for the course. Three hours per week. *Four semester hours. (A, H.)*

MUS-207. History of Jazz

A survey of the development of jazz from its African origins through the present. Includes a detailed investigation of how various socio-political factors affected the development of this American music. The course will include intensive listening and research assignments, video presentations, and a final research paper. Three hours per week. *Four semester hours. (A, DN, H.) (LINQ when offered with DANC-330.)*

MUS-208. Survey of Global Musics

This course traces the development of global musics by examining the cultural and political milieu in which they are composed. Students will develop an understanding of musical terminology and will develop skills needed to listen to and better understand music of varying cultures. Students will participate in a variety of activities including singing, playing instruments, and dancing. This course will include intensive listening assignments. Three hours per week. *Four semester hours. (A, GN, H.)*

MUS-221. Music Theory and Aural Skills I

The first semester of an integrated two-semester theory sequence that examines the melodic, rhythmic, harmonic, and formal organization of music while developing critical listening skills. Students will develop skills in the application of music fundamentals, analysis of small forms, composition, and aural musicianship. Emphasis on diatonic harmony in classical and popular music repertoires. Prerequisite: MUS-121 or permission of instructor through diagnostic placement test. Four hours per week. *Four semester hours. (A.)*

MUS-222W. Music Theory and Aural Skills II

The second semester of an integrated two-semester theory sequence that examines the melodic, rhythmic, harmonic, and formal organization of music while developing critical listening skills. Students will develop skills in analysis of larger forms, analytical writing, composition, and aural musicianship. The course includes an introduction to chromatic harmony and places emphasis on classical and popular music repertoires. Prerequisite: MUS-221 or permission of instructor through diagnostic placement test. Four hours per week. *Four semester hours. (A.)*

MUS-226. Music Technology I

An introductory course in computer-based music technology and the first in a two-semester sequence focusing on music technology software and hardware. Students will learn the concepts of sequencing, mixing, production, audio effects, loop-based composition, and sampler and synth programming through composition projects. Emphasis on the physics of sound, MIDI, synthesizer techniques, song analysis, and songwriting. Three hours per week. *Four semester hours. (A.)*

MUS-227. Music Technology II

A continuation of Music Technology I that further explores the hardware and digital practices of music production with a strong emphasis on audio recording. Students will develop skills in microphone technique, recording hardware, audio interfaces and mixing boards, and acoustics as well as more advanced skills in mixing and production through music projects and analysis. Additional concepts may include live sound reinforcement and recording, physics of audio technology, and audio mastering. Prerequisite: MUS-226 or permission of instructor. Three hours per week. *Four semester hours. (A.)*

MUS/TD/ART-233. Sound Design

This course introduces students to the fundamentals of sound design. The class focuses on creating an environment with sound through the use of Foley, pre-recorded media, and music. Additionally, students explore basic sound technology and tools to create a theatrical sound design. This course is made up of a combination of lectures, class discussions, and projects. Class participation is essential to the success of this course. Students are asked to think critically and express ideas about their work as well as the work of others. Four hours per week. *Four semester hours. (A.)*

MUS-301. What is Music?

What components make sounds into music? What makes us identify sound events as not music? How does our background or education shape our ideas about what can be considered music? How does the way we define music give us power in social, cultural, aesthetic, and even legal spheres? This course explores what "music" is from aesthetic, philosophical, cultural, and analytical standpoints. In this course, students will examine different ways of defining and understanding music as a social, artistic, aesthetic, scientific, and personal phenomenon. The course will also consider the ethical and personal ramifications of such musical definitions. Readings from philosophy, music theory, history, and ethnomusicology, music psychology, sound studies, and music copyright law will be included. Students will build their critical reading, writing, and speaking skills through discussion, writing and reading assignments, and research projects. There are no prerequisites to enroll in this course. *Four semester hours. (A, CCAP, H.)*

MUS/GWSS-305W. Women in Music

This course will examine the contributions of women as composers, performers, patrons and conductors of music from the Middle Ages through the twentieth century. The course will focus largely on the roles of women in the sphere of Western classical music, global musics, and popular music. The course requires a variety of listening assignments and research projects. Three hours per week. *Four semester hours. (A, DN, H.)*

MUS-306W. History of American Music

This course will examine various types of music that have evolved in North America, from indigenous peoples, the colonial era, mid-century Rock 'n' Roll culture to modern-day pop genres. Students will learn the history of North America's musical evolution and revolutions, focusing largely on the contributions of West African peoples to America's musical culture. This course requires weekly listening and written responses to many different styles of music. Three hours per week. *Four semester hours. (A, H.)*

MUS-307. Topics in Music History and Culture

A study of a specific period or genre of music, and an examination of the music through cultural, political, and societal contexts. The course will place emphasis on independent

research as well as required listening. Three hours per week. *Four semester hours. (A, H.)*

MUS-321. Songwriting

This course will examine elements of songs including lyrics, melody, harmony, and form. Students will be expected to listen critically and analyze a variety of songs and to create and collaborate on different song projects. The class is heavily project-based. Students will work to build a catalog of original songs. Students need not be experienced singers but must be willing to record themselves singing. Additionally, students should have facility with an instrument or familiarity with production technology. Prerequisite: MUS-121 or MUS-226, or permission of instructor. Three hours per week. *Four semester hours. (A.)*

MUS-323. Topics in Music Technology and Creation

A study of music composition or songwriting techniques focusing on pitch, harmony, rhythm, timbre, and form that may include study of technological practices or specific styles through analysis and model composition. This course will place emphasis on project-based compositions using production or notation. Three hours per week. *Four semester hours. (A.)*

MUS-326W. Music Cognition

This course surveys the field of music cognition: an intersection of music theory, music psychology, and neuroscience. Topics covered will include music and emotion, embodied music cognition, music and evolution, pitch, meter, and form perception, music and language, and music learning and performance. A significant research project culminating in a literature review of a sub-area of music cognition will be required. Three hours per week. *Four semester hours. (A.)*

MUS-328. Topics in Music Theory and Cognition

A study of a specific area of music theory or cognition research, method of music analysis, or focused analysis in a particular musical style or genre. The course will place emphasis on independent research as well as required listening. Three hours per week. *Four semester hours. (A.)*

MUS-380. Music Cognition Readings and Research

Reading and research under the direction of a faculty member designed to introduce students to research procedures and data manipulation in the context of an original research project. This course can be taken more than once. Prerequisite: permission of a participating faculty member to serve as an advisor. Three hours of reading, research design, data collection, and/or analysis work per week. Graded S/U. *One semester hour.*

MUS-381 Internship

An academic/work experience under the supervision of an internship adviser and an on-site supervisor. Students must document their experience according to the requirements delineated in the College catalogue section on Internships. Contact music faculty for further details. Open to juniors and seniors. The term during which the internship work is performed will be noted by one of the following letters, to be added immediately after the internship course number: A (fall), B (winter), C (spring), or D (summer). Internships undertaken abroad will be so indicated by the letter I. The intern must complete a minimum of 120 hours of work. Graded S/U. Prerequisites: approval of an internship adviser and three courses in music. *Three semester hours (XLP.)*

MUS-382 Internship

An academic/work experience under the supervision of an internship adviser and an on-site supervisor. Students must document their experience according to the requirements delineated in the College catalogue section on Internships. Contact music faculty for further details. Open to juniors and seniors. The term during which the internship work is performed will be noted by one of the following letters, to be added immediately after the internship course number: A (fall), B (winter), C (spring), or D (summer). Internships undertaken abroad will be so indicated by the letter I. The intern must complete a minimum of 160 hours of work. Graded S/U. Prerequisites: approval of an internship adviser and three courses in music. *Four semester hours (XLP.)*

MUS-401A. Capstone Research Seminar in Music History and Culture, or Music Theory and Cognition Topics

Advanced research seminar designed for junior or senior majors in music with concentrations in music history and culture or in music theory and cognition. Students will work on self-devised research projects in a cohort context and develop their professional writing and presentation skills. A final public presentation of work is required. Three hours per week. *Four semester hours. (A.)*

MUS-401B. Capstone Research Seminar in Music Technology and Creation

Advanced research seminar designed for junior or senior majors in music with concentrations in music technology and creation. Students will work on self-devised creative projects in a cohort context and develop their composition, production, and lyrical skills. A final public presentation of work is required. Three hours per week. *Four semester hours. (A.)*

MUS-491 Research/Independent Work

This course is open to candidates for departmental honors and to other students with the permission of the department chair. Prerequisites: Permission of the department. *Four semester hours. (A, XLP.)*

MUS-492 Research/Independent Work

A continuation of MUS-491. Open only to candidates for honors. Prerequisites: MUS-491 and permission of the department. *Four semester hours. (A, XLP.)*

Ensembles and Lessons

MUS-011-018. Voices of Ursinus

A choral ensemble of mixed voices open without audition. The choir performs repertoire representing diverse styles and cultures. The Voices of Ursinus will present one campus concert per semester and may appear at campus functions. Graded S/U. Three to four hours per week. *One semester hour. (A, if four semester hours are completed.)*

Mus 021-028. Wind Ensemble

A small instrumental ensemble open without audition. Members perform ensemble works, and may be placed in a smaller chamber group and/or perform solo repertoire. The Wind Ensemble will present one campus concert per semester and may appear at campus functions. Graded S/U. Two to three hours per week. *One semester hour. (A, if four semester hours are completed.)*

MUS-031-038. Ursinus College Jazz Ensemble

A big band open by audition to all students. The ensemble performs arrangements and original compositions in a variety of jazz styles. The Jazz Ensemble will present one campus concert per semester and may appear at campus functions. Graded S/U. Two to three hours per week. *One semester hour. (A, if four semester hours are completed.)*

MUS-041-048 and 04SA. - Guitar

MUS 041-048 and 04SB. - Piano

MUS-041-048 and 04SC. - Voice

MUS-041-048 and 04SD. - Other

Applied Lessons

This course provides private music instruction for one hour each week, focusing on technique and performance practice. The course will give students the opportunity to continue their growth as musicians. One hour per week. During the summer there would be a total of 14 hours of lessons. Students can sign up for MUS-04S more than once. Music lessons fee. *One semester hour. (A, if four semester hours are completed.)*

MUS-051-058. Ursinus Strings

A chamber strings ensemble open without audition. Members will present one campus concert per semester and may appear at campus functions. Graded S/U. Two to three hours per week. *One semester hour. (A, if four semester hours are completed.)*

MUS-061-068. Ursinus College Singers

Ursinus College Singers is an auditioned choral ensemble of soprano and alto voices. The choir performs treble repertoire representing varied backgrounds and languages. The Ursinus College Singers will present one campus concert per semester and may appear at campus functions. Graded S/U. Three to four hours per week. *One semester hour. (A. if four semester hours are completed.)*

MUS-071–078. UC Tonight Modern Band

UC Tonight Modern Band performs music from rock and pop and their subcategories including indie, funk, soul, rhythm and blues, folk, country, punk, and more. The ensemble features modern band instrumentation, including drums, guitar, bass, keyboards, vocals, and horns, among others. Students gain experience in musical arrangement, collaboration, and live performance. The UC Tonight Modern Band will present one campus concert per semester and may appear at on and off campus functions. Two to three hours per week. Graded S/U. *One semester hour. (A, if four semester hours are completed.)*

- Music Department

Native American and Indigenous Studies

Faculty

- *Associate Professor Lori Daggar* (coordinator)

- The minor in Native American and Indigenous Studies (NAIS) invites students to consider Indigenous peoples' and nations' experiences across time and place. Courses offer students the opportunity to study Indigenous histories alongside both the present and Indigenous futures, foregrounding questions of nationhood and sovereignty, personhood, creativity, materiality, and culture. Applied and experiential learning is a cornerstone of the minor. Students are required to contribute to two NAIS-related partnerships; one is as an active participant in the college's Welcome Home Project (a partnership with the Delaware Tribe of Indians and Perkiomen Valley School District) and the other is of their design and choosing in consultation with the coordinator and NAIS faculty. In addition to these experiences, students will complete 20 credit hours of coursework.

  ### Requirements for Minor

  A minor in Native American and Indigenous Studies (NAIS) consists of a minimum of 20 semester hours of credit. The requirements are as follows:

  - Two courses from the following: ANTH-226; ART-220/320; HIST-225 (the other may be taken as an elective)

  - One elective course each from the following groups*:
    - Group 1: ART-220/320, 230/330, 240/340, 280/380

    - Group 2: ANTH-221, ANTH/HSOC-283; ENVS-428W, 425; RELS-261

    - Group 3: ANTH-226; HIST-225; PHIL-110

  * Credit will be accepted from the following courses if the topic is on Native American and Indigenous Studies topics: ANTH 251; ART-250/350; FS-252; MCS-375; MS-250; HIST-150, 250, 350; RELS-309;

SPAN-340, 440W. Other relevant topics courses in other departments and independent study projects will also count towards the minor with the approval of the coordinator, who will assign them to appropriate elective groups. Similarly, courses taken during a study abroad or off campus program may also count towards this minor with approval from the NAIS coordinator.

- To fulfill the minor, students must also complete an applied learning or experiential component the focus of which is germane to NAIS, from among the following options (use of Bonner Leaders, Melrose Fellows, Model UN, Parlee Center Fellows, U-Imagine, or Summer Fellows to fulfill the applied learning requirement of the NAIS minor requires the joint approval of the NAIS coordinator and the director or advisor of the respective program):
  - Internships
  - Office of Sustainability Fellows Program (Food Forest, Campus Farm)
  - Semester-long research (directed, independent, or honors) with participating NAIS faculty
  - Bonner Leaders Program
  - Melrose Fellows
  - Model UN o Parlee Center for Science and the Common Good Fellows
  - U-Imagine
  - Summer Fellows research
  - Study Abroad in ANTH/HSOC 283
  - Sustained work on the Welcome Home Project (determined in consultation with the NAIS coordinator)

- To fulfill the NAIS minor, students must also participate in and contribute to the Welcome Home Project (in consultation with the NAIS coordinator)

  - This requirement may be fulfilled via coursework or via one of the applied learning experiences outlined above

  - An example of this might be conducting an oral history interview in a course for the minor that is then added to the Welcome Home archive

At least eight of the 20 credits for the minor must be in addition to credits already counting toward the student's major(s) and/or another minor.

Neuroscience

Faculty

- *Professors E. Dawley, Favero (Coordinator); Associate Professors Bish, Frymiare, King; Assistant Professor s Gorenberg, Makuch; Visiting Assistant Professor Vogler .*

- Neuroscience is a rapidly expanding multidisciplinary field devoted to understanding the complex functioning of the nervous system. Neuroscience attempts to understand the neural substrates of both normal and abnormal patterns of behavior as well as mental events and mental states.

  The Neuroscience major is designed for students interested in exploring how the nervous system contributes to thought, emotion, neuropathology, and behavior. This major integrates the multidisciplinary nature of the field by providing students with an interdisciplinary approach to the study of brain function, behavior, and the mind.

  The courses in the neuroscience curriculum are selected from an array of disciplines. The following areas of study contribute to the interdisciplinary perspective of the major: biology, biochemistry and molecular biology, chemistry, computer science, health and exercise physiology, philosophy, psychology, and physics. Neuroscience majors are prepared for their future careers through basic science and clinical research in their courses, internships, volunteer, and shadowing opportunities.

  Neuroscience majors will graduate with a Bachelor of Science that will enable them a career in government, industry, biomedical and medical settings or some combination of these. Neuroscience majors often pursue graduate work (at the M.A. or Ph.D. level) in behavioral neuroscience, biology, biochemistry, cognitive science, clinical or experimental psychology, neuroanatomy, neurobiology, neuropharmacology, neurophysiology, occupational therapy, physical therapy, toxicology, or medicine (e.g. P.A., M.D., D.O., D.P.M., M.D./Ph.D., D.V.M., Pharm.D., D.D.S., O.D., P.T., O.T. etc.). Neuroscience majors fulfill the writing requirement by completing NEUR-200WQ, BIO-201W, and an advanced research course in Biology (i.e., NEUR/BIO-431W or NEUR/BCMB/BIO-433W or NEUR/BIO-

435W). Neuroscience majors fulfill the oral presentation and capstone requirement by completing two advanced research courses (one in biology and one in psychology)

Requirements for Majors

To fulfill the requirements of the major, all students must complete a minimum of 56 semester hours in the neuroscience curriculum as outlined below. Neuroscience majors fulfill the requirement for an oral presentation in the major and the capstone requirement by taking the two required Advanced Research Courses (at least one must be taken during the junior or senior year).

I. Neuroscience Core: (2 courses)

a. NEUR-100

b. NEUR-200WQ

II. Interdisciplinary Foundation: (8 courses)

a. Biology Foundation: BIO-101Q, 102Q, and 201W

b. Psychology Foundation: NEUR/PSYC-330 and 332

c. Chemistry or Physics Foundation:
  i. Chemistry: CHEM-107/107LQ and CHEM-108/108L
  ii. Physics: PHYS-111Q and PHYS-112

d. Statistics Foundation: STAT-141Q
This is an addition to the major but not the minor.

Note: Students interested in a more traditional background to Neuroscience are encouraged to choose the Chemistry Foundation. Students interested in more mathematical aspects of Neuroscience (e.g., modeling, biomechanics, etc.) are encouraged to choose the Physics Foundation.

III. Advanced Research Courses: (2 courses)

a. Biology: NEUR/BIO-431W or NEUR/BCMB/BIO-433W or NEUR/BIO-435W; and
b. Psychology: NEUR/PSYC-430W or NEUR/PSYC-432W

IV. Breadth Courses (3 courses)

Neuroscience majors must take a minimum of three approved breadth courses. Only one four-credit, on-campus research course may be used to satisfy the breadth requirement (i.e., NEUR-481, 482, 491W, 492W). Students may not use courses to fulfill both the Breadth requirement as well as either the Interdisciplinary Foundation or Advanced Research Course credit. Students are encouraged to take advantage of the interdisciplinary nature of the neuroscience major and choose breadth courses from multiple departments.

Neuroscience:
NEUR/BIO-225, NEUR/PSYC-230, NEUR/PSYC-235, NEUR/PSYC-236, NEUR/PSYC-238, NEUR/BIO-333, NEUR-350, NEUR/BIO-364, NEUR-382, NEUR/PSYC-430, NEUR/BIO-431W, NEUR/PSYC-432, NEUR/BCMB/BIO-433W, NEUR/BIO-435W, NEUR/PSYC-464, NEUR-481W, NEUR-482W, NEUR-485, NEUR-486, NEUR-491W, NEUR-492W

Biochemistry and Molecular Biology:
BCMB-351

Biology:
BIO/HEP 205, 305, 306 or BIO-346, 349, *350, 359, 449W, 459W

Chemistry:
CHEM-107/107LQ, 108/108LQ, 151/151LQ, 207/207L, 208/208L, 347

Dance:
DANC-340

Health Sciences:
HS-351

Mathematics and Computer Science:
CS-170Q, 173, MATH-235, MATH/PHIL-260, STAT-243W

Music:
MUS-326

Philosophy:
PHIL-246, 274, 279, *309

Physics:
PHYS-111Q, 112Q, 121Q, 122Q

Psychology:
PSYC-220-232, 234, 240, 266, *275, 320, 340, 460, *475

Notes:
*BIO-350, PHIL-309, PSYC-275, PSYC-475 may be used as a major elective when the topic(s) covered are related to Neuroscience. Approval of the Neuroscience Coordinator required.

Requirements for Minors

A minor concentration in neuroscience consists of

1. the neuroscience core: NEUR-100 and NEUR-200WQ
2. a biology foundation course: BIO-102Q
3. a psychology foundation course: NEUR/PSYC-330 or 332
4. two elective courses from the following list: BIO-101Q, 201W; NEUR/BIO-225, NEUR/PSYC-230, 235, 236, 238, 330, 332, NEUR-350, 382; NEUR/PSYC-430; NEUR/BIO-431W; NEUR/PSYC-432; NEUR/BCMB/BIO-433W; NEUR/BIO-435W; NEUR/PSYC-464; NEUR-481W, 482W, 485, 486, 491W, or 492W.

Only one course from each of the following lists can be applied to the minor:

List 1: BIO-101Q, BIO-201W
List 2: NEUR-382, 481W, 482W, 485, 486, 491W, 492W.

You are not required to take a course from both lists (or from either list) above.

A student may substitute NEUR/PSYC-330 for NEUR-100 and STAT-141Q for NEUR-200. When NEUR/PSYC-330 is substituted for NEUR-100, a student must take NEUR/PSYC-332 as their psychology foundation course. This course sequence is recommended for students who declare the minor after their sophomore year.

No course can count toward multiple requirements.

Special Career Interests

I. Students seeking admission to more experimental psychology related graduate programs should note the following:

A. A second Advanced Research Methods course in psychology and STAT-243W are recommended.

B. Two additional upper level (300-400) psychology courses germane to their area of interest/specialization are recommended.

II. Students seeking admission to more biologically related graduate programs should note the following:

E. A second year of chemistry is strongly recommended.

F. STAT-141Q; 142; 242 or 243, and CS-173 are recommended. Additional coursework in mathematics/computer science is recommended.

III. Students seeking admission to schools of medicine, dentistry, veterinary medicine, optometry and podiatry should note the following:

G. Two years of chemistry and one year of general physics for science majors are required by most of the above schools.

H. Students and their advisers should consult one of the pre-health advisers for requirements of specific schools.

IV. Students seeking admission to other health science programs, such as physical therapy, occupational therapy, or physician's assistant, should consult the pre-health adviser.

V. Students who seek employment in a biologically oriented profession should note the following:

I. STAT-141Q; 142; 242 or 243, and CS-173 are strongly recommended.

J. ACCT-140 and ECON-102 are recommended

K. Additional coursework in Media and Communication Studies is recommended.

L. Additional courses that emphasize writing are recommended.

S/U Guidance

For neuroscience majors and minors, there are limits on which courses are allowable to take with S/S-/U grading: NEUR-100, NEUR-200WQ, NEUR/PSYC-330, NEUR/PSYC-332, NEUR/BIO-431W,

NEUR/BCMB/BIO-433W, NEUR/BIO-435W, NEUR-PSYC-430W, and NEUR/PSYC-432W may not be taken with S/S-/U grading for the neuroscience major or minor.

Courses

- ### NEUR-100. Fundamentals of Neuroscience

  The goal of this course is to help students understand how the brain is involved in behavior, senses, memories, movement, and other aspects of life. Through assigned readings, class discussions, and hands-on activities, we survey the fundamentals of neuroscience—from gross anatomical structure of the brain to how the components of the nervous system function to create cognition and behavior. Analysis of primary literature sources to investigate current methods of neuroscience research is a key focus in this course. Prerequisite: First year or sophomore standing. Four hours per week. *Four semester hours.*

  Note: *Students who have received credit for NEUR/PSYC-330 may not enroll in NEUR-100 without instructor permission.*

NEUR-150. Your Brain on College

Have you ever wondered what happens to your brain when you drink alcohol, feel upset about something that happens during class, or pull an all-nighter to study for an exam? This course explores the ways in which many aspects of college life affect the human brain. We will address drug and alcohol use and how sleep, study habits, emotions, and more influence learning and memory. We will investigate these topics by conducting laboratory experiments, some of which will make use of animal models. Students will collect data, analyze data using statistics, and present and interpret their data. Students will draw conclusions about how aspects of college life affect the brain from background information and their own data and results. This neuroscience-based course will be linked to the psychology-based version of the same-titled course (PSYC-150) in a learning community. In addition, content from the psychology-based course will be referenced in this course. Four hours of in-class meetings; a minimum of one hour of laboratory per week. *Four semester hours. (LINQ, Q, S.)*

Note: *Students must also enroll in PSYC-150.*

NEUR-200Q. Research Methods and Techniques in Neuroscience

This course is intended to cover the foundations of both research methods specific to neuroscience and the techniques of the field, in particular those techniques used by the current faculty of the program. By the end of the semester, students should be able to confidently critique research designs, evaluate statistical findings, and establish the appropriate designs and techniques for their future research. Prerequisite: First year or sophomore standing; or permission of the instructor. Three hours per week. *Four semester hours.*

NEUR/BIO-225. Glial Cell Biology

Understanding biological functions and the mechanisms cells use to carry out them out are critical to advancing scientific knowledge about how cells govern systems. The overall goal of this course is to examine what we currently know about glial cells, one of the two major types of cells in the nervous system, and how research is discovering new roles for these cells in nervous system function by investigating primary and secondary literature, animal model systems, current experimental methods, and human conditions associated with alterations of glial cells. This course is designed for first year

and sophomore students. Prerequisite: NEUR-100 or BIO-102 or permission of the instructor. Three hours per week. *Four semester hours.*

NEUR/PSYC-230. Sensation and Perception

This course will explore fundamental sensory processes with an emphasis on vision and audition. We will discuss how sensory stimulation modulates neuronal activity in distinct regions of the nervous system. Additionally, this course will explore how our brain interprets or perceives sensory information. Topics related to perception may include object recognition, color, motion, depth and size, pitch, auditory localization, speech. A working knowledge of sensation and perception will be developed. Prerequisites: PSYC-100. Three hours per week. *Four semester hours.*

NEUR/PSYC-235. Hormones and Behavior

This course aims to introduce students to important interactions between the brain, behavior, and endocrine systems. Students learn about diverse vertebrate species, a variety of physiological systems, and the molecular mechanisms of hormone action. The specific neuroendocrine systems to be studied may include reproduction, parental behavior, social bonding, fluid and energy balance, and emotional regulation. In addition, students develop skills required for critical reading of primary neuroscience literature and scientific communication. Prerequisite: NEUR-100 or BIO-102Q or permission of the instructor. Three hours of discussion per week. *Four semester hours.*

NEUR/PSYC-236. Neuropsychological Assessment

This course is designed as a practical introduction to the evaluation of human behavior to infer neurological function, both typical and disordered. As such, this course may be of interest to individuals with interests in clinical psychology, school psychology, neurology, psychiatry, physical therapy, occupational therapy, among others. Prerequisite: PSYC-100 or NEUR-100. Three hours per week. *Four semester hours.*

NEUR/PSYC-238. Social Neuroscience

This course examines the neurological underpinnings of various aspects of social interactions, including interpersonal relationships, racial/ethnic prejudice, deception, and self-identity. The primary format of the class will be discussion-based with an emphasis on primary research. Prerequisite: PSYC-100 or NEUR-100. Registration in another course is required if taken for LINQ credit. Three hours per week. *Four semester hours.*

NEUR-301. Readings in Neuroscience

Individual study of one or more selected topics in the neuroscience literature, and preparation of an annotated bibliography of a detailed proposal for subsequent research. To register for this course, the student must have the consent of a member of the neuroscience faculty to serve as adviser. Graded S/U. *One semester hour.*

NEUR-302. Readings in Neuroscience

This course is a continuation of NEUR-301. Prerequisite: NEUR-301 and permission of instructor. Graded S/U. *One semester hour.*

NEUR/PSYC-330. Behavioral Neuroscience

This course will build on knowledge of basic neuroanatomy and neuroscience techniques in the exploration of the neural substrates of behavior. Topics may include neurophysiology, neuroanatomy, neurochemistry, sensorimotor processes, perception, attention, and learning. A working knowledge of behavioral neuroscience will be developed. Prerequisite: PSYC-100 or NEUR-100. Three hours per week. *Four semester hours. (SS.)*

NEUR/PSYC-332. Cognitive Neuroscience

This course will build on knowledge of basic neuroanatomy, behavioral measures, and neuroscience techniques in the exploration of cognitive and neural processes supporting higher-level cognitive functions. Topics may include attention, object recognition, motor control, memory, language, cognitive control, and consciousness. A working knowledge of cognitive neuroscience will be developed. Prerequisite: PSYC-100 or NEUR-100. Three hours per week. *Four semester hours. (SS.)*

NEUR/BIO-333. Stem Cell Biology

This course will address current knowledge and outstanding questions in the field of stem cell biology. We will use primary literature to examine the cellular and molecular characteristics of stem cells, and we will explore modern techniques used to study and manipulate stem cells in the laboratory. We will also discuss issues pertaining to the regulation of stem cell research in the United States and abroad. We will use current web-based readings from the popular press to explore the hope and hype generated by the private stem cell industry in the quest to cure disease. Students will demonstrate understanding through oral presentation, discussion facilitation, periodic quizzes, and writing projects. This course fulfills the Molecular/Cellular distribution requirement for Biology majors. Prerequisite: BIO-102Q. Three hours per week. *Four semester hours. (O.)*

NEUR-350. Special Topics in Neuroscience

A special course offering intended to familiarize the student with the current trends and special topics in neuroscience. Emphasis will be given to the preparation and oral presentation of papers on selected topics as well as related laboratory experience (when applicable). Prerequisite: Permission of the instructor. Three hours per week. *Four semester hours.*

NEUR-381. Internship

An academic/work experience under the supervision of an internship adviser and an on-site supervisor. Students must document their experience according to the requirements delineated in the College catalogue section on Internships. Contact Neuroscience Coordinator for further information. Open to juniors and seniors. The term during which the internship work is performed will be noted by one of the following letters, to be added immediately after the internship course number: A (fall), B (winter), C (spring), or D (summer). Internships undertaken abroad will be so indicated by the letter I. The intern must complete a minimum of 120 hours of work. Graded S/U. Prerequisites: 9 credit hours in neuroscience and approval of a faculty internship adviser. *Three semester hours. (XLP.)*

NEUR-382. Internship

An academic/work experience under the supervision of an internship adviser and an on-site supervisor. Students must document their experience according to the requirements delineated in the College catalogue section on Internships. Contact Neuroscience Coordinator for further information. Open to juniors and seniors. The term during which the internship work is performed will be noted by one of the following letters, to be added immediately after the internship course number: A (fall), B (winter), C (spring), or D (summer). Internships undertaken abroad will be so indicated by the letter I. The intern must complete a minimum of 160 hours of work. Graded S/U. Prerequisites: 9 credit hours in neuroscience and approval of a faculty internship adviser. *Four semester hours. (XLP.)*

NEUR-391. Directed Research

An introduction to the nature of neuroscience research. A laboratory experience under the direction of a neuroscience faculty member and designed to introduce students to fundamental research procedures and data manipulation in the context of an original research project. Prerequisites: Permission of a member of the neuroscience faculty to serve as adviser. Three hours of laboratory per week. Graded S/U. *One semester hour.*

NEUR-392. Directed Research

Content as in NEUR-391, but offered in the spring term. Prerequisites: Permission of a member of the neuroscience faculty to serve as adviser. Three hours of laboratory per week. Graded S/U. *One semester hour.*

NEUR/PSYC-430W. Advanced Research Methods in Behavioral Neuroscience

This course will apply students' knowledge of behavioral neuroscience through the development and execution of an empirically based research project or assessment that meets ethical standards. Topics may include sensorimotor processes, perception, attention, and learning. Emphasis will be placed on effective communication, teamwork, and management skills. Prerequisites: PSYC-200Q or NEUR-200Q; and PSYC/NEUR-330. Three hours per week. *Four semester hours. (S.)*

NEUR/BIO-431W. Cellular Neurobiology

An advanced examination of current research in the field of cellular neuroscience. Highlighted topics include the cell biology of neurogenesis, neuron morphology, electrical and chemical communication, intracellular signaling, and the importance of neuron-glia interactions. Class discussions will be grounded in primary literature, and the laboratory component will feature a semester-long original research project. This is a writing intensive course in which students will draft and revise a mock research proposal on a topic of their choice. Prerequisite: BIO-201W or permission of the instructor. Three hours of discussion; three hours of laboratory per week. *Four semester hours.*

NEUR/PSYC-432W. Advanced Research Methods in Cognitive Neuroscience

This course will apply students' knowledge of cognitive neuroscience through the development and execution of an empirically based research project or assessment that meets ethical standards. Topics may include neuropsychological assessment, attention, object recognition, motor control, memory, language, cognitive control, and consciousness. Emphasis will be placed on effective communication, teamwork, and management skills. Prerequisites: PSYC-200Q or NEUR-200Q; and PSYC/NEUR-332. Three hours per week. *Four semester hours. (S.)*

NEUR/BCMB/BIO-433W. Molecular Neurobiology

This course focuses on the cellular and molecular basis of neuronal communication. The lecture explores the structure of neurons, neurotransmitter regulation, synaptic plasticity, neurological disorders and their current pharmacological therapies. During the semester students will examine scientific literature through presentations and increase their understanding of molecular neurobiology mechanisms through laboratory cell culture techniques. Prerequisites: BIO-201W; or permission of the instructor. Three hours of lecture; three hours of laboratory per week. *Four semester hours.*

NEUR/BIO-435W. Developmental Neurobiology

This course investigates the cellular and molecular mechanisms that govern nervous system development from conception through about age 25. Class discussions will cover nervous system organization, neural cell fate, axon and synapse formation, and neurological conditions in context of current research in the field of developmental neurobiology. Class discussions will also consider how the timing of nervous system development over the first 3 decades of life plays a role in the neurobiology of drug addiction from scientific, public policy, and personal perspectives. Laboratory work will be performed in small groups to analyze nervous system development via a hypothesis-driven experimental design. This course fulfills the Molecular/Cellular distribution and Capstone requirements for Biology majors and the Advanced Course Biology requirement for Neuroscience majors. Prerequisites: BIO-201W; or permission of the instructor. Three hours of discussion; three hours of laboratory per week. *Four semester hours. (O, S.)*

NEUR/PSYC-464. Seminar: Psychopharmacology

This course will build on basic understanding of the structure and function of the nervous system, neurotransmitters, and psychological disorders to explore how drugs affect the brain and behavior. This course will examine psychopharmacology in depth, which will require critical examination and application of scientific research. Topics may include chemical signaling, neurotransmitter systems, recreational and illegal drugs, pharmacotherapy, and substance abuse and addiction. Emphasis will be placed on effective communication skills. Prerequisites: Junior standing; and PSYC-100 or NEUR-100; PSYC-200Q or NEUR-200Q recommended. Three hours per week. *Four semester hours. (CCAP.)*

NEUR/PSYC-465. Seminar: Biological Bases of Learning and Memory

The brain allows organisms to have an incredible capacity to acquire information about the world and to encode, store, and later retrieve that knowledge, but what is the biological basis of learning and memory? How does the brain come to learn whether a stimulus is annoying, rewarding or neutral, and how does remembering how to ride a bicycle differ from remembering scenes from a movie? In this course, students will explore the concept that learning and memory have a physical basis that can be observed as biochemical, physiological and/or morphological changes to neural tissue. We will critically read and discuss primary research articles to become familiar with several different types of learning and memory and the experiments that have enabled them to be distinguished. Different cellular and synaptic mechanisms are thought to underlie distinct types of learning and memory. Newly learned information is encoded through changes in the strength of existing neuronal connections or by formation of new connections and/ or elimination of others. We will discuss the molecular and cellular mechanisms that mediate these changes by exploring concepts such as synapse formation, synaptic transmission, synaptic plasticity, neuromodulation and experience-dependent circuit remodeling, among others. With this knowledge, we will discuss how researchers use cutting edge technologies to introduce false memory in animals or enhance learning and memory. Our goal will be to understand the strategies and techniques researchers use to search for the memory trace. Prerequisites: PSYC-100 and Junior standing. Three hours per week. *Four semester hours (CCAP).*

NEUR-480. Directed Research

Research experience under the direction of a faculty member designed to introduce students to research procedures and data analysis skills in the context of a research project. This course can be taken more than once. Pre-requisite: NEUR-200Q and permission of instructor. Graded S/U. *Two semester hours.*

NEUR-481W. Independent Research in Neuroscience

Investigations of an experimental, clinical, or theoretical nature pursued independently by the student. The preparation of a written and oral scientific report is required. To register for the course, a student must have the consent of a participating neuroscience faculty member to serve as research adviser. Graded S/U. Prerequisites: NEUR-200WQ and permission of a member of the neuroscience faculty to serve as research adviser. *Four semester hours. (XLP.)*

NEUR-482W. Independent Research in Neuroscience

Content as in NEUR-481W, but offered in the spring term. Graded S/U. Prerequisites: NEUR-200WQ and permission of a member of the neuroscience faculty to serve as research adviser. *Four semester hours. (XLP.)*

NEUR-485. Off-campus Research

An approved, off-campus clinical or laboratory research experience supervised by a neuroscience faculty adviser and an on-site supervisor. Approved projects result in the preparation of a final written thesis and an oral presentation of its results before a faculty/student colloquium. Prerequisite: Junior or senior standing and permission of a member of the neuroscience faculty to serve as research adviser. Eleven to fourteen hours per week. Graded S/U. *Four semester hours. (XLP.)*

Note: *Students having received credit for NEUR-381 may not receive credit for NEUR-485.*

NEUR-486. Off-campus Research

Content as in NEUR-485. This course continues the original work begun in NEUR-485. Prerequisites: NEUR-485, junior or senior standing and permission of a member of the neuroscience faculty to serve as research adviser. Graded S/U. *Four semester hours. (XLP.)*

Note : *Students having received credit for NEUR-381 may not receive credit for NEUR-486*

NEUR-491W. Independent/Honors Research in Neuroscience

This course is open to candidates for Neuroscience Honors and to other students with instructor permission.. The content is the same as in NEUR-481. The preparation of a written and oral scientific report is required. Prerequisite: Junior or senior standing, and permission of a member of the neuroscience faculty to serve as research adviser. *Four semester hours. (XLP.)*

NEUR-492W. Independent/Honors Research in Neuroscience

A continuation of NEUR-491. Prerequisite: NEUR-491 and permission of a member of the neuroscience faculty to serve as research adviser. *Four semester hours. (XLP.)*

- Neuroscience Program

Peace and Social Justice

Faculty

- *Professors Hurley, Scudera; Associate Professors Clark, Evans, Shuru.*

- Peace and Social Justice Studies is an interdisciplinary minor which challenges students to think critically in order to create a more equitable and nonviolent world. The minor integrates theory and practice, combining interdisciplinary studies with an applied learning experience, wherein students are exposed firsthand to structural inequities and/or the obstacles to peace.

  ## Requirements for Minors

  A minor concentration in Peace and Social Justice Studies consists of 20 credits and an applied learning experience, for a total of 24 credits. All students must take PSJ-200, Introduction to Peace and Social Justice Studies. In addition to this core course, students need to take an additional 16 credits. Students cannot take more than two courses from one department (excluding internships).

  The remaining credits must come from the following:

  AAAS-200; ECON-110; EDUC-100, 280; ENGL-222; ENVS-100, 242, 332, 340W, 428W, 430W; ENVS/SOC-220, 288; ENVS/PHIL-248; GWMS-200, 377; HIST-228, 255, 277,303, 330, 356, 425W; HIST/GWSS-377; IDS-001–008; LAS-200, 215; MCS-286, 330, 350, 366; PHIL-140, 246; POL-252, 344, 350A, 350B, 357, 399; RELS-225, 326, 327, 361, 366; SOC-255, 258; SOC/GWMS-263. Special topics courses may be counted toward the minor with permission of the instructor and the Peace and Social Justice coordinator.

  To fulfill the minor, students will also need to complete an applied learning experience whose focus is germane to Peace and Social Justice Studies. Students will need to complete one of the following: an internship, a community-based research project, or a relevant study-abroad experience. Students who complete at least four semesters in the Bonner Leaders program can satisfy the applied learning experience this way. For this applied learning experience to count toward the minor, approval should be sought in advance from the facilitator of the Peace and Social Justice Studies minor.

Courses

- ### PSJ-200. Introduction to Peace and Social Justice Studies

  PSJ-200 will introduce students to many different types of social problems, challenging them to think critically about the conditions under and contexts within which violence and injustice occur. Students will also learn about U.S. social movements which have mobilized to challenge social injustices. A primary objective of the course will be to expose students to the many disciplines on campus that are grappling with the realities of social inequality and violence. *Four semester hours. (O.)*

PSJ-381. Internship

An academic/work experience under the supervision of an internship adviser and an on-site supervisor. Students must document their experience according to the requirements delineated in the College catalogue section on Internships. Discuss details with the Peace and Social Justice Coordinator. Open to juniors and seniors. The term during which the internship work is performed will be noted by one of the following letters, to be added immediately after the internship course number: A (fall), B (winter), C (spring), or D (summer). Internships undertaken abroad will be so indicated by the letter I. The intern must complete a minimum of 120 hours of work. Graded S/U. Prerequisites: PSJ-200 and approval of a faculty internship adviser. *Three semester hours. (XLP.)*

PSJ-382. Internship

An academic/work experience under the supervision of an internship adviser and an on-site supervisor. Students must document their experience according to the requirements delineated in the College catalogue section on Internships. Discuss details with the Peace and Social Justice Coordinator. Open to juniors and seniors. The term during which the internship work is performed will be noted by one of the following letters, to be added immediately after the internship course number: A (fall), B (winter), C (spring), or D (summer). Internships undertaken abroad will be so indicated by the letter I. The intern must complete a minimum of 160 hours of work. Graded S/U. Prerequisites: PSJ-200 and approval of a faculty internship adviser. *Four semester hours. (XLP.)*

- Peace and Social Justice Program

Performing and Visual Arts Design and Technology

Faculty

- *Professors Brodie, Edwards, Nadler, Scudera, Zura (Coordinator); Associate Professors Abrahams, Barkun, Brodie, Freno, Kaufman, Leppert, Tierney; Assistant Professors Aipperspach, Davis; Visiting Professor Komp.*

- Performing and Visual Arts Design and Technology is an interdisciplinary major drawing upon courses in Art, Film Studies, Media & Communication Studies, Music, Museum Studies, and Theater. The major provides students with a foundation in both performing *and* visual arts while also allowing students to make choices to tailor the major to their own more specific design and technology interests in performing *or* visual arts. Providing opportunities both to study art across periods and mediums and to create original work, the major is perfect for the intellectually curious student interested in experiential learning and multidisciplinary exploration. The curriculum focuses on the synergies between critical thinking and creative endeavor. Students explore the principles of performing and visual arts design as well as the evolving technology necessary to realize their visions. This major is appropriate for those considering careers as lighting designers, master electricians, gaffers, scenic designers, technical directors, production managers, sound designers, foley artists, sound engineers, film production technicians, exhibition designers, projections designers, product designers, lighting supervisors, architectural lighting designers, production designers, entertainment technology consultants, stage managers, entertainment technology sales executives, and arts project managers, among many others.

Requirements for Majors

A major in Performing and Visual Arts Design and Technology consists of a minimum of 55 semester hours of credit.

Requirements:

- TD/ART-130
- One of the following: ART-101 or 102

- Five of the following courses: ART-120; TD-150 (w/co-requisite TD-001-008); TD/ART-231, 232; TD/ART/MUS-233; MCS-225 or MUS-226
- Two historical courses: THEA-300W* or ART-150, and THEA-301W* or ART-160
- Eight additional credits from the following electives: ART-101, 102, 106, 107, 110, 120, 150, 160, 222, 371, 372; ART/GWSS-373; FS-101; MCS-220, 225, 327, 355; MS-100, 200A/B; MUS-226, 227, 301; PVDT-350, 361, 362, 381, 382, 461, 462, 492; TD-001-008,** 150 (w/co-requisite), 231, 232, 233, 240, 241; THEA-100, 275, 300W, 301W, 370; and special topics, directed studies, research courses, and/or internships as approved by the Performing and Visual Arts Design and Technology Coordinator
- PVDT-491 or relevant capstone approved by the Performing and Visual Arts Design and Technology Coordinator.

*Majors must take either THEA-300W or THEA-301W to fulfill the W and oral presentation requirements. The capstone requirements can be fulfilled by PVDT-491 or an approved relevant capstone course.

**Students may count up to four credits of TD-001-008 toward the required elective credits in addition to the co-requisite for TD-150.

For fulfillment of the Experiential Learning Project (XLP) core curriculum requirement, students are encouraged to study abroad, to complete an approved off-campus design and technology-related internship or an Ursinus Summer Fellowship, to pursue advanced work in independent studies, or complete THEA-275 concurrently with TD-001-008.

No more than three courses taken for the Performing and Visual Arts Design and Technology major can be counted toward another major.

Requirements for Minors

A minor in Performing and Visual Arts Design and Technology consists of a minimum of 20 semester hours of credit. Requirements:

- TD/ART-130
- One of the following: ART-101 or 102
- A minimum of twelve credits of design/technology from the following:

- ART-110, 120, 222
- MCS-225
- MUS-226, 227
- PVDT-350, 361, 362, 381 (3 cr.), 382, 461, 462, 492
- TD-001–008*, 150 (w/co-requisite TD-001–008), 240, 241 (2 cr.), 275 w/ TD-001–008 (3 cr.)
- TD/ART-231, 232
- TD/ART/MUS-233

* Students may count up to two credits of TD-001 –008 toward the required elective credits in addition to the credit required for those taking TD-150.

Courses

- **PVDT-350. Advanced Special Topics in Performing and Visual Arts Design and Technology**

  This course will focus on a specific topic at an advanced level within performing and visual arts design and technology not covered in other courses in the curriculum. Students may repeat this course for credit. Three hours per week. *Four semester hours. (A.)*

PVDT-361. Directed Studies/Research in Performing and Visual Arts Design and Technology

Individual work on a project related to the study of performing and visual arts design and technology. Prerequisites: Approval of Performing and Visual Arts Design and Technology Coordinator and a program faculty member who will serve as project adviser. Students may repeat this course for credit. Graded S/U. 40 hours of research. *One semester hour. (A.)*

PVDT-362. Directed Studies/Research in Performing and Visual Arts Design and Technology

Individual work on a project related to the study of performing and visual arts design and technology. Prerequisites: Approval of Performing and Visual Arts Design and Technology Coordinator and a program faculty member who will serve as project adviser. Students may repeat this course for credit. 80 hours of research. *Two semester hours. (A.)*

PVDT-381. Internship

An academic/work experience under the supervision of a faculty adviser and an on-site supervisor. Students must document their experience according to the requirements delineated in the College catalogue section on Internships. Includes periodic meetings with the faculty adviser and completion of an approved research or project. Open to juniors and seniors. The term during which the internship work is performed will be noted by one of the following letters, to be added immediately after the internship course number: A (fall), B (winter), C (spring), or D (summer). Internships undertaken abroad will be so indicated by the letter I. The intern must complete a minimum of 120 hours of work. Graded S/U. Prerequisites: Approval of a faculty internship adviser and

Performing and Visual Arts Design and Technology Coordinator. *Three semester hours. (A, XLP.)*

PVDT-382. Internship

An academic/work experience under the supervision of a faculty adviser and an on-site supervisor. Students must document their experience according to the requirements delineated in the College catalogue section on Internships. Includes periodic meetings with the faculty adviser and completion of an approved research or production project. Open to juniors and seniors. The term during which the internship work is performed will be noted by one of the following letters, to be added immediately after the internship course number: A (fall), B (winter), C (spring), or D (summer). Internships undertaken abroad will be so indicated by the letter I. The intern must complete a minimum of 160 hours of work. Graded S/U. Prerequisites: Approval of a faculty internship adviser and Performing and Visual Arts Design and Technology Coordinator. *Four semester hours. (A, XLP.)*

PVDT-461. Advanced Directed Studies/ Research in Performing and Visual Arts Design and Technology

Advanced individual work on a project related to the study of performing and visual arts design and technology. Prerequisite: Eight credits of 300-400 level course work in performing and visual arts design and technology, demonstrated competence in the specific area of study, a written proposal and approval of Performing and Visual Arts Design and Technology Coordinator and a program faculty member who will serve as project adviser. Students may repeat this course for credit. 120 hours of research. *Three semester hours. (A, XLP.)*

PVDT-462. Advanced Directed Studies/ Research in Performing and Visual Arts Design and Technology

Advanced individual work on a project related to the study of performing and visual arts design and technology. Prerequisite: Eight credits of 300-400 level course work in performing and visual arts design and technology, demonstrated competence in the specific area of study, a written proposal and approval of Performing and Visual Arts Design and Technology Coordinator and a program faculty member who will serve as project adviser. Students may repeat this course for credit. 160 hours of research. *Four semester hours. (A, XLP.)*

PVDT-491. Research/Independent Work

This course may serve as a capstone and, when taken with PVDT-492, is open to candidates for program honors. Prerequisites: Approval of Performing and Visual Arts Design and Technology Coordinator and a program faculty member who will serve as project adviser. *Four semester hours. (A, XLP.)*

PVDT-492. Research/Independent Work

A continuation of PVDT-491, culminating in a written and oral presentation of a major project. Prerequisite: PVDT-491. *Four semester hours. (A, XLP.)*

Philosophy and Religious Studies

Faculty

- *Professor Sorensen; Associate Professor Rein (Chair), Widmann Abraham ; Assistant Professors Kluchin, O'Rourke-Friel, Warmack.*

- The department of philosophy and religious studies comprises two independent programs of study, offering a major and minor in philosophy and a major and a minor in religious studies.

Philosophy

Socrates claimed that "the unexamined life is not worth living," and Aristotle said that philosophy begins in wonder. In fact, philosophical reflection is unavoidable. Fundamental questions and puzzles about the ultimate nature of the world and the mind's place in it, the possibility of free will, the constituents of consciousness and intentional action, the foundations of moral judgment, and the character of justice animate our deepest thinking and structure our approach to life.

The American philosopher William James said that philosophy is "nothing but an unusually obstinate effort to think clearly." That accurately describes our courses. Applying distinctively philosophical methods in studying both historical figures like Aristotle and Descartes and the best contemporary work, students learn to think rigorously, critically and creatively and to express their ideas effectively.

Requirements for Majors

A major in philosophy requires either PHIL/MATH-260 or PHIL-261, and either PHIL-404W or 437W.

Students must take seven additional four-credit courses, of which five must be drawn from the following four categories as indicated below:

- Value Theory: two courses chosen from among PHIL-106, PHIL-107, PHIL/RELS-220, PHIL/GWSS-221, PHIL-230, PHIL/POL-237, PHIL-240, PHIL-243, PHIL/RELS/GWSS-244, PHIL-246, PHIL-247, PHIL/ENVS-248, PHIL-249, PHIL-317, PHIL/POL-337, PHIL/POL-338, PHIL/POL-339, PHIL/RELS-343, and PHIL-344.
- Metaphysics and Epistemology: one course chosen from among, PHIL-274, 277, 279, PHIL/GWSS-371.
- History: one course chosen from among PHIL/GWSS-221, PHIL-227, 254, 258, PHIL/RELS-313.

- Philosophies: one course chosen from among PHIL-100, 102, 110, 230, PHIL/EDUC-310W, PHIL-345.

Special topics and other courses may count towards these category requirements with the permission of the department chair.

Only two 100-level classes may count towards the major. Students must take at least two classes at the 300-level or above.

Students pursuing honors in philosophy should also register for PHIL-491W and PHIL-492W in succession. These classes can count towards the number of classes required for the major.

Philosophy majors fulfill the writing requirement by taking a W course within the major; they fulfill the capstone and oral presentation requirements by completing PHIL-404W, the senior seminar.

Requirements for Minors

A minor concentration in philosophy requires PHIL/MATH-260; and either PHIL/POL-237 or PHIL-240 or PHIL-340; and any three four-credit courses (with at most one from the 100-level).

Note: With the permission of the Department Chair, a student may take HIST-352 to fulfill requirements for a major or minor in philosophy.

Religious Studies

Religious studies majors develop an informed awareness of the world's religious traditions through the scholarly and theoretical study of religious ideas, practices, and communities, both contemporary and historical. Courses in religious studies also examine the critical role of religion in the world today. By taking courses in religious studies, the student will gain a critical knowledge of the reality of religious difference and acquire expertise in the skills of interpreting and analyzing religious practices, texts, and artifacts.

Requirements for Majors

A major in Religious Studies requires:

- RELS-111 and 212

- either RELS-233, 234, 236, or 237;
- RELS-404W (Senior Seminar);
- Five other four-credit courses in Religious Studies.

Religious Studies majors fulfill the writing requirement by taking a W course within the major; they fulfill the capstone and oral presentation requirements by completing RELS-404W, the senior seminar.

Students pursuing honors in Religious Studies should also register for RELS-491 and RELS-492 in succession.

Requirements for Minors

A minor in religious studies requires RELS-111 (World Religions); and four other four-credit courses in Religious Studies.

Courses

Philosophy

PHIL-100. Philosophical Concepts

This survey course explores major problem areas of Philosophy—metaphysics, ontology, epistemology, and axiology—to introduce students to philosophy as both a method of inquiring about and making sense of the self and the world. Primary emphasis is placed on readings from outside the traditional canon of philosophy, with a focus on themes of diversity, inequality, and moral rights and obligations. Three hours per week.*Four semester hours. (DN, H, O.)*

PHIL-102. Philosophy and Film

This is an introductory course that looks at philosophical questions raised in various films. Examples include: considering personal identity through Memento and Being John Malkovich; humanness and the nature of the mind through Blade Runner and Ex Machina; social justice and ethical issues through films like Do the Right Thing, Pariah, and Ma Vie en Rose; and the meaning of life through Ikiru, Life of Pi, and Encounters at the Edge of the World. Philosophy texts relevant to the issues raised accompany each film. Three hours lecture and a two-hour screening per week. *Four semester hours. (H.)*

PHIL-106. The Meaning of Life

A philosophical examination of whether life has a purpose or is absurd and meaningless. Particular attention is given to what it means for something to have a purpose, what are possible sources of a purpose, and the issues of the afterlife and God. Three hours per week. *Four semester hours. (H.)*

PHIL/GWSS-107. Philosophy of Love and Sex

What do we mean when we talk about love? How do we understand what motivates our interests in and movements toward relationships of pleasure and community? This course conducts its inquiry of love, sex/ualities, and pleasures with a ground in Black Feminist love-praxis and erotics and how this obligates us to others in various loving

and pleasure engagements, including but not limited to transformative justice, friendship, wisdom, BDSM/Kink, asexuality, and sex work. The texts for this course range broadly within the discipline of philosophy (such as: black feminist/womanist thought, Latinx thought, feminist philosophy of science, and genealogy), and literature (as philosophical text) to engage with the multiple ways our lives are shaped by our situation as loving beings and the transformative possibilities of love. Three hours per week. *Four semester hours. (DN, H, O.)*

PHIL-109. Topics in Philosophy

Topics may include special issues and movements. Open to students with no previous experience in philosophy. Three hours per week. *Four semester hours. (H.)*

PHIL-110. Introduction to Philosophies

How can philosophy help you begin to articulate what should matter to you and how we should live together? One of the ways it does this is by first questioning how it is we can understand the world. In Introduction to Philosophies, we take seriously the notion that there are multiple ways of coming to knowledge about the world, ourselves, and our place in that world. This introductory course explores major problem areas of philosophy from non-Western thinkers such as metaphysics, epistemology, axiology, and ontology. Primary emphasis is placed on readings from Africana, American Indigenous, Chinese, and Indian thought, with a focus on themes of personhood/constructions of the self, knowledge, ethics, and obligations. Three hours per week. *Four semester hours. (GN, H.)*

PHIL/RELS-220. Philosophy of Religion

A philosophical study of both belief itself as a psychological attitude and what has been believed about God. Particular attention is given to such questions as whether or not belief is a matter of choice and whether or not one must have a reason to believe in God. Questions about the natures of God and man, evil and immortality are also addressed. Three hours per week. *Four semester hours. (H.)*

PHIL/GWSS-221. Prison Studies/The Problem of Freedom

Is it possible to think of freedom without framing it against a background of various unfreedoms? This course looks at how the development of the notion of the modern liberal subject is predicated on structures of unfreedom, specifically prisons. Taking prison abolition as its starting point, this course explores an historical account of the prison industrial complex and interrogates the constitutive relationship of prison in the lives of people with precarious identities. Three hours per week. *Four semester hours. (DN, H, O.)*

PHIL-227. Figure Studies

This course focuses specifically on one (or two intimately related) figures per semester —and the way they engage with major problem areas of philosophy—from within and without the canon of western philosophy. Open to students with no previous experience in philosophy. This course may be repeated for credit. Three hours per week. *Four semester hours. (H; possibly DN or O depending on topic.)*

PHIL-230. Philosophy of Race

This course will study the philosophical assumptions behind various concepts of race, the social realities underlying those concepts, and the ethics and politics of racial identity. Three hours per week. *Four semester hours. (H.)*

PHIL/POL-237. Political Philosophy

This course examines the nature of justice through a careful reading of major works in the history of political philosophy. Specifically, we will consider selected political writings of Plato, Aristotle, Machiavelli, Hobbes, Locke, and Marx. Three hours per week. *Four semester hours. (H, O, SS.)*

PHIL-240. Ethics

A study of the theories of ethical relativism, psychological and ethical egoism, altruism, utilitarianism, Kantian deontology, and virtue theory, and of various views on the human good, virtue, the role of motive and consequences in determining right and wrong conduct, and the like. Three hours per week. *Four semester hours. (H.)*

PHIL/CS-243. Technology and Ethics

Data privacy, digital surveillance, data mining, self-driving cars, artificial intelligence, algorithms used by government and law enforcement, doxxing - technology raises many new and old ethical questions. In this core capstone course we use a variety of ways of asking to address these ethical questions: empirical, philosophical, political, creative, and other ways of asking. Three hours per week. *Four semester hours. (CCAP, H, O.)*

PHIL/RELS/GWSS-244. Work and Meaning

What is work? What's the difference between real work, bullshit work, and play? Why do we pay people for some kinds of work and not others? Are we all just naturally lazy, or do we really want to do something meaningful with our lives? Why do so many people hate their jobs? And does what you do make you who you are? We will explore these questions and many, many more through classic and contemporary readings, impassioned discussions, and a variety of in-class experiments. Three hours per week. *Four semester hours. (H, LINQ.)*

PHIL-246. Bioethics

An introduction to and examination of some major issues in bioethics, including abortion, euthanasia, surrogate motherhood, informed consent, doctor/patient confidentiality, medical futility, the distribution of health care resources, genetic engineering, prenatal testing, stem cell research, and medical experimentation. Three hours per week. *Four semester hours. (DN, H.)*

PHIL-247. Business Ethics

An examination of some major issues in business ethics, including duties to consumers and investors, duties between employers and employees, the ethics of advertising and marketing, accounting and finance ethics, hiring and firing, justice and the market system, the problem of public goods, social responsibility and stakeholders, whistleblowing, conflicts of interest, and the environment. Three hours per week. *Four semester hours. (H)*

PHIL/ENVS-248. Environmental Ethics

The central issue in environmental ethics concerns what things in nature have moral standing and how conflicts of interest among them are to be resolved. After an introduction to ethical theory, topics to be covered include anthropocentrism, the moral status of non-human sentient beings, preservation of endangered species and the wilderness, holism versus individualism, and the land ethic. Three hours per week. *Four semester hours. (H.)*

PHIL-249. Problematic Faves

Artists are not saints. Many do morally bad things. How should we react to morally bad artists? Is it wrong to listen to their music, watch their films, read their books, admire their paintings? Can we separate the art from the artist? Should we separate the art

from the artist? In this class, we will explore these and related questions. We will also critically investigate the diagnosis that we live in a problematic "cancel culture". Three hours per week. *Four semester hours. (H, O.)*

PHIL-254. Early Modern Philosophy

An examination of the major works of four or more of the major European philosophers of the seventeenth and eighteenth centuries. Among the candidates for study are Descartes, Spinoza, Leibniz, Malebranche, Locke, Berkeley, Hume, Reid, and Kant. Three hours per week. *Four semester hours. (H.)*

PHIL-258. Existentialism

Existentialism boasts a long philosophical and literary tradition that extends from Kierkegaard, Dostoevsky and Nietzsche, to such formidable later figures as Miguel de Unamuno, Nicholas Berdyaev, Albert Camus, Simone de Beauvoir and Jean-Paul Sartre. Does life have any meaning? Are we free to shape our own lives? How do concepts such as existence, essence and free will affect our world views? In this class, we'll read the great Existentialist writers in English, but approach the subject with international breadth. Three hours per week. *Four semester hours. (H.)*

PHIL/MATH-260. Logic

An introduction to the concepts and techniques used in symbolic reasoning, primarily through the study of first-order logic, the translation of sentences of ordinary English into a formal language, and the construction of derivations. Topics include: formalization, proofs, mathematical induction, propositional and predicate logic, quantifiers, and sets. Three hours per week. *Four semester hours. (R.)*

PHIL-261. Philosopher's Toolkit

The philosopher's toolkit is a treasure trove of helpful skills: close reading, precise writing, detailed analysis, argumentation. The course includes an introduction to the concepts and techniques used in symbolic reasoning, primarily through the study of first-order logic and explores how these concepts can be applied to reasons and arguments in philosophical texts and day-to-day life (in editorials, Supreme Court decisions, conversations with friends, etc.), with a particular focus on the metacognition of argumentation. In addition to engaging in philosophical analysis, students will develop the ability to understand and communicate what kind of philosophical "move" they are making: drawing a distinction, resolving an ambiguity, offering an objection, etc. Students will develop their philosophical writing and public speaking abilities by engaging with philosophical topics of their choosing. Three hours per week. *Four semester hours. (H, R.)*

PHIL-274. Philosophy of Mind

Zombies, robots, and Martians… oh my! All of these figures will be discussed during our semester-long journey into philosophy of mind. How ought we understand the mind? Is it distinct from our brains and bodies? What does it mean to be conscious? Can robots have minds? Can they be conscious? These are just some of the interesting questions we will explore! Three hours per week *Four semester hours. (H.)*

PHIL-277. Echo Chambers, Experts, and Disagreement

This course explores questions in social and political epistemology. Many say we are in an unprecedented and toxic belief environment: a post-truth area of "alternative facts", an information landscape in which seemingly inescapable echo chambers threaten our ability to access and respond rationally to evidence, a time in which extreme political and social polarization make agreement about the nature of the world be live in incredibly difficult. In this class, we will investigate this characterization of our

epistemic lives. Whom should we trust? What is an expert? What should we do in the face of disagreement? What is an echo chamber, and can we know if we are in one? If we think we're in an echo chamber, should we try and break out? Three hours per week. *Four semester hours. (H, O.)*

PHIL-279. Introduction to Phenomenology

Phenomenology is the study of lived experience. What that means for this course is an interrogation of essence of embodiment. What do bodies mean? What does it mean to be embodied as human? What essential features and ways-of-being are unique to humans and set them apart from non-human animals? Are all homo sapiens human? This course engages in a philosophical examination of perception and the science of lived experience including the content of perceptual experience, the partiality of perception, the role of sense-data and sensations in meaning-making. This course will largely focus on Merleau-Ponty's writings on the lived body and will interrogate those writings with readings on different experiences of embodiment through Queer Theory, Critical Phenomenology, american Indian Philosophy, and Black Feminist Thought. Three hours per week. *Four semester hours. (DN, H.)*

PHIL-301. Reading in Philosophy

Individual study of one or more selected topics in the philosophical literature. May include preparation of a bibliography for a proposal for subsequent research. Requires consent of a member of the department who will serve as adviser. This course is graded S/U. *One semester hour.*

PHIL-302. Reading in Philosophy

Individual study of one or more selected topics in the philosophical literature. May include preparation of a bibliography for a proposal for subsequent research. Requires consent of a member of the department who will serve as adviser. This course is graded S/U. *Two semester hours.*

PHIL-309. Advanced Topics in Philosophy

Topics may include special issues and movements. Three hours per week. *Four semester hours. (H; possibly CCAP, DN, GN, or O, depending on topic.)*

PHIL/EDUC-310W. Educational Theory and Philosophy

A study in the theories and philosophies that have shaped educational practice and policy, both historically and in current times. Students will engage in close reading of primary texts in seminar-style classes and through extensive written work. Three hours per week. *Four semester hours. (H.)*

PHIL-311. Reading in Philosophy

Group study of an important or classic philosophical book or a selection of articles centered around a philosophical topic. This course is graded S/U. *One semester hour*

PHIL/RELS-313. Marx, Nietzsche, Freud

Nietzsche writes, "We are not 'men of knowledge' with respect to ourselves." Marx calls for the abolition of religion in order that we may "abandon a condition which requires illusions." Freud insists that we are not "masters in our own houses": his theory of the unconscious challenges the comfortable notion that we have unmediated access to knowledge of ourselves. Marx, Nietzsche, and Freud turn their critical energies in different directions, but they share the conviction that our consciousness is fundamentally false consciousness. For these thinkers, what we think we know about ourselves, others, and the world around us requires constant critique, and our certainties are always susceptible to radical doubt. In this course, we will study key

writings by these theorists, rightfully termed the three "masters of suspicion," with particular attention to Marx's view of the economic basis of human relations and his conception of alienated labor, to Nietzsche's "perspectivism" and his assault upon conventional explanations for morality, and to Freud's account of the unconscious forces shaping human behavior, relationships, and institutions. Emphasis will be on close readings of primary texts. No prior exposure to these thinkers will be assumed. Three hours per week. *Four semester hours (H.)*

PHIL/GWSS-317. Trans Theory

The past few years have seen unprecedented conversations on a national scale about the fluidity of gender and what it means to be trans. Increasing awareness of the complexities of gender has saturated mainstream media and led to an explosion of scholarship in the field of transgender studies. Attending to individual narratives and artifacts of popular culture as well as to theories of embodiment, power, identity, and difference, this course surveys theoretical works alongside history, memoir, and fiction. We will pay specific attention to the intersections of gender identity and gender presentation with categories of race, class, and sexuality. Prior coursework in Gender, Women's, and Sexuality Studies will be useful but is not required. A willingness to grapple with difficult texts and concepts will, however, be an absolute necessity. Three hours per week. *Four semester hours (H.)*

PHIL/RELS-323. What Really Matters in Life?

Are you curious about what makes for a good life? Everyone wants to be happy, but the pursuit of happiness may be illusory if not guided by critical thinking. In this course, we will think together about what goods and ends ought to be pursued to live an intellectually and morally satisfying life. We will explore questions such as: Is it really possible for one to be happy without cultivating a concern for the well-being of others? Can self-interest co-exist with the ethical life? What are the marks of a life lived with authenticity? We will struggle with these questions and students will be also asked to think about and reflect on such matters in their own lives. This course is particularly fitting for upper-class students contemplating their career choices and vocational path upon graduation. Three hours per week. *Four semester hours (CCAP, H, O.)*

PHIL/POL-337. Classical Political Philosophy

This course examines the classical understanding of politics through a careful reading of selected works of Plato and Aristotle. We will consider such issues as the nature of justice, the meaning of moral and intellectual virtue, and the relation between philosophy and politics. Prerequisite: PHIL/POL-237. Three hours per week. *Four semester hours. (H, O, SS.)*

PHIL/POL-338. Modern Political Philosophy

This course examines and evaluates the world-revolutionary challenge to classical and medieval political philosophy posed by such writers as Machiavelli, Hobbes, Spinoza, Locke, Rousseau and Hegel. Prerequisite: PHIL/POL-237. Three hours per week. *Four semester hours. (H, O, SS.)*

PHIL/POL-339. Contemporary Political Philosophy

This course examines selected authors and issues in contemporary political philosophy. We will read the works of such authors as Nietzsche, Heidegger, Kojeve, Rawls and Foucault. We will consider such issues as historicism, contemporary liberalism, feminism, and Marxism. Prerequisite: PHIL/POL-237. Three hours per week. *Four semester hours. (H, O, SS.)*

PHIL-340. Metaethics

A close examination of one or more controversial issues and theories in metaethics. Among the possible topics are: the nature of moral theory, the foundations of normative judgment, the "internalism" or "externalism" of practical reasoning, realism vs. anti-realism in ethical theory, the roles of reason and emotion in morality, moral skepticism, virtue theory, utilitarianism, and Aristotelian or Kantian moral views. Three hours per week. *Four semester hours. (H.)*

PHIL-344. Topics in Ethics

An intensive investigation of one or more topics in ethics—such as well-being, autonomy, rights, consequentialism, Kantian ethics, virtue ethics, and other topics. Three hours per week. *Four semester hours. (H.)*

PHIL-345. Philosophical Problems of Literature

Is it ever ethical for a novelist to base characters on real people, possibly violating their expectations of privacy? Why does fiction move us even though what happens in a novel is not "real"? Can fiction ever argue for something? This course examines such questions in the light of philosophical thinking in ethics, the theory of knowledge, political theory, and aesthetics. Other topics may include exploration of the concepts of style, metaphor and criticism. Three hours per week. *Four semester hours. (H.)*

PHIL-370. Topics in Metaphysics and Epistemology

An intensive investigation of a few topics in metaphysics—such as personal identity, possibility and necessity, universals and particulars, causality—or in epistemology—such as skepticism, a priori knowledge, the problem of induction, knowledge as justified true belief. Three hours per week. *Four semester hours. (H.)*

PHIL/GWSS-371. Identity, Credibility, Knowledge, Power: Feminist Epistemologies

This course explores feminist approaches to questions concerning knowledge, justification, and rationality. We will look in particular at feminist standpoint theory, feminist empiricism, and feminist analyses of epistemic oppression and justice. In doing so, we will engage with the following questions: Does a person's social identity (e.g., gender or racialized identity) impact what they know? What are they justified in believing? Whether they are credible with respect to certain topics? Are certain social locations epistemically privileged? Is rationality gendered? Is knowledge socially constructed? Are we ever obligated to believe someone? Three hours per week. *Four semester hours. (H, O.)*

PHIL-381. Internship

An academic/work experience under the supervision of an internship adviser and an on-site supervisor. Students must document their experience according to the requirements delineated in the College catalogue section on Internships. Contact the chair of the department for further details. Open to juniors and seniors. The term during which the internship work is performed will be noted by one of the following letters, to be added immediately after the internship course number: A (fall), B (winter), C (spring), or D (summer). Internships undertaken abroad will be so indicated by the letter I. The intern must complete a minimum of 120 hours of work. Prerequisite: approval of a faculty internship adviser. *Three semester hours. (XLP.)*

PHIL-382. Internship

An academic/work experience under the supervision of an internship adviser and an on-site supervisor. Students must document their experience according to the requirements delineated in the College catalogue section on Internships. Contact the chair of the department for further details. Open to juniors and seniors. The term

during which the internship work is performed will be noted by one of the following letters, to be added immediately after the internship course number: A (fall), B (winter), C (spring), or D (summer). Internships undertaken abroad will be so indicated by the letter I. The intern must complete a minimum of 160 hours of work. Prerequisite: approval of a faculty internship adviser. *Four semester hours. (XLP.)*

PHIL-391. Independent Study in Philosophy

Independent work on a philosophical topic, under the supervision of a faculty advisor. A substantial written final product is required. Prerequisites: at least three Philosophy courses at the 200 level or above, a written project proposal, and permission of a department faculty member who will serve as advisor. *Four semester hours (XLP.)*

PHIL-404W. Senior Seminar in Philosophy

The aim of this capstone course is to explore in great depth an area of philosophical concern using all the tools students have developed as philosophy majors. There will be several papers and oral presentations. Open only to senior philosophy majors or by departmental permission. Three hours per week. Four semester hours. *Four semester hours. (CCAP, H.)*

PHIL/POL-437W. Seminar in Political Philosophy

This capstone course is an intensive study of a special topic in political philosophy emphasizing original research and substantial oral and written work. Prerequisites: junior or senior status and one 300-level course in political philosophy. Three hours per week. *Four semester hours. (SS.)*

PHIL-491W. Research/Independent Work

Open only to students seeking departmental honors or distinguished honors. *Four semester hours. (XLP.)*

PHIL-492W. Research/Independent Work

A continuation of PHIL-491. Prerequisite: PHIL-491. *Four semester hours. (XLP.)*

Religious Studies

RELS-111. World Religions

An introduction to five major living religions, namely Hinduism, Judaism, Buddhism, Christianity and Islam. An examination of the leading problems of religious traditions, their history and cultural context, and the approaches of world religions to ultimate questions concerning the meaning of human life. Three hours per week. *Four semester hours (GN, H.).*

RELS-212. What Is Religion?

An overview of definitions, theories, and interpretations of religion, with the goal of understanding the range of ways people have tried to make sense of the global phenomenon of religious traditions, beliefs, and practices. Theorists whose work we will examine and critique may include Frazer, Tylor, Durkheim, Freud, Marx, Weber, Eliade, Lévi-Strauss, and others. Three hours per week. *Four semester hours. (H.)*

RELS/PHIL-220. Philosophy of Religion

A philosophical study of both belief itself as a psychological attitude and what has been believed about God. Particular attention is given to such questions as whether or not belief is a matter of choice and whether or not one must have a reason to believe in God.

Questions about the natures of God and man, evil and immortality are also addressed. Three hours per week. *Four semester hours. (H.)*

RELS-225. African American Religious Experience

This historical, theological, and contextual study of religion examines the African American religious experience, including: the African Background, slavery in America, the struggle for freedom and identity, the development of the Black Church, the Black Muslims, the Civil Rights movement, and the emergence of Black and Womanist theologies. Three hours per week. *Four semester hours. (DN, H.)*

RELS-233. Christianity: An Introduction

A survey of important thinkers, literature and movements typical of the Christian tradition from the early church period through the 20th century. Careful study of such writers as Clement, Athanasius, Augustine, Anselm, Aquinas, Ockham, Bernard, Luther, Edwards and others is included. Three hours per week. *Four semester hours. (H.)*

RELS-234. Judaism: An Introduction

Attention is given to the history, traditions, and literature of the Jewish people from their origins in the second millennium B.C.E. to the present day. Stress is given to specific religious concepts and teachings which are pertinent to modern times. Three hours per week. *Four semester hours. (H.)*

RELS-236. Islam: An Introduction

An introduction to the religious tradition of Islam. Topics to be covered may include, among others, the origins and spread of Islam; the Qur'an; faith and practices of Muslims; theology and law; Islamic art and culture; Sufi mysticism; Islam and the West; and Islamic modernism. Three hours per week. *Four semester hours. (GN, H.)*

RELS-237. Introduction to Buddhism

This course is designed to provide students with tools and context to understand the breadth, diversity, and cultural significance of the Buddhist tradition in Asia and around the world. The course will explore Buddhist tradition both thematically and historically. We will engage with topics such as Buddhist doctrine, meditation, and rituals. We will also pay attention to the lived tradition in the pre-modern and modern periods. Throughout the course we will combine 'insider' and scholarly approaches, reading primary sources from the tradition as well as secondary literature and visiting Buddhist communities in the local area. The course involves short lectures, readings, field site visits, and class discussions. Three hours per week. *Four semester hours. (GN, H.)*

RELS-242. The Hebrew Bible

An introduction to the literature and thought of the Hebrew scriptures (the Christian Old Testament). Attention is given to the archeological and historical background of the Hebrew scriptures, as well as to the biblical materials themselves. Three hours per week. *Four semester hours. (GN, H.)*

RELS/PHIL/GWSS-244. Work and Meaning

What is work? What's the difference between real work, bullshit work, and play? Why do we pay people for some kinds of work and not others? Are we all just naturally lazy, or do we really want to do something meaningful with our lives? Why do so many people hate their jobs? And does what you do make you who you are? We will explore these questions and many, many more through classic and contemporary readings,

impassioned discussions, and a variety of in-class experiments. Three hours per week. *Four semester hours. (H, LINQ.)*

RELS-245. Introduction to the New Testament

This course examines the Christian scriptures, focusing primarily on the Gospels, the Pauline epistles, and the other books of the New Testament. Attention will also be given to the historical tradition of biblical interpretation. Three hours per week. *Four semester hours. (H.)*

RELS-261. Religion and Environmental Justice

This course posits that religion is a tool that is available in the cultural repertoire to support those who take up the protective work of repairing our world and responding to climate emergency. The course engages environmental justice through the lens of major religious traditions such as Buddhism, Catholicism, and indigenous traditions in Africa, Asia, and North America. The course addresses foundational issues of community, language, and movement building by spiritual and religious people involved in reparative ecology. By looking closely at how the climate crisis intersects with religious practice and spirituality, we can identify strategies through which people attempt to change their societies, their economies, and themselves. Three hours per week. *Four semester hours. (DN, GN, H, O.)*

RELS-301. Reading in Religious Studies

Individual study of one or more selected topics in the literature of religious studies. May include preparation of a bibliography for a proposal for subsequent research. Requires consent of a member of the department who will serve as adviser. This course is graded S/U. *One semester hour.*

RELS-302. Reading in Religious Studies

Individual study of one or more selected topics in the literature of religious studies. May include preparation of a bibliography for a proposal for subsequent research. Requires consent of a member of the department who will serve as adviser. This course is graded S/U. *Two semester hours. (GN, depending on topic.)*

RELS-309. Selected Topics in Religious Studies

The course will concentrate on special issues, movements, and leading figures in the study of religion. Three hours per week. *Four semester hours. (H; possibly CCAP, DN, GN, or O depending on topic.)*

RELS/PHIL-313. Marx, Nietzsche, Freud

Nietzsche writes, “We are not ‘men of knowledge’ with respect to ourselves.” Marx calls for the abolition of religion in order that we may “abandon a condition which requires illusions.” Freud insists that we are not “masters in our own houses”: his theory of the unconscious challenges the comfortable notion that we have unmediated access to knowledge of ourselves. Marx, Nietzsche, and Freud turn their critical energies in different directions, but they share the conviction that our consciousness is fundamentally false consciousness. For these thinkers, what we think we know about ourselves, others, and the world around us requires constant critique, and our certainties are always susceptible to radical doubt. In this course, we will study key writings by these theorists, rightfully termed the three “masters of suspicion,” with particular attention to Marx’s view of the economic basis of human relations and his conception of alienated labor, to Nietzsche’s “perspectivism” and his assault upon conventional explanations for morality, and to Freud’s account of the unconscious forces shaping human behavior, relationships, and institutions. Emphasis will be on

close readings of primary texts. No prior exposure to these thinkers will be assumed. Three hours per week. *Four semester hours (H.)*

RELS/PHIL-323. What Really Matters in Life?

Are you curious about what makes for a good life? Everyone wants to be happy, but the pursuit of happiness may be illusory if not guided by critical thinking. In this course, we will think together about what goods and ends ought to be pursued to live an intellectually and morally satisfying life. We will explore questions such as: Is it really possible for one to be happy without cultivating a concern for the well-being of others? Can self-interest co-exist with the ethical life? What are the marks of a life lived with authenticity? We will struggle with these questions and students will be also asked to think about and reflect on such matters in their own lives. This course is particularly fitting for upper-class students contemplating their career choices and vocational path upon graduation. Three hours per week. *Four semester hours (CCAP, H, O.)*

RELS-326. Comparative Religious Ethics

In this course, we will analyze the complex relationship between religion and ethics. In what ways might a religious ethic differ from a secular ethic? Does religious belief and/or practice augment the ethical life or not? We will also explore carefully the worldviews of Christianity, Judaism, and Buddhism in an attempt to understand the context in which ethical reflection is practiced in these traditions. Then, we will examine various social issues from the perspective of these religious traditions. Three hours per week. *Four semester hours. (H, O.)*

RELS-327. Religion and Violence

The turn of the twenty-first century has been accompanied by an alarming global increase in religiously-motivated violence. Historically, religious ideas have been used to justify both war and peace, both violence and reconciliation. This course will examine the relationship between religion and violence in various historical contexts. Topics will include: just war doctrine, crusades and holy wars; sacrificial rituals in traditional cultures; modern revolutionary and terrorist movements; and religious pacifism. Three hours per week. *Four semester hours. (H.)*

RELS-328: Religious Diversity in Southeastern Pennsylvania

Religious diversity and difference have become crucial political and social issues in the early years of the twenty-first century. In this course, students will participate in an ongoing effort to understand, investigate, and connect with the religious diversity of our region. Readings will focus on theoretical and practical interpretations of religious diversity, primarily in a modern American context. The course will also involve frequent field trips and site visits to religious institutions and organizations near Ursinus, including but not limited to Buddhist, Hindu, and Islamic sites. Three hours per week. *Four semester hours. (DN, H.)*

RELS-361. Religion and Civil Rights

An examination of the lives and events of the Civil Rights era, focusing on religious leadership, student involvement, and local empowerment. Through religious, historical, and literary readings, we will explore and analyze the personalities and proceedings of the late fifties, sixties, and seventies. Topics may include the Mississippi movement, the life and work of Martin Luther King, Jr. and of Malcolm X, the role of women in the movement, the black power movement, and King's concept of the "Beloved Community," among others. The course includes a study tour of historical Civil Rights sites in Mississippi, including meetings and dialogue with community representatives and spokespersons (optional). Three hours per week. *Four semester hours.* (DN, H.)

RELS-365. The Protestant Reformation

An examination of the sixteenth-century Protestant Reformation through the writings of Luther, Calvin, representatives of the Radical and Catholic reforms, and others, with attention to their social, cultural, and political context. Topics include the crisis of medieval culture, Luther's biography and teachings, the theology of faith and grace, the creation of a Protestant culture, the radical reformers, and international Calvinism. Three hours per week. *Four semester hours. (H.)*

RELS-366. Religion and Human Rights

An exploration of the relationship between religion and human rights. Topics may include the connection between human rights and belief in God; religious traditions' contributions and/or resistance to human rights movements and to individual rights; and the position of secular states towards religious freedom and related rights. Three hours per week. *Four semester hours. (H, O.)*

RELS-391. Research/Independent Work

Independent work on a topic in Religious Studies, under the supervision of a faculty advisor. A substantial written final product is required. Prerequisites: a written project proposal and permission of a department faculty member who will serve as advisor. *Four semester hours. (XLP.)*

RELS-404W. Senior Seminar in Religious Studies

The aim of this capstone course is to explore in depth an area of interest in the field of religious studies, using all the tools students have developed as majors. There will be several papers and oral presentations. Open only to senior religious studies majors or by departmental permission. Three hours per week. *Four semester hours. (H.)*

RELS-491. Research/Independent Work

This course is open only to candidates for departmental honors or distinguished honors. *Four semester hours. (XLP.)*

RELS-492. Research/Independent Work

A continuation of RELS-491. Prerequisite: RELS-491. *Four semester hours. (XLP.)*

- Philosophy and Religious Studies Department

Physics and Astronomy

Faculty

- *Professors Carroll (Chair), Riley; Associate Professor Schwarz, K.Martin-Wells; Assistant Professor R. Martin-Wells; Visiting Instructor Barker*

- The courses in physics are designed to give the student an understanding of the logic and structure of physics. Methods of analysis and presentation of concepts and ideas are emphasized. Laboratory work demonstrates the dependence of physical theory on experimentation.

  ## Requirements for Majors

  Physics Track

  Students must take the following courses:

  - CS-173; MATH-112; PHYS-121Q, 122Q, 201, 207W, 299, 450W, 499
  - any two of PHYS-328W, 329W, 338W, 339W
  - any three of PHYS-304, 401, 409, 410
  - and at least four credits of additional work at the 300-level or above

  Applied Physics Track

  ## Option A

  Students must take the following courses:

  - CS-173; MATH-112; PHYS-121Q, 122Q, 201, 207W, 299, PHYS-328W, 329W, 338W, 339W, 450W, and 499
  - any three of PHYS-304, 306, 401, 405, 409, 410
  - An internship (PHYS-381 or PHYS-382) or at least two credits of research (from PHYS-411, 412, 421, 422, 431, 432, 491)

  ## Option B

Students participating in one of our pre- engineering partnerships have the option of completing the Applied Physics Track by taking the following courses:

- CS-173; MATH-112; PHYS-121Q, 122Q, 201, 207W, 299
- any two of PHYS-328W, 329W, 338W, 339W
- PHYS-304, 306, 405, 409, or 410

and completing one year of course work toward an engineering major at one of our partner schools.

Note: The Applied Physics Track Option B requires courses beyond those required by the pre-engineering program, and it is entirely optional.

Astrophysics Track

Students must take the following courses:

- CS-173; MATH-112; PHYS-121Q, 122Q, 201, 207W, 299, 450W, 499
- any two of PHYS-328W, 329W, 338W, 339W
- any three of PHYS-304, 401, 409, 410
- PHYS-301, and at least two credits of research (from PHYS-411, 412, 421, 422, 431, 432, 491)

Physics majors fulfill the W, oral presentation, and capstone requirements by taking PHYS-207W, and at least two of 328W, 329W, 338W, 339W, and 450W

Students anticipating graduate study in physics or astrophysics should select additional courses from PHYS-305, 306, 401, 409, 410 and from MATH-235, 310, 413.

Requirements for Secondary School Teaching Certification

Students must take the following courses:

- BIO-101Q or 102Q or ENVS-100; MATH-112 and CS-173; PHYS-121Q, 122Q, 201, 207W, 299, 450W, 499
- any two of PHYS-328W, 329W, 338W, 339W
- any three of PHYS-304, 401, 409, 410

- and at least four credits of additional work at the 300-level or above

To be approved for student teaching, a candidate must have 1) attained an average of 2.50 in required physics and mathematics courses and 2) demonstrated the interpersonal and communication skills necessary to convey ideas and concepts to others.

Requirements for Minors

Minor concentration in physics:

A minor in Physics consists of courses totaling 20 semester hours. Additionally, MATH-112 or equivalent is a pre- or co-requisite for PHYS-122Q and higher.

These courses must include PHYS-121Q and 122Q; at least one of PHYS-201, 207W, or 299; and eight credits of additional work at the 200- level or higher (excluding PHYS-450).

Pre-engineering:

Students interested in pursuing pre-engineering should contact the departmental pre-engineering adviser at the earliest opportunity to plan a program of study.

Courses

- **PHYS-101Q. Introduction to Astronomy**

  A survey of astronomy, including the following topics: the development of astronomy as a modern science, the birth and death of stars (white dwarfs, neutron stars, and black holes), the origin of the solar system, galaxies and the origin of the universe, the search for extraterrestrial intelligence. Three hours of lecture and two hours of laboratory per week. *Four semester hours. (S.)*

PHYS-110. Physics on Screen

An examination of physics and astronomy as portrayed in popular film and television. It will include the following physical topics: conservation laws, mechanics, thermodynamics, electricity and magnetism, and introductory quantum physics. It will also explore the relationship between the scientific understanding of those topics and their depiction in various media and styles, as well as the social and cultural influences of those depictions. The course will include historical as well as contemporary perspectives. There are no prerequisites for this course; however, a general knowledge of algebra is desirable. Three hours of lecture and three hours of lab per week. *Four semester hours. (S.)*

PHYS-111Q. General Physics I

An algebra/trigonometry-based introduction to mechanics and thermodynamics. Prerequisite: MATH-110 or equivalent algebra and trigonometry preparation. Three hours of lecture and three hours of lab per week. *Four semester hours. (S.)*

PHYS-112. General Physics II

A continuation of PHYS-111Q. An algebra/trigonometry-based introduction to waves, electricity, magnetism, and light. Prerequisite: MATH-110 or equivalent algebra and trigonometry preparation. Three hours of lecture and three hours of lab per week. *Four semester hours. (S.)*

PHYS-121Q. Spacetime and Quantum Physics

A study of special relativity and an introduction to quantum physics, utilizing the principles of calculus in the presentation and in exercises. Topics will include spacetime diagrams, the relativity of simultaneity, time dilation, relativistic kinematics, probability, quantization, and interference. Prerequisite or corequisite: MATH-111, or permission of the instructor. Three hours of lecture and three hours of lab per week. Offered fall semester. *Four semester hours. (S.)*

PHYS-122Q. Electromagnetism and Thermodynamics

A study of electricity and magnetism and thermal physics. Introduction to vector calculus. Prerequisite or corequisite: PHYS-121, MATH-112; or permission of the instructor. Three hours of lecture and three hours of lab per week. Offered spring semester. *Four semester hours. (S.)*

PHYS-201. Introductory Classical Mechanics

Vectors, vector calculus, classical mechanics, statics, kinematics, dynamics of a particle, energy, harmonic motion, moving reference systems, central forces, chaos. Prerequisites: PHYS-122, MATH-112. Three hours of lecture. Offered fall semester. *Four semester hours.*

PHYS-207W. Modern Physics

Origins of quantum theory, physics of atoms, molecules, solids, nuclei, and elementary particles. Work will include a literature review and presentation on a topic of current interest. Offered spring semester. Prerequisites: PHYS-122Q. Three hours per week. *Four semester hours.*

PHYS-299. Mathematical Physics I

Ordinary differential equations, special functions of mathematical physics, linear algebra, coordinate transformations, vector analysis, Fourier series, numerical solution of algebraic equations. Offered spring semester. Prerequisites: PHYS-122, MATH-112. Three hours per week. *Four semester hours.*

PHYS-301. Introduction to Astrophysics

Astrometry, astronomical photometry, CCD imaging and image processing, spectroscopy. The astronomical two-body problem, tidal forces, the Sun and planets, observable properties of stars, stellar structure and evolution, binary stars, galaxies and cosmology. Prerequisites: PHYS-201, 207. Three hours lecture and three hours lab per week. *Four semester hours. (S.)*

PHYS-304. Thermal Physics

An introduction to thermodynamics and classical and quantum statistical mechanics with an emphasis on the statistical foundations. Topics include temperature, laws of thermodynamics, work, heat, energy, entropy, thermodynamic potentials, kinetic

theory of dilute gases, equations of state. Offered fall semester in even numbered years. Prerequisites: PHYS-122, PHYS-299. Three hours per week. *Four semester hours.*

PHYS-305. General Relativity

Development of Einstein's theory of general relativity from basic physical principles. Introduction to the mathematics of curved spacetime. Astrophysical applications, including gravitomagnetism, blackholes, cosmology and the creation and detection of gravitational waves. Prerequisite: PHYS-201, 299. Three hours per week. *Four semester hours.*

PHYS-306. Materials Science

A study of the basic principles necessary to understand structure-property relations in engineering materials. Topics will include the study of structure–property relationship in materials, tools for characterization, properties ranging from mechanical, thermal, electrical, optical, magnetic, and chemical in nature and the application of modern materials. Prerequisites: PHYS-121, 122; or permission of the instructor. Three hours of lecture and three hours of lab per week.*Four semester hours.*

PHYS-328W. Analog Electronics

Foundations of analog circuits, including DC and AC circuits, transistors, and operational amplifiers with emphasis on laboratory techniques and the written communication of scientific results. Prerequisite: PHYS-122. One hour of lecture; an average of three hours of laboratory per week. *Two semester hours.*

PHYS-329W. Digital Electronics

Foundations of digital electronics, including data acquisition systems, with emphasis on laboratory techniques and the written communication of scientific results Prerequisite: PHYS-122. One hour of lecture; an average of three hours of laboratory per week. *Two semester hours.*

PHYS-338W. Advanced Physics Laboratory I

Experimental investigations of physical phenomena with emphasis on laboratory techniques and the written and oral communication of scientific results. Offered spring semester. Prerequisites: PHYS-207W. One hour of lecture; an average of three hours of laboratory per week. *Two semester hours.*

PHYS-339W. Advanced Physics Laboratory II

Experimental investigations of physical phenomena with emphasis on laboratory techniques and the written and oral communication of scientific results. Offered spring semester. Prerequisites: PHYS-207W. One hour of lecture; an average of three hours of laboratory per week. *Two semester hours.*

PHYS-350. Special Topics in Physics

Study and discussion of advanced topics or recent developments in physics. Students must consult the chair of the department before registering for this course. Three hours per week. *Four semester hours.*

PHYS-381. Internship

A laboratory project in cooperation with industry at an industrial site, a national lab, or other appropriate academic site. Students must document their experience according to the requirements delineated in the College catalogue section on Internships. Before beginning the internship, the student must submit a proposal to be approved by the Physics faculty and the on-site supervisor. Upon completion of the work, written

and/or oral reports must be presented to the department. Open to juniors and seniors. The term during which the internship work is performed will be noted by one of the following letters, to be added immediately after the internship course number: A (fall), B (winter), C (spring), or D (summer). Internships undertaken abroad will be so indicated by the letter I. The intern must complete a minimum of 120 hours of work. Graded S/U. *Three semester hours. (XLP.)*

PHYS-382. Internship

A laboratory project in cooperation with industry at an industrial site, a national lab, or other appropriate academic site. Students must document their experience according to the requirements delineated in the College catalogue section on Internships. Before beginning the internship, the student must submit a proposal to be approved by the Physics faculty and the on-site supervisor. Upon completion of the work, written and/or oral reports must be presented to the department. Open to juniors and seniors. The term during which the internship work is performed will be noted by one of the following letters, to be added immediately after the internship course number: A (fall), B (winter), C (spring), or D (summer). Internships undertaken abroad will be so indicated by the letter I. The intern must complete a minimum of 160 hours of work. Graded S/U. *Four semester hours. (XLP.)*

PHYS-401. Applications of Quantum Mechanics

The hydrogen atom, angular momentum, systems of identical particles, perturbation theory, and other applications selected from atomic, molecular, solid-state, and nuclear physics. Offered fall semester in odd numbered years. Prerequisites: PHYS-207W, 299. Three hours per week. *Four semester hours.*

PHYS-409. Electrodynamics

Electric and magnetic fields and potentials, Laplace's equation, dielectrics and magnetic materials, Maxwell's equations, electromagnetic waves. Offered spring semester in even-numbered years. Prerequisites: PHYS-122, 201, 299. Three hours per week. *Four semester hours.*

PHYS-410. Classical Mechanics

Dynamics of a system of particles, mechanics of rigid bodies, general motion of a rigid body, Lagrange's equations, Hamilton's equations, theory of vibrations, with an emphasis on numerical problem solving and visualization. Offered spring semester in odd-numbered years. Prerequisites: PHYS-201, 299 Three hours per week. *Four semester hours.*

PHYS-411. Research

Investigations, of experimental or theoretical nature, pursued independently by the student. The preparation of a summarizing report is required. To register for this course, a student must have the consent of a member of the physics Faculty to serve as the adviser. This course can be taken more than once. An average of three hours of research work per week. Graded S/U. *One semester hour.*

PHYS-412. Research

Continuation of PHYS-411. This course can be taken more than once. An average of three hours of research work per week. Graded S/U. *One semester hour.*

PHYS-421. Research

Same as PHYS-411, but more extensive in scope. This course can be taken more than once. An average of six hours of research work per week. Graded S/U. *Two semester hours.*

PHYS-422. Research

Continuation of PHYS-421. This course can be taken more than once. An average of six hours of research work per week. Graded S/U. *Two semester hours.*

PHYS-431. Research

Same as PHYS-421, but more extensive in scope. This course can be taken more than once. An average of nine hours of research work per week. Graded S/U.*Three semester hours. (XLP.)*

PHYS-432. Research

Continuation of PHYS-431. An average of nine hours of research work per week. Graded S/U. *Three semester hours. (XLP.)*

PHYS-450W. Seminar

Senior Seminar is the capstone course in the Department of Physics and Astronomy. Each student will select a topic of current interest in physics and investigate the primary literature on that topic. Students pursuing the astrophysics or applied physics tracks will select topics within those domains. Students will meet and give a series of informal presentations on their chosen topics. The final products of the course are a formal literature review paper and a presentation. Three hours per week. Prerequisites: PHYS-207W, 299, and at least eight credits of additional work at the 300-level or above, or permission of the Physics department. *Four semester hours. (CCAP.)*

PHYS-491. Research/Independent Work

This course is open to candidates for departmental honors and to other students with the permission of the departmental chairman. This course can be taken more than once. Twelve hours per week. *Four semester hours. (XLP.)*

PHYS-492W. Research/Independent Work

A continuation of PHYS-491. Writing a major paper and giving an oral presentation are required. Prerequisite: PHYS-491. Twelve Hours per Week.*Four semester hours. (XLP.)*

PHYS-499. Physics Assessment

A course required of all senior majors, designed to assess their learning in the physics program. Offered in the fall semester. Graded S/U. *Zero semester hours.*

- Physics and Astronomy Department

Politics and International Relations

Faculty

- *Politics: Professors Marks; Associate Professors Evans, A. Karreth (Chair), J. Karreth; Assistant Professor Karp.*

  International Relations: International Relations: Associate Professors Evans (Coordinator), A. Karreth, J. Karreth, Mellis, Nicoara, Onaci, Wynne.

- **The general objectives of the department of politics and international relations are:**

  1) To challenge students to evaluate their conceptions of the good life for the individual and for society.

  2) To prepare students for lives of enlightened and responsible citizenship.

  3) To help students attain knowledge of the theory and practice of politics.

  4) To help students develop the faculties of expression and critical thinking.

  The professional objectives are:

  1) To prepare students for graduate work in politics, law, and public service.

  2) To prepare students for examinations required for governmental service.

  3) To prepare students to be political leaders.

Politics

Requirements for Majors

A major in politics requires POL-218, 237, either 242 or 252, 300, one POL seminar at the 400 level, plus five additional POL courses, at least four of which must be at the 300 level or above. The capstone, oral

presentation, and writing requirements within the major are fulfilled by taking one of the following seminar courses: POL-418W, 437W, 442W, 452W, or IR-400W; or POL-491 and 492W.

Secondary School Teaching Certificate

In addition to the basic requirements of the major, students seeking a teaching certificate in social studies must be enrolled in the College's teacher education program. Substantial further coursework outside of either major is required in order to prepare the student for actual subject matters taught in the secondary curriculum. Students who wish to obtain teaching certification should consult their departmental adviser and the chair of the department of education as early as possible, preferably at the end of their first year.

Requirements for Minors

A minor in politics requires two courses from among POL-218, 237, 242, and 252, plus three POL courses at the 300- or 400- Level.

International Relations

International Relations majors become capable of living and working in a worldwide setting by developing an understanding of how that setting came to be and how its various political, economic, and social systems function.

Requirements for Majors

The International Relations major is an interdisciplinary program for students interested in careers in international politics and diplomacy, intelligence work, higher education, international law, international trade, journalism, and other fields where expertise in international affairs is necessary. Courses required to complete the International Relations major include: ANTH-100, ECON-102, HIST-102, POL-242, 252, 300, and a capstone consisting of either POL-442W, 452W, IR-400W or another capstone approved by the International Relations coordinator. Eligible students may write a departmental or interdisciplinary honors paper for their capstone requirement, with the approval of the IR coordinator. (Note: Students planning to do graduate study in political science should take POL-218 and 237 as well.) Majors are additionally required to take five of the following courses, including

courses in at least two different departments: ANTH-212, 221, 230, 235, 242; ANTH/HSOC-283 ECON-201, 202, 223, 263, 361, 362; HIST-101, 103, 125, 126, 151, 152, 202, 225, 252, 254, 255, 277, 303, 307, 308, 351, 352, 354, 377; LAS-200; IR-400W; POL-343, 344, 345, 346, 348, 349, 350A and 350B, 351, 352, 354, 355, 356, 357, 358, 359. (Note: Both POL-350A and 350B must be taken to qualify as one elective.) Special topics courses such as ANTH-251, ECON-213, HIST-250 or 350, LAS-332, MGT-300 and POL-399 may count as electives with permission of the IR coordinator. Finally, all students in the International Relations major must take at least two courses at the 200 level or above in a foreign language. International Relations majors are strongly encouraged to pursue study-abroad options. The department regularly tries to accommodate students by accepting courses taken abroad in fulfillment of major requirements.

International Relations majors can fulfill the capstone, oral presentation, and writing requirements within the major by taking one of the following seminar courses: POL-442W, POL-452W, or IR-400W. HIST-450W may fulfill the major capstone requirement with permission of the IR coordinator.

Requirements for Minors

The international relations minor consists of POL-242, 252 and three courses from the following list: ANTH-212, 221, 230, 235, 242; ANTH/HSOC-283; ECON-201, 202, 223, 263, 361, 362; HIST-101, 102, 103, 125, 126, 151, 152, 202, 225, 252, 254, 255, 277, 303, 307, 308, 351, 352, 354, 377. LAS-200; IR-400W; POL-300, 343, 344, 345, 346, 348, 349, 350A and 350B, 351, 352, 354, 355, 356, 357, 358, 359, 442W, 452W. Special topics courses such as ANTH-251, ECON-213, HIST-250, 350 or 450W, LAS-332, MGT-300 and POL-101 or 399 may count as electives with permission of the IR coordinator. Minors are required to take courses from at least two contributing departments.

Courses

- # Politics

POL-050. Trial Advocacy

The class follows the preparation and production of a hypothetical yet intricate civil or criminal trial, including allowing students to research the issues to be addressed, drafting opening and closing statements, and practicing direct and cross examination of witnesses. Other topics taught are persuasive oral advocacy, the rules of evidence, jury

psychology, and legal ethics. Students review and analyze legal briefs and court cases and learn to argue a position, even if it is different from their own. Culminates in a trial competition, based on the material and structure provided annually by the American Mock Trial Association. Course can only be taken once. Two to three hours per week. *Two semester hours.*

POL-101. Introductory Special Topics in Politics

An introductory social science course that provides students an opportunity to focus on topics related to politics and government. This course is an excellent introduction for students considering the Politics major, but is designed for any student with an interest in politics and government and will help students develop skills useful to all majors, including critical reading, analytical and writing abilities. Open to all first-year and second-year students, or by permission of instructor. Three hours per week. *Four semester hours. (DN, GN, SS if so designated, contingent upon the topic.)*

POL-218. American Government

A critical examination of the institutions, processes, policies, and underlying principles of the American political system. Topics include the Constitution, interest groups, parties and elections, the presidency, Congress, the bureaucracy, and the judiciary. Three hours per week. *Four semester hours. (SS.)*

POL/PHIL-237. Political Philosophy

This course examines the nature of justice through a careful reading of major works in the history of political philosophy. Specifically, we will consider selected political writings of Plato, Aristotle, Machiavelli, Hobbes, Locke, and Marx. Three hours per week. *Four semester hours. (H, O, SS.)*

POL-242. Comparative Politics

The structure and function of governments and political groups will be compared to develop basic theory. Themes considered include the nation-state, political economy, democracy, authoritarianism, and political violence. Three hours per week. *Four semester hours. (GN, SS.)*

POL-252. International Politics

Theory, simulations, games, and case studies explain the politics and roles of states, individuals, and international law and organizations in the making and resolving of conflict over issues such as war, globalization, or climate change. Three hours per week. *Four semester hours. (GN, SS.)*

POL-299. Tutorial in Politics and International Relations

Individual study and directed reading of a particular topic or book within the discipline. Students will work closely with a member of the department in selecting, reading, and discussing the topic, and in determining a proper written assignment. Prerequisites: prior permission of the instructor. One hour per week. *One semester hour.*

POL-300. Thinking with Data in Politics and International Relations

This course examines quantitative and qualitative methods used in political science, providing students with the knowledge and skills needed to engage in critical analysis, and to understand and conduct basic research. The knowledge and skills learned in this course are helpful for future undergraduate or graduate course work, as well as for students interested in public policy and political campaigns. It is recommended that

students take STAT-140 or STAT-141 before or at the same time as POL-300. Three hours per week. *Four semester hours. (Q, SS.)*

POL-305. Politics and the Arts

This course analyzes the political messages in selected works of art and relates these to works in political science. Works of art may include, among other things, novels, plays and films. Four hours per week. *Four semester hours. (SS.)*

POL-310. Congress and the Presidency

The decision-making process in Congress and the executive branch with emphasis on the interaction of the branches in their struggle to make and apply policy. Three hours per week. *Four semester hours. (SS.)*

POL-314. Political Parties and Elections

An examination of the evolution of the American two-party system and the increasingly volatile nature of the American electorate. Topics include the dynamics of party realignment, the changing characteristics of the American voter, the politics of presidential selection, and the consequences of party and electoral reform. Three hours per week. *Four semester hours. (SS.)*

POL-316. African American Politics in the United States

A survey of the philosophical perspectives and political strategies adopted by African Americans in their efforts to obtain equality in the United States. In addition to analyzing the approaches and techniques undertaken by African American political leadership, the course will investigate and evaluate mass based political efforts such as protests and voting. Three hours per week. *Four semester hours. (DN, SS.)*

POL-320. Legal Writing and Argument

In an appellate court format, students analyze arguments presented in a series of court cases, apply those arguments to concrete legal situations, and write legal briefs. Three hours per week. *Four semester hours.*

POL-321. Constitutional Interpretation I

The role of the Supreme Court in the interpretation and enforcement of the Constitution is examined through analysis of leading cases. Judicial review, powers of Congress and the President, and the division of powers between the national and state governments are among the topics considered. Three hours per week. *Four semester hours. (SS.)*

POL-322. Constitutional Interpretation II

The role of the Supreme Court in the interpretation and enforcement of individual rights within a system of limited government. Substantive and procedural due process, freedom of expression and conscience, and equal protection of the law are among the topics considered. Three hours per week. *Four semester hours. (SS.)*

POL-325. The Judicial Process

Proceeding from the idea that the judicial process is essentially a political process, this course will examine the ways in which participants in the judicial process—particularly judges—reach decisions, engage in politics, and affect public policy. Three hours per week. *Four semester hours. (SS.)*

POL-330. American Political Thought

This course examines the founding principles of our regime and the problems inherent in those principles as revealed by the great crises of our history. Accordingly, we will examine carefully the speeches and writings of those statesmen who founded the regime as well as those who guided it through its crises. Readings may include the works of Jefferson, Madison, Hamilton, the Anti-Federalists, Lincoln, Frederick Douglass, Wilson, and F.D.R. Three hours per week. *Four semester hours. (DN, H, O, SS.)*

POL-331. Studies in American Political Thought

Focus on an individual American thinker/political actor (e.g. Abraham Lincoln, Frederick Douglass, Jane Addams) or group of thinkers/political actors (e.g. Federalist/Antifederalist Debate). We consider how the principle of equality plays out in a democratic polity that is full of inequalities and differences and for which equality is not the sole aim. We consider, too, the problem principle and prudence: how can principles be articulated and advanced amidst constraints? Three hours per week. *Four semester hours. (DN, H.)*

POL-336. Science and the Common Good

This course examines the philosophic bases and critique of modern science. What is the nature of science? Is scientific reasoning more reliable than other forms of reasoning? What role do moral, political, and religious values play in science? What role should these values play? This course takes historical and contemporary approaches to these questions and will include discussion of topical scientific advancements and emerging technologies. These investigations and conversations provide an opportunity for students to reflect on how they will conduct themselves in their roles as scientists, clinicians, public policy makers, and/or citizens. Three hours per week. *Four semester hours. (CCAP, O, SS.)*

POL/PHIL-337. Classical Political Philosophy

This course examines the classical understanding of politics through a careful reading of selected works of Plato and Aristotle. We will consider such issues as the nature of justice, the meaning of moral and intellectual virtue, and the relation between philosophy and politics. Three hours per week. *Four semester hours. (H, O, SS.)*

POL/PHIL-338. Modern Political Philosophy

This course examines and evaluates the world-revolutionary challenge to classical and medieval political philosophy posed by such writers as Machiavelli, Hobbes, Spinoza, Locke, Rousseau and Hegel. Three hours per week. *Four semester hours. (H, O, SS.)*

POL/PHIL-339. Contemporary Political Philosophy

This course examines selected authors and issues in contemporary political philosophy. We will read the works of such authors as Nietzsche, Heidegger, Kojeve, Rawls and Foucault. We will consider such issues as historicism, contemporary liberalism, feminism, and Marxism. Three hours per week. *Four semester hours. (H, O, SS.)*

POL-343. Poverty, Welfare, and Public Policy

An inquiry into the processes that shape social policy across the United States, Western Europe and East Asia. The course examines, in comparative perspective, different government policies that address problems related to poverty and inequality in advanced democracies and the political dynamics that undergird their creation and implementation. The course also offers a foundational understanding of the general processes of public policy-making in democratic settings. Three hours per week. *Four semester hours. (DN, O, SS.)*

POL-344. Political Development

An analysis of political change in developed and less-developed countries, focusing on the various theories used to explain socioeconomic and political conditions, and development strategies among several political systems in the international community. Three hours per week. *Four semester hours. (DN, GN, SS.)*

POL-345. Democracy and Politics in Latin America

An examination of political and economic change in Latin America with particular emphasis on the reasons why democracy, prosperity and equality have been difficult to achieve. The course focuses on common historical and institutional legacies as well as the different political and economic trajectories of major Latin American countries. Three hours per week. *Four semester hours. (GN, SS.)*

POL-346. Politics of the Middle East

This course examines the politics, economies, and societies of the Middle East and North Africa. We will explore the colonial roots of the modern Middle East, the political dynamics of current regimes, and the basis of various political and sectarian conflicts in the region, all while asking a fundamental question: why do so few democracies exist in the Middle East? Some specific topics we explore include: Political Islam, Gender in the Middle East, the Arab-Israeli conflict, Oil Politics, and the Arab Spring. Three hours per week. *Four semester hours. (GN, SS.)*

POL-348. African Democracy

This course offers an introduction to contemporary African politics through an exploration of democratization on the continent. It will examine the concepts, meanings, and measurements of democracy broadly, the history of democratization throughout Africa and the variance of democratic institutions found across the continent. Specific topics include, but are not limited to, legal, legislative and corruption reform across Africa, the role of civil society in democratization, public opinion, election processes, and human rights regimes. Three hours per week. *Four semester hours. (GN, SS.)*

POL-349. European Politics

An examination of modern European economic and political systems and the different ways in which various European countries have sought to preserve social stability, promote economic prosperity and guarantee democracy in the post-WWII period. The course also focuses on European integration and democratization in Southern and Eastern Europe. Three hours per week. *Four semester hours. (SS.)*

POL-350A. International Organizations and Diplomacy

A study of governmental international organizations and diplomacy with particular emphases on functions of the United Nations and other intergovernmental and non-governmental organizations and multilateral political affairs. Students must take both POL-350A and B to receive credit for one elective course in the major. Two hours per week. *Two semester hours.*

POL-350B. International Organizations and Diplomacy

A continuation of POL-350A. This course also prepares students to participate in the National Model United Nations conference. Prerequisite: POL-350A or permission of the instructor. Students must take both POL-350A and B to receive credit for one elective course in the major. Two hours per week. *Two semester hours.*

POL-351. Politics of the End of the World

When it seems like the world is about to end, what are your options, and what does politics have to do with it? In this course, we explore the role of the individual in a world of existential crises and seeming hopelessness. We consider this question in three global settings: climate change, repressive governments, and a highly unequal economy. As a core capstone course, the course entertains core questions about how we should live together, how we should consider the impact of our own actions on others, and how any knowledge we acquire (during college and beyond) should shape our behavior. As a political science course, it approaches these questions with a focus on strategic behavior, representation, and institutions. Offered every other year. Three hours per week. *Four semester hours. (CCAP, GN, SS.)*

POL-352. Theories of International Relations

This course explores the theories that have been used to study international relations from ancient times to the present. Particular attention is given to the roots of contemporary theories, especially realism, neoliberalism, constructivism, feminism and critical theories. Three hours per week. *Four semester hours. (SS.)*

POL-354. Global Health

This course considers contrasting views on health as a human right and explores how social, economic and political forces influence who gets sick, what diseases afflict them, which treatments are available to them, and what the outcome of those treatments are. It examines a number of global health problems, including malaria, tuberculosis, AIDS, polio, global obesity and global hunger as well as mental health. The roles of global public health organizations and private foundations are also studied. Three hours per week. *Four semester hours. (DN, GN, O, SS.)*

POL-355. U.S. Foreign Policy

Analysis of the process and substance of U.S. foreign policy. Attention is paid to the roles and limitations of the Presidency, Congress, the State Department, the National Security Council, public opinion and nongovernmental actors. Emphasis will be placed on current controversial global issues. Three hours per week. *Four semester hours. (O, SS.)*

POL-356. Human Rights

This course examines the theory and practice of human rights, examining historical and contemporary cases of human rights violations drawn from various regions of the world. The course will include study of international documents that govern human rights practice and mechanisms that protect human rights found in the UN system as well as regional organizations and domestic legal systems. Three hours per week. *Four semester hours. (CCAP, DN, GN, O, SS.)*

POL-357. War and Peace

An examination of the nature of war, including debates over the causes and inevitability of war. The course also explores the question when, if ever, war is justified and analyzes how recent changes in military technology and doctrine have affected the way that war is fought, including in the contemporary "war on terror." Various theories and perspectives on how to end war and build peace are discussed as well. Three hours per week. *Four semester hours. (GN, O, SS.)*

POL-358. Terrorism and Political Violence around the World

An inquiry into the origins and effects of political violence, including terrorism, beyond of the context of formal interstate war. The course focuses on violence perpetrated by both states and non-state actors in Western and non-Western contexts. Topics include individual-level and group-level motivations for using violence for political goals, the

organizational behavior of non-state actors, and the evaluation of counter-terrorism and counter-insurgency policies. Students use theoretical and empirical tools and a simulation to analyze key questions of contemporary policy debates on terrorism and political violence. Three hours per week. *Four semester hours. (GN, SS.)*

POL-359. The Politics of Markets, Money, and Migration

An inquiry into the causes and effects of the movement of goods (international trade), money (currency, investment, foreign aid), and people (migration). The course will explore how these international economic processes have developed over time, and how they affect people locally in different countries. It will highlight the political forces that shape economic interactions and explore the trade-offs linked to different economic policies. Students will learn and practice how to evaluate and use data to examine theories and arguments about global and local political-economic phenomena. Three hours per week. *Four semester hours. (DN, GN, Q, SS.)*

POL-382. Internship

Internship in any field/organization with a connection to politics, policy, law, or governance. Students must document their experience according to the requirements delineated in the College catalogue section on Internships. A 2.67 grade average and permission of the department are required. Open to juniors and seniors. The term during which the internship work is performed will be noted by one of the following letters, to be added immediately after the internship course number: A (fall), B (winter), C (spring), or D (summer). Internships undertaken abroad will be so indicated by the letter I. The intern must complete a minimum of 160 hours of work. *Four semester hours. (XLP.)*

POL-399. Topics in Law and Politics

An occasional course dealing with special subject areas or events. *Four semester hours. (SS, GN, or DN, depending on topic.)*

POL-418W. Seminar in American Government

Intensive study of a special topic in American government emphasizing original research and substantial oral and written work. Prerequisites: senior status (juniors admitted with permission of instructor), one 300-level course in American government, POL 300 (student may take concurrently). Three hours per week. *Four semester hours. (SS.)*

POL-437W. Seminar in Political Philosophy

Intensive study of a special topic in political philosophy emphasizing original research and substantial oral and written work. Prerequisites: senior status (juniors admitted with permission of instructor) and one 300-level course in political philosophy. Three hours per week. *Four semester hours. (SS.)*

POL-442W. Seminar in Comparative Politics

Intensive study of a special topic in comparative politics emphasizing original research and substantial oral and written work. Prerequisites: senior status (juniors admitted with permission of instructor), one 300-level course in Politics, POL 300 (student may take concurrently). Three hours per week. *Four semester hours. (SS.)*

POL-452W. Seminar in International Politics

Intensive study of a special topic in international politics emphasizing original research and substantial oral and written work. Prerequisites: senior status (juniors admitted with permission of instructor), one 300-level course in Politics, POL 300 (student may take concurrently). Three hours per week. *Four semester hours. (SS.)*

POL-491. Research/Independent Work

This course is open to candidates for departmental honors and to other students with the permission of the departmental chair. *Four semester hours. (XLP.)*

POL-492W. Research/Independent Work

A continuation of POL-491. Prerequisite: POL-491. *Four semester hours. (XLP.)*

International Relations

IR-400W. Research in International Relations

This capstone course will require a series of short papers and a major research project. An oral presentation will be made before an upper-division course on the subject. Three hours per week. *Four semester hours. (XLP.)*

- Politics and International Relations Department

Psychology

Faculty

- *Professor Mattingly, Winegar; Associate Professors Bish, DaCosta, Frymiare (Chair); Assistant Professors Blum, Makuch, Reinka; Visiting Assistant Professor Blum; Instructors C. Bailey, Davidson, Hanlon, Lawrence, Vinci.*

- The Department of Psychology offers a comprehensive curriculum characterized by breadth and depth of study. A major in psychology prepares students for immediate employment in a wide variety of positions (e.g., human services, health care, research, sales and marketing) as well as for graduate study in psychology or another field (e.g., speech therapy, occupational therapy, law, elementary and secondary school counseling, school psychology).

  The general learning objectives of the department of psychology are that students:

  1. develop a knowledge base of key concepts and perspectives of the various content areas and applications of psychology;

  2. engage in scientific inquiry and develop critical thinking skills;

  3. develop an understanding of ethical and social responsibility in a diverse world;

  4. develop strong oral and written communication skills; and

  5. refine skills relevant to their professional development such as project management skills and teamwork capacity.

  In order to meet these objectives, the psychology major requirements are divided into five components as explained below: foundation courses, content courses, advanced research methods courses, capstone course, and elective courses. Recommended courses for majors pursuing graduate school in psychology or a related field and minor requirements are also explained below.

  Psychology majors fulfill the writing requirement by completing the Advanced Research Methods (ARM) courses.

Requirements for Majors

1. Foundation Courses: PSYC-100, 200Q.

2. Content Courses: Each student must select four courses, each one from a different content area, at least two of which must be at the 300-level.
a. Health: PSYC/GWSS/IDS-214; PSYC-311, 312.
b. Clinical/Personality: PSYC-220, 320, 322.
c. Cognitive/Cognitive Neuroscience: PSYC/NEUR-230, PSYC-232, 234, PSYC/NEUR-235, 236, 238, 330, 332.
d. Developmental: PSYC-240, 340, 342.
e. Social: PSYC-250, 252, 350, 352.

3. Advanced Research Methods Courses: Each student must select one course from at least two different content areas (two courses total).
a. Health: PSYC-410W.
b. Clinical/Personality: PSYC-420W.
c. Cognitive/Cognitive Neuroscience: PSYC/NEUR-430W, 432W.
d. Developmental: PSYC-440W.
e. Social: PSYC-450W.

4. Capstone Course: One seminar course (numbered in the 460s or 470s), or honors research (numbered PSYC-491 or PSYC-492).

5. Elective Courses: Eight additional elected credits in Psychology.

Recommended Courses

These are not required but rather intended for the student who plans to pursue graduate study in psychology or related fields.

1. STAT-141Q, 242, or 243W.
2. PSYC-481, 482, 491, or 492.
3. At least three electives from departmental offerings at the 300-400 level.
4. BIO-101Q or BIO-102Q.

Requirements for Minors

A minor concentration in psychology comprises PSYC-100; four courses, each in different content areas: health psychology chosen from PSYC/GWSS/IDS-214, PSYC-311, or 312; clinical/personality

psychology chosen from PSYC-220, 320, or 322; cognitive psychology/cognitive neuroscience chosen from PSYC/NEUR-230, PSYC-232, 234, PSYC/NEUR-235, 236, 238, or 332; developmental psychology chosen from PSYC-240, 340, or 342; and social psychology chosen from PSYC-250, 252, 350, or 352. At least one course is required at the 300-level.

Courses

- ### PSYC-100. Introductory Psychology

  This course will cover key concepts, principles, and overarching themes in psychology. A range of topics will be covered, such as biological psychology, sensation and perception, consciousness, learning, memory, cognition, intelligence, human development, personality, social behavior, stress and health, and psychological disorders and treatment. Three hours per week. *Four semester hours. (SS.)*

PSYC-150. Your Brain on College

A famous Public Service Announcement in the 1980s featured an egg in a frying pan with the tagline, "This is your brain on drugs. Any questions?" In this course, students will be encouraged to ask questions about how college affects the brain and behavior based on psychology concepts, research, and theories. Topics may include learning and memory, concussion, exercise, sleep, alcohol and drugs, and relationships. Emphasis will be placed on application of psychological knowledge (e.g., how should college students study for exams based on research on learning and memory). In addition, this course will address how psychologists from different perspectives (e.g., cognitive, social, developmental) and other disciplines approach the same topic. This psychology-based course will be linked to the neuroscience-based version of the same-titled course (NEUR-150) in a learning community. Furthermore, content from the neuroscience-based course will be referenced in this course. However, in contrast to the neuroscience-based course which will emphasize brain structures and functioning, this course will focus on the mind and its psychological processes. Three hours of lecture. *Four semester hours. (LINQ, SS.)*

Note: *Students must also enroll in NEUR-150.*

PSYC-200Q. Introductory Research Methods and Statistics

This writing-intensive course is an introduction to research methods and statistics in psychology. Emphasis will be placed on information literacy, scientific reasoning, interpretation of research design, evaluation of ethics in psychological science, and quantitative analysis of data. Students will frequently practice statistical analysis and APA writing. Prerequisite: PSYC-100. Four hours per week. *Four semester hours.*

PSYC/GWSS/IDS-214. Human Sexuality

A multidisciplinary study of the development and expression of human sexuality through the ages, across cultures, and through the lifespan of the individual. Topics include how is "having sex" defined, sexual anatomy and physiology, sexual behaviors and response cycles, development of gender identity, sexual orientations, relationships, atypical sexual practices, sexual dysfunctions, sexually transmitted infections, contraceptive methods, conception and birth. A working knowledge of sexual intelligence will be developed. Prerequisite: PSYC-100. Three hours per week. *Four semester hours.*

PSYC-220. Psychology of Mental and Behavioral Health

In this course, mental and behavioral health concerns will be examined from the biopsychosocial perspective. The history of theoretical perspectives for understanding and treating mental illness will be explored, as well as the development of psychological assessment and diagnostic tools. Topics include the symptomology and etiology of stress, anxiety, mood, psychosis, personality, neurodevelopmental, neurocognitive, and substance use disorders. Additionally, misconceptions, stigma, and discrimination regarding those with mental health issues will be discussed. Prerequisite: PSYC-100. Three hours per week. *Four semester hours.*

PSYC/NEUR-230. Sensation and Perception

This course will explore fundamental sensory processes with an emphasis on vision and audition. We will discuss how sensory stimulation modulates neuronal activity in distinct regions of the nervous system. Additionally, this course will explore how our brain interprets or perceives sensory information. Topics related to perception may include object recognition, color, motion, depth and size, pitch, auditory localization, speech. A working knowledge of sensation and perception will be developed. Prerequisites: PSYC-100. Three hours per week. *Four semester hours.*

PSYC-232. Learning

This course is an introduction to how we acquire new behaviors, skills, and knowledge. Topics include habituation, sensitization, classical conditioning, operant conditioning, schedules of reinforcement, extinction, observational learning, and the roles of attention, memory, and motivation. A working knowledge of learning will be developed. Prerequisites: PSYC-100. Three hours per week. *Four semester hours.*

PSYC-234. Psychology of Language

This course is an introduction to psycholinguistics or the study of how people acquire, produce, and comprehend language. Topics include brain basis of language, animal communication, language acquisition, and language disorders. A working knowledge of language processing will be developed. Prerequisite: PSYC-100. Three hours per week. *Four semester hours.*

PSYC/NEUR-235. Hormones and Behavior

This course aims to introduce students to important interactions between the brain, behavior, and endocrine systems. Students learn about diverse vertebrate species, a variety of physiological systems, and the molecular mechanisms of hormone action. The specific neuroendocrine systems to be studied may include reproduction, parental behavior, social bonding, fluid and energy balance, and emotional regulation. In addition, students develop skills required for critical reading of primary neuroscience literature and scientific communication. Prerequisite: NEUR-100 or BIO-102Q or permission of the instructor. Three hours of discussion per week. *Four semester hours.*

PSYC/NEUR-236. Neuropsychological Assessment

This course is designed as a practical introduction to the evaluation of human behavior to infer neurological function, both typical and disordered. As such, this course may be of interest to individuals with interests in clinical psychology, school psychology, neurology, psychiatry, physical therapy, occupational therapy, among others. Prerequisite: PSYC-100 or NEUR-100. Three hours per week. *Four semester hours.*

PSYC/NEUR-238. Social Neuroscience

This course examines the neurological underpinnings of various aspects of social interactions, including interpersonal relationships, racial/ethnic prejudice, deception, and self-identity. The primary format of the class will be discussion-based with an

emphasis on primary research. Prerequisite: PSYC-100 or NEUR-100. Registration in another course is required if taken for LINQ credit. Three hours per week. *Four semester hours.*

PSYC-240. Lifespan Development

This course will examine the individual, universal, and collective experiences of human development across the lifespan. Lifespan development includes the range of development from conception to older adulthood, with a focus on adulthood and aging. Topics cover the various stages of development and key social and cultural institutions (such as schools, work, and family) and key experiences (such as infant/toddler milestones, puberty, marriage, grief and dying) related to each of these stages. Throughout this course, a working knowledge of lifespan development will be developed as we examine these topics through the fundamental areas related to human development: physical/sexual development, cognitive development and psychosocial development. This course will address sociocultural factors related to human development and how knowledge of human development can promote outcomes that benefit society. Prerequisite: PSYC-100. Three hours per week. *Four semester hours.*

PSYC-250. Industrial / Organizational Psychology

This course will examine psychological processes and human behavior in business and other organizational settings. A range of topics will be covered, such as psychological assessment, group processes, teams and teamwork, leadership, organizational attitudes, motivation, decision making, workplace satisfaction, and job productivity. A working knowledge of industrial/organizational psychology will be developed. This course will address sociocultural factors related to industrial/organizational psychology, and how industrial/organizational psychology can promote outcomes that benefit society. Prerequisites: PSYC-100. Three hours per week. *Four semester hours. (DN.)*

PSYC-252. Relationship Science

This course will examine the psychological science of close relationships (primarily romantic relationships). Of particular importance, this course will focus on critical examination and application of scientific research. A review of classic and contemporary literature is an integral component of this course. Topics may include attraction, attributional processes, interdependency, self-concept changes, relationship stressors (e.g., infidelity, jealousy), motivation, relationship maintenance, conflict and conflict resolution, and dissolution. Prerequisites: PSYC-100. Three hours per week. *Four semester hours.*

PSYC/ENVS-260. Environmental Psychology

This course is an overview of approaches to understanding the psychological relationship between human beings and the natural world and to a lesser extent our built environment. Humans, based on our nature and behavior, have created problems in the natural environment. In this course we will examine environmentally problematic human behavior from the perspective of all major psychological disciplines (behavioral, developmental, cognitive, social, Gestalt, and more). We will explore how we might use psychological modifications, based on these psychological approaches, to change thinking and behavior and become better stewards of the environment. A working knowledge of psychological principles and their application to solving global environmental issues will be developed. Prerequisite: PSYC-100. Three hours per week. *Four semester hours.*

PSYC-262. Psychology and Law

This course examines the American legal system in light of basic and applied psychological research and theory. The efforts of psychologists in the legal system have

generated various legal, moral, and political controversies which will be discussed and debated in this course including the practice of criminal profiling, jury selection, jury deliberation and decision-making, police interrogations and confessions, use of deception detection techniques, eyewitness testimony, repressed and recovered memories, child witnesses in sex abuse cases, perceptions of guilt versus innocence, the death penalty, the insanity defense, the role of psychologists as trial consultants and expert witnesses and more. Perceptions of differential application of laws with respect to gender, ethnicity and SES will also be examined. A working knowledge of psychological principles and their application in the legal system will be developed. Prerequisite: PSYC-100. Three hours per week. *Four semester hours.*

PSYC-264. Psychology of Power and Privilege

Starting from a consideration of power as ability to influence (others, resources, events, etc.) and privilege as unearned advantages resulting from group membership (or assumed group membership), this course draws from developmental, social, and cognitive psychology to examine power and privilege in our own lives and in our society and culture. Power and privilege as related to race, gender, class, ethnicity, and the intersectionality of these areas is considered. In addition to work on several group and individual projects, critical reading and critical thinking of all students is expected in support of a discussion-based format. Prerequisites: PSYC-100 or permission of instructor. Registration in another course is required if taken for LINQ credit. Three hours per week. *Four semester hours. (O, SS.)*

PSYC-266. Exploring Autism with Open Minds

This is a discussion-based course exploring the autism spectrum from multiple perspectives. The overall goals of this course are to understand the autism spectrum, to develop a greater appreciation of neurodiversity, and to consider society's obligations to autistic people. This course is intended for sophomores, but is open to all students. Prerequisite: PSYC-100. Three hours of lecture. *Four semester hours. (O, SS.)*

PSYC/MCS-268. In Their Voices: Disability, Media, and Me

Students will be encouraged to meaningfully explore the intersection of disability and national discourse by synthesizing multiple perspectives from humanities and social science disciplines. We will consider representation of four types of disabilities: physical or mobility disabilities, sensory disabilities, mental health conditions or psychiatric disabilities, and the autism spectrum using film, media, and print narratives. Students will produce podcasts and participate in analytic discussions throughout their journey. Prerequisite: PSYC-100 or MCS-205. Three hours of lecture. *Four semester hours. (DN, LINQ, O.)*

PSYC-273. Special Topics in Psychology

An occasional content course that will focus on a special topic in psychology. This course is offered as needed. A working knowledge of this special topic will be developed. Graded: S/U. Prerequisites: PSYC-100. Two hours per week. *Two semester hours.*

PSYC-274. Special Topics in Psychology

An occasional content course that will focus on a special topic in psychology. This course is offered as needed. A working knowledge of this special topic will be developed. Prerequisites: PSYC-100. Two hours per week. *Two semester hours.*

PSYC-275. Special Topics in Psychology

An occasional content course which will focus on a special topic in psychology. This course is offered as needed. A working knowledge of this special topic will be developed. Prerequisites: PSYC-100. Three hours per week. *Four semester hours.*

PSYC-311. Health Disparities

Disparities in health continue to persist in the United States, with individuals from marginalized backgrounds (i.e., marginalized on the basis of race, ethnicity, gender, sexual orientation, socioeconomic status, etc.) bearing a disproportionate amount of physical and mental health challenges (NIMHD, 2016). This course will integrate institutional, interpersonal, and individual-level factors to examine both the health challenges and strengths of individuals from marginalized communities. Through this course, students will gain foundational knowledge that will enable them to build successful initiatives for social justice and health equity at individual and organizational levels. This course will incorporate many discussions and students should come prepared to co-construct meaning and critical analysis of course readings through active participation. Prerequisites: PSYC-100. Three hours per week. *Four semester hours. (O.)*

PSYC-312. Health Psychology: Health Beliefs, Behaviors, and Behavior Change

This course offers an introduction to the psychological factors that contribute to the beliefs we hold about health, the health behaviors we practice, and what motivates us to change our behaviors (for better or worse). We will focus on the social, developmental, and cognitive factors that predict behavior, including self-efficacy, social support, internal/external motivation, stages of change, persuasion, message framing, and motivational interviewing. Prerequisites: PSYC-100. Three hours per week. *Four semester hours.*

PSYC-320. Psychopathology and Psychotherapy

This course will explore clinical and experimental approaches to the understanding and treatment of psychosis, anxiety disorders, and related conditions. Selected topics will be studied intensively to illustrate the wide variety of contemporary viewpoints and techniques. A working knowledge of psychotherapy approaches and clinical research strategies will be developed. This course will address sociocultural factors that influence psychotherapy, and how appropriate choice of therapeutic interventions can promote outcomes that benefit society. Prerequisites: PSYC-100. Three hours per week. *Four semester hours.*

PSYC-322. Personality

This course is a comprehensive survey of psychological theory and research on the normal aspects of human nature with focus on individual differences. This emphasis distinguishes the field of personality psychology. The psychoanalytic, biogenetic, trait, humanistic, social cognitive and behavioral perspectives will be explored. Throughout this course, a working knowledge of personality psychology will be developed as we examine these perspectives through the critical appraisal of the interactions among personality theory, research, and applications (assessment and therapeutic change). Prerequisites: PSYC-100. Three hours per week. *Four semester hours.*

PSYC/NEUR-330. Behavioral Neuroscience

This course will build on knowledge of basic neuroanatomy and neuroscience techniques in the exploration of the neural substrates of behavior. Topics may include neurophysiology, neuroanatomy, neurochemistry, sensorimotor processes, perception, attention, and learning. A working knowledge of behavioral neuroscience will be

developed. Prerequisites: PSYC-100 or NEUR-100. Three hours per week. *Four semester hours. (SS.)*

PSYC/NEUR-332. Cognitive Neuroscience

This course will build on knowledge of basic neuroanatomy, behavioral measures, and neuroscience techniques in the exploration of cognitive and neural processes supporting higher-level cognitive functions. Topics may include attention, object recognition, motor control, memory, language, cognitive control, and consciousness. A working knowledge of cognitive neuroscience will be developed. Prerequisite: PSYC-100 or NEUR-100. Three hours per week. *Four semester hours. (SS.)*

PSYC-340. Child Development

This course is an overview of modern child development. We will be critically considering the history, theories, research methods, empirical findings, and applications of findings. We will discuss development in all domains—cognitive, social, physical, and emotional—from conception to adolescence—and draw from diverse fields of study including psychology, biology, anthropology and neuroscience. A working knowledge of child development and applications in research, policy making, child care, education and parenting will be developed. This course will address sociocultural factors related to child development including, cultural differences, the impact of differential environments and current dilemmas and controversies in child rearing, and how knowledge of child development can promote outcomes that benefit society. Prerequisite: PSYC-100. Three hours per week. *Four semester hours.*

PSYC-342. Adolescent Development

This course will examine the individual, universal, and collective experiences of adolescence. Topics covered include adolescence as a socio-cultural construct, adolescent experiences with work, family, schools, media, gender and within other social and cultural contexts. Throughout this course, a working knowledge of adolescent psychology will be developed as we examine these topics through the fundamental areas related to human development: physical/sexual development, cognitive development, and psychosocial development. This course will address sociocultural factors related to adolescent development, and how knowledge of adolescent development can promote outcomes that benefit society. Prerequisite: PSYC-100. Three hours per week. *Four semester hours.*

PSYC-350. Social Psychology: Social Cognition and Influence

This course will examine how individuals think about, make judgments about, behave towards, and are influenced by the social world. A range of topics will be covered, such as impression formation, stereotypes and prejudice, attitudes and attitude change, conformity, obedience, and social influence. A working knowledge of the social psychology will be developed. This course will address sociocultural factors related to social cognition and influence, and how social cognition and influence can promote outcomes that benefit society. Three hours per week. Prerequisite: PSYC-100. *Four semester hours. (DN.)*

PSYC-352. Social Psychology: Self and Interpersonal Relations

This course will examine how the social world influences individuals' self-knowledge and interactions with others. A range of topics will be covered, such as the self-concept, self-esteem, group processes, interpersonal relationships, and prosocial and antisocial behavior. A working knowledge of the social psychological aspects of self, identity, and interpersonal relations will be developed. This course will address sociocultural factors related to self and interpersonal relations, and how self and interpersonal processes can

promote outcomes that benefit society. Prerequisite: PSYC-100. Three hours per week. *Four semester hours. (DN.)*

PSYC-381. Internship

An academic/work experience under the supervision of an internship adviser and an on-site supervisor. Students must document their experience according to the requirements delineated in the College catalogue section on Internships. Contact departmental chair for further information. Open to juniors and seniors. The term during which the internship work is performed will be noted by one of the following letters, to be added immediately after the internship course number: A (fall), B (winter), C (spring), or D (summer). Internships undertaken abroad will be so indicated by the letter I. The intern must complete a minimum of 120 hours of work. Graded S/U. Prerequisites: nine credits in psychology and approval of a faculty internship adviser. *Three semester hours. (XLP.)*

PSYC-382. Internship

An academic/work experience under the supervision of an internship adviser and an on-site supervisor. Students must document their experience according to the requirements delineated in the College catalogue section on Internships. Contact departmental chair for further information. Open to juniors and seniors. The term during which the internship work is performed will be noted by one of the following letters, to be added immediately after the internship course number: A (fall), B (winter), C (spring), or D (summer). Internships undertaken abroad will be so indicated by the letter I. The intern must complete a minimum of 160 hours of work. Graded S/U. Prerequisites: nine credits in psychology and approval of a faculty internship adviser. *Four semester hours. (XLP.)*

PSYC-391. Reading in Psychology

Reading in psychology is an individual study and directed reading course in which a student can further develop an interest. In order to register for this course, a student must have a clear goal and present a preliminary reference list to the faculty member who will be supervising the course. Students will work closely with a member of the psychology faculty in selecting, reading, and discussing the topic, and in determining a proper written assignment. Prerequisite: PSYC-100 and permission of instructor. Three hours of reading per week. *One semester hour.*

PSYC-392. Reading in Psychology

This course is a continuation of PSYC-391. Prerequisite: PSYC-391 and permission of instructor. Three hours of reading per week. *One semester hour.*

PSYC-410W. Advanced Research Methods in Health Psychology

This course will apply students' knowledge of health psychology through the development and execution of an empirically-based research project or assessment that meets ethical standards. Projects will focus on the application of psychological theories and factors to health behaviors, conditions, and outcomes. Topics may include stress and coping, sleep, cardiovascular risk, eating behaviors, exercise, short-term health prevention/intervention projects, and the intersection of mental and physical health. Methods will vary according to survey, experimental, or interview designs. Emphasis will be placed on cultural sensitivity, effective communication, teamwork, and management skills. This course may be especially beneficial for students considering careers in the health/medical professions, occupational and physical therapy, public health, and health and exercise physiology. Prerequisites: PSYC-200Q; and PSYC-310 or 312. Three hours per week. *Four semester hours.*

PSYC-420W. Advanced Research Methods in Psychopathology

This course will apply students' knowledge of abnormal psychology and psychotherapy through the development and execution of an empirically based research project that meets ethical standards. Topics may include randomized controlled trials of experimental therapeutic interventions, as well as personality and interpersonal correlates of psychopathology. Emphasis will be placed on effective communication, teamwork, and management skills. Prerequisites: PSYC-200Q; and PSYC-320 or 322. Three hours per week. *Four semester hours.*

PSYC/NEUR-430W. Advanced Research Methods in Behavioral Neuroscience

This course will apply students' knowledge of behavioral neuroscience through the development and execution of an empirically based research project or assessment that meets ethical standards. Topics may include sensorimotor processes, perception, attention, and learning. Emphasis will be placed on effective communication, teamwork, and management skills. Prerequisites: PSYC-200Q or NEUR-200Q; and PSYC/NEUR-330. Three hours per week. *Four semester hours. (S.)*

PSYC/NEUR-432W. Advanced Research Methods in Cognitive Neuroscience

This course will apply students' knowledge of cognitive neuroscience through the development and execution of an empirically based research project or assessment that meets ethical standards. Topics may include neuropsychological assessment, attention, object recognition, motor control, memory, language, cognitive control, and consciousness. Emphasis will be placed on effective communication, teamwork, and management skills. Prerequisites: PSYC-200Q or NEUR-200Q; and PSYC/NEUR-332. Three hours per week. *Four semester hours. (S.)*

PSYC-440W. Advanced Research Methods in Development

This course will apply students' knowledge of developmental psychology through the development and execution of an empirically based research project that meets ethical standards. Topics may include cognitive, social, physical, language, intellectual and emotional development. Methods vary according to survey, experimental, or interview designs. Emphasis will be placed on effective communication, teamwork, and management skills. Prerequisites: PSYC-200Q, 340 or 342, and may require necessary security clearances. Three hours per week. *Four semester hours.*

PSYC-450W. Advanced Research Methods in Social Psychology

This course will apply students' knowledge of social psychology through the development and execution of an empirically based research project that meets ethical standards. Topics may include attitudes and persuasion, prejudice, social perception, self-esteem, self-concept structure and change, interpersonal relationships, group processes, prosocial and antisocial behavior, social motivation, and/or social influence. Emphasis will be placed on effective communication, teamwork, and management skills. Prerequisites: PSYC-200Q; and PSYC-350 or 352. Three hours per week. *Four semester hours.*

PSYC-460. Seminar: Depression

This course will examine depression and related disorders in depth, which will require critical examination and application of scientific research. Topics may include depression etiology, treatment strategies, and prevention techniques. Emphasis will be

placed on effective communication skills. Prerequisites: Junior standing and PSYC-100; PSYC-200Q recommended. Three hours per week. *Four semester hours. (CCAP.)*

PSYC-462. Seminar: Cultural Psychology

Cultural psychology is a field that introduces the idea of "psychological pluralism." This course emphasizes a perspective that acknowledges multiple psychologies rather than a one-size-fits-all psychology for a diverse range of people worldwide. With specific attention to "non-western" cultural traditions, this course will examine cultural psychology through fundamental questioning of the meaning of "culture" and in-depth analysis of cross-cultural variations in psychological processes. These investigations will require critical examination and application of scientific research. Topics may include cultural psychology of emotions, self, moral judgment, appetite/eating behavior, and intelligence. Emphasis will be placed on effective communication skills. Prerequisites: Junior standing and PSYC-100; PSYC-200Q recommended. Three hours per week. *Four semester hours. (CCAP, GN.)*

PSYC-463. Eating Behavior

This course explores research examining the bases and contexts of our hunger, appetites, preferences, attitudes, choices, and associated behaviors. Students will examine the ways in which eating habits and relationships with food are influenced by a complex interplay of factors ranging from physiological to socio-cultural. The goal is to develop a critical lens for evaluating the complex interdisciplinary discourse focused on humans' experiences with food. Prerequisites: Junior standing and PSYC-100; PSYC-200Q recommended. Three hours per week. *Four semester hours. (CCAP.)*

PSYC/NEUR-464. Seminar: Psychopharmacology

This course will build on basic understanding of the structure and function of the nervous system, neurotransmitters, and psychological disorders to explore how drugs affect the brain and behavior. This course will examine psychopharmacology in depth, which will require critical examination and application of scientific research. Topics may include chemical signaling, neurotransmitter systems, recreational and illegal drugs, pharmacotherapy, and substance abuse and addiction. Emphasis will be placed on effective communication skills. Prerequisites: Junior standing and PSYC-100 or NEUR-100; PSYC-200Q or NEUR-200Q recommended. Three hours per week. *Four semester hours. (CCAP.)*

PSYC/NEUR-465. Seminar: Biological Bases of Learning and Memory

The brain allows organisms to have an incredible capacity to acquire information about the world and to encode, store, and later retrieve that knowledge, but what is the biological basis of learning and memory? How does the brain come to learn whether a stimulus is annoying, rewarding or neutral, and how does remembering how to ride a bicycle differ from remembering scenes from a movie? In this course, students will explore the concept that learning and memory have a physical basis that can be observed as biochemical, physiological and/or morphological changes to neural tissue. We will critically read and discuss primary research articles to become familiar with several different types of learning and memory and the experiments that have enabled them to be distinguished. Different cellular and synaptic mechanisms are thought to underlie distinct types of learning and memory. Newly learned information is encoded through changes in the strength of existing neuronal connections or by formation of new connections and/ or elimination of others. We will discuss the molecular and cellular mechanisms that mediate these changes by exploring concepts such as synapse formation, synaptic transmission, synaptic plasticity, neuromodulation and experience-dependent circuit remodeling, among others. With this knowledge, we will discuss how researchers use cutting edge technologies to introduce false memory in animals or

enhance learning and memory. Our goal will be to understand the strategies and techniques researchers use to search for the memory trace. Prerequisites: PSYC-100 and Junior standing. Three hours per week. *Four semester hours. (CCAP.)*

PSYC-471. Seminar Social Stigma

Goffman (1963) defined stigma as a "spoiled identity": one which makes a person othered, subjugated, and vulnerable to harassment and discrimination. In this course, we will examine what it means to live with a stigmatized identity: what are the social, cultural, educational, interpersonal, and health outcomes that are associated with the burden of stigma? Furthermore, we will examine interventions that work to ameliorate some of these disparities. This is a discussion-based course; therefore, students are expected to co-construct meaning with their peers using the course readings as a guide for their analysis. Prerequisites: Junior standing and PSYC 100. Three hours per week. *Four semester hours. (CCAP.)*

PSYC-472. Seminar: Development in Context

This course explores human development and particular contexts within which development emerges. Individuals develop within multilayered, distinct ecological contexts that have bidirectional relationships with the individual. This course may include the study of developmental topics ranging from cognitive, social, affective, and identity development at any time in the lifespan. These will be considered in contexts ranging from families, peer groups, schools, as well as larger social and cultural influences. Students will come to appreciate the complex interplay between individual development and contextual influences. Students will be able to understand major concepts in development, and apply and synthesize these concepts within various contexts. These investigations will require critical examination and application of scientific research. Emphasis will be placed on effective communication skills. Prerequisites: Junior standing and PSYC-100. Three hours per week. *Four semester hours. (CCAP.)*

PSYC-475. Seminar: Special Topics in Psychology

An occasional seminar course which will focus on a special topic in psychology. This course is offered as needed. This course will examine this special topic in depth, which will require critical examination and application of scientific research. Emphasis will be placed on effective communication skills. Prerequisite: Junior standing. Three hours per week. *Four semester hours.*

PSYC-480. Directed Research

Research experience under the direction of a faculty member designed to introduce students to research procedures and data analysis skills in the context of a research project. This course can be taken more than once. Pre-requisite: PSYC-200Q and permission of instructor. *Two semester hours.*

PSYC-481. Research

Research experience under the direction of a faculty member designed to further develop students' research procedures and data analysis skills in the context of a research project. The preparation of a written and oral scientific report is required. Prerequisites: PSYC-200WQ and permission of instructor. *Four semester hours. (XLP.)*

PSYC-482. Research

This course is a continuation of PSYC-481. Prerequisites: PSYC-481 and permission of instructor. *Four semester hours. (XLP.)*

PSYC-491. Independent Research/Honors

This course is open to candidates for departmental honors and to other students with permission of the departmental chair. This course involves independent or student-initiated research experience under the direction of a faculty member. The preparation of a written and oral scientific report is required. Prerequisites: Junior standing, PSYC-200WQ, and permission of instructor. *Four semester hours. (XLP.)*

PSYC-492. Independent Research/Honors

This course is a continuation of PSYC-491. Prerequisite: PSYC-491 and permission of instructor. *Four semester hours. (XLP.)*

- Psychology Department

Science and the Common Good

- *Professors R. Dawley, Lyczak (Coordinator); Assistant Professor Price.*

- Science and the Common Good is an interdisciplinary minor designed to challenge students to consider the connection between science and other ways of understanding – ethical, political, religious, artistic – and to ponder how science can help or hinder our efforts to live together. The minor program provides students with curricular opportunities to explore the Ursinus Open Questions Core in ways that build connections across disciplines. A minor in Science and the Common Good consists of 24 credits plus an applied learning experience. It fulfills the linked inquiry requirement. Required courses in the three categories below address Ursinus Open Questions:

  Category 1:

  Question 1 (What should matter to me?) and Question 2 (How should we live together?)

  Four courses
  1) POL-336

  2) One ethics course: EDUC-380, HS-275, PHL-240, PHIL/CS-243, PHL-246, PHIL/ENVS-248, POL-237

  3) One additional course that links science and another discipline: ANTH-235; 242; ANTH/SOC-283; CS-372, ENG-230 (Afro-futurism), ENVS- 242, 243, 332, 338, 366, ENTR-120, HS-202, HIST/ENV-254, HIST/HSOC-304, HIST-475W, POL-351, 354, PSYC-266, PSYC/MCS-268, SPAN-119, 308, SOC/ENVS-220, 288, 290, SOC/HS-298

  4) An additional class from #2 or #3 above, or course in natural sciences, math, computer science, or statistics (in addition to those in category 2) that fulfills a DN, GN, O, LINQ, or CCAP requirement. A 4-credit XLP (from category 3 below) may also be used to fulfill this requirement.

  Category 2:

  Question 3 (How can we understand the world [through science]?)

Two courses from the natural sciences, mathematics, computer science, or statistics.

Category 3:

Question 4 (What will I do?)

Credit or non-credit applied learning project with reflection
To fulfill the Science and the Common Good minor, students must also complete an experiential learning experience (XLP) or similar experience, that bridges science and society. Options include: internships, Summer Fellows research, or other non-XLP experience. A 3- or 4-credit accumulated sequence of research, or a volunteer experience that leads to a coherent project at the intersection of science and society may also fulfill this requirement. All experiences must be approved by the minor coordinator and require a pre-reflection and a final reflection.

A limit of 12 credits toward the minor can be fulfilled from courses in a single department.

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Theater and Dance

Faculty

- *Professors Brodie, Clemente, Scudera, Zura; Assistant Professor Love.*

- The theater and dance programs at Ursinus prepare students for a life in which intellectual thinking, aesthetic awareness, communication, and collaboration are integral components. The study of theater and dance within the context of a liberal arts education demonstrates how rigorous intellectual and artistic inquiries are inextricably linked.

  The Theater and Dance Department offers coursework in acting, dancing, choreography, directing, dramatic literature, history and theory of performance, theatrical design, and production. Our objectives are: 1) to offer historical, critical, and practical training in the performing arts; 2) to develop in students an awareness that the performing arts are vital forms of cultural expression that reflect their socio-political contexts; 3) to provide students with a deep understanding of the balance between awareness, thought, imagination, and creative expression; 4) to engage students in the creative process as a unique means to develop their self-knowledge as citizens, individuals, and passionate artists who can inspire and transform audiences; and finally, 5) to prepare students for graduate study or a career in the performing arts, or to apply their knowledge and experience to other fields of endeavor.

Dance

Dance as an artistic language utilizes choreography as text, and offers unique opportunities to express and comment upon the human condition. The courses in dance are designed to give students an in-depth and embodied understanding of the art of dance and choreography, the field of dance scholarship, the science of mind/body integration, the craft of performance and the project management skills necessary to produce creative work. In addition to rigorous movement training, the dance major demands the critical thinking, creative imagination, interpersonal communication skills and organizational skills that are central to a liberal arts education.

Requirements for Majors

A major in Dance consists of 42-46 credits in dance theory and practice.

Requirements:

- One credit of TD-001–008
- One credit of DANC-001–008
- DANC-100 and TD-150
- DANC-210, 240, and 310
- DANC-300W and 340
- Six credits of dance technique courses of three different genres. (DANC-200, 214, 216, 220, 225, 230, 235, 244, or 250)
- Four elective credits of course work at the 300- or higher level within the dance curriculum.
- Four additional elective credits. These may be fulfilled through additional technique courses, Dance Repertory, special topics, directed studies, or approved courses outside the department.
- One Capstone course (TD-400; DANC-462, or 491–492)

Dance majors can complete the 'W' requirement in DANC-300W and the oral and capstone requirements in either TD-400 or DANC 491-492.

Requirements for Minors

A minor concentration in dance consists of 20 credits. Requirements:

- At least 2 semesters of DANC-001–008 or TD-001–008
- DANC-100 and TD-150
- DANC-210
- Four credits of dance technique courses of two different genres. (DANC-200, 214, 216, 220, 225, 230, 235, 244 or 250)
- Four elective credits of course work at the 300- or higher level within the dance curriculum.
- Two additional elective credits within the dance curriculum.

Theater

Theater is a powerful form of experiential learning that allows students to grow as individuals, critical thinkers, and artists. Interdisciplinary by nature, theater also compels students to learn about society and the role of theater artists therein. Theater classes and rehearsals are spaces of creative and critical thinking where students undertake deep exploration of the imagination through performance and design.

Courses are also contexts for studying dramatic literature and theater history concurrent with contemporary developments in theater and performance.

Requirements for Majors

A major in Theater consists of 42-46 semester hours of credit. Requirements:

- THEA-100
- TD-150
- At least one acting/directing course: THEA-250, 260, 261, or 370
- At least one design/technology course: TD/ART-130, TD/ART-231, TD/ART-232, TD/ART/MUS-233, TD-240
- THEA-300W and 301W
- One capstone course (THEA-400, TD-400, or THEA-491 and 492)
- One credit of TD-001–008
- At least three additional credits of THEA-001–008 or TD-001–008
- At least twelve additional THEA or TD credits. Up to six credits from Directed Studies/Research (THEA- 361, 362, 461, and 462) and/or up to four credits of any combination of THEA-275, THEA-001–008, and/or TD-001–008 (beyond the required four credits) may be used towards this requirement.
- Theater majors can complete the 'W' requirement in THEA-300W and 301W and complete the oral and capstone requirements in THEA-400, TD-400, or THEA-491–492.

For fulfillment of the Experiential Learning Project (XLP) core curriculum requirement, the department encourages students to study abroad in an approved theater program, to complete an off-campus theater internship or an Ursinus Summer Fellowship, to work in an approved theater program/production, or complete THEA-275 concurrently with THEA-001-008 or TD-001-008.

Up to eight credits of relevant courses in disciplines such as dance, art, music, English, and modern languages may be included in the major with approval by theater faculty.

Requirements for Minors

A minor concentration in Theater consists of 20 semester hours of credit. Requirements:

- THEA-100
- TD-150
- At least two credits of THEA-001-008 or TD-001-008
- Twelve additional THEA or TD credits (at least one of which is at the 300 or 400 level).

Courses

- **TD-001-008. Production Practicum**
  A hands-on learning experience in which students assume responsibility for the technical aspects of major campus theater or dance productions. Positions vary but can include production stage manager, assistant stage manager, lighting and/or sound board operator, or backstage run crew for any Theater or Dance production. Students may also choose to work in the Scenic, Paint or Electrics Shop over the course of the semester. This course may be taken independently or as part of TD- 150-requirement. Students may repeat this course for credit. Graded S/U. Four hours per week. *One semester hour. (A; may be used to partially fill requirement.)*

TD/ART-130. Introduction to Design

In this class, students will be introduced to principles of theatrical design and the artistry of imagination. They will explore how designers use elements such as line, shape, space, mass, texture, light, and color, and sound to communicate their ideas. This course is made up of a combination of lectures, class discussions, and projects. Class participation is essential to the success of this class. Students are asked to think critically and express ideas about their own work as well as the work of others. Four hours per week. *Four semester hours. (A.)*

TD-150. Basic Stagecraft

An introduction to many of the aspects relating to the technical production of the Performing Arts on the stage. Students will be introduced to and learn safe practices for scenic construction techniques, scenic painting, theatrical rigging, lighting, sound, and scenic design, and the production roles relating to the successful realization of a performance . This class will provide students with an understanding of these endeavors through instructor tutorial, visiting lectures, and hands-on experience. Co-requisite: TD-001–008 (once). Three hours per week. *Two semester hours. (A; may be used to partially fill requirement.)*

TD/ART-231. Lighting Design

This course introduces students to the fundamentals of lighting design. The class focuses on the five functions of light: visibility, focus, modeling, mood, and spectacle; and the four qualities of light: intensity, color, distribution, and movement. Additionally, students explore basic lighting technology and the tools necessary to create a theatrical lighting design. This course is made up of a combination of lectures, class discussions, and projects. Class participation is essential to the success of this class. Students are asked to think critically and express ideas about their own work as well as the work of others. Four hours per week. *Four semester hours. (A.)*

TD/ART-232. Scene Design

This course introduces students to the fundamentals of scene design. The class focuses on enhancing students' analytical, research, drawing, and spatial problem-solving skills. Students develop ideas using traditional drawing, rendering, drafting, and model making to communicate ideas as we transfer them into the art of storytelling. Additionally, students explore basic stage technology and the tools necessary to create a theatrical scene design. This course is made up of a combination of lectures, class discussions, and projects. Class participation is essential to the success of this class. Students are asked to think critically and express ideas about their own work as well as the work of others. Four hours per week. *Four semester hours. (A.)*

TD/ART/MUS-233. Sound Design

This course introduces students to the fundamentals of sound design. The class focuses on creating an environment with sound through the use of Foley, pre-recorded media, and music. Additionally, students explore basic sound technology and tools to create a theatrical sound design. This course is made up of a combination of lectures, class discussions, and projects. Class participation is essential to the success of this course. Students are asked to think critically and express ideas about their work as well as the work of others. Four hours per week. *Four semester hours. (A.)*

TD-240. Special Topics in Theater Production or Design

This course will focus on a specific topic of theater production, technical theater or design not covered in other courses in the curriculum. Students may repeat the course for credit. Three hours per week. *Four semester hours. (A.)*

TD-241. Special Topics in Theater Production or Design

This course will focus on a specific topic of theater production, technical theater or design not covered in other courses in the curriculum. Students may repeat this course for credit. Three hours per week. *Two semester hours. (A, may be used to partially fill requirement.)*

TD-250. Special Topics in Theater and Dance

This course will focus on a specific topic in theater and dance not covered in other courses in the curriculum. Students may repeat this course for credit. Four hours per week. *Four semester hours. (A.)*

TD-350. Advanced Special Topics in Theater and Dance

This course will focus on a specific topic at an advanced theoretical or critical level within theater and dance not covered in other courses in the curriculum. Students may repeat this course for credit. Three hours per week. *Four semester hours. (A.)*

TD-381. Internship

A work experience under the supervision of a faculty adviser and an on-site supervisor. Students must document their experience according to the requirements delineated in the College catalogue section on Internships. Includes periodic meetings with the faculty adviser and completion of an approved research or production project. Open to juniors and seniors. The term during which the internship work is performed will be noted by one of the following letters, to be added immediately after the internship course number: A (fall), B (winter), C (spring), or D (summer). Internships undertaken abroad will be so indicated by the letter I. The intern must complete a minimum of 120 hours of work. Graded S/U. Prerequisites: major or minor in theater or dance and three courses in the department, and approval of a faculty internship adviser. *Three semester hours. (A, XLP.)*

TD-382. Internship

A work experience under the supervision of a faculty adviser and an on-site supervisor. Students must document their experience according to the requirements delineated in the College catalogue section on Internships. Includes periodic meetings with the faculty adviser and completion of an approved research or production project. Open to juniors and seniors. The term during which the internship work is performed will be noted by one of the following letters, to be added immediately after the internship course number: A (fall), B (winter), C (spring), or D (summer). Internships undertaken abroad will be so indicated by the letter I. The intern must complete a minimum of 160 hours of work. Graded S/U. Prerequisites: major or minor in theater or dance and three courses in the department, and approval of a faculty internship adviser. *Four semester hours. (A, XLP.)*

TD-400. Seminar in Performance

This course integrates theoretical and practical course work as the foundation for the student's performance experience. During the course of the semester's work, each student will prepare a significant research document and prepare several works for concert production. The resultant document/performance will be presented publicly. In addition, each student will be responsible for an oral presentation of his or her work. Three hours per week. *Four semester hours. (A, CCAP.)*

Dance

DANC-001-008. Performance Practicum

Students participating in the Ursinus College Dance Company will take part in an intensive rehearsal process in preparation for performance at the Ursinus College Dance Company Concert (UCDC). Opportunities each semester could include working with faculty members, working with professional guest artists, and participating in selected student choreography. The company will represent a range of dance styles that varies by semester. It is highly recommended that students participating in UCDC also take a dance technique course. Enrollment is by audition or permission of instructor. Students may repeat this course for credit. Graded S/U. Four hours per week. *One semester hour. (A; may be used to partially fill requirement.)*

DANC-100. Introduction to Dance

This course is designed to broaden students' understanding and appreciation of dance in the United States and throughout the world. Students will explore a wide variety of styles and forms, including modern, ballet, global forms, post-modern, jazz dance, hip-hop and social/vernacular dance. Through the study of major choreographers and dance trends the course will address the diverse creativity of individual and cultural expression through the art of dance. This course involves both critical analyses of performance and theory as well as practical dance experience. Three hours per week plus one hour arranged production related activity per week. *Four semester hours. (A, DN.)*

DANC/HS-200. Modern Dance: All Levels

The course explores foundational movement techniques in modern dance. Class sessions will focus on the basic principles of dance movement, including alignment, coordination, whole body awareness, musicality, and locomotion through space. Students will develop increased body awareness, flexibility, strength, and ease within a broad movement vocabulary. May be taken more than once for credit. Three hours per week. *Two semester hours. (A; may be used to partially fill requirement.)*

DANC-210. Performance Improvisation

This course is designed to explore the technique of individual and group movement improvisation as a performing art and a compositional tool. Course work will focus on the development of individual expression through structured exercises with influences from a variety of arts disciplines including dance, theater, creative writing, music and visual art. Students will practice skills in individual and group movement generation and response with an ultimate goal of interacting in the present moment with full embodiment and kinesthetic awareness. Course requirement includes weekly journal responses and reading assignments. Open to all levels. May be taken two times for credit within the dance major or minor curriculum. Four hours per week. *Two semester hours. (A; may be used to partially fill requirement.)*

DANC-214. Hip Hop: All Levels

This course explores the theory, practice, aesthetics and historical foundations of hip hop culture. The focus of this course will be to learn the proper movement technique and execution of hip hop dance and its historical and contemporary applications. May be taken more than once for credit. Three hours per week. *Two semester hours. (A, may be used to partially fill requirement.)*

DANC-216. African Dance: All Levels

This neo-traditional West African dance course explores the movement, rhythms and cultural context of selected dance traditions. The course will provide an active dancing experience with live African drum accompaniment. In accordance with common West African traditions, students will participate in full community engagement with their classmates and learn the cultural context of each dance and rhythm studied. May be taken more than once for credit. Three hours per week. *Two semester hours. (A, may be used to partially fill requirement.)*

DANC-218. Rhythm Tap Dance: All Levels

In this studio course, we will study the past, present, and future of rhythm tap dance through the techniques and Black American histories, traditions, and legacies that have established and continue to sustain the form. While learning fundamental steps and foundational routines, we will interact with various media curated to introduce some of rhythm tap's important people, happenings, and places. As we move through the course, essential music theory, methods for rhythm analysis, and approaches to improvisation will remain topics of focus. Additionally, we will closely examine the work of contemporary tap artists to identify how the form is being cared for and how Black traditions are being used to shape innovations and new approaches. Class time will be devoted to physical practice/technique and brief lectures and discussions. Students will complete readings/viewings, short written responses, and short essays outside of class. This course may be taken more than once for credit. Three hours per week. *Two semester hours. (A, may be used to partially fill requirement.)*

DANC-219. Intermediate/ Advanced Rhythm Tap Dance

In this advanced studio course, we will engage in a fast-paced study of rhythm tap dance technique and the Black American histories, traditions, and legacies that have established and continue to sustain the form. In addition to learning and working to master complex historical repertoire, we will work on improvisation and explore physical approaches at various tempos, in different time signatures, and within diverse genres/ musical contexts. In order to understand current applications of the form, we will watch and analyze the work of both historical and contemporary tap artists as we design combinations, phrases, and short solos of our own. This course may be taken more than once for credit. Prerequisites: Extensive tap dance experience is required to enroll in this course. Interested students should receive permission from the instructor and/ or should take DANC-218 as a prerequisite (this requirement may be waived at the

instructor's discretion). *Two semester hours. (A, may be used to partially fill requirement.)*

DANC-220. Ballet: All Levels

The course addresses a contemporary approach to ballet training, designed to develop whole body awareness in the student. The warm-up opens, extends, and integrates the body by focusing on alignment, breath and movement efficiency. Students will build strength, flexibility and coordination by incorporating barre exercises, center floor work, and across the floor dance combinations. May be taken more than once for credit. Three hours per week. *Two semester hours. (A; may be used to partially fill requirement.)*

DANC-225. Intermediate/Advanced Ballet

An intermediate/advanced level course in ballet technique. Students will develop the ability to clearly articulate ballet movement vocabulary and gain a sense of dynamic phrasing in performance. The course will focus on developing technical skills including amplitude, extension, rotation, and correct alignment. Extensive previous ballet training or permission of instructor required. May be taken more than once for credit. Three hours per week. *Two semester hours. (A, may be used to partially fill requirement.)*

DANC-230. Jazz Dance: All Levels

This course celebrates jazz dance as a passionate, expressive and continuously evolving form. Inspired by vernacular dance and music, the class explores movement sourced from a wide range of music such as swing, blues, jazz, ragtime, rhythm and blues, soul, funk and contemporary. Students will increase their technical skills as well as deepen their stylistic sophistication. May be taken more than once for credit. Three hours per week. *Two semester hours. (A; may be used to partially fill requirement.)*

DANC-235. Intermediate/Advanced Jazz Dance

An intermediate/advanced level course in jazzdance technique. Students will gain an understanding of the stylistic range and complexity of jazzdance, in combination with developing technical and performance skills including musicality, expressive individual performance, and mastery of jazzdance vocabulary. Students will learn to approach jazzdance from a somatically sophisticated base, integrating elements from current and classical movement techniques with a deep understanding of the body. Prerequisite: Extensive previous jazz dance training or permission of instructor required. May be taken more than once for credit. Four hours per week. *Two semester hours. (A, may be used to partially fill requirement.)*

DANC-240. Dance Repertory

In this course, students will work with a dance faculty member to create a performance for the Ursinus College Dance Company Concert (UCDC). Students will take part in weekly rehearsals as active members of a collaborative creative process. Students may be expected to conduct outside research for the development of the piece, keep a weekly journal and write a reflective analysis about the development of the work. The course is geared toward intermediate/advanced dancers with considerable performance experience. Enrollment is by audition or by instructor's permission. May be taken more than once for credit. Four hours per week. *Two semester hours. (A; may be used to partially fill requirement.)*

DANC-244. Intermediate/Advanced Modern Dance

An intermediate/advanced level course in modern dance technique. Students will gain an understanding of the stylistic range and complexity of modern dance, progressing

toward virtuosity and confidence through technique, stamina, movement quality, performance aesthetic, improvisation, musicality and style. This course in intended for students with considerable experience in modern dance. Prerequisite: Extensive modern dance training or permission of instructor required. May be taken more than once for credit. Three hours per week. *Two semester hours. (A; may be used to partially fill requirement.)*

DANC-250. Special Topics in Dance: Technique

This course offers an active movement experience in selected dance styles not regularly offered in the curriculum. Techniques will vary by semester. May be taken more than once for credit. Three hours per week. *Two semester hours. (A; may be used to partially fill requirement.)*

DANC-260. Special Topics in Dance: Theory and Practice

This course will focus on a specific topic within the field of dance not covered in other courses in the curriculum. Four hours per week. *Four semester hours. (A.)*

DANC-300W. History of Modern Dance

The course is a historical study of the origin and development of 20th and 21st century Modern Dance as a reflection of the individual, society and culture. The course will focus on the forces, processes, and personalities that influenced dance during this time. Students will develop a critical understanding of the major trends in the development of modern dance and will make connections between embodied modern dance movement and historical, socio-political, cultural, and aesthetic contexts. Prerequisite: DANC-100 or permission of instructor. Three hours per week. *Four semester hours. (A, DN, H.)*

DANC-310. Dance Composition

This course investigates a variety of compositional concepts and practical structures as a foundation for making dances. Course work will take influence mainly from modern and post-modern ideologies to investigate the relationship of form and content in creative process and performance development. Students will practice generating and manipulating movement through the study of basic elements such as space, time, energy, shape, imagery, thematic intention and improvisation, with an ultimate goal to find an awareness of one's own aesthetic tendencies and creative potential. In addition to creating in-class assignments and creative development work outside of class, course requirements include journal responses, reading and viewing assignments, and a final public performance. Prerequisites: DANC-100, 210, 300W. Four hours per week. *Four semester hours. (A.)*

DANC-315. Interdisciplinary Performance Seminar

This course will examine the theory and practice of various collaboration techniques used in the art of contemporary performance making. The course is open to students of all majors and will include research and seminar discussion as well as a major group project component. Potential discipline contributions from students for assignments may include dance, theater, music, creative writing, visual art, mixed media and technology. Classes will consist of active collaboration practice in the studio (which will include movement exercises) as well as discussions of assigned readings or videos and presentations of creative work. This course is designed for students with considerable experience in their artistic medium and will culminate in a public performance and presentation. May be taken more than once for credit. Four hours per week. *Four semester hours. (A.)*

DANC-320. Dance Pedagogy

The course is designed to provide methods for the instruction of a variety of dance genres and styles, with particular emphasis on modern dance. The course will focus on several dance education settings/populations: dance studios, K-12 public school education, private school education, after school programs, and community arts center programs. The particular context for shaping local, state, and national arts education policy is addressed as related to curriculum reform and government grants. The course format will enable students to develop theoretical and somatic knowledge in dance as well as provide practical lesson planning and teaching experiences. This course in intended for students with considerable experience in a particular dance genre. Prerequisites: DANC-100 or permission of instructor. Three hours per week. *Four semester hours. (A.)*

DANC-330. History of Jazz Dance

This course investigates the unique origin and evolution of jazz dance in America. The course will follow the chronological development of jazz dance, including: African dance and music source material; African American vernacular dance forms; the relationship to jazz music; the contributions of specific choreographers and styles; and the impact of popular entertainment, such as vaudeville, musical theater, films, television, and music videos. Students will develop an understanding of jazz dance in the United States as related to socio-political and cultural contexts in the 20th century and the beginning of the 21st century, including a study of race and gender relations and the dynamics of power and privilege. Throughout the course of the semester, students will have the opportunity to embody basic jazz dance movement principles of rhythm, improvisation, and musicality. Three hours per week. *Four semester hours. (A, DN, H.) (LINQ when offered with MUS-207.)*

DANC-340. The Thinking Body: Somatic Theory and Practice

This course investigates the theoretical study and embodied practice of somatic movement techniques that explore the mind/body relationship. Students will learn various methods of somatic theory and apply these principles to identify their own habitual movement patterns, develop their sense of proprioception and kinesthetic awareness, and deepen their anatomical and physiological understanding. These somatic methods can be applied to enhance the skills of the performing artist, as a tool for injury prevention, and to improve everyday health and wellness. The course will include lecture/discussion sessions as well as active movement explorations. Open to all majors. Recommended for juniors and seniors. Four hours per week. *Four semester hours. (A.)*

DANC-350. Special Topics in Dance: Advanced Theory and Practice

This course will focus on a specific topic at an advanced theoretical or critical level within the field of dance not covered in other courses in the curriculum. Four hours per week. *Four semester hours. (A.)*

DANC-361. Directed Studies/Research in Dance

Individual work on a project related to the study of dance. Prerequisites: Written consent of a department faculty member. Graded S/U. 40 hours of research. *One semester hour.*

Note: *This course may be taken more than once.*

DANC-362. Directed Studies/ Research in Dance

Individual work on a project related to the study of dance. Prerequisites: Written consent of a department faculty member. Graded S/U. 80 hours of research. *Two semester hours.*

Note: *This course may be taken more than once.*

DANC-461. Advanced Directed Studies/ Research in Dance

Advanced individual work on a project related to the study of dance. Prerequisite: eight credits of 300-400 level course work in dance, demonstrated competence in the specific area of study, a written proposal and permission of a department faculty member who will serve as project adviser. 120 hours of research. *Three semester hours.(XLP.)*

Note: *This course may be taken more than once.*

DANC-462. Advanced Directed Studies/ Research in Dance

Advanced individual work on a project related to the study of dance. Prerequisite: eight credits of 300-400 level course work in dance, demonstrated competence in the specific area of study, a written proposal and permission of a department faculty member who will serve as project adviser. 160 hours of research. *Four semester hours.(XLP.)*

Note: *This course may be taken more than once.*

DANC-491. Research/Independent Work

This work is open to candidates for departmental honors and to other students with the permission of the departmental chair. *Four semester hours. (XLP.)*

DANC-492W. Research/Independent Work

A continuation of DANC-491, culminating in a written and oral presentation of a major research project. Prerequisite: DANC-491. *Four semester hours. (XLP.)*

Theater

THEA-001–008. Performance Practicum

A learning experience in which students perform in major campus productions under the direction of theater faculty. Prerequisite: permission of the instructor. Graded S/U.Students may repeat this course for credit. *One semester hour. (A; may be used to partially fill requirement.)*

THEA-100. Introduction to Theater

A study of the art of theater through an examination of varieties of theater spaces, literary genres, the work of actors, playwrights, directors, and designers, and the nature of the audience. Three hours of class plus one hour arranged production work per week. *Four semester hours. (A.)*

THEA-210. Playwriting

Students will study and practice the art of playwriting including, but not limited to, story, characterization, dialogue, and structure. Students will read plays across genres as they develop their own voices as dramatists. Three hours per week. *Four semester hours. (A.)*

THEA/GWSS-215. Dramatic Dames: Plays By & About Women

This course explores provocative portraits of women in plays written by women. Students begin with a tenth-century nun and read their way right up to the present day. This is the subversive side of dramatic literature—the plays *not* included in most anthologies. We will investigate the objectification and reclamation of the female body, gendered language, intersectionality, and the politics of drama by and about women in their socio-historical contexts. Three hours per week. *Four semester hours. (A, DN, H.)*

THEA-216. Stage Comedy

Why do we laugh? What is funny? What is comedy? Why did the chicken cross the road? In this course, we will examine the long and varied history, theory, and practice of stage comedy. Students will read and analyze select comic plays starting with ancient Greek comedies, and will study the comedy found in Medieval plays, Shakespeare, Commedia dell'Arte, Restoration plays, and so on, ending with contemporary forms such as sketch and improvisation. In addition, students will attend comedic performances and will perform and/or write throughout the semester to better understand the practice of these comic forms. Three hours per week. *Four semester hours. (A.)*

THEA/GWSS-217. From Shakespeare to RuPaul: A History of Drag Performance

In Shakespeare's theater, men played female roles and female characters sometimes disguised themselves as male — creating confusion, comedy, and insight into the human condition. Today's drag queens, such as RuPaul, bring a sense of empowerment and theatricality to challenge a gender binary and to break through social norms. For centuries, playwrights and performers have crossed and mixed gender roles, creating a distinct art form that brings into focus issues of identity, gender variance, and social structures of masculinity and femininity. This course explores the history of drag entertainment and how it reflects and responds to cultural shifts over time. Three hours per week. *Four semester hours. (A, DN.)*

THEA/GWSS-218. The Craft of African-American Female Playwrights

The original, pioneering work of African- American female playwrights was largely unnoticed and unsupported. These artists persevered, writing and producing their plays in small venues, influencing future generations of black female theater artists. This course will explore the groundwork laid by these innovators and will examine the craft of the women who stand on their shoulders. Today, many of America's most creative, cutting-edge playwrights are African-American women. We will look at the contribution of these contemporary artists, and discuss their influences (social, political, and personal) that stretch beyond the boundaries of the stage. Three hours per week. *Four semester hours. (A, DN.)*

THEA-245. Special Topics in Performance Styles & Genres

This course provides students with practical studio work and performance practices related to a particular dramatic genre or style. Topics might include: Acting Shakespeare, Classical Performance, Moliere, Comedy Improvisation. Students may repeat the course for credit. Three hours per week. *Two semester hours. (A, may be used to partially fill requirement.)*

THEA-250. Special Topics in Performance

This course will focus on a specific topic of theatrical performance not covered in other courses in the curriculum. Topics might include: Stage Comedy, Devised Theater, Solo Performance, Drag Performance. Students may repeat the course for credit. Four hours per week. *Four semester hours. (A.)*

THEA-260. Acting: Objectives and Tactics

An introduction to the building blocks of the Stanislavski system, objectives and tactics. Students participate in acting exercises, improvisation, monologue and scene study to explore the internal lives of dramatic characters. Four hours per week. *Four semester hours. (A.).*

THEA-261. Acting: Building a Character

Acting theory and physical training are applied to the development of technique. Building a role is explored through in-depth character analysis and performance, movement exercises, mask work, improvisation and monologue and scene study. Students may enroll for THEA-261 without having taken THEA-260. Four hours per week. *Four semester hours. (A.)*

THEA-275. Performance & Production

This course provides students with intensive practical performance and production experience. Students must be simultaneously enrolled in a section of THEA-001–008 or TD-001–008. Prerequisite: permission of instructor. Students may repeat this course for credit. *Two semester hours. (XLP, with THEA-001–008 or TD-001–008; A, may be used to partially fill requirement.)*

THEA-300W. History of World Theater and Drama I

A historical exploration of the development of dramatic literature and theater performance as vital expressions of social, political, and cultural attitudes and movements, origins-1700. Three hours per week. *Four semester hours. (A, GN, H, LINQ when offered in the same semester as LAT-350 Roman Drama or LAT-350 Roman Comedy.)*

THEA-301W. History of World Theater and Drama II

A historical exploration of the development of dramatic literature and theater performance as vital expressions of social, political, and cultural attitudes and movements, 1700-present. Three hours per week. *Four semester hours. (A, H.)*

THEA/GWSS-315. Butches, Bitches, & Buggers: Modern Queer Drama

This seminar explores provocative portraits of queer life in modern drama including the evolution, reclamation, and employment of gender- and sexuality-specific language and stereotypes within and outside of queer communities. How does the socio-historical environment in which a queer play is written inform its content and reception? Are plays about or written by queer individuals necessarily political? Does queer theatre intervene in culture differently from the manner in which other theatre does? And, of course, we will examine a broad range of butches, bitches, and buggers in queer drama. Three hours per week. *Four semester hours. (A, DN, H.)*

THEA-320. Adaptation

This course explores the theory and practice of adaptation. Students will both study and create adaptations by studying texts, their [re]presentation, and their reception through an historiographical lens. Three hours per week. *Four semester hours. (A.)*

THEA-350. Advanced Special Topics in Theater

This course will focus on a specific topic at an advanced theoretical or critical level within theater not covered in other courses in the curriculum. Topics might include: Community-Based Theater and Civic Engagement, Performance Theory and Practice. Students may repeat this course for credit. Three hours per week. *Four semester hours. (A.)*

THEA-361. Directed Studies/ Research in Theater

Individual work on a project related to the study of theater. Prerequisites: Written consent of a department faculty member. Graded S/U. 40 hours of research. *One semester hour. (A.)*

Note: *This course may be taken more than once.*

THEA-362. Directed Studies/ Research in Theater

Individual work on a project related to the study of theater. Prerequisites: Written consent of a department faculty member. Graded S/U. 80 hours of research. *Two semester hours. (A.)*

Note: *This course may be taken more than once.*

THEA-370. Directing For the Stage

An exploration into the role of the director in the theatrical process. Research in the history, theory and application of directing is combined with actual directing assignments. Prerequisites: THEA-100, THEA-260; or instructor permission. Four hours per week. *Four semester hours. (A.)*

THEA-400. Capstone: The Living Newspaper

This course integrates theater history, dramatic literature, playwriting, and performance in a sustained study of the Federal Theatre Project's Living Newspaper (1935–1939). Navigating the transition from theory into practice, students will work collaboratively to write and publicly perform a theater for social justice project. Students will engage with the four founding questions of the Core Curriculum and use creative expression as a vehicle for beginning a broader conversation about what we collectively owe each as we strive to create a more just and sustainable future. Three hours per week. Prerequisite: junior or senior Theater major status, or instructor permission. *Four semester hours. (A, CCAP, O.)*

THEA-461. Advanced Directed Studies/ Research in Theater

Advanced individual work on a project related to the study of theater. Prerequisite: eight credits of 300-400 level course work in theater, demonstrated competence in the specific area of study, a written proposal and permission of a department faculty member who will serve as project adviser. 120 hours of research. *Three semester hours. (A, XLP.)*

Note: *This course may be taken more than once.*

THEA-462. Advanced Directed Studies/ Research in Theater

Advanced individual work on a project related to the study of theater. Prerequisite: eight credits of 300-400 level course work in theater, demonstrated competence in the specific area of study, a written proposal and permission of a department faculty member who will serve as project adviser. 160 hours of research. *Four semester hours. (A, XLP.)*

Note: *This course may be taken more than once.*

THEA-491. Research/Independent Work

This work is open to candidates for departmental honors and to other students with the permission of the departmental chair. *Four semester hours. (A, XLP.)*

THEA-492W. Research/Independent Work

A continuation of THEA-491, culminating in a written and oral presentation of a major research project. Prerequisite: THEA-491. *Four semester hours. (A, XLP.)*

- Theater and Dance Department