

2018-2019 Course Catalog

The Curriculum

Degrees Offered

St. Lawrence offers undergraduate Bachelor of Arts and Bachelor of Science degrees. The degree of Bachelor of Arts is given on the satisfactory completion of programs of study with concentration in the fields of Anthropology, African Studies (combined majors), Art and Art History, Asian Studies (combined majors), Business in the Liberal Arts (offered as a second major only), Canadian Studies (combined majors), Economics, Economics–Mathematics, English, English–French, English–Spanish, Environmental Studies, Environmental Studies (combined majors), Estudios Hispánicos, Francophone Studies, Global Studies, Government, History, History–French, History–German, History–Spanish, History–Multi–Languages, International Economics–Language (combined majors), Multi–Language, Music, Performance and Communication Arts, Philosophy, Religious Studies and Sociology, or a Multi–Field program with concentration in two or more of these fields.

The degree of Bachelor of Science is given on the satisfactory completion of programs of study with concentration in the fields of Biology, Biology–Physics, Biochemistry, Chemistry, Computer Science, Conservation Biology, Economics–Mathematics, Environmental Studies (combined majors), Geology, Geology–Physics, Mathematics, Neuroscience, Physics and Psychology, Statistics, or a Multi–Field program with concentration in two or more of these fields.

Either the Bachelor of Arts or Bachelor of Science degree may be elected upon satisfactory completion of a double major if one of the majors is appropriate to the degree. A multi–field major may elect either the degree of Bachelor of Arts or Bachelor of Science when the major consists of two fields and each is appropriate to a different degree.

The St. Lawrence Curriculum

A St. Lawrence education prepares students to think critically and creatively, to examine and express their ideas and values, to understand those whose beliefs and circumstances may be different from their own, and to pursue an understanding of the natural world and human experience. A St. Lawrence education encourages and develops within students the virtues important for lifelong learning, such as inquisitiveness, perceptiveness, intellectual honesty and humility, fair consideration of evidence, respectful treatment of those with whom one is in dialog, and a commitment to the free exchange of ideas. These virtues promote within students a personal ethic of considered values and the capacity to fully realize their abilities as people and local, national, and global citizens. As part of a St. Lawrence education, all students should develop knowledge of the importance of cultural, natural, political, and socio-economic systems in shaping one another.

To realize this vision, a St. Lawrence education is designed to develop:

1. an ability to speak and write clearly, articulately, and persuasively;
2. an ability to acquire, evaluate, and communicate information;
3. an ability to analyze and resolve complex problems, both independently and collaboratively;
4. an ability to reason quantitatively, logically, and/or symbolically;

5. an ability to integrate knowledge from multiple perspectives;
6. an ability to critique and/or create artistic works;
7. a knowledge of the complexity and diversity of the human experience;
8. a knowledge of the complexity and diversity of the natural world; and
9. a depth of understanding in at least one field.
10. a capacity to examine critically the relationship between humans and technologies.

Graduation Requirements

All students must complete thirty-three and a half semester course units (33.5), including all requirements specified for their chosen major(s), and a curriculum of general education requirements specific to their year of matriculation. Also required are a 2.0 cumulative grade point average (GPA) overall and in the major and minor, based on St. Lawrence University courses only. These requirements are ordinarily earned in four academic years. The normal course load is four units per semester except for an additional half unit as required by the First-Year Program during the two semesters of the first year. In addition, students should be aware that they may need to take an additional half unit in one semester to reach the required 33.5 units. It is the student's responsibility to ensure they satisfy the 33.5 semester course units required. Each full unit is equivalent to 3.6 semester hours.

All students declare a major by the end of the sophomore year. In addition to the major, students must successfully complete a curriculum of the First-Year Program requirement, general education requirements, and the writing competency requirement as detailed below:

- I. Complete the Requirements of a Major
- II. General Education Requirements
 - A. FYP
 - B. FYS
 - C. The Human Experience and the Natural World

Students are required to complete at least one unit from each of the following perspectives:

The Arts, Social Sciences, Humanities, and Natural Sciences.

Courses fulfilling this requirement need to be from different departments and only one course may be from the student's major. FYS courses can be used to fulfill this requirement; FYP courses cannot. The instructor of record designates the perspective of her/his course using the guideline that at least 75 percent of the course's content achieves the learning goals for The Arts, Social Sciences, Humanities, or Natural Sciences, as described below (Not all courses have to fulfill this requirement and be designated as ARTS, SS, HU, or NS-L):

1. **The Arts (ARTS):** Courses have primary learning goals in which students develop:
 - a) an enhanced awareness of the process of artistic production through making works of art; and/or
 - b) an understanding of the diverse ways to interpret and analyze works of art.
2. **Social Sciences (SS):** Courses have primary learning goals in which students develop:
 - a) an enhanced awareness of the diverse ways in which economic, political, and social institutions can be organized; and/or
 - b) an understanding of the various ways in which evidence about social structures and interactions is acquired and handled; and/or
 - c) an understanding of how social science knowledge is gained through the formulation, testing, and reformulation of theories and hypotheses.
3. **Humanities (HU):** Courses have primary learning goals in which students develop:
 - a) an enhanced awareness of the variety of ways humans understand, signify, and make meaning of their lives; and/or

- b) an enhanced awareness of how cultures and the interpretations of cultures change over time.
- 4. **Natural Science with Lab (NS-L):** Courses have primary learning goals in which students develop:
 - a) an understanding of the physical, chemical, biological, and/or behavioral phenomena of the natural world and, insofar as possible, an ability to relate them to everyday experience; and
 - b) a theoretical and quantitative understanding of the processes underlying the physical, chemical, biological, and/or behavioral phenomena of the natural world; and
 - c) an understanding of how scientific knowledge of the natural world is obtained and revised through hypothesis testing using experimental and/or observational methodologies.

In addition, Natural Science Lab Courses are required to include a regularly scheduled laboratory component that meets weekly for at least 90 minutes, in which students have the opportunity to examine phenomena of the natural world using experimental and/or observational methods.

Human Diversity: Culture and Communication

Students are required to complete one of the following combinations in human diversity and communication:

- a) One course approved for diversity credit (DIV13) and one course in a foreign language (LANG).
- b) Two courses approved for diversity credit (DIV13).
- c) One course approved for diversity credit (DIV13) and an experience on an off-campus program approved for diversity credit by the Academic Affairs committee.

The Academic Affairs committee will approve courses for DIV13 credit. Courses that fulfill the DIV13 requirement may also fulfill other general education requirements. FYS courses may be approved for DIV13 or LANG credit; FYP courses cannot. DIV13 courses are at least one unit and include primary learning goals in which students develop:

- a) an understanding of the nature and significance of diversity within and among groups; and
- b) an understanding of the dynamics of power and justice within and/or among groups or societies; and
- c) a capacity for critical self-reflection on social location, including how social location shapes human interactions.

The Academic Affairs committee will approve courses for LANG credit. LANG courses that fulfill the LANG requirement may also fulfill other general education requirements. LANG courses are at least one unit and include primary learning goals in which students:

- a) learn the skills necessary for communication in another language: reading, listening, writing and speaking; and
- b) are introduced to the different cultures in which these languages are employed; and
- c) are exposed to global diversity and encouraged to develop a critical perspective on their own cultural practices.

Quantitative/Logical Reasoning (QLR)

Students are required to complete at least one unit that meets the learning goals of either quantitative reasoning or logical reasoning courses. Courses that fulfill the QLR requirement may also fulfill other general education requirements. FYS courses may be approved for QLR credit; FYP courses cannot.

The Academic Affairs Committee will approve courses for QLR credit using the following guidelines:

1. **Quantitative Reasoning Courses** have primary learning goals in which students, through multiple opportunities and classroom instruction, develop their abilities to:
 - a) address questions by examining quantitative evidence using appropriate methods of analysis and evaluation; and
 - b) explain their conclusions and the quantitative methods they used in developing their reasoning.
2. **Logical Reasoning Courses** have as the primary learning goals that students develop:
 - a) an understanding of deductive and/or inductive logic; and
 - b) an understanding of the methods of determining the reliability of these types of reasoning.

Environmental Literacy (EL)

Students are required to complete at least one unit that meets the learning goals of environmental literacy courses. Courses that fulfill the EL requirement may also fulfill other general education requirements. FYS courses may be approved for EL credit; FYP courses cannot.

The Academic Affairs Committee will approve courses for EL credit. EL courses are at least one unit and at least 50 percent of the course's content must achieve the learning goals for Environmental Literacy, as described below:

1. Environmental Literacy Courses have primary learning goals in which students, through multiple opportunities and classroom instruction, develop:
 - a) a recognition of the consequences of human activities on natural systems; and/or
 - b) an awareness of the cultural, economic, and political forces that affect environmental policies; and/or
 - c) an understanding of natural systems and/or the impacts they can have on the environment, human life, health, and welfare.

Integrative Learning Component (ILC)

Integrative learning helps students combine the benefits of the breadth and depth in their education by fostering a synthetic understanding directed toward a particular question, topic, or theme.

1. All students are required to complete an ILC through which they:
 - a) enhance their knowledge of a particular question, topic, or theme by bringing into conversation some combination of written, visual, artistic, experiential, or laboratory based inquiry; and
 - b) use two or more ways of knowing and/or theoretical approaches to cultivate a more nuanced understanding of a particular question, topic or theme.

Students may meet the ILC requirement by completing any of the following:

1. A cluster of 4 courses of at least one unit, each organized around a particular question, topic, or theme, selected in consultation with the academic advisor. The 4 courses must be from at least two different departments or programs and may include courses counted toward other general education requirements. The academic advisor must approve the student's course cluster prior to graduation.
2. **A semester-long off-campus study program** that has been approved by CIIS as meeting the description of integrative learning above. List includes Adirondack Semester, Austria, China, Costa Rica, Czech Republic, India, Japan, Jordan, Kenya, London, NYC, Spain, Sustainability Semester, Thailand and Trinidad.
3. **A Multi-field Major or a major or minor** approved by the Academic Affairs Committee as meeting the description of integrative learning above.

Approved majors include:

African Studies–History; African Studies–Government; African Studies–Anthropology; African Studies–Economics; Asian Studies–History; Asian Studies–Government; Asian Studies–Religious Studies; Biology–Physics; Business in the Liberal Arts (second major only); Canadian Studies–Anthropology; Canadian Studies–Art & Art History; Canadian Studies–Economics; Canadian Studies–English; Canadian Studies–Government; Canadian Studies–History; Canadian Studies– Francophone Studies; Canadian Studies– Religious Studies; Canadian Studies–Sociology; Conservation Biology; Economics–Mathematics; Environmental Studies; Environmental Studies–Biology; Environmental Studies–Chemistry; Environmental Studies–Economics; Environmental Studies–English; Environmental Studies–Geology; Environmental Studies–Government; Environmental Studies–Mathematics; Environmental Studies–Philosophy; Environmental Studies–Psychology; Environmental Studies–Sociology; Geology–Physics; Global Studies; International Economics–Estudios Hispanicos; International Economics–Francophone Studies; International Economics–German Studies; International Economics–Multi-Language; and Neuroscience.

Approved minors include:

African Studies; African–American Studies; Arabic Studies; Asian Studies; Canadian Studies; Caribbean, Latin American & Latino Studies; Chinese Studies; European Studies, Film & Representation Studies; Gender & Sexuality Studies; Global Studies; Native American Studies; Outdoor Studies; and Peace Studies.

First-Year Program (FYP) / First–Year Seminar (FYS)

In addition to three other courses drawn from the general curriculum as described in the following pages, students in their first semester enroll in a combined academic and residential program that emphasizes critical thinking and active student participation in both the classroom and the residence, called the First-Year Program (FYP). The FYP consists of four parts:

- a) An interdisciplinary, often team-taught course focused on both contemporary issues and enduring questions.
- b) An emphasis on communications skills, in particular writing, speaking, attentive reading and research and information literacy.
- c) An advising system that ensures systematic and supportive involvement of FYP faculty, Orientation Leaders, Career Services staff, Residential Coordinators, Community Assistants, Athletic staff and Academic Advising staff.
- d) A residential college system wherein each first-year residence houses students enrolled in the same section of the FYP course, with the goal of developing integrated living and learning communities. All residential colleges are on the St. Lawrence campus, with the exception of London, England, first introduced in the fall of 2012, which has some different parameters from the on-campus units.

The FYP and FYS function as an introductory writing and speaking course in the fall and a standard research-oriented first-year seminar in the spring.

In the summer before matriculation, students review descriptions of the FYP courses for that fall and indicate those they find most interesting; they are enrolled in one of the several sections of the FYP course (FRPG 10XX) based on those interests. Each section corresponds to a residential college, and FYP faculty also serve as students' academic advisor. Each FYP course explores a distinct set of themes or issues, but all focus on the breadth of the liberal arts and encourage student participation, collaborative intellectual experiences, self-expression and critical thinking. The fall semester course follows an elaborate writing skills sequence that stresses writing as a process, short essays, and revision, as well as an introduction to the integration of research into the writing process. The fall course also involves formal instruction in oral communication.

The FYP faculty also work with Student Life staff to plan co-curricular programs related to the course themes and to encourage students to take advantage of the full schedule of University social and intellectual activities. The residents, the residential staff and the faculty work together to design programs and encourage maximum student involvement in the life of the residential college.

In addition to encouraging students to participate in their own colleges, the First-Year Council, composed of two elected student representatives from each of the colleges, provides an opportunity for students to develop leadership skills, participate in University governance, address issues of concern to first-year students and plan social events for the entire first-year class.

In the second semester of the first year, students continue to develop their research, writing and oral communication skills in one of approximately 40 research-oriented First-Year Seminars (FYS). Students will register for their FYS course during the same week they register for their other spring courses. In the spring course, the writing and speaking process

is extended by a more direct emphasis on research skills and more explicit instruction in research, as well as continuing to develop the writing and speaking skills from the fall.

In the spring, Student Life staff and faculty continue to work with the residential communities to facilitate both the continued development of these communities and the transition to upper-class residential life. The First-Year Council also continues to plan events for all first-year students.

Because of the importance of the FYP and FYS in preparing students for success at St. Lawrence and beyond, withdrawal from those courses is not permitted, nor may FYP and FYS courses be taken on a Pass/Fail basis.

Students who fail the FYP in the fall must complete alternative coursework to be determined on a case-by-case basis by the associate dean of the first year and the associate dean for academic advising programs in consultation with the director of the Munn Center for Rhetoric and Communication (WORD Studio). Students who fail the FYS must retake the FYS in their sophomore year.

FYP courses do not count for department or program credit; they cannot be used to fulfill other general education requirements, except as part of an ILC. FYS courses may count for department or program credit and may be used to fulfill other general education requirements, including as part of an ILC.

Writing Competency Requirement

To be eligible for graduation, all St. Lawrence students must demonstrate throughout their college careers the ability to write prose that their professors judge to be competent.

1. Each semester when reporting grades, faculty members will note an IWC (Inadequate Writing Competency) and submit a writing sample for students who have not shown satisfactory writing skills. Students who receive one IWC will receive an email from the Academic Advising office outlining writing support programs.
2. If students receive a second IWC notation, they must either:
 - a) pass a .5 writing workshop course within the next two semesters, or
 - b) satisfactorily fulfill a plan for writing improvement as specified by the director of the WORD Studio. The student's advisor also will be notified of the two IWC notations and of the plan for improvement. Any student who does not develop and begin working on a plan for writing improvement in the semester following receipt of the second IWC will receive an advising hold and be unable to register. That student must meet with the associate dean for academic advising to agree on a plan for writing improvement to be carried out in the upcoming semester. Any student who fails to fulfill a plan for writing improvement in the second semester after receipt of a second IWC will be suspended.
3. Any student with three or more IWCs must take and pass a .5 writing workshop course. If the student has already taken the writing workshop, the student must create and execute a new plan for writing improvement with the director of the WORD Studio.
4. The notations of IWC are monitored by the registrar and the associate dean for academic advising and do not appear on a student's official transcript.

Residence Requirement

It is a basic requirement that two years (16 units), including at least one semester of the final year before graduation, be taken in residence at St. Lawrence. Programs of study at other institutions during the senior year must have prior approval from the major advisor and the CIIS committee and must be authorized by the dean of academic affairs. Permission to pursue such programs during the final semester and/or summer session before graduation is granted only in extraordinary circumstances.

Fee/Commencement Requirement

No students will be graduated, allowed to participate in the May graduation exercise or receive a transcript of their records if they have not discharged all financial obligations to the University, or if they are not present at or formally excused from the graduating exercises at which the degree is to be conferred.

Major Requirements

All students are expected to complete a concentrated field of study referred to as the major, which requires no fewer than eight semester unit courses. Courses in the student's major field(s) cannot be taken on a pass/fail basis after the major has been declared. Students' programs in the junior and senior years are arranged in consultation with their academic advisor(s) and the chair(s) of their major department(s)/program(s). Change of the major may be made only with the consent of the chair and the student's advisor for the new major.

Admission to a Major

1. Students must declare a major in the second semester of their sophomore year or file with the associate dean for academic advising a petition to postpone major declaration. Transfer students entering at the junior level should review major requirements at the time of application, and must declare the major no later than the beginning of the second term of attendance. Students who do not declare the major in the expected timeframe will be placed on a registration hold until they do.
2. To be admitted to a major, students must have a 2.0 average in the major field(s). Students with an average below 2.0 in the desired field(s) may seek probationary admission to the major, which must be approved by the department chair.

Continuance in a Major

1. After being accepted into a major, students must maintain a 2.0 minimum average in the major field to continue as majors. If a student falls below a 2.0 grade point average in the major field, that student and the relevant department chair(s) and/or program coordinator(s) will be notified that he or she can no longer continue as a major. The student must either declare a new major in which he or she has at least a 2.0 average or apply to remain in the major on probationary status. A probationary admission must be approved by the department chair/program coordinator(s). Students who are granted probationary status are placed on academic probation by the Academic Standing Committee.
2. Students who gain probationary admission to a major have two semesters in which to raise their average in the major field to a 2.0 or above. If at the end of the probationary period a student has not done so, the student must immediately find acceptance into another major or be suspended from the University.
3. Students who are dropped from a major and/or suspended from the University should consult with the associate dean for academic advising. Students who are suspended from the University may appeal their suspension to the Academic Standing Committee.

At the time of graduation, a student must hold at least a 2.0 cumulative average in St. Lawrence courses taken in his or her major field.

Major Programs

St. Lawrence University offers various types of majors. Some majors are housed within a single department; others involve concentrated work shared between two departments or between one department and an interdisciplinary program. The number of semester unit courses required for majors varies, but regardless of major, no student may be

required to take more than 12 or permitted to take more than 14 units under a single course designation. See the Inventory of Registered Programs at the end of this section and the Courses of Study section of the Catalog for the list of majors, and visit www.stlawu.edu/academics for links to departments and programs.

Multi-field Major Program

The multi-field major program is designed for students who wish to study intensively in a multidisciplinary field but cannot achieve this goal through an existing major program. The multi-field program provides an opportunity for students to design their own program of study.

A student intending to pursue a multi-field major must submit a proposal for his or her individual plan of study to the Academic Advising Committee. Submission of a proposal does not guarantee acceptance into the program; the proposal must be approved by the committee. The proposed program must be an integrated plan of study for the junior and senior years that incorporates course work from a minimum of two departments or fields. The proposal must be signed by at least one faculty member in each field; one member of the faculty in that program or field will serve as the student's primary academic advisor. This advisor will have the same responsibility as a departmental advisor. After the proposal has been approved by the Academic Advising Committee, any subsequent changes from those courses specified in the proposal must be approved by the student's advisor and submitted in writing to the associate dean for academic advising before the student begins to follow his or her new course plan.

A proposal for a multi-field major should be submitted during the student's sophomore year. The latest a student may submit a proposal is in the third week of the second semester of his or her junior year.

A student entering the multi-field program must fulfill the distribution, unit and GPA requirements for graduation.

A student must have a 2.0 overall GPA to be admitted to the program and must maintain a 2.0 cumulative average in his or her multi-field major to continue in the program. Students should be aware that certain courses carry prerequisites and that these apply to the multi-field major as well as the departmental major.

A proposal for a multi-field major is both a description of the academic plan and a commitment to adhere to the objectives stated in the plan. A proposal must contain:

1. **A narrative section** that describes the academic purposes of the program. The description must include an explanation of the area of interest that is the focus of the proposal. Also, the narrative must demonstrate how the courses included in the proposal constitute an integrated, in-depth study of the area of interest.
2. **A completed Form A**, available online, which lists:
 - a) a minimum of two fields of study;
 - b) a minimum of four semester units in each field;
 - c) at least one advanced semester unit (300-level or above) in each field;
 - d) at least four advanced semester units within the chosen fields of study.

Form A must include the signatures of faculty sponsors in each field listed. One of these faculty sponsors must be designated as the primary academic advisor.

3. **A current academic transcript.**

Students choosing the multi-field major program are encouraged but not required to pursue an interdisciplinary, independent project (Multi-field 489 and/or 490) as part of the major. This project allows the student to pursue independent work in his or her area of interest as defined by the original proposal and should demonstrate the interrelationships among the fields comprising the multi-field major. The project can be submitted as one of the four advanced semester units and its focus should be described briefly in the proposal. Projects are normally undertaken during the senior year.

A student may graduate with honors from the multi-field major program. Honors for the multi-field major requires a 3.5 GPA in the multi-field major, satisfactory completion of an interdisciplinary, independent project (Multi-field 489

and/or 490) and the presentation of its results in some academic forum. The student must also receive the recommendation of his or her advisors. (See also Distinction and Honors.)

Double Major

For a double major, a student pursues concentrated work in any two established majors (see above list) and meets the requirements for each major. If the two majors lead to different degrees, the student may elect to receive either the B.A. or the B.S.

Academic Minors

Academic minors extend the curriculum's flexibility while adding another medium of connection, coherence and integration to the student's course of study. A student who has declared a single major may elect one or two minors; a student who has declared a double major may elect only one minor.

Minors normally consist of five to seven courses, as defined by departments or programs. The certification minor in education requires additional courses as mandated by the New York State Department of Education and the Board of Regents. See individual program descriptions for details on specific programs. A minor may not be declared in the student's major, although a student may major in one foreign language and minor in another. Students must have earned a 2.0 GPA at the time of graduation in all courses taken in their minor. Semester course units in the student's minor field cannot be taken on a pass/fail basis after the minor is declared. See the Inventory of Registered Programs at the end of this section and the Courses of Study section of the Catalog for the list of minors, and visit www.stlawu.edu/academics for links to departments and programs.

International and Intercultural Studies

St. Lawrence University supports twenty-eight off-campus programs in over twenty-four countries that allow students to enrich their majors, explore cultures in the US and beyond its borders, gain cross-cultural perspectives and skills, and prepare to be responsible global citizens. St. Lawrence University operates seven of its own semester- and year-long off-campus programs, which include deep cultural immersion and course work before, during, and after the off-campus program. The University also partners with other selected programs in different regions. Some involve direct enrollment in foreign universities. Others are operated by U.S. colleges and universities or respected study abroad program providers. Students contemplating off-campus study should work with the CIIS staff and their on-campus academic advisor, before, during, and after their time away to integrate their off-campus study into their four-year program of study. For more information, visit The Center for International and Intercultural Studies.

Academic Regulations

Academic Integrity

Refer to the [Constitution of the Academic Honor Council](#).

Student Records

The Family Educational Rights and Privacy Act (FERPA) of 1974, as amended, became effective on December 31, 1974. The purpose of the act as it pertains to post-secondary institutions is twofold: to assure students access to their educational records and to protect an individual's right to privacy by limiting the sharing of student records without his or her consent.

This information is made available to all students in accordance with the requirement that they be informed of the rights afforded them by the act. Specifically, students are advised of their rights as follows:

Records available to students

Matriculated students have “the right to inspect and review any and all official records, files, and data... including all material that is incorporated into each student’s cumulative record folder, and intended for school use or to be available to parties outside the school...” St. Lawrence University defines “official records, files and data” and “cumulative record folder” to be the student’s records as maintained by the student life, registrar’s, career services, business and financial aid offices and the education department.

The law requires the University to respond to a student’s request to see the official record or the cumulative record folder by establishing “appropriate procedures for the granting of a request...within a reasonable period of time, but in no case more than forty-five days after a request has been made.”

A student’s file in the student life office includes the student’s initial application, personal data forms, disciplinary records and records of communication with the student and his or her family from various University representatives. The registrar’s office maintains the official academic record. The career services office retains letters of recommendation for post-graduate and/or job placement.

The amended act clarifies that recommendations written before December 31, 1974, are not available to students and others unless approved by the writer. Recommendations written after that date are open to students unless the student waives this right. All students are urged to clarify this when requesting a recommendation.

Hearings to challenge a record

Students must be afforded “an opportunity to insure that the records are not inaccurate, misleading, or otherwise in violation of (their) privacy or other rights.” Further, provisions must be made “for the correction or deletion of any inaccurate, misleading, or otherwise inappropriate data” contained in the official record. Formal procedures for challenging such information are detailed in the Student Academic Grievance Procedure section of the Student Handbook online.

Rights of third parties to access records

The University may disclose personally identifiable information from a student’s education records only with the written consent of the student, except: (1) to school officials (i.e., persons employed by the University in an administrative, supervisory, academic, research or support staff position; a person elected to the Board of Trustees; a person or company employed by or under contract to the University to perform a special task, such as an attorney or auditor; or a student serving on an official committee or assisting another school official in performing his or her tasks) who have legitimate educational interests (e.g., the need to review education records to fulfill their University-related responsibilities); (2) to officials of another school at which the student seeks or intends to enroll (note: it is the University’s policy to forward education records to other agencies or institutions in which the student seeks or intends to enroll only with written consent from the student; the University reserves the right to forward said records upon the request of such agencies or institutions, without written consent from the student after a reasonable attempt has been made to contact the student); (3) to authorized representatives of certain FERPA-designated federal and state agencies for the enforcement of federal and state legal requirements; (4) in connection with a student’s application for or receipt of financial aid, as necessary to determine the eligibility, amount or conditions of the financial aid, or to enforce the terms and conditions of the aid; (5) pursuant to court order or lawfully issued subpoena, but only after reasonable attempt to notify the student of the order or subpoena, unless the subpoena prohibits disclosure of the existence or contents of the subpoena or information furnished in response to the subpoena; (6) to accrediting organizations to carry out their functions; (7) to parents of a student who claim the student as a dependent for income tax purposes; (8) in connection with health and safety emergencies, as permitted by law; (9) to an alleged victim of any crime of violence or the results of any institutional

disciplinary proceeding against the alleged perpetrator of that crime with respect to that crime; and (10) as otherwise permitted by FERPA and its implementing regulations as amended from time to time.

All persons desiring access to such records, except on the grounds of exceptions 1, 5 (when the subpoena orders confidentiality) or 7 above, shall be required to sign a written record access form, which shall be kept in the student's file.

With the exception of disclosures covered by the exceptions noted above, prior to release of personally identifiable information from a student's education records, and subject to the rules regarding "directory information," below, written consent must be received from the student specifying the records to be disclosed, stating the purpose of the disclosure and identifying a password for each party or class of parties to whom the disclosure may be made. The authorization for release shall be kept with the student's file.

Whenever the University discloses personally identifiable information from an education record (except as to disclosures [1] of "directory information," [2] to the student who is the subject of the record or [3] to the parent of a dependent student) it shall inform the party to whom it is disclosing the information that it may not be further released or disclosed without the consent of the student or the parent of a dependent student.

Records unavailable to students

Students do not have the right of access to their parents' confidential financial statements or to medical, psychiatric or "similar records that are used solely in connection with treatment and only available to recognized professionals or paraprofessionals in connection with such treatment." Students, however, could have a doctor or other qualified professional of their choice inspect their records.

Directory information

The University continues to have the right to release "directory" information, limited to name, address, telephone number, e-mail address, student photo ID, dates of attendance, enrollment status, major field(s) of study, degrees and awards received and the most recent previous educational agency or institution attended by the student, without first obtaining the consent of the student. Students or parents wishing to have the information excluded from directories should contact the dean of student life.

Copies of the act are available in the Student Life office, and students are encouraged to discuss any aspect of the law or their individual file with the vice president and dean of student life. Copies of any or all parts of the record are available to the student at the student's expense.

Transcript

A transcript of the academic record of each regularly enrolled student is maintained in perpetuity in the Registrar's Office. For information on the transcript and requesting copies see https://www.stlawu.edu/sites/default/files/resource/transcript_request_073117%20fillable.pdf.

Credit Toward Graduation

Candidates for baccalaureate degrees may earn credits toward graduation from St. Lawrence University in one or more of the following ways:

1. By satisfactory completion of courses offered by St. Lawrence.
2. By satisfactory completion of courses taken through cross-registration from one of the other members of the Associated Colleges of the St. Lawrence Valley (State University of New York, Canton College of Technology; State University of New York, College at Potsdam; Clarkson University). Up to two such courses per year (September 1–May 30) may be taken. Since these courses are considered as taken in residence at the institution

where they are taken, the general policies on transfer credit apply to them, barring possible exceptions by the academic dean for certain programs of study. The credit value of such courses, however, is calculated in the same way as that described in II.A.2, below, regarding transfer of credit from other institutions.

3. By transfer from an accredited institution of higher education of approved liberal arts course credits, with grades of at least 2.0 (C) or equivalent. This includes P (Pass) in P/F (Pass/Fail) systems from other accredited collegiate institutions, accepted only in cases where the transcript clearly certifies that P is the equivalent of 2.00 or higher. (See II.A, below). A maximum of eight units are transferable to St. Lawrence if taken by a matriculated student.
4. By Advanced Placement tests, as administered by the College Entrance Examination Board, Princeton, N.J. (See II.B, to follow.)
5. By International Baccalaureate Higher Level Examinations in which a score of 5 or higher is achieved. Credit is not awarded for Standard Level examinations. Course credit is regarded as transfer credit and is determined by the registrar in consultation with the appropriate department chair. Credit for course equivalence and distribution credit is similar to Advanced Placement credit. [Note: College Level Examination Program (CLEP) credit is not accepted.]

Credit from Other Sources

General Policies

The following general policies apply to credits earned or sought from sources other than courses offered by St. Lawrence and courses taken by cross-registration.

- A. **The student must be matriculated** as a full-time student at St. Lawrence University, with the exception of an employee of St. Lawrence University or other member of the Associated Colleges who may be part-time.
- B. **At entrance, acceptability of credit is determined by the registrar;** at other times it is determined by the registrar and/or committee in consultation with the appropriate department chair(s).
- C. **Credit is given no grade value** and does not become a part of the student's cumulative or major or minor GPA. For a unit to be transferred, it must have a minimum grade of C or 2.0 on a four-point system.
- D. **Upon entrance, the equivalent of two years' work** may be counted toward graduation. Sixteen units must be completed at St. Lawrence.
- E. **Matriculated students in good academic standing** (having a minimum GPA of 2.0 and the proper number of completed units) may transfer up to eight units of credit.
- F. **Matriculated students on academic probation** may apply to pursue coursework at another institution. However, the approved credit will not appear on the student transcript until the student is back in good academic standing at St. Lawrence University.
- G. **Transfer credit will not be granted** to students while they are under academic suspension. A student readmitted from academic suspension may request the registrar for transfer of credit earned elsewhere while under suspension.

Specific Policies

In addition to the general policies, the following specific policies apply to particular means of obtaining credit.

- A. Transfer credit from other institutions
 1. To be assured of receiving credit toward graduation from St. Lawrence University, matriculated students must obtain prior approval of individual courses or programs of study. If they intend to study off campus during a regular fall or spring semester, such approval must be obtained from the CIIS committee and the appropriate department chair(s). Approval of courses to be taken during the summer or between the fall and spring semesters should be obtained from the appropriate department chair(s) through the Registrar's Office.
 2. The credit value of transferred work undertaken during an academic year by a matriculated student shall be

assessed against the standard of the expected normal full load of the host institution. *In other cases:*

- a. A maximum of two three-semester-hour courses may be transferred to St. Lawrence as one St. Lawrence unit each.
- b. Beyond two courses, credit value of semester-hour courses shall be assessed in accordance with a table of values maintained by the registrar, wherein 1 unit at St. Lawrence University is the equivalent of 3.6 semester or credit hours.

B. Advanced placement and credit

Advanced placement and credit toward graduation are granted to students who achieve a rating of 4 or 5 on the Advanced Placement Examination in the following subjects (see next page):

SLU AP Exam	SLU Equivalent	Units
Art History	None	1
Calculus AB (or AB subcode on Calculus BC exam)	Mathematics 135	1
Calculus BC	Mathematics 135 & 136	2
Chemistry	Chemistry 103	1
Chinese Language and Culture	None	1
Computer Science A	Computer Science 140	1
Computer Science AB	Computer Science 140 & 219	1
Economics Macro and Micro	Economics 100 & 101 or 10213	2
Economics Macro or Micro	Economics 100	1
English Language and Composition	None	1
English Literature and Composition	English 190	1
Environmental Studies	Environmental Studies 101	1
European History	History 102	1
French Language	French 103	1
German Lang/ Culture	German 101*	1*
U.S. Government and Politics	Government 103**	1
Comparative Government and Politics	Government 105**	1
Human Geography	None	1
Italian and Culture	None	1
Japanese and Culture	None	1
Music Theory	Music 100	1
Physics B	Physics 103 and 104***	2
Physics C Part 1	Physics 151***	1
Physics C Part 2	Physics 152***	1
Psychology	Psychology 100	1
Spanish	None	1
Spanish Literature	None	1
Statistics	Statistics 113	1

SLU AP Exam	SLU Equivalent	Units
Studio Art	None	1
United States History	History 103,104	1
World History	None	1

*German scores of 4 will receive 1 unit of credit equivalent to 101. Scores of 5 will receive 2 units of credit equivalent to 101 and 102.

**Students who become Government majors will get credit for the AP exam but will need to take Government 103 or Government 108 and/or 206 to ensure they have department work at the introductory level.

***Laboratory Qualification: Students must demonstrate a significant lab experience to the Physics department chair in order to receive any credit.

Note: Students earning a score of 4 or 5 on the General Biology AP exam may earn 1.25 units for Biology 102 if they successfully complete Biology 101. For a complete explanation of this option, refer to the “Advanced Standing” section of the Biology section in this Catalog.

Courses are acceptable in lieu of departmental prerequisites and fulfill distribution requirements, as indicated. The effect of advanced credit upon the department major requirements is determined by each department chair.

Registration for Courses

Continuing students who expect to be enrolled in the following term must register in April for the fall term and November for the spring term. Registration instructions and course listings are available to all students prior to designated registration deadline dates. Students are encouraged to meet with their academic advisors prior to registering for courses. Students who register late are subject to a fee of \$50.

Course Load

In the fall or spring semester, full-time students may take any four courses regardless of their unit value, or five or six courses that total no more than 4.75 units, without incurring additional tuition charges. An overload consists of five or six courses totaling more than 4.75 units or more than six courses. During Summerterm, an overload consists of more than two units of credit. Full-time students registered for more than six courses or for five or six courses totaling more than 4.75 units and not meeting criteria for a course overload without additional charges will be charged an overload fee.

Eligibility for Course Overload

Course overload registration is by petition and is done during the first seven days of the fall and spring semesters. Course overload during Summerterm must be approved by the Director of Summerterm. Timely completion of the petition is required. First-year students are not eligible for a course overload. Transfer students in their first semester at St. Lawrence are not eligible for a course overload.

Course Overload Without Additional Charges

1. Full-time students who are in good academic standing and who are making normal progress toward their degree may register for up to 5.75 units without additional tuition charges during the fall or spring semesters. See Guidelines for Normal Academic Progress, below.
2. A student who fails to convert all incomplete (E) grades to final grades by the end of the drop/add period

may not take the free overload course privilege even when other conditions are met.

Continuing a Foreign Language

Prior to their arrival on campus all students who studied a foreign language should read the following instructions on the Modern Languages department site in order to enroll in the language level appropriate to their high school preparation: <http://www.stlawu.edu/modern-languages/information-first-year-students>. Once enrolled in a course at St. Lawrence, all students are automatically required to take a placement test for French or Spanish administered by the department to determine if the course they have chosen is adequate for their level of preparation. Students may not enroll for credit in a beginning language course if they have studied the language for two years or more in a secondary school.

Registration Changes

A full-time student may not reduce his or her course load in any semester to fewer than four semester course units without consulting with his or her advisor, the registrar and, when appropriate, the associate dean of the first year and the financial aid office. It is expected that a student will consider withdrawing from a course only in extenuating circumstances.

Students may not take a course load of fewer than 3.5 units in any semester without their student status or athletic eligibility status being affected. They must consult with their academic advisor(s) and the course instructor and submit a properly executed add/drop or withdrawal form obtainable at the Registrar's Office.

Students who begin the semester on part-time status, or who fall to part-time during the first month of the semester by dropping or withdrawing from a course (down to a total of fewer than 3.5 course units), will be certified as part-time students for New York state financial aid purposes, other private scholarships that require full-time certification, and repayment of student loans. They will lose their TAP and scholarships if they are part-time students. Foreign students, veterans and athletes who participate in an NCAA sport are also affected.

Add/Drop Policy

During the first seven business days after classes begin in any semester or the first two days after classes begin in any summer session, a student may add or drop a course without a permanent record being made of the change. Students changing their schedules within the add/drop period must have written approval of the instructor of each course being added or dropped as well as the approval of their advisor. Students may request from the Academic Petitions Committee a late schedule change with instructor and advisor permission. Approved late changes will result in a \$50 late change fee.

Withdrawal from a Course

Twice before graduation, students are permitted to withdraw from a course. The withdrawal period extends from the seventh day of classes through the 10th week of classes for fall and spring semester courses that meet over the entire semester. For courses that meet for half of a semester or during Summerterm, students may withdraw after the first three days (when drop/add ends) until the end of the third week.

The course remains on their transcript, and a "W" grade is entered by the registrar. If a withdrawal form, properly executed, is not submitted before the deadline, the student remains enrolled in the course, and is graded accordingly. Withdrawing from FYP or FYS is not permitted. Students should contact the Student Financial Services Office to determine if withdrawing from a course will jeopardize a New York State grant or scholarship.

Students may apply to the vice president and dean of student life for a medical withdrawal from a course, courses, or the entire semester during the semester for which the withdrawal is requested. Documentation from an appropriate medical, psychiatric or psychological professional must be provided at the time of application. While on medical withdrawal from an entire semester, the student must absent him or herself from campus, unless the vice president and dean of student life expressly allows access. The registrar enters a “WM” grade for all enrolled courses for which a medical withdrawal has been granted. A medical withdrawal from all courses continues for the remainder of the semester and in most cases continues for at least one additional semester.

The vice president and dean of student life may grant a medical withdrawal for the semester immediately preceding the semester for which the student is registered, provided (1) the withdrawal is for the entire semester and (2) in her/his judgment, application for the medical withdrawal could have been made and would have been granted for that semester. Only in consultation with the associate dean for academic advising, and under unusual documented circumstances, may a medical withdrawal be granted for semesters prior to the last semester for which the student was registered.

In cases of both voluntary and required semester medical withdrawal, the policy on refunds outlined on the Student Financial Services website will apply: <http://www.stlawu.edu/sfs/refund-policy> and <http://www.stlawu.edu/sfs/tuition-refund-insurance>.

The student will be obligated to adhere to any readmission requirements outlined by the vice president and dean if he or she desires to return to St. Lawrence University (i.e. undergo professional health-care treatment for the initial medical problem).

Leave of Absence

A leave of absence may be granted by the dean of student life to any student who is in good academic and social standing. Such a student may be readmitted at the start of a term provided that: (1) readmission is within three terms of the student’s leaving, (2) the University receives a 60-day notice of the student’s intention to return and (3) there is housing and classroom space available. Only one course per semester may be transferred to St. Lawrence while a student is on a leave of absence.

Grades

The grading system in use at St. Lawrence is described below:

Grade Point Equivalent per Course Unit

Course Unit	Grade Point Equivalent
4.0	Excellent
3.75	
3.5	
3.25	
3.0	Good
2.75	
2.5	
2.25	
2.0	Satisfactory
1.75	
1.5	

Course Unit	Grade Point Equivalent
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1.25	
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1.0	Lowest Passing Grade
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0.0	Failure
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St. Lawrence Grading System

Designation	Definition	Credits
E	Incomplete	0.0
P	Pass under Pass/Fail option	0.0
W	Withdrawn	0.0
WM	Withdrawn Medical	0.0
CMP	Work Completed Satisfactorily for non-credit course component	0.0
X	See below	0.0
IWC	Inadequate Writing Competency	0.0
NGS	No Grade Submitted by Instructor	0.0

X grade

Assigned at the end of a semester for work in a designated course that will be completed in the following semester. Only those students specified by the mid-term of the initial semester are eligible to receive an X grade. This grade is not to be confused with the incomplete (E), which is given to a student who fails for a valid reason to complete the work of a course within the period prescribed for that course.

Incomplete (E)

Assigned only when, as a result of unusual or extenuating circumstances (e.g., illness), some part of the required work for a course is left unfinished. In such a case, the instructor informs the department chair and agrees with the student on conditions, preferably in writing, for removal of the E. The student is expected to fulfill these conditions in good time, in the ensuing semester, for the instructor to evaluate his or her work and report a permanent grade to the registrar by the end of the sixth week. If no grade is reported, the E is replaced by 0.0 (Failure).

The department chair may request further delay from the registrar, but this delay may not be longer than the term. If the student is not in residence during that term, the delay may be extended for one additional semester. Further extension must be requested of the dean of academic affairs and is unusual since the passage of time often brings changes in instructor and course content.

It is the responsibility of the student to see that conditions for the removal of a grade of E are established and met.

Pass/Fail

During the four years in college, a student is permitted to elect up to four semester course units of work to be graded Pass/Fail. The purpose of the option is to encourage students to explore new areas of study in which they are interested but have little or no background, not to justify reduced effort in a course. The Pass/Fail option may be chosen for semester course units taken to satisfy distribution requirements or any elective semester units outside the major or minor. The Pass/Fail option is subject to the following limitations:

1. Neither the First-Year Program nor the First Year Seminar may be taken on a Pass/Fail basis.
2. Semester course units in the student's major and minor fields cannot be taken on a Pass/Fail basis after the major and minor are declared.
3. No more than one optional Pass/Fail course can be taken in any semester.
4. The Pass/Fail option requires that the written consent of the instructor be submitted to the registrar by the end of the ninth week of classes in the fall and spring semesters. In summer session or courses that meet only half of the fall or spring semester, students may avail themselves of the option by the midpoint of the course as determined by the registrar.

A student must attain a minimum of a 1.0 grade to receive a Pass for the course.

Students should be aware that grades of 0.0 (F) are calculated in the grade point average. Although the P grade is not calculated in the grade point average, P grades may place students at a competitive disadvantage when they apply for admission to some graduate or professional schools. Student choosing to take one of their four, one-unit courses Pass/Fail in a given semester will not be eligible for the Dean's List in that semester.

If no Pass/Fail option is allowed in a course, the instructor will indicate that policy in the course syllabus.

Repeating Courses

When a student repeats a course, the higher grade will be computed in the cumulative average. Grades from both attempts will remain on the transcript. A repeated course does not earn additional credit toward graduation unless the first attempt received a failing grade.

1. If a student's grade is lowered below the level required by the major due to academic dishonesty, the student may retake the course, but only with the agreement of the department chair and only on a pass/fail basis, even if the major has already been declared. The original grade remains on the student's transcript.
2. If a student fails a course due to academic dishonesty and the course is not required for the major, the student may not retake the course.
3. If a student's grade is lowered due to academic dishonesty and the course is not required with a higher grade for the major, the student may not retake the course.
4. In all other cases, a student who wishes to retake a course must submit a petition to the Academic Petitions Committee. The petition must provide a more in-depth explanation of the student's reason(s) for retaking the course than merely stating "to raise my GPA." Pending the Committee's approval, the student may register to retake the course only after the pre-registration process is complete.

Students should be aware that financial aid, visa status, or veterans' benefits may be affected by a repeated course. Students should contact the Student Financial Services office to determine if repeating a course would jeopardize a grant or scholarship.

Distinction and Honors

Students can be placed on the Dean's List each semester by achieving a semester GPA of 3.6 or higher (and satisfying other criteria as detailed at the link below). At graduation, degrees with distinction are awarded cum laude, magna cum laude and summa cum laude, and students can earn departmental honors. See

<http://www.stlawu.edu/registrar/content/85>

Academic Petitions Committee

Students occasionally experience extenuating circumstances that interfere with their intent to follow rules and procedures regarding various facets of University life. Students may request consideration of an exception of the Academic Petitions Committee. For further details, see <http://www.stlawu.edu/registrar/content/41>.

Academic Standing

Satisfactory Academic Progress for Financial Aid and New York State-Sponsored Grants and Scholarships

Please refer to <http://www.stlawu.edu/financialaid/satisfactory-academic-progress> to view the Satisfactory Academic Progress requirements for financial aid.

Acceptable Academic Progress

Normally, academic standing is defined as (1) earning the minimum number of course units as indicated in the Guidelines for Acceptable Academic Progress (below) and (2) maintaining a cumulative GPA of 2.0 or higher.

Guidelines for Acceptable Academic Progress

End of Term	Units Completed
1	4.5
2	9.0
3	13.0
4	17.0
5	21.0
6	25.0
7	29.0
8	33.5

International Students

International students under F-and J-type visas are required to carry and complete at least 3.5 units of work each semester.

Required Summerterm

At the end of the academic year, first-year students or sophomores who have cumulative averages of less than 1.75 and juniors with GPAs less than 2.0 may be required to attend Summerterm at St. Lawrence. Academic improvement, demonstrated by earning a minimum Summerterm average of 2.25 or a higher standard of performance as stipulated by the Academic Standing Committee, is required.

Guidelines for Probation

Students will be placed on academic probation if they fail to meet satisfactory levels of performance as reflected by one of three measures: cumulative GPA, semester GPA or major GPA.

Cumulative GPA

Students are placed on academic probation if their cumulative GPA falls within the following range based on terms completed:

Completed Term(s)	Minimum Cumulative GPA
1—4	1.50—1.99
5—7	1.75—1.99
8—10	< 2.0

If their progress is deemed not satisfactory, they are placed on probation and receive letters that indicate that they must (1) earn a semester GPA of 2.0 or above in their first semester on probation and (2) raise their overall GPA to a 2.0 or higher in the ensuing semester, or they will be suspended. Students on probation should carry a full course load of at least four courses worth at least one unit each. Any exceptions must be approved by the associate dean for academic advising.

Students on probation are expected to work with the coordinator of academic development, the coordinator of academic support, the coordinator of academic engagement, or the associate dean for academic advising and their academic advisor to plan a program to address their academic situation. For more information, consult with the associate dean for academic advising.

Semester GPA

Any student with a semester GPA below 1.75 will be placed on academic probation.

Major GPA

Students whose GPA in their major (i.e., the average of grades in courses applicable to the major) falls below 2.0 will be placed on academic probation. Students whose GPA in their declared major remains below 2.0 for two semesters, and who are unable to find a suitable probationary major, will be suspended.

Guidelines for Academic Suspension

Students who fall into one or more of the following categories will be suspended:

1. First-year students (including first-semester first-year students) or sophomores with cumulative GPAs of less than 1.5, juniors and first-semester seniors with cumulative GPAs of less than 1.75, and second-semester seniors with cumulative GPAs of less than 2.0.
2. Students on probation who do not earn a semester GPA of 2.0 or above in their first semester on probation, or do not increase their overall GPA to 2.0 at the end of the following semester.
3. Students who do not earn a minimum semester GPA of 2.25 or the higher standard of performance stipulated by the academic standing committee, during a required Summerterm.
4. Students who have less than a cumulative GPA of 2.0 in their major for two consecutive semesters and who cannot find a new or probationary major.

Students who are suspended during their first year at St. Lawrence may:

1. take a suspension for a full calendar year; or
2. work with the Office of Academic Advising on a plan to demonstrate academic readiness. In consultation with the associate dean for academic advising, these students may be allowed to apply for readmission after one semester. As part of that plan, students may be approved to enroll in summerterm courses at St. Lawrence University.

Students other than first-year students suspended after their first semester may apply for readmission after one semester although two semesters away is often advisable. Suspended students are not considered St. Lawrence University students and are not eligible to receive credit for or take courses at the University.

The following table shows the cumulative GPA that will lead to suspension.

End of Term	Minimum Cumulative GPA
1—4	< 1.50
5—7	< 1.75
8	< 2.0

Appeal of Academic Suspension

Suspended students who can document extenuating circumstances have the right to appeal to the Academic Standing Committee. Appeals, which will be reviewed by the committee and the dean of academic affairs, should be directed to the associate dean for academic advising. For students on probation who are subject to suspension, the Academic Standing Committee will examine whether all conditions of probation were fulfilled when considering an appeal. Questions about the appeals process should be directed to the associate dean for academic advising.

Re-admission

Suspended students other than first-year students may apply to St. Lawrence University for readmission one semester after they were suspended. Applications for readmission are available from the associate dean for academic advising. In addition to the completed application, the following information must be provided:

1. Transcripts of academic work undertaken while suspended.
2. Letters from instructors of courses in which students were enrolled while suspended.
3. If applicable, letters of support from employers, counselors or therapists with whom the student has worked since suspension.

An interview with the associate dean for academic advising may be required.

A student who has been suspended, and who has returned to St. Lawrence, may, under exceptional circumstances, be allowed up to three semesters to achieve a cumulative grade point average of at least 2.0.

Expulsion

Students will be expelled if they have been readmitted but fail to meet their academic readmission requirements as determined by the Academic Standing Committee. Expelled students who can document extenuating circumstances have the right to appeal to the committee. Appeals should be directed to the associate dean for academic advising. Expulsion represents a complete severance of ties to the University. Students who have been expelled from St. Lawrence University do not have the option to apply for readmission.

Academic Resources and Supports

Every student has his or her own style of learning. The Office of Academic Advising serves as a resource for all students at St. Lawrence, helping them identify academic areas of strength and areas in need of improvement. We also offer guidance in developing and implementing strategies to achieve greater academic success. Please refer to the Office of Academic Advising website for information on peer tutoring, academic counseling, skills assessment and support, academic opportunity programs, and accessibility services at <http://www.stlawu.edu/advising>.

Disability and Accessibility Services

For details, see www.stlawu.edu/disability-and-accessibility-services.

Opportunity Programs

Higher Education Opportunity Program (HEOP)

For details, see <http://www.stlawu.edu/heop>.

Collegiate Science and Technology Entry Program (CSTEP)

For details, see <http://www.stlawu.edu/cstep-and-mcnair>.

Writing Center

The Munn Center for Rhetoric and Communication's WORD (Writing, Oral Communication, Research and Design) Studio offers writing assistance to all students, from those writing FYP papers to seniors constructing honors theses. For additional information, see <http://www.stlawu.edu/word-studio>.

Peterson Quantitative Resource Center (PQRC)

To support students as they grow and develop their quantitative abilities, the Peterson Quantitative Resource Center (PQRC) offers mathematical, statistical and computational help in support of both course work and research. For additional information, see <http://www.stlawu.edu/pqrc>.

Libraries and Information Technology

The St. Lawrence University libraries and information technology division supports and participates in the learning, teaching, research, and creative endeavors of students, faculty, and staff. See <http://www.stlawu.edu/library/> and <https://www.stlawu.edu/it/>.

Richard F. Brush Art Gallery and Permanent Collection

For more information, see <http://www.stlawu.edu/gallery/>.

Community-Based Learning Program and Volunteer Services

St. Lawrence's Community-Based Learning (CBL) programs offer opportunities to combine community engagement and service with course-based activities and assignments in ways that promote student learning and personal development. See <http://www.stlawu.edu/community-based-learning> for more information. Volunteer Service's mission is to increase and enhance opportunities for students to be agents of positive social change both on and off-campus. For additional information, see <http://www.stlawu.edu/volunteer-services/center-civic-engagement>.

Outdoor Studies Program

The outdoor studies program at St. Lawrence University encompasses three constituent entities: the Outdoor Studies minor, the Adirondack Semester, and the Outdoor Program. For additional information, see <http://www.stlawu.edu/outdoor-studies>.

Pre-Professional Programs

Health Careers

Undergraduate programs of study at St. Lawrence lead to professional training and degrees in medicine, dentistry, optometry, nursing, pharmacy, physical therapy, physician assistant fields, podiatry, and veterinary medicine, as well as allied health fields. For more information see <http://www.stlawu.edu/biology/health-careers> or seek advice from a member of the Health Careers Committee. See also Pre-professional and combined programs on the majors, minors, and programs webpage: <http://www.stlawu.edu/academics>.

Law

Students who are interested in law (or law in combination with business, public service, social work, and other fields) will be well served by the academic programs and pre-law advising at St. Lawrence. For additional information see <http://www.stlawu.edu/advising/pre-law>.

Engineering Combined Programs

Students can combine a liberal arts education with an engineering degree through St. Lawrence's combined engineering program with five engineering schools (Clarkson University, Columbia University, Dartmouth College, Rensselaer Polytechnic Institute, and the University of Rochester).

Visit the Engineering Combined Programs web site at <http://www.stlawu.edu/engineering-combined-programs>.

Combined or Accelerated Graduate Business Programs

St. Lawrence University has agreements with the graduate schools at Clarkson University, Rochester Institute of Technology, Syracuse University, and Union College that allow students to plan their undergraduate program to include courses that serve as foundation courses for graduate study in business and/or finance. For more information visit <http://www.stlawu.edu/masters-business-combined-programs>.

Education

St. Lawrence University offers undergraduate courses that prepare students for teaching in public and/or private schools. The University has registered its programs with the New York State Education Department leading to initial and/or professional teaching certification for New York State. Under the current requirements of the New York State Board of Regents, students completing required undergraduate study in education are eligible for initial certification in New York and comparable initial certification in all reciprocating U.S. states and Canadian provinces. See Education in the Courses of Study section of this Catalog or visit <http://www.stlawu.edu/education/undergraduate-programs>.

St. Lawrence also has graduate programs leading to initial and/or professional teaching certification in New York State and all reciprocating U.S. states and Canadian provinces. The undergraduate and graduate-level programs in teacher education hold full national accreditation by the Teacher Education Accreditation Council (TEAC). The University also offers other graduate programs in counseling and school leadership. For details about the University's graduate programs leading to post-baccalaureate teaching certification, a master's degree, and the certificate of advanced study, see the Education Department's web page at <http://www.stlawu.edu/education> or <http://www.stlawu.edu/education/graduate-programs>.

Army and Air Force Reserve Officer Training

Interested students should visit <http://www.stlawu.edu/rotc>.

Summerterm

The University operates a diverse academic summer program that includes both undergraduate and graduate courses. For further information see <http://www.stlawu.edu/academic-affairs/summerterm>.

Auditing Courses

Area Resident Auditing is a program designed to serve the educational needs and interests of local residents at a low cost. “Auditing” means attending a class without working for or receiving formal credit. Although the program offers a top-quality educational experience, no written exams or papers are expected and no final grades are issued, but auditors may request a certificate of attendance from the professor.

The program is open to adult residents of the North Country. An elementary or high school diploma is not required. High school students, faculty and regularly enrolled students at area colleges, and St. Lawrence faculty and staff are not eligible.

Persons who are eligible may audit a course by paying a registration fee of \$35 per course. The audit fee must be paid at the time of registration and is not refundable.

Inventory of Registered Programs

Bachelor of Arts/Bachelor of Science Programs

Program Title	Degree	Code	HEGIS
African Studies–Anthropology	BA	21401	2299
African Studies–Economics	BA	21402	2299
African Studies–Government	BA	21400	2299
African Studies–History	BA	21399	2299
Anthropology	BA	83565	2202
Anthropology–Canadian Studies	BA	19102	4903
Art and Art History	BA	09792	1001
Art and Art History–Canadian Studies	BA	81115	4903
Biology	BS	09784	0401
Biochemistry	BS	25090	0414

Program Title	Degree	Code	HEGIS
Biophysics	BS	09786	0415
Business in the Liberal Arts	BA	36284	0517
Chemistry	BS	09810	1905
Computer Science	BS	22059	0701
Conservation Biology	BS	31841	0499
Economics	BA	09817	2204
Economics–Canadian Studies	BA	81114	4903
Economics–Mathematics	BA	83566	2299
Economics–Mathematics	BS	83567	2299
English	BA	09800	1501
English–Canadian Studies	BA	81118	4903
English-French	BA	38362	4901
English-Spanish	BA	38363	4901
Environmental Studies	BA	22863	0420
Environmental Studies–Biology	BS	89035	0499
Environmental Studies–Chemistry	BS	89036	0499
Environmental Studies–Economics	BA	89039	0499
Environmental Studies–English	BA	22613	0499
Environmental Studies–Geology	BS	89037	0499
Environmental Studies–Government	BA	89040	0499
Environment Studies-Mathematics	BA	33903	0499
Environmental Studies–Philosophy	BA	19101	0499
Environmental Studies–Psychology	BS	89038	0499
Environmental Studies–Sociology	BA	89041	0499

Program Title	Degree	Code	HEGIS
Estudios Hispánicos	BA	09798	1105
Francophone Studies	BA	09795	1102
Geology	BS	09812	1914
Geophysics	BS	09813	1916
Global Studies	BA	22915	0399
Government	BA	09819	2207
Government–Asian Studies	BA	86043	2299
Government–Canadian Studies	BA	81113	4903
History	BA	09818	2205
History–Asian Studies	BA	86044	2299
History–Canadian Studies	BA	81112	4903
History-Spanish	BA	38354	4903
History-French	BA	38355	4903
History-German	BA	38356	4903
History-Multilanguage	BA	38357	4903
International Economics–French	BA	32963	4903
International Economics–German	BA	32962	4903
International Economics–Multilanguage	BA	32964	4903
International Economics–Spanish	BA	32961	4903
Mathematics	BS	09806	1701
Multifield Program	BA	78014	4901
Multifield Program	BS	78015	4901
Multi-Language Major	BA	80026	1199
Music	BA	09793	1005

Program Title	Degree	Code	HEGIS
Neuroscience	BS	25089	0425
Performance and Communication Arts	BA	79187	1007
Philosophy	BA	09802	1509
Physics	BS	09807	1902
Psychology	BS	09815	2001
Religious Studies	BA	09803	1510
Religious Studies–Asian Studies	BA	86045	1599
Religious Studies–Canadian Studies	BA	19103	4903
Sociology	BA	09820	2208
Sociology–Canadian Studies	BA	81116	4903
Statistics	BS	37398	1702

Undergraduate Teacher Certification Programs (Initial)

Program Title	Degree	Code	HEGIS
Adolescence Education: 7-12 English	BA	25731	1501.01
Adolescence Education: 7-12 Social Studies	BA	25732	2201.01
Adolescence Education: 7-12 French	BA	25733	1102.01
Adolescence Education: 7-12 Spanish	BA	25735	1105.01
Adolescence Education: 7-12 Mathematics	BS	25737	1701.01
Adolescence Education: 7-12 Biology <i>(Extension for 7-12 General Science with additional coursework)</i>	BS	25738	0401.01
Adolescence Education: 7-12 Chemistry <i>(Extension for 7-12 General Science with additional coursework)</i>	BS	25739	1905.01
Adolescence Education: 7-12 Earth Science <i>(Extension for 7-12 General Science with additional coursework)</i>	BS	25740	1917.01
Adolescence Education: 7-12 Physics <i>(Extension for 7-12 General Science with additional coursework)</i>	BS	25741	1902.01

Program Title	Degree	Code	HEGIS
Special Subjects: K-12 Visual Arts	BA	25742	0831
Special Subjects: K-12 Visual Arts non-granting <i>(joint program with SUNY Potsdam)</i>	BS	26310	0831

Post-Baccalaureate Teacher Certification Programs (Initial)

Program Title	Degree	Code	HEGIS
Post-Baccalaureate Teacher Certificate <i>for SLU graduates; all certificate titles listed above</i>	Adv. Crt	25729	0803
Post-Baccalaureate Teacher Certificate <i>for non-SLU graduates; all certificate titles listed above</i>	Adv. Crt.	25730	0803

Master's Level Certification Programs

Program Title	Degree	Code	HEGIS
Teacher Certification <i>(Initial & Professional)</i>			
General Studies in Education <i>all certificate titles listed above</i>	M.Ed.	25727	0803
Teacher Certification <i>(Professional only)</i>			
General Studies in Education	M.Ed.	25728	0803

The programs listed in this table have been approved by the New York State Department of Education at St. Lawrence University. Not all programs continue to be offered. Enrollment in other than registered or otherwise approved programs may jeopardize a student's eligibility for certain student aid awards.

Courses of Study

THE COURSES LISTED IN THIS *Catalog* reflect, as accurately as possible, what the University offers. Because changes in academic programs and staffing inevitably occur, no guarantee can be made that a particular course will be offered in a given semester or year. Moreover, each semester many departments offer courses that are not listed in this catalog because they are new or special topics. The list of available sections, published by the registrar for each semester, is a more accurate list of what is expected to be offered in that semester. Courses that satisfy distribution requirements are indicated in each semester's published list of available sections. Classes are held Monday through Friday; each full one-unit course normally meets three hours per week. Some courses having laboratories, studios or recitation sections may meet for more than three hours per week.

Requirements concerning majors, minors, tutorial work and comprehensive examinations in the various departments and programs are included in this *Catalog* (see each department or program description, and Major Requirements in the Curriculum chapter found on the web at <http://www.stlawu.edu/resource/university-catalog>), or through the academic majors, minors and programs webpage at <http://www.stlawu.edu/academics>, or can be determined by consulting the appropriate department chair or program coordinator. Graduate credit is offered only through the Education department. Information about graduate offerings is given in that department's *Catalog*, which is available in the department's office in Atwood Hall, or at <http://www.stlawu.edu/education/resource/graduate-catalog>.

The course list that follows is organized -alphabetically. The "Majors and Minors Offered" listed below provides a quick reference guide. For more on these, in addition to their respective entries in the pages that follow, go to <http://www.stlawu.edu/academics>.

Majors and Minors Offered

Department Majors

African Studies–Anthropology
African Studies–Economics
African Studies–Government
African Studies–History
Anthropology
Art and Art History
Asian Studies–Government
Asian Studies–History
Asian Studies–Religious Studies
Biochemistry
Biology
Biology–Physics
Business in the Liberal Arts
(offered only as second part of a double major)
Canadian Studies–Art and Art History
Canadian Studies–Economics
Canadian Studies–Estudios Hispánicos
Canadian Studies–English
Canadian Studies–Francophone Studies
Canadian Studies–German Studies
Canadian Studies–Government
Canadian Studies–History
Canadian Studies–Modern Languages and Literatures
Canadian Studies–Religious Studies
Canadian Studies–Sociology

Chemistry
Computer Science
Conservation Biology
Economics
Economics–Mathematics
English
English–French
English–Spanish
Environmental Studies
Environmental Studies–Biology
Environmental Studies–Chemistry
Environmental Studies–Economics
Environmental Studies–English
Environmental Studies–Geology
Environmental Studies–Government
Environmental Studies–Mathematics
Environmental Studies–Philosophy
Environmental Studies–Psychology
Environmental Studies–Sociology
Estudios Hispánicos
Francophone Studies
Geology
Geology–Physics
Global Studies
Government
History
History–French
History–Spanish

History–German
History–Multi-Languages
International Economics–Estudios Hispánicos
International Economics–Francophone Studies
International Economics–German Studies
International Economics–Multi-Language
Mathematics
Multi-language
Music
Neuroscience
Performance and Communication Arts
Philosophy
Physics
Psychology
Religious Studies
Sociology
Statistics

Multi-Field Major

Self-designed

Minors

African American Studies	Education Studies	Music
African Studies	Education (certification)	Native American Studies
Anthropology	English	Outdoor Studies
Arabic Studies	Estudios Hispánicos	Peace Studies
Art and Art History	European Studies	Philosophy
Asian Studies	Film & Representation Studies	Physics
Biology	Francophone Studies	Public Health
Canadian Studies	Gender and Sexuality Studies	Psychology
Caribbean, Latin American & Latino Studies	Geology	Religious Studies
Chemistry	German Studies	Sociology
Chinese Studies	Global Studies	Sports Studies and Exercise Science
Computer Science	Government	Statistics
Economics	History	
	Italian Studies	
	Mathematics	

Other Programs of Interest

Business (see Business in the Liberal Arts; also 4+1 MBA, Curriculum section)

Communication Studies (see Performance and Communication Arts)

Creative Writing (see English)

Dance, Drama (see Performance and Communication Arts)

Engineering (see Pre-Professional Programs, Curriculum section)

Exercise Science (see Sports Studies and Exercise Science)

Fine Arts (see Art and Art History)

Foreign Languages, French, German, Spanish (see Modern Languages and Literatures)

International Studies (see Global Studies)

Latin American Studies (see Caribbean, Latin American and Latino Studies)

Political Science (see Government)

Journalism (see English)

Languages (see Modern Languages and Literatures)

Law (see Pre-Professional Programs, Curriculum section)

Medicine (see Pre-Professional Programs, Curriculum section)

Spanish (see Estudios Hispánicos)

Speech (see Performance and Communication Arts)

Studio Art (see Art and Art History)

Theater (see Performance and Communication Arts)

Visual Art (see Art and Art History)

Writing (see English)

African Studies

Combined major and minor offered

Visit the African studies webpage at www.stlawu.edu/african-studies.

Combined Major

African studies offers combined majors with -anthropology, economics, government and history. Each combined major consists of five African studies courses plus requirements from cooperating departments. The typical combined major has between 12 and 14 courses in total. Students are encouraged to begin with either AFS 101 or AFS 225. They must select courses from a range of disciplines. Students must complete a capstone course that is either an African studies 400-level seminar or an interdisciplinary -independent project approved by the African Studies Advisory Board.

Anthropology and African Studies

Anthropology (ANTH)

Four core courses* (4 units)

One 300-level Advanced Topics course* (1 unit)

(must be taken in the Anthropology department)

Electives (200-level and above) (3 units)

(at least two should be dual-listed with AFS, and no more than two may be taken outside the department)

Capstone 400-level seminar (1 unit)

Five AFS courses, including a 400-level approved AFS course (5 units)

Total: 14 units

**See Anthropology Major Requirements for the list of core and Advanced Topics courses and guidelines regarding study abroad.*

Economics and African Studies

Economics (ECON)

100. Introduction to Economics.* (1 unit)

200. Quantitative Methods in Economics.** (1.5 units)

251. Intermediate Microeconomic Theory (1 unit)

252. Intermediate Macroeconomic Theory (1 unit)

**This course may be omitted with advanced placement credit or other advanced standing.*

***Students taking (1) STAT 213 or MATH 325 or 326 OR (2) STAT 113 and either MATH 135 or MATH 136, with at least a grade of 3.0 in each, may take another economics elective in lieu of ECON 200.*

Four other electives in economics (4 units)

At least two must be at the 300/400 level and at least two must be selected from these three:

228. African Economies.

322. International Economics.

336. Economic Development.

Five AFS courses, including a 400-level approved AFS course (5 units)

Total: 13.5 units

Government and African Studies

Government (GOVT)

- 103. Introduction to American Politics. (1 unit)
- 105. Introduction to Comparative Politics. (1 unit)
- 290. Research Seminar. (1 unit)
- 320. African Politics. (1 unit)
- 328. Political Institutions in the Developing World. (1 unit)

Two additional electives (2 units)

Five AFS courses, including a 400-level approved AFS course (5 units)

Total: 12 units

History and African Studies

History (HIST)

10 courses: 10 units

- 1 must be a 299 Seminar on Historical Research Methods
- 4 from different regions (including one on African history)
- No more than three courses at the introductory (100) level may be credited toward the major
- 1 SYE (which should be the HIST-AFS SYE)

Five AFS courses (5 units)

(One of which may be counted for both History and African Studies)

Total Required: 14 units

Minor

The African studies minor consists of six African studies courses. Students are encouraged to begin with either AFS 101 or 225 and must select courses from a range of disciplines. Also, they must complete a capstone course that is either an African studies 400-level seminar or an interdisciplinary independent project approved by the African Studies Advisory Board.

Study Abroad

Courses completed in the University's Kenya -Program (KSP) count toward completion of either the minor or the combined major. Students who apply for the KSP must complete an introductory course in African studies (AFS 101 or AFS 225 is especially recommended). Interested students should discuss their academic plans with one of the coordinators of the program as well as personnel in the office of International and Intercultural Studies. Students who complete the KSP are encouraged to declare a combined major or minor in African studies and in most cases will only need to complete the 400-level capstone requirements after participating on the program. Participants in the France

program have a study trip to Senegal. There are also several opportunities for study in Africa during the summer. For more information on the Kenya Program, France program or summer study options, visit www.stlawu.edu/cjis.

Courses

The following African studies courses are -accepted for the African studies combined major and minor.

101. Introduction to African Studies: History and Development.

This course serves as a broad, interdisciplinary introduction to the study of Africa. Course materials and readings are designed to give special emphasis to African initiatives and perspectives in shaping their own history. African interactions in a global context are emphasized to highlight issues such as the Atlantic slave trade and colonization. Other topics include cultural diversity, geography and environment, religious expression and development. At the end of the course students will be able to see how Africans have participated in world historical events and explain the many forces that have shaped African societies over the past 500 years. *Also offered as HIST 108.*

225. Peoples and Cultures of Africa.

This course surveys contemporary peoples and cultures in sub-Saharan Africa through the lens of three major themes. We will study the enduring importance and flexibility of African systems of social organization, and their relationship to religious beliefs and practices. We will learn about patterns of production and consumption in African economies, and about power, authority and conflict in African politics. Throughout, we note the centrality of social relationships to everyday life on the continent, and the ways that mobility and migration, forced or voluntary, temporary or permanent, have shaped African identities and communities. *Also offered as ANTH 225.*

Departmental Offerings

Anthropology

- 225. Peoples and Cultures of Africa.
- 251. Humans and Other Animals
- 341. Popular Culture in Africa.
- 425. Environmental Conservation in Africa.

Art and Art History

- 215. West African Arts.
- 246. Art and Politics in Nigeria.

Economics

- 228. African Economies.
- 336. Economic Development.

Global Studies

- 262. Africa and Globalization.

Government

- 220. African Politics.
- 290. Foreign Aid (this section of GOVT 290 only)
- 328. Political Institutions in the Developing World

History

- 108. Introduction to African Studies: History and Development.
- 251. Senegal and the World
- 252. Conflict in Africa.
- 299. Seminar on Historical Research Methods, when relevant.
- 308. European Imperialisms.
- 480. SYE: Contemporary Africa.

Modern Languages and Literatures**Arabic**

- 101. Elementary Arabic.
- 102. Elementary Arabic.
- 103. Intermediate Arabic.
- 104. Intermediate Arabic.

Francophone Studies

- 229. Reading the Congo.
- 426. SEM: Francophone Africa.

Swahili

- 101,102. Elementary Swahili.

Students wishing to go on the Kenya program are strongly encouraged to take 101 before they leave. Swahili is a required course on the Kenya program and is offered at various levels. Swahili is also offered occasionally above the 102 level via independent study.

Music

- 210. Musics of the World.

Philosophy

- 232. Africana Philosophy.

Sociology

- 310. Slavery, Race and Culture.

Off-Campus Program Courses**France Program Courses**

- 279. Culture of Francophone Africa.

Kenya Semester Courses

Swahili is required, as is AFS 337 (Culture, -Ecology and Development in East Africa), which is offered only on the Kenya Program.

Other courses offered in Kenya vary according to student demand and availability of instructors. Recent offerings have included courses that count for both African studies and the following departmental credit: anthropology, biology, conservation biology, environmental studies, gender studies, global studies, government, history and sociology. For more on the current offerings in Kenya see <http://blogs.stlawu.edu/kenya>.

African–American Studies

Minor offered

Visit the African-American studies Web page at www.stlawu.edu/african-american-studies.

Minor Requirements

The minor consists of five courses from at least two different disciplines. Students may also count 3000- and 4000-level special topics and First-Year Seminar courses on African-American studies towards completion of the minor. Courses for the minor may be drawn from the following:

Art and Art History

211. African-American Art and Visual Culture.

Education

203. Contemporary Issues in American Education.

English

230. Introduction to African-American Literature.

Gender and Sexuality Studies

301. Studies in Masculinities.

Global Studies

102. Introduction to Global Studies II: Race, Culture, Identity.

204. Intergroup Dialogue

History

207. Civil War and Reconstruction

256. Slavery and Freedom in the Americas.

263. African-American History to 1865.

264. African-American History, 1865-present.

272. The New South.

273. Civil Rights Movement.

280. History of Women in America.

331. Imagining the South.

340. Race, Ethnicity and Baseball.

Philosophy

232. Africana Philosophy.

Sociology

112. Inequality.

228. Race and Ethnicity.

253. Race, Class, and Environmental Justice.

310. Slavery, Race and Culture.

Minors are also encouraged to participate in St.-Lawrence's off-campus program at Fisk -University, a historically Black college in -Nashville, Tennessee. Semester and short-term options are available at Fisk.

Anthropology

Major and minor offered; also Anthropology–African Studies major

Visit the anthropology department webpage at www.stlawu.edu/anthropology.

Major Requirements

The major in anthropology consists of 11 courses, distributed as follows:

Core Courses

- ANTH 101 (Human Origins)
- ANTH 102 (Cultural Anthropology)
- ANTH 103 (Introduction to Archaeology)
- ANTH 104 (Language and Human Experience).

There is no particular recommended sequence, but students should take the introductory course before taking 300-level or 400-level courses in the same subfield.

1. Electives (4)
Majors must take four additional courses at the 200-level or above. Up to two electives may be taken outside the department, whether on study abroad programs or in other departments on campus.
2. Advanced Topics Course (1)
All majors must complete at least one 300-level Advanced Topics course. These Advanced Topics courses allow students to build on the anthropological knowledge, theories, and methods they have learned about in lower-level courses, to delve deeply into particular topics, and to further develop their skills in reading, writing, speaking, research, interpretation, and/or analysis.
3. Capstone Experience (1)
Senior majors must take at least one 400-level capstone seminar or complete an Independent Study project (489, 490) or Honors project (498, 499). Students should consult an Anthropology faculty member well in advance about the latter two options.
4. One additional Advanced Topics Course or Capstone Experience (1)

Experiential Co-requisite

Majors must complete at least one of the following experiential learning options:

1. Study on an approved semester abroad program
2. Take an approved Community-Based Learning (CBL) course
3. Carry out independent anthropological research (short-term, summer, or semester)
4. Attend an approved field school in archaeology, cultural anthropology, primatology, forensics, or any other field of anthropology
5. Complete an internship relevant to anthropology
6. Master another language (as demonstrated by study through the 200-level)

Anthropology–African Studies Major Requirements

Anthropology offers a combined major with African Studies. A total of nine courses make up the anthropology part of the major; see African Studies for the required courses for that aspect of the combined major. Combined Anthropology–African Studies majors must take the four introductory courses that make up the core curriculum (listed above), one Advanced Topics (300-level) course, one (400-level) capstone or senior independent study project (489, 490, 498, 499), and three electives (200-level or above). At least two of the electives should be dual-listed with African Studies; no more than two electives may be taken outside the department. While the experiential co-requisite is not required of combined majors, we strongly urge African Studies combined majors to fulfill it, either on campus or through participation in an abroad program (e.g., the Kenya Program).

Minor Requirements

The minor in anthropology consists of seven courses that must include:

1. At least three of the four introductory courses:
101 (Human Origins), 102 (Cultural Anthropology), 103 (Introduction to Archaeology), 104 (Language and Human Experience);
2. At least two electives at the 200-level or above;
3. At least two courses at the 300-level (Advanced Topics) or 400-level (capstone course or independent study), taken in the department.

Honors

Majors whose achievements in anthropology courses have been of sufficiently high quality may pursue an honors project, sponsored by an honors advisor in the department and approved by an honors committee. University guidelines specify that eligibility for honors requires a grade point average of 3.5 in all courses taken in the department.

A student should declare intent to pursue an honors project by registration during the second semester in the junior year, and agree to the departmental guidelines for honors projects. These are available from the department on request.

Majors and minors in anthropology may qualify for membership in the Iota chapter of Lambda Alpha, the national collegiate honor society for anthropology. Juniors who have completed a minimum of four courses in anthropology and have maintained a 3.5 GPA in those courses and a 3.3 cumulative GPA can apply. Additional details are available from the department.

Certification to Teach Social Studies

Consult the Education section of this *Catalog*, the Education Department webpage at <http://www.stlawu.edu/education/undergraduate-programs>, and/or speak to the Coordinator of the Teacher Education program in the education department as early as possible.

Courses

101. Introduction to Human Origins.

This course explores the nature of humanity using a biocultural approach. Students learn about the history and basic concepts of evolutionary thought, the fossil and genetic evidence for human evolution, the origins of language and culture, and human biological diversification. We analyze the human species with the rest of the primates by formulating explanations concerning the biological and cultural development of the primate order over the last 65 million years. Restricted to first and second year students. Offered every semester.

102. Cultural Anthropology.

This course introduces students to the comparative study of human cultures and societies. We will learn important anthropological concepts, methods and theories as we explore topics like subsistence and exchange, kinship and marriage, and politics and law. Throughout the course, we will learn about differences and similarities between human populations, we will consider how cultures and societies have changed over time, and we will reflect on our own culture and society. Restricted to first- and second-year students. Offered every semester. *Also offered through Peace Studies.*

103. Introduction to Archaeology.

A general overview of the branch of anthropology that investigates ancient societies through the material remains they have left behind. Students learn that archaeologists engage in detailed, systematic detective work aimed at answering a wide range of questions about human behavior. The course introduces students to the history of archaeology, the main goals of archaeological research and the basic techniques of excavation, site survey and artifact analysis, as well as the famous discoveries and excavations that have broadened our knowledge about the human past. Restricted to first- and second-year students. Offered every semester.

104. Language and Human Experience.

We will tackle the fundamental questions of what language is and how languages both create and constrain human potential. Our method for addressing these questions will be comparative. That is, at every step we will consider how languages do and do not vary across cultures in terms of their form, function, and feeling. Along the way, we will examine the structure of language and the ways this structure varies across languages; we will survey the ways in which languages are transmitted from one generation to the next, and consider the ways in which languages inevitably change in the process; and we will explore language as a principal medium in which social identities are formed. No background in linguistics or anthropology is required, but a fundamental curiosity about culture and communication is expected. Offered every semester.

3000-3999. Special Topics Courses.

These special topics courses deal with various topics in anthropology at the 100 or 200 level. Offered occasionally.

208. Ancient Civilizations.

Students learn how and why relatively simple egalitarian societies made the transition to state-level civilizations via an overview of several “primary” civilizations of the Old World: Mesopotamia, Egypt, China, and the Indus Valley. In comparing and contrasting these case studies, students explore key issues from an anthropological perspective: how archaeologists investigate these early social formations, what the material remains tell us about how they functioned and flourished, the critical role of the environment and geography, and how and why the civilizations declined. Offered on rotation. *Also offered through Asian Studies.*

215. Science and Pseudoscience in Archaeology.

Lost continents, ancient astronauts, mysterious giants: In the mass media, archaeology has often been the subject of fantastic myths, frauds and endless speculation about what “really” happened. This course critically examines various popular and pseudoscientific claims about the human past, including the search for Atlantis, the shroud of Turin, Stonehenge and the Piltdown Man, and introduces students to the scientific goals, methodology and techniques of archaeology. How do archaeologists “know” things — how do they work within logical theoretical frameworks, systematically explore the patterns and contexts of archaeological remains, and interpret the material and scientific evidence to draw educated conclusions about past human experiences? Offered on rotation.

225. Peoples and Cultures of Africa.

This course surveys contemporary peoples and cultures in sub-Saharan Africa through the lens of three major themes. We will study the enduring importance and flexibility of African systems of social organization, and their relationship to religious beliefs and practices. We will learn about patterns of production and consumption in African economies, and

about power, authority and conflict in African politics. We will conclude by examining the ways in which cell phone use is reshaping social relations, economic activity, and political engagement. Throughout, we will note the centrality of social relationships to everyday life on the continent. Offered on rotation in the fall. *Also offered as AFS 225.*

241. Talking Politics.

In this course, we will think broadly about the place of rhetoric and persuasion in language, politics, and social life. What qualities make some forms of speech politically powerful? How does political powerful speech vary from one society or historical period to another? In exploring the spectrum of political speech, we will seek to understand the ways in which language and power are intertwined. No background in anthropology will be assumed, but a fundamental curiosity about culture and communication is expected. Offered on rotation.

242. Dealing With the Dead.

Ever wonder how ancient Egyptians, Mesopotamians and Mayans viewed and treated their dead? Curious about cemeteries, mummification, trophy heads and sacrifice? Through an examination of death, burial and ritual, this course will explore the treatment of the dead by ancient and living cultures around the world, and examine what types of information can be obtained from burials and human skeletal remains, including health and disease, violence, and status. Offered on rotation in the fall.

251. Humans and Other Animals.

This course explores relationships between humans and other animals, as well as ideas that humans have about animals. We will examine the similarities and differences between humans and our closest relatives: the great apes and other primates. We will consider both wild and domestic animals through topics such as hunting and herding, wildlife documentaries and working animals, zoos and pets. Finally, we will delve into the ways animals inspire the human imagination in folktales, magic, and beliefs about shamans and shape-shifters. We will examine cases from around the world, with a special focus on Africa. *Also offered as AFS 251.* Students who take the course as AFS 251 must do both research projects on African topics. Offered on rotation in the spring.

262. Ancient India.

This course explores the rich South Asian past by examining the archaeology of India, Pakistan, Sri Lanka and Bangladesh. A major goal is to understand the history of archaeological research in the region, from its colonial origins to its current controversial role in Indian religious politics. A particular focus is the Indus Valley civilization, one of the earliest state-level societies in the world. Offered on rotation. *Also offered through Asian Studies.*

290. The Human Skeleton.

Curious about the human skeleton? Interested in how the human skeleton can be studied to understand past and present ways of life? In this course, students learn about the bones (including teeth) of the human body: how they grow and how they can be identified, reconstructed, and analyzed to answer complex anthropological questions regarding health, disease, stress, and trauma through time. Much of the course is hands-on and will involve handling real human skeletal material in a laboratory setting. Recommended for students interested in anthropology, forensics, law and health-related fields. Offered periodically in the spring semester.

318. Archaeology and Identity.

How do archaeologists define identity? How do they recognize it “on the ground”? This course considers whether identity — based on gender, “race,” ethnicity, religious affiliation or class — is passively reflected in material culture or if it is imposed on ancient peoples by modern thinkers. We also explore the issue from a contemporary perspective, by examining the intersections among archaeology, nationalist agendas and the social constructions of the past. We examine several archaeological case studies, including gender roles in early Mayan and Mesopotamian societies, caste affiliations in ancient India and the politics of archaeology in Nazi Germany. Offered on rotation. *Also offered through Gender and Sexuality Studies.*

325. Evolution, Culture and Human Diversity.

What are the evolutionary mechanisms responsible for human diversity? Throughout evolutionary history, humans have been able to occupy virtually every region on the planet. In doing so, humans have undergone a process of cultural and biological diversification. This course offers a bio-cultural perspective to study the evolution and diversification of humanity. Students learn about the relationship among biology, culture and the environment, and discuss topics such as human differences in blood type, lactose intolerance, adaptation to hot and cold environments, adaptation to ultraviolet radiation, and eugenics. Recommended for students interested in biomedical sciences and related fields. Offered occasionally.

340. Myth, Magic, and Ritual.

In this class, we will explore the ways in which myth, magic, and ritual permeate social life. Drawing on ethnographic and theoretical studies of religious beliefs and practices ranging from literate "world religions" to those of small-scale, non-literate societies, we will ask fundamental questions about human belief systems and examine how far we have come in answering them in over a century of theorizing. There are no prerequisites for this course, which is designed to be accessible to those with no background in anthropology, but a high degree of participation in class discussions and extracurricular research will be required. Offered occasionally.

365. Forensic Anthropology.

How can bones help forensic scientists identify long-dead people? What is the role of forensic anthropologists in mass disaster and human rights investigations? Do shows such as "Bones" and "CSI" accurately reflect the role of forensic investigators? Through hands-on experience, students will learn how forensic anthropologists use skeletal materials and biological principles to recover, identify and evaluate human skeletal remains. By the end of the course, students will have basic knowledge of the history and goals of forensic anthropology, human osteology, and an awareness of issues relating to the search, discovery and recovery of human skeletal remains. Offered occasionally in the fall semester.

4000-4999. Special Topics Seminars.

These advanced seminars deal with significant topics in anthropology at the 300 or 400 level. Recent offerings have included Social Movements; and Language, Performance, and Power. Offered occasionally.

415. History of Archaeological Thought.

When faced with wondrous yet puzzling archaeological remains that cover the globe, what were the reactions of scholars and lay people 100 or 500 or 1,000 years ago? This course traces the intriguing history of archaeological investigation, from its antiquarian, "treasure hunt" origins to its modern incarnation as a systematic, scientifically driven discipline. We examine how the practice of archaeology has been shaped by social and political climates; explore the impact of changing notions toward historical time, human progress and the "other"; and evaluate contemporary theoretical and methodological approaches to the study of the human past. Offered as needed.

425. Environmental Conservation in Africa.

This course investigates a wide variety of environmental conservation projects in Africa. We examine efforts by colonial and post-colonial states to preserve wilderness in national parks, and how local residents have responded. We study projects developed by international organizations which link environmental conservation with economic benefits for local people. Finally, we look at indigenous African efforts to conserve natural resources and to restore degraded lands. Throughout the course, we compare and contrast the perspectives and interests of conservation biologists, government officials and local residents, among others. Offered every fall. *Also offered as AFS 425.*

430. Advances in Biological Anthropology.

What does it mean to be human? How did humans become what we are today? These two questions lie at the heart of all anthropological discourse. This course explores the bio-cultural nature of the human species through a detailed examination of the various areas of study within biological anthropology. In doing so, the course presents a critical

examination of issues, methods and theory in biological anthropology, approached from the following perspectives, each in their larger social, historical and intellectual contexts: paleoanthropology and evolutionary theory; skeletal biology and osteology; primatology; human biology; and population genetics. Offered as needed.

440. Writing Culture.

How can we uncover the fragile meanings that motivate human behavior? How can we convey something of these meanings to a wider audience? Can these meanings form the basis for a scientific (i.e. generalizable, empirical, and falsifiable) study of humanity? This course addresses core methodological questions by engaging students in a practical workshop on ethnographic research and writing. During the course, students will collaborate on group research projects as well as designing and carrying out an individual ethnographic project. In both group and individual projects, students will gain experience in making structured observations, writing and revising field notes, conducting ethnographic interviews, and analyzing interlocutors' narratives. As we explore these methodological issues, we will also engage the product of ethnographic research: ethnographic writing. In sampling a range of historical and contemporary ethnographies, we will explore where anthropology has been and ask where it may be going. Offered as needed.

489,490. SYE: Senior Projects.

Open to qualified students who wish to pursue more specialized or advanced anthropological study and research on a specific topic under the direction of a faculty sponsor. Prerequisite: permission of the instructor.

498,499. SYE: Honors in Anthropology.

Open to anthropology majors with a grade point average of at least 3.5 in all courses taken within the department. Requires completion of a long-term project beginning late in the junior year under the guidance of a faculty advisor. Details are available from the department. Prerequisite: permission of the instructor.

Art and Art History

Major and minor offered with concentrations in art history or studio art or both areas.

Visit the art and art history department webpage at www.stlawu.edu/academics/programs/art-and-art-history

Major Requirements (effective fall 2017)

Art History Concentration: 10 Units (8 art history/2 studio)

Studio:

Drawing I (AAH131) and (1) studio elective

Art History:

AAH 116 **or** 117 Survey of Art History I or II (not both)

(7) other art history courses:

(1) non-Western art history course

(1) must be a 300- or 400-level course

(1) must be a 400-level course

**One semester of a foreign language at the 200-level or higher may replace one 200-level art history course.*

Students interested in attending graduate school in art history are strongly encouraged to study at least one foreign language appropriate to their areas of interest.

Studio Art Concentration: 10 units (7 studio/3 art history)

Students interested in a Studio Art Concentration should plan to take AAH 131 Drawing I, the pre-requisite for upper-level studio art courses, as soon as possible.

Studio:

AAH 131

Drawing I

(5) studio electives. Students must take courses in at least 2 different media. Students must also have two semesters of study in at least one specific media/area.

AAH460 Senior Seminar in Visual Arts. *Offered each spring.*

Art History:

AAH 116 or AAH 117 Survey of Art History I **or** II (not both)

(2) upper-level art history courses.

Students interested in pursuing a Master of Fine Arts degree are strongly encouraged to take a modern or contemporary art history course.

Combined Concentration (Art History/Studio Art): 10 units (5 art history/5 studio)

AAH 131 Drawing I

AAH 116 or AAH 117 Survey of Art History I **or** II (not both)

(8) upper-level courses split evenly between art history and studio (4/4)

at least 2 of these 8 courses must be at the 300- or 400-level

Minor Requirements

Minor: 6 units

AAH 131 Drawing I

One art history course at any level

(4) other AAH courses with diversity of selection

**Students participating in the New York City Semester Program will receive (1) unit for the Arts Management course (NC248G). This unit will replace one of the electives in their concentration.

Certification to Teach Art

Consult the Education section of this *Catalog*, the Education Department webpage at <http://www.stlawu.edu/education/undergraduate-programs>, and/or speak to the Coordinator of the Teacher Education program in the education department as early as possible.

Honors

Departmental honors are awarded according to University and departmental policy, as outlined in the *Student Handbook*. Departmental honors is different than the Honorary Society, and is achieved only after successful completion of an honors project. A minimum GPA of 3.5 in all courses in the major is required. Students interested in pursuing an honors

project should consult with their advisor and with the chair of the department early in their junior year to begin to formulate their honors projects. Honors Projects are year-long projects that emphasize independent work. Proposals are due spring semester of the junior year, one week prior to registration.

Art History Courses

116. Survey of Art History, Part I.

A survey of the historical development of art forms from Paleolithic times to the late Middle Ages. Emphasis is placed upon the relationship between the formal aspects of art and the political and social history of a culture.

117. Survey of Art History, Part II.

A survey of the historical development of art forms from the Renaissance to the present. Emphasis is placed upon the relationship between the formal aspects of art and the political and social history of a culture. *Also offered through European Studies.*

202. Art of the Italian Renaissance.

An exploration of painting, sculpture and architecture in Italy from the late Gothic period through the High Renaissance and Mannerism. The course surveys the changing forms, themes and imagery of Renaissance art, within the larger cultural and political worlds of Florence, Siena, Rome, Urbino, Mantua and Venice. The course also introduces various ways of interpreting Renaissance imagery, through the study of religious iconography, humanism and academically based artistic theory; and through approaches ranging from the social history of art to gender-based interpretations.

Prerequisite: AAH 116 or 117 or permission of the instructor. Offered on rotation. *Also offered through European Studies.*

203. Art of the Northern Renaissance.

A study of painting and sculpture in northern and central Europe from the late 13th to the late 16th centuries. This course focuses on such artists as Jan van Eyck and Albrecht Dürer, as well as such themes as the evolving representation of nature, witchcraft and other gendered imagery in art, and the early history of printmaking. Prerequisite: AAH 116 or 117 or permission of the instructor. Offered on rotation. *Also offered through European Studies.*

204. Baroque and Rococo Art.

A study of painting, sculpture and architecture in Europe during the 17th and 18th centuries. This course explores such artists as Velázquez, Bernini, Artemisia Gentileschi and Rembrandt, evocative images of nature and mystical experience, and major architectural and decorative programs. Prerequisite: AAH 116 or 117 or permission of the instructor. Offered on rotation. *Also offered through European Studies.*

206. Art of the Middle Ages.

A study of European art history from the collapse of the Roman Empire to the 14th century. Individual sessions explore the history of symbols, saints' cults, pilgrimages and popular piety, monasticism, medieval music, and the work of medieval stone masons, manuscript illuminators, metalworkers and sculptors. Prerequisite: AAH 116 or 117 or permission of the instructor. Offered on rotation. *Also offered through European Studies.*

207. Nineteenth Century European Art.

This course deals with art in the context of the tumultuous political and social history of 19th century Europe. Beginning with the French Revolution in the late 18th century, we will examine the ways in which art participated in the revolutionary, colonial, technological, economic, and gendered discourses of the era, covering well-known and often controversial works by such artists as David, Blake, Goya, Courbet, Manet, Cassatt, Degas, Rodin, Van Gogh, and Munch. Prerequisite: AAH 116 or 117.

210. American Art.

A survey of American art from the 17th century to the eve of World War I. The emphasis is on painting, although other media are included. Prerequisite: AAH 117 or permission of the instructor. Offered on rotation.

211. African-American Art and Visual Culture.

This course will examine the history of artworks produced by and about African Americans, while at the same time analyzing issues of the construction and contestation of racial and cultural identities through visual discourse. How do images create (or help to create) identities, and to what extent can they be used to combat as well as reinforce stereotypes? We will cover a wide variety of works by such artists as Edmonia Lewis, Henry Ossawa Tanner, Aaron Douglas, Archibald Motley, Jr., Palmer Hayden, Jacob Lawrence, Horace Pippin, Norman Lewis, Romare Bearden, Betye Saar, Adrian Piper, Kara Walker, Lorna Simpson, Glenn Ligon, and Carrie Mae Weems. Prerequisite: AAH 116 or 117. Fulfills the diversity requirement. Offered on rotation. *Also offered through African-American Studies.*

212. Icons of Islamic Architecture.

This course introduces students to the study of Islamic architecture through an iconic building: the Taj Mahal. A lavish tomb built for an empress in seventeenth century India, the Taj was a sign of immense privilege and social exclusion from its very inception. Over time, it became an object of fantasy for modern European travelers, a model for British colonial architecture, a major tourist attraction, and a source of inspiration for advertisements, visual art, and opulent private homes. Why have people across the world judged the Taj Mahal so favorably? Why are religious and political groups, archeologists, and conservationists fighting for ownership of this famous building today? Does it deserve to be an icon of Islamic architecture? In order to address these questions, the course compares the Taj to other monuments in Asia, the Middle East, Europe, and north America. By the end of the course, students learn to recognize principles of design and regional influences in Islamic architecture but, more importantly, to reflect critically on how diverse cultural groups interact with Islamic monuments, both historically and in today's world. Diversity (DIV13). No prerequisite. Offered every spring. *Also offered through Asian Studies.*

217. Buddhist Art and Ritual.

This course explores the historical and contemporary practices of Buddhist art and ritual in multiple geographical, social and cultural contexts. Examples of monuments, sculptures, paintings and ritual objects made for use by practicing Buddhists across Asia are studied to address questions of patronage and identity in various time periods. A large part of the course focuses on analyzing the contemporary reception and reshaping of traditional Buddhist ideas and art forms by diverse audiences around the world. The course also considers the changing context for Buddhist art and practice in Asia in an era of globalization. Diversity (DIV13). No Prerequisite. Offered every Spring. *Also offered through Asian Studies and Peace Studies.*

218. Arts of South Asia.

By examining sculpture, architecture, painting and film from South Asia, this course introduces students to the multiple cultural strands that contribute to the histories of countries such as Afghanistan, India, and Pakistan. We also study art made by and for communities of South Asian origin in North America today. Issues of cross-cultural contacts, ethnicity and gender are emphasized and we look critically at current debates surrounding methods of studying, collecting and displaying South Asian art. Diversity (DIV 13). No Prerequisite. Offered every Fall. *Also offered through Asian Studies.*

252. History of Modern European Art.

A critical historical investigation of art production in Europe from 1900 to 1945. Special emphasis is given to the strategy and tactics of the avant-garde, the revolutionary potential of art, the public reception of modernist art, the politics of the art market, the problem of abstraction and issues of gender. Movements covered include Fauvism, Cubism, Expressionism, Constructivism, Dada, and Surrealism. Prerequisite: AAH 116 or 117. *Also offered through European Studies.*

254. A History of Contemporary Art.

The aim of this course is to provide a historical basis for an understanding of the most important developments in post-WWII art of the U.S. and Europe. Beginning with the emergence of an avant-garde in New York in the 1940s, the course investigates how artists and their publics attempted to redefine the role of art in the West. Movements studied include Abstract Expressionism, Pop Art, Minimalism, Earth Art, Conceptual Art, Feminist Art, and Postmodernism. Prerequisite: AAH 117.

256. Art and Nature.

An overview of nature as a subject of artistic representation, in ancient Mediterranean and Mesopotamian cultures, and in the West from the Renaissance to the present. This course explores the ways in which depictions of nature have both reflected and shaped constructs of the natural world, by reference to religions, philosophies and moral values. Works of art to be examined include obvious examples of nature in art, such as landscape painting, and less obvious ones, such as villas and portraits, as well as earthworks and other environmental art created by contemporary artists. No Prerequisite. *Also offered through Outdoor Studies.*

319. Gender Issues in Asian Art.

This seminar-style course explores the following themes: the representation of gender relations in art, architecture, and film; the influence of gender constructs on the making and viewing of art; changing roles of women in society; and the relationship of gender, art and religion. A central learning tool is in-class student discussion and debate about art historical literature that takes a feminist approach to the interpretation of historical and contemporary examples of Asian art or makes gender roles their central research question. No prerequisite. Offered every Spring. Diversity (DIV13). *Also offered through Asian Studies.*

337. Architecture: Symbol and Ideology.

A socio-historical and symbolic exploration of architecture, gardens, and other aspects of built environments in Europe and the United States. Themes include architecture and mysticism; buildings and gardens as metaphors of power, and as microcosms and sacred realms; the technological revolution; utopian worlds in modern architecture; and topics in current architectural theory.

355. Art Today.

Organized thematically rather than chronologically, this course engages with global contemporary art of the past two decades from a wide array of critical perspectives. Issues addressed include the interrelationships of contemporary art practices with developing technologies or “new media,” globalization and postcolonialism, identity politics and the body, and debates about “postmodernism” and consumer culture. Prerequisite: AAH 116 or 117.

389, 390. Special Projects in Art History, I and II.

Individual study for fine arts majors or especially qualified students. Prerequisite: consent of the supervising professor and department chair. Hours to be arranged.

4000-4999. Special Topics in Art.

Topics relate to the history, practice or theory of art. Open to all students, but depending on the topic prerequisites may be required. The content of each course or section of these 300-level or 400-level special topics courses varies and will be announced each semester.

430. SYE: Critical Theory and the Visual Arts

Designed for senior Art and Art History majors who are interested in graduate school or careers in the arts, this seminar explores the ways in which contemporary critical and theoretical discourses have challenged and in some cases transformed the practice of art history and criticism. Students will practice incorporating (or challenging) within their written work theoretical perspectives including those of structuralism and semiotics, post-structuralism and deconstruction, and feminist, queer, and postcolonial theory. Restricted to senior Art and Art History majors only.

437. SYE Museums Seminar

A senior seminar focusing on art museums and the issues they currently face, as well as on the profession of museum curating and on curatorial discourse. Readings and class discussions cover such topics as the history of collecting and the origins of major museums; the roles of museums in constructing and communicating cultural difference; and the new museum, as redefined by post-colonial and post-modern thought.

489, 490. SYE: Independent Study.

An independent study for senior majors that builds upon the student's prior work in art history and is directed toward developing superior skills in research and writing. A public presentation of one's research project is required. Written proposals are required and are due one week prior to course registration. Prerequisites: permission of the instructor and department chair (must be obtained the semester preceding the course).

495, 496. Senior Project: Honors in Art and Art History.

Details of the program are available from the department chair. An honors project involves yearlong independent research, culminating in a public presentation of the student's thesis. Prerequisite: a minimum GPA of 3.5 in all courses in the major. Proposals must be submitted spring semester of the junior year, one week prior to registration. Permission of the department is needed.

Studio Courses

All studio courses are one-unit courses and meet five hours per week. Students interested in an Art and Art History major should plan to take AAH131 Drawing I, the pre-requisite for upper-level studio art courses, as soon as possible.

131. Drawing I.

This course is the prerequisite for all upper level studio art courses. Potential majors and minors should take Drawing I as early as possible in their academic careers. The emphasis is on the development of perceptual, compositional, and critical drawing skills. Direct observation of still-life and figurative subjects lead to more abstract modes of expression. Various media are used. Offered every semester. Registration limited.

232. Drawing II.

This course continues to emphasize developing observational skills but focuses more on conceptual issues and ideas of expression. Various media are used. Prerequisite: AAH 131. Registration limited.

228. Color.

This course explores the interaction of color through the classic exercises of Josef Albers. Using color aid paper and paint, students will work through versions of Albers projects that explore the highly relative nature of color. A wide range of the unpredictable and elusive properties of color will be examined and manipulated. Students will develop a keen understanding of the function of color in art and design and sharpen their ability to perceive color relationships. The course will also examine ideas about color through artists' writings and by studying color-related exhibitions. Students will look at contemporary approaches to using color alongside of Albers' established ideas. Prerequisites: AAH 131. Registration limited.

229. Painting I.

The emphasis is on developing an understanding of pictorial space in painting and use of basic elements such as color, value, form, composition and surface. Through structured projects, students learn fundamental painting techniques, make the transition from drawing into painting, and understand the process of visual perception. Presentations of historical and contemporary artists complement the studio practice. Students are expected to invest significant work time

outside of class, attend exhibitions, actively participate in discussions and critiques, and devise and execute their own final project. Prerequisite: AAH 131. Registration limited.

230. Painting II.

Students continue to develop their understanding of the elements of painting while engaging a more complex set of problems and concepts. Studio practice is contextualized through discussions on issues in aesthetics, art historical antecedents and contemporary approaches to art. Requirements include a presentation on an artist, reading scholarly essays and artists' writings, response papers, exhibitions reviews, participation in discussions and critiques, and a visual journal. Students are expected to invest significant work outside the class. Prerequisites: AAH 131 and 229. Registration limited.

238. Figure Sculpture.

Figure Sculpture progressively builds on the students' abilities to observe, model and render the human figure in three dimensions with accuracy, inventiveness and expression. Using ceramic clay and working from a live model, students will quickly learn and then practice the skills, tools and processes needed to accurately render figurative works. Prerequisite: AAH 131.

239. Sculpture and Extended Media I.

This is a course for expressing one's ideas in three dimensions and through a variety of media. Students receive an introduction to the basic techniques, materials and terminology of 3D design, sculpture and contemporary art in general. Prerequisite: AAH131. Registration limited.

240. Sculpture and Extended Media II.

A continuation of AAH 239. Students are expected to expand their ideas into more fully resolved and conceptually challenging works. Collaboration, fabrication/building techniques using wood and metal, investigation of tactical media approaches and other materials as determined by the student's interest and conceptual direction. Prerequisites: AAH 131 and 239. Registration limited

241. Printmaking I.

An introduction to relief and intaglio processes, this course involves drawing, processing, proofing, and editioning prints. Students are also exposed to historical and contemporary ideas and images related to making prints. Prerequisite: AAH 131. Registration limited.

249. Ceramics I.

A course for expressing one's ideas through the most basic and malleable material – clay. Processes covered include traditional hand-building techniques such as pinch, slab, coil, solid and hollow modeling; as well as wheel throwing and other processes. While a wide range of processes is introduced, the emphasis of this course will remain on the ideas communicated through the forms that students create. Prerequisite: AAH 131. Registration limited

250. Ceramics II.

A continuation of Ceramics I. Students are expected to expand their ideas into more fully resolved and conceptually challenging works. Fabrication/building techniques such as press molding, slip casting, installation work and mixing media are discussed. More advanced surfacing techniques such as ceramic decals, printing on clay, experimental finishes and glaze chemistry are explored. Prerequisites: AAH 131 and 249. Registration limited.

259. Photography I.

Photo I is an introduction to the theory, techniques and process of black and white film photography. This course will emphasize photography's potential for creative problem solving and self-expression in an art context. This class will consist of slide lectures, presentations, and screenings featuring contemporary artists, camera demonstrations, in-class

exercises, discussions and most importantly, critiques of your work. Students are expected to provide their own SLR camera. Prerequisite: AAH 131. Registration limited.260. Photography II.

Photo II delves into the theory, techniques and processes of digital photography. This class will consist of readings, presentations, and screenings featuring contemporary artists, technical demonstrations, in-class exercises, discussions and most importantly, critiques of your work. Students are expected to provide their own Digital SLR camera. Prerequisites: AAH 131 and 259. Registration limited.

262. Video Art.

In this course, students will gain foundational skills of four-dimensional (moving) imaging software and to create animated and video based art works. Students will study a range of artists who use video, animation, installation and interactivity in their work, and experiment with the creation of these types of work. By the end of the semester students should have knowledge of industrial standards in editing and effect software, as well as having the ability create art with advanced video functionality. Prerequisite: AAH 131.

269. Digital Media and Culture I.

A combination studio/seminar course that explores the major theoretical issues surrounding the continually evolving culture of digital technology and the effects on various aspects of contemporary life including: aesthetics and perception, creative production, morality, contemporary art discourse, visual culture, entertainment, identity and other forms of social effects/affects. Studio projects will investigate the creative potentials of digital photography, illustration, video and other formats. Projects will respond conceptually to theoretical issues that are being discussed in class. Prerequisites: AAH 131. Also offered as FILM 269. Registration limited.

270. Collaboration Across the Arts.

The direction of this course is determined largely by the unique combination of students who participate. Students form groups of two or three to work on a collaborative project of their own design reflecting their collective interests. For example, a pair of students may create a multimedia work that draws connections between image and sound. Students critique works in progress, study exemplary works, discuss relevant aesthetic issues, trace connections across media and consider strategies for collaborative work. Offered every year. Prerequisite: AAH 131 and permission of the instructor. *Also offered as MUS 270 and PCA 270.*

284. Book Art.

Artist's books are works of art that are made real in the form of a book. This course will examine the interplay between words and images as well as the sequential movement from page to page that this form offers. Students will explore how both original and appropriated texts and images are juxtaposed to create meaning. A variety of binding techniques and formats will be presented. Creative writing and image development will be emphasized in the course with revision and multiple drafts required for projects. Prerequisite: AAH 131. Registration limited.

329. Painting III/IV.

The primary aim is to examine painting in the 21st century through both theory and practice. The course investigates painting's historical antecedents as well as contemporary trends and currents. Students develop a coherent body of paintings that explores an individual direction and demonstrates knowledge of contemporary influences and historical precedents. Lectures, discussions, critiques and occasional visits to museums/galleries complement studio production. Students are required to do weekly readings and exhibition reviews, maintain a research journal and give an artist lecture at the end of the term. Prerequisites: AAH 131, 229 and 230. Registration limited.

341. Printmaking II.

A continuation of Printmaking I, with the introduction of lithography, screenprinting, and other processes. Further emphasis is given to thematic development in one's work. Study of contemporary printmakers and more specialized print techniques are pursued. Prerequisite: AAH 131 and 241. Registration limited.

360. Photography III.

Prerequisites: AAH 131, 259 and 260. Registration limited.

369. Digital Media and Culture II.

A continuation of Digital Media and Culture I. Students will be expected to spend time developing innovative and complex ideas and forms and advancing their vision(s) via digital media processes. This is a combination studio/seminar course and includes videos, readings and reflections, and written analyses. Prerequisites: AAH 131 and 269.

389, 390. Special Projects in Art I and II.

Individual study for studio majors or especially qualified students. Prerequisite: consent of the supervising professor and department chair. Written proposals are required the semester before intended project. Hours to be arranged.

460. Senior Seminar in Visual Arts.

This course is required of all Art and Art History majors pursuing a concentration in studio art. This course is designed to provide a basis for continuing one's creativity in a professional and effective manner following graduation. Additionally, it is intended to give students a greater understanding of exhibition/gallery practices and to enlighten the student in the areas of independent art production: specifically the professional and personal challenges/rewards that lie therein. This course is comprised of readings, written assignments, studio work, and an exhibition. Offered every spring semester.

489, 490. SYE: Independent Study.

An independent study for senior studio majors that builds upon the student's prior work in studio art and is directed toward developing superior skills in research and studio work. A public presentation of the semester's work is required. Prerequisites: permission of the overseeing instructor and the department. Written proposals are required and are due the semester before intended project, one week prior to registration.

495, 496. Senior Project: Honors in Art and Art History.

Details of the program are available from the department chair. Honors Projects are yearlong projects that emphasize independent work and superior achievement. Students interested in pursuing an honors project should consult with their advisor and with the chair of the department early in their junior year to begin to formulate a proposal. A public exhibition of the year's work, as well as a defense of the work before departmental faculty, is required. Prerequisite: a minimum GPA of 3.5 in all courses in the major. Proposals must be submitted spring semester of the junior year, one week prior to registration. Permission of the department is needed.

Asian Studies

Combined major and minor offered

Visit the Asian studies webpage at www.stlawu.edu/asian-studies.

Combined Major

Combined majors are offered in Asian studies with history, government and religious studies. These departments have agreed that their courses listed for Asian studies credit may also count for the departmental major.

In addition to fulfilling requirements for the disciplinary major, students must complete seven Asian studies courses distributed as follows:

1. At least one multi-regional course.

2. One semester-long course in an Asian language.
3. **Five electives**, including at least one course at the 300 or 400 level. No more than three of these courses can be selected from a single department or focus on a single region (East Asia/South Asia/Southeast Asia).

Asian Studies–Government

Government majors pursuing a combined major in Asian studies must take a minimum of seven government courses distributed as follows:

1. **Core Courses (3)**: Government majors must complete GOVT 103 Introduction to American Politics and GOVT 105 Introduction to Comparative Politics. Additionally, students must take either GOVT 108 Introduction to International Politics or GOVT 206 Political Theory. One of these three introductory courses must be designated writing-intensive and should be completed before the end of the sophomore year. These three introductory courses must be taken in residence on the St. Lawrence campus.
2. **Research Seminar (1)**: During the sophomore or junior year, ideally after completion of the writing-intensive course, students must take one of the government Research Seminars (290, 291, 292, 293). Students may take only one research seminar.
3. **Asian Politics Course (1)**: Majors will take either GOVT 322 Chinese Politics, GOVT 324 Asia: Beyond the Great Wall, or a special topics course on Asia within the government department.
4. **Elective Courses (2)**: These may be upper division elective courses. Students may count up to one unit of internship coursework or one unit of independent study toward the elective requirements. No more than one of the elective courses may be taken off campus. Two of the five required Asian Studies electives must be outside the government department. One of the electives must include a research component.

Asian Studies–History

History majors pursuing a combined major with Asian studies must fulfill the regular history major requirements, though they must take a minimum of nine history courses rather than the standard ten. The nine required history courses must include a research seminar and at least one course each in European history, North American history and Asian history.

Two of the five required Asian Studies electives must be outside the history department. One of the electives must include a research component.

Asian Studies–Religious Studies

Religious studies majors pursuing a combined major with Asian studies must fulfill the regular religious studies major requirements, though they must take a minimum of nine courses rather than the standard ten.

Two of the five required Asian Studies electives must be outside the religious studies department. One of the electives must include a research component.

Minor

For the minor, students must take six Asian studies courses as follows:

1. At least one multi-regional course.
2. One semester-long course in an Asian language.
3. **Four electives**, including at least one course at the 300 or 400 level. These courses must be selected from more than one department and must focus on more than one region (East Asia/South Asia/Southeast Asia).

Courses should be selected in consultation with the minor advisor. Electives must be courses taken at St. Lawrence University and/or full-credit courses offered in China, India, Japan or Thailand. Students must maintain a minimum GPA of 2.0 in courses submitted for the minor.

Multi-Regional Courses

Departmental Offerings

Anthropology

208. Ancient Civilizations.

Art and Art History

217. Buddhist Art and Ritual.

Film and Representation Studies

271. World Cinema.**

Global Studies

225. Asian Political Economy in the Global Age.

Government

324. Asia: Beyond the Great Wall

History

125. Early Asian Civilizations. *Also offered as HIST 105.*

126. Modern Asia. (also offered as HIST 106)

Philosophy

103. Philosophy East and West: An Introduction.

223. Asian Philosophy.

Religious Studies

222. Buddhist Religious Traditions.

224. Islamic Religious Traditions.

Elective Courses

Departmental Offerings

Anthropology

208. Ancient Civilizations.

Art and Art History

212. Icons of Islamic Architecture. (*South Asia*)

217. Buddhist Art and Ritual. (*East/South Asia*)

218. Arts of South Asia. (*South Asia*)

319. Gender Issues in Asian Art. (*South Asia*)

Biology

258. Ethnobotany. (South/Southeast Asia)

380. Tropical Ecology.** (*South/Southeast Asia*)

Film and Representation Studies

271. World Cinema.**

Global Studies

225. Asian Political Economy in the Global Age.

Government

105. Comparative Politics.** (*East Asia*)

291. Research Seminar: China's Rise. (*East Asia*)

322. Chinese Politics. (*East Asia*)

324. Asia: Beyond the Great Wall

History

126. Modern Asia. Also offered as HIST 106.

282. Modern Japan. (*East Asia*)

292. Revolutionary China. (*East Asia*)

377. Colloquium in Asian History (*topics vary*)

475-476. SYE: Seminar in Asian History. (*East Asia*)

Modern Languages and Literatures

Chinese 101,102. Elementary Chinese.

Chinese 103, 104. Intermediate Chinese.

Chinese 201, 202, Advanced Chinese.

232. Cultures of China.* (East Asia) Also offered as LTRN 232 and FILM 232.

234. Chinese Literature and Film.* (East Asia) Also offered as LTRN 234 and FILM 234.

489, 490. SYE: Independent Study. (*East Asia*)

Music

210. Musics of the World.**

244. Musics of South Asia. (*South Asia*)

Philosophy

103. Philosophy East and West: An Introduction.

223. Asian Philosophy.

Religious Studies

221. Religious Life of India. (*South Asia*)

222. Buddhist Religious Traditions.
224. Islamic Religious Traditions.
226. The Religious Life of Japan. (*East Asia*)
227. The Religious Life of China. (*East Asia*)
228. Fantasy Religion. (East Asia). Also offered as REL 218.
331. Pilgrimage as a Spiritual Journey.
334. The Ways of the Gods: Shinto in Modern Japan. (*East Asia*)
- 450, 451. Directed Studies in Religion.**

**Literature in Translation courses*

***These courses receive Asian studies credit at the discretion of the instructor and the Asian studies program.*

Special Topics courses with Asian content may be counted toward the minor and combined majors at the program coordinator's discretion.

Off-Campus Study

Students majoring or minoring in Asian studies are strongly encouraged to study in Asia for a semester or more. They should consult early with the Coordinator of the Asian Studies program, coordinators of the individual study abroad programs, and with advisors at the Center for International and Intercultural Studies in Carnegie Hall. See the CIIS website for more information: <http://www.stlawu.edu/ciis/programs>.

Biochemistry

Major offered

More information on this interdisciplinary major and important advice on planning for this major can be found at www.stlawu.edu/biochemistry.

Advanced Placement Exams

Students scoring a 4 or 5 on the AP biology exam should enroll in the first semester of General –BIOL 101 for which they receive 1.25 units of credit toward the major and graduation. Students who do well in 101 may be permitted to bypass the second semester of General BIOL 102, receiving the 1.25 units of credit for this course as well as standing to take courses that require 102. Approval of this option to bypass the 102 courses is determined by the General Biology course instructors. Although AP scores of 4 or 5 automatically nominate students for this bypass option, students may voluntarily choose to stay in the General Biology course sequence and enroll in BIOL 102.

Students who have taken AP chemistry in high school and received a grade of 4 or 5 on the advanced test are eligible to receive one unit of college credit for CHEM 103. These students are eligible to enroll in CHEM 104 in the spring but may choose to enroll in CHEM 103 in the fall if they prefer.

Major Requirements

Biochemistry majors must complete the following courses:

Biology

101. and 102. General Biology.

245. *or* 246. Genetics.

250. Introduction to Cell Biology.

Chemistry

103. and 104. General Chemistry.

221. and 222. Organic Chemistry.

342. Biophysical Chemistry.

Biochemistry

309. Biochemistry.

394. Research Methods in Biochemistry.

395. Research Methods in Molecular Biology.

415. Advanced Biochemistry.

A senior project following either chemistry *or* biology department guidelines.

Physics

103,104. College Physics. *or*

151,152. University Physics.

Mathematics

135. Calculus I. *and*

136. Calculus II.

Senior Research and Honors Project

Under the direction of a faculty mentor, students conduct their senior research or honors research project following either chemistry or biology department guidelines. To graduate with honors in biochemistry, students must have a biochemistry GPA (combined chemistry, biology and biochemistry required courses) of 3.5. Students working toward graduating with honors normally take BIOCH 489 in the fall semester and BIOCH 499 in the spring semester.

Courses

309. Biochemistry.

The course is organized around several themes: the relationship of structure to function in biomolecules, production of energy, regulation and control of metabolism. Topics covered to illustrate these themes include enzyme action and regulation, hemoglobin and the transport of oxygen and carbon dioxide, metabolism of carbohydrates for energy production, structure and function of biological membranes, and structure and function of molecules involved in transmission and expression of genetic information. Prerequisite: CHEM 222 with a grade of 2.0 or higher or permission of instructor. Counts toward the neuroscience major (cellular track). *Also offered as BIOL 309 and CHEM 309.*

394. Research Methods in Biochemistry. (0.5 unit)

This course focuses on introducing basic laboratory techniques and skills that are common in fields related to biochemistry. Attention is paid to both theory and application. Students keep a detailed laboratory notebook and write

up an extended project in the style of a journal article. Prerequisites: CHEM 222 and any one of BIOL 231, 245, 246, 250, 391 or CHEM 309 (which can be taken as a co-requisite). Required for the biochemistry major and also carries credit toward the biology major/minor and the chemistry major/minor. Offered only in the spring semester for the first seven weeks. *Also offered as BIOL 394 and CHEM 394.*

395. Research Methods in Molecular Biology.

Molecular techniques have revolutionized how biologists address problems in genetics, medicine, ecology, systematics, conservation and many other fields. Students obtain hands-on experience using basic and advanced molecular techniques, such as western blotting, nucleic acid (DNA and RNA) isolation and purification, DNA sequencing, gel electrophoresis and polymerase chain reaction (PCR), to study gene expression and genetic variability. The molecular techniques studied are the same used in laboratories worldwide. In addition to gaining practical experience in the laboratory, students learn about the theories behind each molecular protocol and study how biologists apply molecular techniques to answer fundamental biological questions. Prerequisites: BIOL 245, 246, 250 or 394. *Also offered as BIOL 395.*

415. Advanced Biochemistry.

A variety of topics are covered in depth, depending on student interest. The course begins with an overview of metabolism and its hormonal regulation. Other topics may include protein synthesis and targeting, molecular immunology, sensory systems and neurotransmission, hormone action, membrane transport, and photosynthesis. Through both written and oral presentation, students develop their abilities to use the scientific literature and communicate in science. Prerequisite: CHEM 309 or permission of instructor. Counts toward neuroscience major (cellular track). *Also offered as CHEM 415.*

468,469. SYE: Tutorial Research. (.5 or 1 unit)

Mentored study and research that is not experimental in design yet requires the analysis of primary literature-based data and the integration of this with current knowledge of the subject matter. A thorough understanding of the methodologies used in acquiring the published data is critical for this integration. This research will be presented according to either the biology or chemistry department guidelines. Prerequisite: sponsorship by a faculty member.

489, 490. SYE: Experimental Research. (.5 or 1 unit)

Research projects for students desiring to pursue directed, experimental research in biochemistry. Students integrate acquired research skills and subject knowledge to collect original experimental data and to analyze the results in reference to the existing scientific primary literature. Under the direction of a faculty mentor, students conduct their SYE research project following either chemistry or biology department guidelines. Prerequisite: sponsorship by a faculty member.

499. Honors Projects. (.5 or 1 unit)

Graduation with honors in biochemistry requires exceptional academic accomplishment as demonstrated by a biochemistry (combined biology, chemistry and biochemistry) GPA of 3.5 or above and the completion of a second semester of SYE honors research. Under the direction of a faculty mentor, students conduct their SYE honors research project following either chemistry or biology department guidelines. Prerequisite: sponsorship by a faculty member.

Biology

Majors and minor offered; *see also* Biochemistry (administered jointly with chemistry), Biology–Physics (administered jointly with physics), Conservation Biology, and Neuroscience (administered jointly with psychology). A combined major is offered with Environmental Studies.

Visit the biology department web page at www.stlawu.edu/biology.

Courses for the Non-major

BIOL 101, 102 and 121 are open to all students and fulfill the natural science with lab distribution. BIOL 101 and 121 fulfill the environmental literacy distribution requirement BIOL 101 and 102 also serve as the year of general biology required by many professional schools.

Advanced Placement Exams

Students scoring a 4 or 5 on the AP biology exam or a 6 or 7 on the IB exam should enroll in the first semester of General Biology (BIOL 101) for 1.25 units of credit toward the major and graduation. Students who do well in 101 may be permitted to bypass the second semester of General Biology course (BIOL 102), receiving the 1.25 units of credit for this course as well as the right to take courses that require BIOL 102. Approval of this option to bypass the BIOL 102 course is determined by the General Biology course instructors. Although AP or IB scores noted above automatically nominate students for this bypass option, students may voluntarily choose to stay in the General Biology course-sequence and enroll in BIOL 102.

Major Requirements

Students entering St. Lawrence with an interest in biology should enroll in General Biology (BIOL 101 and 102) during their first year. They should also seek early advisement by a biology faculty member. Biology majors must complete a predetermined set of courses (outlined below). Continuation in upper level biology electives courses requires a grade of 2.0 or higher in BIOL 101 and 102.

Required Courses

Full course descriptions can be found by visiting the *Catalog* section for the sponsoring department.

I. Specific Courses

Students must take all of the following courses:

- BIOL 101 and 102. General Biology.
- CHEM 103 and 104. General Chemistry.
- STAT 113 Applied Statistics or the following two MATH courses: 135. Calculus I. *and* 136. Calculus II.

II. Electives

Students take six additional units of biology coursework, of which 2 must be at the 300 or 400 level. Students are expected to select two electives from each of the following three areas: Cell and Molecular Biology, Organismal Biology, and Ecology and Evolutionary Biology.

A. Cell/Molecular Biology

- 231. Microbiology. (*with lab*)
- 245. Genetics.
- 250. Introduction to Cell Biology.
- 252. Research Methods in Cell Biology. (*with lab*)
- 288. Introduction to Neuroscience. (*with lab*)
- 309. Biochemistry.
- 333. Immunology. (*with lab*)

- 350. Cancer Biology (*with lab*)
- 387. Cellular Mechanisms of Memory.
- 388. Drugs and the Brain. (*with lab*)
- 389. Advanced Neuroscience.
- 391. Scanning Electron Microscopy. (*with lab*)
- 392. Research Methods in Fluorescence and Confocal Microscopy. (*with lab*)
- 394. Research Methods in Biochemistry. (*with lab*)
- 395. Research Methods in Molecular Biology. (*with lab*)
- 415. Advanced Biochemistry.

B. Organismal Biology

- 209. Vertebrate Natural History. (*with lab*)
- 215. Fundamentals of Animal Biodiversity. (*with lab*)
- 218. Ornithology. (*with lab*)
- 224. Biology of Plants. (*with lab*)
- 226. Comparative Animal Physiology (*with lab*)
- 227. Mammalogy. (*with lab*)
- 231. Microbiology (*with lab*)
- 232. Laboratory Animals. (*with lab*)
- 258. Ethnobotany. (*with lab*)
- 315. Human Nutrition.
- 325. Mycology. (*with lab*)
- 341. Anatomy and Physiology I. (*with lab*)
- 351. Anatomy and Physiology II. (*with lab*)
- 353. Human Embryology.
- 370. Hormones, Disease and Development.

C. Ecology and Evolutionary Biology

- 215. Fundamentals of Animal Biodiversity. (*with lab*)
- 218. Ornithology. (*with lab*)
- 221. General Ecology. (*with lab*)
- 227. Mammalogy. (*with lab*)
- 258. Ethnobotany. (*with lab*)
- 319. Plant Systematics. (*with lab*)
- 330. Ecology of Lakes and Rivers. (*with lab*)
- 335. Winter Ecology. (*with lab*)

343. Evolution. (*with lab*)

360. Marine Ecology.

380. Tropical Ecology.

440. Conservation Biology. (*with lab*)

III. Laboratory Requirement.

Students must complete the laboratory requirement within their six elective courses in one of the following ways: 1) four units of course work with a laboratory component; 2) three units of course work with a laboratory component and a one unit of a lab or field based SYE; **or** 3) two units of course work with a laboratory component and one unit of a research methods course with lecture and laboratory.

Independent Research and the Senior Year Experience

Students who wish to conduct independent research may do so by taking customized research methods courses (BIOL 381 and 382), or as seniors, by taking BIOL 468 and 469 (SYE: Tutorial Research) and BIOL 489 and 490 (SYE: Experimental Research). Students must discuss possible projects with members of the biology faculty. For more detail, see www.stlawu.edu/biology.

The biology department has formally adopted a Research Integrity Policy model based on the federal Public Health Service policy of the Office of Research Integrity (see www.ori.dhhs.gov). All faculty and students are expected to adhere to this policy while engaged in their research. Any concerns or questions should be brought to a biology department co-chairs.

Honors in Biology

To graduate with honors in biology normally requires 1 unit of independent research and 1 unit of honors -research in different semesters, a 3.5 major GPA, submitting a signed honors nomination form, a thesis, a public presentation, and approval of the honors project committee. A student wishing to be considered for honors in biology should enroll in SYE research (BIOL 468, 469, 489, or 490) during the first semester of research (usually, but not limited to, the fall semester of the senior year) for 1 unit of credit. The student, in consultation with the project advisor, should choose an honors project committee comprised of the project advisor and two other faculty members appropriate to the topic (one of these two may be from another department). This honors committee should be formed as soon as possible in the first semester of research.

At the end of the first semester, the honors project advisor, in consultation with the other members of the honors committee, evaluates a formal research proposal and progress toward the completion of the project. If the project is deemed worthy of honors in biology, the student is nominated as a candidate for honors and submits the honors nomination form to one of the department co-chairs. The student can then enroll in BIOL 499 (SYE: Honors Research) for the second (usually spring) semester for 1 unit of credit. However, only one unit can count toward the minimum requirements of the major.

Honors in the Environmental Studies–Biology Combined Major

To graduate with honors in the environmental studies–biology combined major, students must maintain a GPA of 3.5 or higher in all biology and environmental studies courses and complete an honors research project having an environmental component or emphasis. The timetable and guidelines are the same as for honors in biology, except that the project must be guided by a project committee comprised of at least one faculty member from *both* environmental studies and biology. Also, the student is nominated for honors by both the environmental studies and biology faculty.

Minor Requirements

The minimum course requirements for a minor in biology are the two semesters of General Biology (BIOL 101 and BIOL 102) plus three additional units of biology courses above the 100 level. At least one of the additional units must be at the 300 level and two of the additional units must have a laboratory component. Independent research courses (BIOL 368, 369, 381, 382, 489, and 490) cannot be used for the biology minor. The department does not require specific courses, but does strongly recommend that minors select courses that provide breadth. Advanced placement for the minor is the same as for the major.

Certification to Teach Biology

Consult the Education section of this *Catalog*, the Education Department webpage at <http://www.stlawu.edu/education/undergraduate-programs>, and/or speak to the Coordinator of the Teacher Education program in the education department as early as possible.

Courses

101. General Biology. (*with lab*) (1.25 units)

An introduction to ecology, evolution, conservation of biological diversity, and comparative adaptation using an investigative and problem-based approach. Structured, skill-based lab exercises allow students to develop, perform and present an in-depth independent research project. One three-hour lab, a one-hour peer study session and three lectures each week. Required for biology, biochemistry, conservation biology and neuroscience majors. Acceptance into 102 requires a grade of 2.0 or higher in 101. Offered every year in the fall semester. Also required for biochemistry, conservation biology, and neuroscience (cellular and behavioral) majors.

102. General Biology. (*with lab*) (1.25 units)

An introduction to cell biology, genetics and physiology, using an investigative and problem-based approach. Structured, skill-based lab exercises allow students to develop, perform and present an in-depth independent research project. One three-hour lab, a one-hour peer study session and three lectures each week. Offered in the spring semester. Required for biology, biochemistry, conservation biology and neuroscience majors. Acceptance into other biology courses, including 101 if 102 is taken first, requires a grade of 2.0 or higher in 102. Offered each spring semester. Also required for biochemistry, conservation biology, and neuroscience (cellular and behavioral) majors.

121. The Natural World. (*with lab*)

A biology-ecology course with laboratory for non-majors focusing on ecological processes and challenges facing individual organisms, populations, communities and ecosystems. Students visit a variety of local habitats to study ecosystems and to learn the natural history and identification of Northeast trees and animals. Students will observe birds, follow animal tracks, take nature photos, conduct a foraging experiment and discuss climate change. This lecture and outdoor lab course does not count toward the biology major but does count toward the outdoor studies minor. Fulfills the natural science with lab and environmental literacy distribution. Offered each spring semester. *Also cross-listed with Outdoor Studies.*

209. Vertebrate Natural History. (*with lab*)

A field-oriented course that explores the biology of vertebrate animals, with emphasis on understanding the diversity, life history, evolution and unique adaptations of vertebrates. The laboratory focus is on developing scientifically sound skills in observation and on learning to identify local vertebrates. Some extra class meetings are required for regional field excursions and for observing and identifying local vertebrates at the times of day when they are active. Offered alternate fall semesters. Prerequisite: BIOL 101,102. *Also offered as ENVS 209 and through Outdoor Studies.* Also counts as a biodiversity course for the conservation biology major.

215. Fundamentals of Animal Diversity. (*with lab*)

Many of our conservation and biomedical efforts focus on managing animal populations. To be effective in either endeavor, scientists need to understand how animals feed, reproduce, and interact with the other species and their environment. This course will cover these and other biological traits of a variety of animal phyla (mainly invertebrates), which are especially important to the natural function of coral reefs, rainforests, and other ecosystems, and which influence human agriculture, fisheries, and medical issues. This course is ideal for sophomores and juniors who are looking to (a) broaden their understanding of biodiversity, (b) establish good foundations for upper level courses, and (c) discover animals in the field. Lectures and one laboratory per week. Prerequisites: BIOL 101, 102 or equivalent. *Also offered through Outdoor Studies.* Also counts as a biodiversity course for the conservation biology major.

218. Ornithology. *(with lab)*

This course provides students with a basic understanding of avian biology. We learn about the diversity of birds through an exploration of avian evolution, physiology, taxonomy and ecology. Students are expected to become proficient in field identification of Northern New York birds by sight and sound, as well as their natural history. Lectures and lab. Labs are generally outdoors, and some Tuesday morning classes after Spring Break will meet early (approximately 6:30 a.m.) for field trips. One mandatory full-day weekend field trip at the end of the semester. Recommended course: BIOL 221. Also counts as a biodiversity course for the conservation biology major.

221. General Ecology. *(with lab)*

A study of the factors influencing the abundance and distribution of species, including interactions between individuals and their physical/chemical environment, population dynamics and the structure/function of communities and ecosystems and their responses to disturbance. Labs are field-oriented and emphasize characteristics of local communities or specific techniques such as estimation of population density. Lectures and one lab per week. Prerequisites: BIOL 101, 102 or equivalent, or permission of instructor. Offered each semester. *Also offered as ENVS 221 and through Outdoor Studies.*

224. Biology of Plants. *(with lab)*

A study of the evolution, morphology, physiology and life histories of mosses, ferns, conifers, flowering plants and their relatives, in an ecological context. Indoor labs survey the morphology and reproductive characters of the major groups of plants as well as the structure and function of plant organs and tissues. Outdoor labs emphasize ecology, identification and economic uses of local plants. Lectures and one laboratory per week. Prerequisites: BIOL 101, 102 or equivalent or permission of instructor. Also counts as a biodiversity course for the conservation biology major.

227. Mammalogy. *(with lab)*

The objectives of the course are to become familiar with the diversity of mammalian species as well as their distribution, morphology, taxonomy and ecology. A special emphasis is placed on learning to identify mammals of New York State in the field and from specimens. Lab focuses on learning modern methods for studying mammals in the field. This course includes a unit on Marine Mammals through a camping trip on Cape Cod which requires students to miss their oncampus classes, sports practices or games for four days early in the semester. Offered alternate fall semesters. Prerequisites: BIOL 101, 102 or equivalent. *Also offered through Outdoor Studies.* Also counts as a biodiversity course for the conservation biology major.

230. Food from the Sea. *(with lab)*

Throughout history human populations and cultures have been shaped by their use of finfish and shellfish from the marine biome. What species have been exploited, in what ways, how has this changed over time, and can these marine resources be used in a sustainable way to feed the growing global population of humans? This course will explore these larger questions as it uncovers (a) the biodiversity and ecology of marine fishery organisms (whales, fish, squid, clams, etc.), (b) the impacts of human predation on these organisms, (c) efforts to aquaculture and conserve certain seafood species, and (d) human health issues related to seafoods. This course will be based largely on discussions of class readings (there is a moderate to high reading load) and projects that explore sustainable uses of marine and even freshwater species. This class is ideal for sophomore and junior Biology, Biology–Environmental Studies, and Conservation Biology

majors. Prerequisites: BIOL 101 and 102. Offered each spring. Also counts as a conservation science course for the conservation biology major.

231. Microbiology. (*with lab*)

An introduction to the structure, physiology, ecology, genetics and evolution of microscopic organisms including bacteria, archaea and protists. Students examine the metabolic activities and adaptations of these organisms and their interactions with the environment. The ecological, medical and industrial importance of microbes and microbial communities is explored. The laboratory involves microbial cultivation, isolation and identification as well as analysis of microbial presence and activity. Laboratory skills acquired in this course are applicable to a variety of fields including genetics, environmental studies, health and industry. Lectures and one laboratory per week. Prerequisites: BIOL 101,102; pre- or co-requisite: CHEM 103 or permission of instructor. Also counts as a biodiversity course for the conservation biology major.

232. Laboratory Animals: Ethics, Care and Techniques. (*with lab*) (.5 unit)

An introduction to the techniques, use and care of laboratory animals. Students gain knowledge and hands-on experience in anesthetics/analgesics, surgical techniques, and proper animal handling and husbandry. The ethical use of animals in research, appropriate and humane care, and the functions of regulatory agencies are covered. Concurrently, students explore the relationships between humans and animals used in teaching and research. Prerequisite: PYSCH 100 or 101 or BIOL 101 or permission of instructor.

245. Genetics.

An introduction to the principles of the transmission of inherited characteristics and the underlying molecular mechanisms of the regulation of expression of genetic information. Genetic engineering and an introduction to population genetics are included. Three lectures per week. Prerequisite: BIOL 101, 102 or equivalent; preor co-requisite: CHEM 101 or 103 or permission of instructor. Also required for the biochemistry major, fulfills the genetics/evolution requirement of the conservation biology major, and counts as an elective for the neuroscience (cellular track) majors. Offered each semester.

250. Introduction to Cell Biology.

An understanding of the concepts and processes of cell biology is fundamental to all other disciplines in biology. This course introduces the anatomy of the cell and physiology of its components, particularly in relation to the physiology of the entire organism. Cellular processes of information storage/transfer (i.e., replication, transcription and translation of genetic material), metabolism, intracellular protein trafficking, and signaling transduction are also explored. Prerequisites: BIOL 101 and 102. Recommended: CHEM 103,104. Also required for biochemistry major and counts as an elective for the neuroscience (cellular tracks) major. Offered each semester.

252. Research Methods in Cell Biology. (*with lab*)

In this course, students will obtain hands-on experience using basic and advanced techniques in cell biology, such as solution preparation, cell culture, transfection, protein extraction and concentration measurement, polyacrylamide gel electrophoresis (PAGE), western blotting, basic staining and imaging of cells and confocal microscopy. The techniques studied in this course are the same techniques that are used in laboratories across the country and around the world. In addition to gaining practical experience in the laboratory, students will learn about the theories behind each technique and study how biologists apply these techniques to answer fundamental biological questions in cell biology. Prerequisites: BIOL 101 and 102. Counts as a 1 unit research methods course for the biology major and fulfills the methods course requirement for the neuroscience major (cellular track).

258. Ethnobotany. (*with lab*)

Ethnobotany is an interdisciplinary field drawing on concepts from both natural and social sciences to investigate human-plant interactions. This course illustrates the importance of plants in our everyday lives and the influence of human activities on plant populations. Independent projects center around surveys and experiments on

socioeconomically important plants. Field trips and labs explore Native American reservations, botanical gardens, greenhouses, nature reserves and plant population survey techniques. Three hours of lecture and one three-hour laboratory per week. *Also offered through Asian Studies and as ENV 258.* Also counts as a biodiversity course for the conservation biology major.

261. Bioethics.

This seminar broadly explores ethical, legal and social implications of recent advances in the biological sciences. Topics such as the human genome project, reproductive technologies, cloning and animal experimentation are explored. Incorporates both lecture and discussion; student projects are emphasized and regular student participation and presentations are required. Prerequisites: BIOL 101 and 102.

288. Introduction to Neuroscience.

This course provides basic understanding of the architecture and processing of information in the brain. Particular emphasis is placed on the cellular properties of cells in the nervous system and how these biophysical properties affect information processing. To this end, students learn neuroanatomy and use computer models to gain insight into the computational power of the brain. Other topics include development of the nervous system, neurophysiology of sensation and homeostatic control mechanisms. Three hours of lecture and three hours of laboratory per week. Offered each fall semester. Prerequisites: BIOL 101 and 102. Recommended: BIOL 245, or 250. *Also offered as NRSCI 288.* Also required for the neuroscience major.

309. Biochemistry.

The course is organized around several themes: the relationship of structure to function in biomolecules, production of energy, regulation and control of metabolism. Topics covered to illustrate these themes include enzyme action and regulation, hemoglobin and the transport of oxygen and carbon dioxide, metabolism of carbohydrates for energy production, structure and function of biological membranes, and structure and function of molecules involved in transmission and expression of genetic information. Prerequisite: CHEM 222 or permission of instructor. Required for the BIOCH major and also counts as an elective for the neuroscience (cellular) major. *Also offered as BIOCH 309 and BIOCH 309.* Offered each semester.

315. Human Nutrition.

Food is a basic requirement of human life, impacting biological events at the level of the organism down to the level of the cell. In this course, we will focus on the major energy yielding macromolecules of carbohydrates, lipids, and proteins and how their intake must be balanced to maintain healthy body weight. Other micronutrients including vitamins and minerals will be studied from the perspective of their role in specific body systems. Throughout the course, we will apply this science-based knowledge to assessments of popular diet plans, supplement use, and health claims made about so-called "super foods." Students will also perform both self-analysis of 3-day food records and analysis of patient laboratory results with 24 hour food recall information. Prerequisites: BIOL 101 and 102. Offered every spring semester.

319. Plant Systematics.

Classical and modern approaches to the taxonomy of higher plants with emphasis on evolutionary trends, principles of classification and geographic distribution. The distinguishing field characteristics of the principle families of ferns, conifers and flowering plants are studied. Also included is the identification of local flora. Prerequisites: BIOL 101 and 102. Offered in alternate years. Also counts as a biodiversity course for the conservation biology major.

325. Mycology. (*with lab*)

A survey of the kingdom fungi. An examination of the morphology, ecology, life histories and systematics of the fungi of the North Country. Groups to be emphasized are mushrooms, rusts, smuts, mildews, cup fungi, bread molds, water molds and slime molds. The importance of fungi in human affairs is also examined. Lectures and laboratory. Frequent field trips. Prerequisite: BIOL 102 or equivalent. *Also offered through Outdoor Studies.* Also counts as a biodiversity course for the conservation biology major.

330. Ecology of Lakes and Rivers.

The biology of freshwater organisms from a community and ecosystem perspective. Topics include food web dynamics, fisheries science, primary production, seasonal succession and nutrient cycling. Emphasis is on interactions among fish, invertebrate and plant communities, as well as the influence of their physical, chemical and geological settings. Class projects investigate local and regional lakes and rivers; thus there is a substantial amount of field/lab work. There is also emphasis on the characterization of watersheds using GIS. This course will include discussions of class readings (there is moderate to high reading load). This class is ideal for junior and senior Biology, Biology–Environmental Studies, and Conservation Biology majors. Prerequisite is BIOL 221. Offered each fall semester. Also fulfills the advanced ecology requirement of the conservation biology major.

333. Immunology. (*with lab*)

The immune system boasts powerful mechanisms that protect the body from invading pathogens. We explore the development and function of a diverse repertoire of T and B lymphocytes, the range of powerful antibody-mediated responses, and the pre-programmed responses of phagocytic cells and natural killer cells. These basic concepts are then integrated to analyze the immune system's function in disease states including cancer, organ transplant, autoimmunity, infectious disease and immunodeficiency. Laboratory activities highlight immune-based techniques fundamental to research in immunology as well as other biological fields. Prerequisites: BIOL 101 and 102 or equivalent. Also counts as an elective for the neuroscience (cellular tracks) major.

335. Winter Ecology. *with lab*.

This field-intensive course examines animals, plants and fungi in winter. Topics include physiological, behavioral and morphological adaptations that permit survival during our coldest season. Students practice identification of common trees, mosses and lichens and track common mammals in order to study winter nests, burrows and behavior. Animal energetics and the coniferous tree advantage are discussed. Students review local and regional climate data and measure several microclimates under snow, ice and soil as well as microhabitat abiotic nutrient profiles relevant to winter adaptations. Students must have sufficient winter clothes for extended study in the cold and snow. Prerequisites: BIOL 101, 102 and 221. Lunch will be eaten in the field. Also fulfills the advanced ecology requirement of the conservation biology major.

341. Anatomy and Physiology I. (*with lab*)

An introduction to the principles and science of anatomy and physiology. In lectures, students learn the essential concepts that underlie human physiology. The lab is dedicated to the study of human anatomy and the relationship between anatomical form and function. The course is intended to increase the appreciation of the vast complexity of vertebrate anatomy and one's own biology. Prerequisites: Biology 101, 102 or equivalent. Offered each fall. Also counts as an elective for the neuroscience (cellular track) majors.

343. Evolution.

In this course we examine life on earth from a historical perspective and evaluate the fundamental evolutionary processes that have produced the diversity of life that we see today. Study topics include the origin of life on earth, mutation as the creator of genetic variation, natural selection, adaptation, population genetics, speciation and extinction. Laboratory projects are designed to develop technical skills in molecular biology and phylogenetic analysis. Three hours of lecture and three hours of laboratory per week. Prerequisites: BIOL 101 and 102. Recommended: BIOL 245. Also fulfills the genetics/evolution requirement for the conservation biology major.

350. Cancer Biology.

Cancer remains one of the most fascinating and yet devastating diseases afflicting humankind. In this course, we will explore the unique molecular and cellular abnormalities that transform healthy cells into dysregulated, rapidly proliferating cancer cells. Genetic and environmental causes of cancer will be identified from an epidemiological perspective and further described at the molecular level. Students will read relevant primary research articles throughout

the course and will work in pairs to present a current study to the class. Pre-requisites: BIOL 101 *and* 102 *and* one of these: BIOL 245 or 250. Offered every spring semester.

351. Anatomy and Physiology II. (*with lab*)

This course is devoted to the general principles and concepts of anatomy and physiology. Lecture topics include functioning of the nervous, hepatic, reproductive, excretory and endocrine systems. The lab is dedicated to the study of human anatomy and physiology and the relationship between anatomical form and function. Lab activities include dissection, an introduction to microscopic anatomy/histology, physiology experiments and disease focused problem solving sessions. The course is intended to increase the appreciation of the vast complexity of vertebrate anatomy and physiology and one's own biology. Prerequisites: BIOL 101 and 102. Offered each spring semester; two lab sections (can always expand). Also counts as an elective for the neuroscience (cellular track) majors.

353. Human Embryology.

In this course, we examine the fundamental processes and principles that govern the development of humans from fertilization to birth. Developmental processes are considered at the molecular, cellular and anatomical levels. An emphasis is placed on understanding how the human body is constructed, including the development of organs and organ systems. We will also examine abnormal development and human birth defects. Required BIOL 101 and 102. Also counts as an elective for the neuroscience (cellular tracks) major.

360. Marine Ecology.

The marine environment is the largest portion of the earth's biosphere and holds an amazing diversity of microbial, plant and animal life. This spring-semester course covers the biology of these organisms, emphasizing their ecological interactions and the habitats they are adapted to (e.g. coral reefs, kelp forests, hydrothermal vents, etc.). Considerable attention is also placed on the role of humans in these ecosystems, ecosystem health, and conservation issues. This course will be based largely on discussions of class readings (there is a high reading load). This class is ideal for junior and senior Biology, Biology-Environmental Studies, and Conservation Biology majors. Prerequisite is BIOL 221. Offered each spring semester. Also fulfills the advanced ecology requirement of the conservation biology major.

370. Hormones, Disease and Development.

This course is designed to teach the basic principles of both general (i.e. human and medical) and comparative (other types of vertebrates and invertebrates) endocrinology, stressing the diverse ways in which different types of animals have evolved to adapt physiologically to their environments. Students will become familiar with key endocrine systems, including the hypothalamic-pituitary axis, the stress response, reproduction, salt/water balance, and many others and will gain knowledge of how environmental endocrine disruptors are influencing development, growth, and reproduction of wildlife and humans. Quantitative thinking skills and productive intellectual interactions will be developed by reading and analyzing studies from the primary literature. Prerequisites: BIOL 101 and 102. Also counts as an elective for the neuroscience (cellular and behavioral tracks) major.

380. Tropical Ecology.

A seminar course based on current research in tropical biology. Emphasis is on the structure, function and biology of tropical organisms and ecosystems, especially as compared to temperate systems. Lectures include South American, Australasian and African tropical ecosystems. The course addresses the role of plant-animal interactions, mutualisms, sustainable development, conservation measures and the roles of indigenous cultures in tropical ecosystems. Prerequisite: BIOL 101 and 102. *Also offered as ENV 380.* Also fulfills the advanced ecology requirement of the conservation biology major.

381, 382. Research Methods Training. (0.5 or 1 unit)

Special courses intended to offer non-senior research training specific to a faculty member's research program. Many techniques covered are not generally taught within the lab of a regular course offering. The course will be indicated on the student transcript as "Research Methods in X" with "X" being the research area (e.g., endocrinology). These offerings

are by permission only in consultation with the appropriate faculty mentor. Such courses do not count as one of the minimum six units for the major.

387. Cellular Mechanisms of Memory.

This course examines the molecular mechanisms of neuronal plasticity. Topics include an analysis of the cellular processes that have been proposed to be at the core of memory formation, with discussion of the electrophysiological methods that have been used to analyze these processes; the biochemical mechanisms for short-term and long-term information storage at the cellular level and the vertebrate and invertebrate experimental models used for studying the molecules involved in memory formation. Prerequisites BIOL/NRSCI 288. Counts toward the neuroscience major (cellular track). Offered on alternate fall semesters. *Also offered as NRSCI 387.*

388. Drugs and the Brain. (*with lab*)

This course will focus on how psychoactive drugs modify nervous system function and human behavior. The neurochemical and behavioral techniques used to study drug action will be addressed. Students will learn how drugs are metabolized by the body (pharmacokinetics), act (pharmacodynamics) and affect behavior (psychopharmacology), gaining comprehensive understanding of the neurotransmitter systems of the brain and how different drugs affect these systems. The laboratory component will utilize the nematode *C. elegans* as a model system to explore drug action; students will learn research techniques and carry out independent research. Three hours of lecture and three hours of laboratory per week. Prerequisites: BIOL/NRSCI 288. Counts toward the neuroscience major (both tracks). Offered every spring semester. *Also offered as NRSCI 388.*

389. Advanced Neuroscience.

Builds on the fundamental concepts presented in BIOL/NRSCI 288 (Introduction to Neuroscience) and begins to examine neurobiology from a systems perspective. Topics include the biological basis of sexual orientation, sleep and dreaming, sleep disorders, epilepsy and seizures, motivation and addiction, Alzheimer's disease, disorders of thought and volition, and mood disorders. Prerequisite: BIOL/NRSCI 288. Required for the neuroscience major. Offered every spring semester. *Also offered as NRSCI 389.*

391. Research Methods in Scanning Electron Microscopy. (*with lab*) (.5 unit)

This course deals with the theoretical and practical aspects of scanning electron microscopy (SEM) and elemental analysis using EDS. Specifically, we will be using a brand new state of the art Quanta 450 SEM with Oxford EDS detector. Mastery of the course topics will require 6 hours of lab/class as well as 3-6 hours of independent work per week for 7 weeks. Those who master these skills will be welcome to use the instruments to conduct independent (senior or mentor guided) research. The initial classes will have greater emphasis on theory, and as we progress, we will spend more time on the scope. All students will be trained how to properly use this instrument. Students are expected to spend time outside class working on specimen prep, imaging, and image processing. This will culminate in a final portfolio of images. *Also offered as GEOL 391.* Prerequisite: at least one 200- or 300-level science course.

392. Research Methods in Fluorescence and Confocal Microscopy. (*with lab*)

Fluorescence microscopy allows a biological specimen to be fluorescently labeled and imaged. This technique is employed in many research labs and is a standard tool to locate the presence of a particular protein or cell structure. This technique, however, has limitations and is not precise in its ability to discern the specific depth of structures. Confocal microscopy was developed to address the issue of specificity of position. Precise imaging has led to confocal becoming a major tool in biological research. Students in this course will learn the theory and practice of both fluorescence and confocal microscopy. Students will be assigned a variety of specimens to be stained. These specimens are selected specifically to teach new techniques in specimen prep or imaging. Students will learn lab and laser safety, light and fluorescence, optics, the upright fluorescence microscope, the inverted confocal microscope, photomultiplier tubes, resolution and numerical aperture, specimen preparation, basic immunology, and image acquisition, processing, and presentation. Semester will culminate with individual portfolios of selected images. Prerequisites: any 200- or 300-level science course. Also fulfills methods course requirement for the neuroscience major (cellular track). Offered each semester.

394. Research Methods in Biochemistry. (*with lab*)

This course focuses on introducing basic laboratory techniques and skills that are common in fields related to biochemistry. Attention is paid to both theory and application. Students keep a detailed laboratory notebook, and write up an extended project in the style of a journal article. Prerequisites: CHEM 222 and any one of BIOL 231, 245, 250, 391 or CHEM 309 (which can be taken as a co-requisite). Also required for the biochemistry major. *Also offered as BIOCH 394.* Offered each spring semester.

395. Research Methods in Molecular Biology. (*with lab*)

Molecular techniques have revolutionized how biologists address problems in genetics, medicine, ecology, systematics, conservation and many other fields. Students obtain hands-on experience using basic and advanced molecular techniques, such as nucleic acid (DNA and RNA) isolation and purification, DNA sequencing, gel electrophoresis and polymerase chain reaction (PCR), to study gene expression and genetic variability. The molecular techniques studied are the same used in laboratories worldwide. In addition to gaining practical experience in the laboratory, students learn about the theories behind each molecular protocol and study how biologists apply molecular techniques to answer fundamental biological questions. Prerequisites: BIOL 245, 250 or 394. *Also offered as BIOCH 395.* Also required for biochemistry major and fulfills methods course requirement for the neuroscience major (cellular track). Offered each fall semester.

399. Current Topics in Neuroscience.

This seminar course will cover a wide variety of topics related to current neuroscience research. Our main source of information will be neuroscience primary literature articles available in the public domain. Students enrolled in the course will decide on the topics that will be addressed throughout the semester, will read the primary literature and will lead critical and comprehensive discussions on each research topic. Examples of topics that can be covered in this course include: epigenetics; mirror neurons; autism spectrum disorders; neurobiology of mental disorders; learning and memory; drug abuse and addiction; and the aging brain. Prerequisites: BIOL/NRSCI 288. Counts toward the neuroscience major (both tracks). Offered on alternate fall semesters. *Also offered as NRSCI 399.*

412. Cross-Cultural Perspectives of Healing.

This class uses healing traditions as the lens with which to examine culture. During the semester students will have the opportunity to meet healers from around the world. In a typical semester presenters include a Traditional Chinese Medical practitioner, an Ayurvedic physician (from India), a shaman from Peru, an exorcist, a native American Healer an allopathic physician, new age healers, a Christian Scientist and others. This course cannot be used to fulfill the requirements for the biology major. *Also offered as REL 412 and GS 412.*

415. Advanced Biochemistry.

A variety of topics are covered in depth depending on the interests of the students. The course begins with an overview of metabolism and its hormonal regulation. Other topics may include protein synthesis and targeting, molecular immunology, sensory systems and neurotransmission, hormone action, membrane transport, oncogenes and cancer, photosynthesis and advanced topics in metabolism. Topics of current interest may also be included. Through both written and oral presentation, students develop their abilities to use the scientific literature and communicate in science. Prerequisite: CHEM 309 or permission of instructor. Also required for biochemistry major and counts as an elective for the neuroscience (cellular tracks) major. *Also offered as BIOCH 415.*

440. Conservation Biology. (*with lab*)

This senior capstone course examines the problem of maintaining biological diversity in a changing world. Emphasis is on the biological concepts involved in population biology, genetics and community ecology, and their use in conservation and management of biodiversity. Labs mix local projects and trips to sites of interest for conservation. Prerequisite: BIOL 221 or 245. Also required for the conservation biology major.

447, 448. SYE: Special Topics.

These courses on topics not regularly offered in the curriculum are intended for senior majors only. May be offered for .5 or 1 unit of credit and may include a laboratory. Prerequisites depend on course content and consent of instructor.

460, 461. Seminar in the Techniques of Teaching Biology.

468, 469. SYE: Tutorial Research. (.5 or 1 unit)

Mentored study and research that is not experimental in design yet requires the analysis of primary literature-based data and the integration of this with current knowledge of the subject matter. A thorough understanding of the methodologies used in acquiring the published data is critical for this integration. Prerequisite: sponsorship by a faculty member.

489,490. SYE: Experimental Research. (.5 or 1 unit)

Field or laboratory research projects for students desiring to pursue directed, experimental research in biology. Students integrate acquired research skills and subject knowledge to collect original experimental data and to analyze the results in reference to the existing scientific primary literature. Prerequisite: sponsorship by a faculty member.

499. SYE: Honors Research. (.5 or 1 unit)

Senior students integrate acquired research skills and subject knowledge gained through the major to collect original experimental data and analyze the results in reference to the existing scientific primary literature. Graduation in biology with the designation of honors requires exceptional academic accomplishment as demonstrated by a major GPA equal to or above a 3.5, completion of a second semester of SYE honors research according to established guidelines, a public presentation of results, and an honors thesis that is bound and archived in the department and in the science library. Prerequisite: sponsorship by a faculty member and nomination by honors committee. See honors guidelines above or at the Biology Department's webpage.

Biology–Physics

Interdisciplinary major offered

More information on this interdisciplinary major can be found at www.stlawu.edu/physics/biology-physics.

Required Courses

Physics (4): PHYS 151 or 103, PHYS 152 or 104, PHYS 221, PHYS 222

Biology (4): BIOL 101, 102, 288, 341

Biology *or* Physics:

BIOL 101 and 102 or equivalent, plus two additional units chosen from appropriate courses at the 200 level or above

Chemistry (4): CHEM 103, 104, 221, 222

A senior research project in some area of biophysics, with advisors from both biology and physics.

Recommended Courses

CHEM 342. Biophysical Chemistry.

MATH 205. Multivariable Calculus.

Advising is provided through both the biology and physics departments. Since this major is expected to serve students with a wide range of interests, anyone interested is encouraged to consult with these departments about appropriate scheduling of courses, including interdepartmental offerings.

Students contemplating this major should also be aware of possibilities for advanced placement in chemistry, mathematics and physics courses that could provide added flexibility to their program. PHYS 151/152 is better preparation for PHYS 221/222 than PHYS 103/104, but any combination of the introductory sequence is acceptable.

Business in the Liberal Arts

Major offered

Visit the program's Web page at www.stlawu.edu/business-liberal-arts.

Students may declare the Business in the Liberal Arts major during the second semester of their sophomore year, but no sooner, and normally they may not declare the business major after the first semester of their junior year. Before declaring the Business in the Liberal Arts major, students must have already declared their primary major.

Major Requirements

- I. Business in the liberal arts majors are required to complete a second major (i.e., they must double-major in business in the liberal arts and one other field) at St. Lawrence University.
- II. All business in the liberal arts majors must complete the following seven courses:
 - ECON 100. Introduction to Economics.
 - ECON 251. Intermediate Microeconomics.*
 - ECON 252. Intermediate Macroeconomics.*
 - ACC 203. Financial Accounting.
 - ACC 204. Managerial Accounting.
 - STAT 113. Introduction to Statistics.
 - **and** an Excel Course.**
 - PHIL 202. Reasoning.

** These courses should be completed before the second semester of the student's junior year. Normally, students who have not completed these courses by this time will not be allowed to declare the business in the liberal arts major.*

***Students are required to complete an approved online excel course as well as STAT 113 to satisfy this requirement. Alternatively, students may take ECON 200: Quantitative Methods in Economics or STAT 213: Applied Regression Analysis to satisfy this requirement.*

- III. Business in the liberal arts majors must complete at least one experiential learning opportunity:
 - Approved Internship
 - Community-Based Learning
 - Off-campus Study
- IV. Business in the liberal arts majors must complete one course in three of the following four elective -areas. Students double-majoring in economics and business in the liberal arts may not take their business electives from courses taught in the economics department. Students may petition the business in the liberal arts program coordinator for additional courses they believe may satisfy one of these elective areas but are not listed below. Special Topics courses may not be used as electives in the business in the liberal arts major. Because the business in the liberal arts major relies on courses taught within the existing course structure at St. Lawrence, transfer courses must be approved by the appropriate department as a St. Lawrence course equivalent to count toward the Business in the Liberal Arts major. Additionally, because the program relies on courses taught through the regular curriculum the program coordinator is unable to approve transfer courses for St. Lawrence credit. Descriptions of these elective areas and courses that satisfy the elective areas defined below may be found at <http://myslu.stlawu.edu/~bchezum/index.html>.
 - Social Responsibility

- Global Citizenship
- Analytical Thinking
- Social Contexts

Honors

Students wishing to complete honors are encouraged to do so in their second major.

Canadian Studies

Combined major and minor offered

Visit the Canadian studies webpage at www.stlawu.edu/canadian-studies.

Combined Major Program

Under the Canadian studies combined major program, students fulfill all of the major requirements of one department in the social sciences or humanities, such as English, government or history. In addition, all Canadian studies combined major programs require the following courses:

101. Introduction to Canada. (1 unit)

201. Canadian-American Relations. (1 unit)

401. Senior Seminar. *or*

479,480. SYE: Internship. *or*

489,490. SYE: Independent Project. *or*

498,499. SYE: Honors Thesis. (1 unit)

Electives from offerings in Canadian Studies

in the various academic departments* (4 units)

Total: 7 units*

**Electives from the department offerings should be chosen partially from the electives in the departmental half of the student's combined major. A combined major of up to 14 courses is thus possible. In no case may more than 16 courses be pursued for a combined major.*

Minor Requirements

To minor in Canadian Studies, a student is required to take CNS 101 and 201 and three courses on Canada from those offered by the several academic departments. The three elective courses must be approved by the chair of the Canadian Studies department.

Courses

101. Introduction to Canada.

A multidisciplinary seminar designed to provide students with a comprehensive introduction to Canada. The course stresses the basics of geography, history, economics, politics and culture. At the same time, it uses contemporary events and issues (such as ongoing debate over Canada's constitutional and economic directions) to demonstrate the importance

of geographic fact, historical frictions and political and cultural diversity to an understanding of the Canadian nation(s). Major consideration is given to the ways Canada is both similar to and different from the United States.

201. Canadian–American Relations.

Examination of the economic, cultural, military and environmental aspects of the Canada-United States relationship, as well as of the public and private institutional arrangements involved in the maintenance of that relationship. Although the evolution of the Canadian-American interaction is dealt with, the emphasis is on the contemporary period.

Prerequisite: CNS 101 or permission of the instructor. *Also offered through Peace Studies.*

202. Québec.

This multidisciplinary seminar builds on Introduction to Canada by focusing on Québec from a variety of perspectives. A distinct society with French as its dominant language and culture, Québec is unique within North America. Its geography, history, culture, economics, politics and place in the Canadian Confederation are explored, as well as Québec's presence on the world stage as a member of the Francophonie. Throughout, the French influence on the rest of North America is examined. Prerequisite: CNS 101.

401. Junior/Senior Seminar.

This multidisciplinary seminar is offered periodically as capstone to the combined major or minor. Topics vary. Past offerings have included Canadian biography, the Group of Seven, Emily Carr, and Canada at 150. Prerequisite: CNS 101 or permission of instructor.

479, 480. SYE: Internship.

Prerequisite: permission of program director.

489, 490. SYE: Independent Project.

Prerequisite: permission of program director.

498, 499. SYE: Honors Thesis.

Prerequisite: permission of program director.

Plus offerings in several departments.

Caribbean, Latin American, and Latino Studies

Minor offered

Visit the Caribbean, Latin American, and Latino Studies program website at www.stlawu.edu/caribbean-and-latin-american-studies.

Minor Requirements

Students must earn six units of CLAS credit from at least two departments and/or programs to complete the minor. Among these, students must complete at least one of the following survey courses:

CLAS 104/HIST 115. Survey of Caribbean and Latin American Studies.

CLAS 105. Introduction to Latino Studies and Latino Cultural Expressions.

CLAS/GOVT 228. Latin American Politics.

CLAS/HIST 233. Colonial Latin America.

CLAS/HIST 234. Modern Latin America.

CLAS/SPAN 221. Latin America in Film.

CLAS/SPAN 444. Survey of Latin American Literature.

Students must complete an additional five units, which may include other courses from the list of survey courses. These five elective units will be courses that are dual- or cross-listed with CLAS, or offered in a suitable off-campus program, including St. Lawrence programs in Trinidad and Tobago or Costa Rica, and ISEP programs in Latin America and the Caribbean, as well as selected courses in Madrid. Students must obtain the CLAS coordinator's approval in writing for off-campus units to count toward the minor. The electives must be in at least two departments and/or programs on campus.

Students may petition the coordinator for credit for transfer courses, summer off-campus courses, pertinent internships credited in a St. Lawrence department or program, or courses pertaining to the region that are completed at St. Lawrence or ISEP off-campus programs.

If the student makes a successful proposal to the coordinator of CLAS, an independent study or SYE with a Caribbean, and/or Latin American, and/or Latino Studies focus may substitute for one of the five electives. The project may be supervised by any St. Lawrence faculty member.

Courses

103. Introduction to Ethnic Studies and Social Justice

This course attempts to familiarize students with the different roles different ethnic groups have played in the development of the American nation since settler colonialism began. Students will be exposed to readings and case studies that grapple with the way racialized societies affect inequities in wealth, quality of life and in general access to public goods. In particular we will focus on how such trends are increasing not only in the United States, but also globally. Students in this course will tackle the following questions through key readings, group exercises, journal entries and blogs: How are identities, experiences, and structures of race, ethnicity, and class intertwined with social justice in the American context? How has the meaning of racial justice transformed over the course of the 20th and early 21st century in the United States? We will explore the way the histories of Latinos, African-Americans, Asian-Americans and Native-Americans are deeply connected to the very foundation of the American nation.

104. Introduction to Caribbean and Latin American Studies.

This interdisciplinary core course is designed to introduce students to the richness and diversity of Latin American cultures, the region's turbulent history of conquest and colonization, and the problems of its development. The course familiarizes students with the vitality of Latin American art and literature and relates Latin American culture with *cultura latina* in the United States. The course provides a framework for more advanced studies on Caribbean and Latin American themes. *Also offered as HIST 115.*

105. Introduction to Latino Studies and Latino Cultural Expressions

This introductory course on Latino Cultural expressions will help students understand the complexities involved in the dynamics of Latinos in the US history, economy, politics and cultural expression. Some questions that we will ask in this course are: While Latinas/os have been integral to U.S. history and culture, why have they frequently and consistently been depicted as either outsiders or foreign and how is Latina/o identity negotiated? How do we explain the presence of different Latino groups in the US and what are the cultural expressions that are taking place in the US due to these migration waves? What are some of the dynamics that are taking place between Latino/a cultural production in relationship both to larger U.S. culture and to other U.S. racial and ethnic groups? We will also question the development and /or existence of *Latinidad* - the relationship between and common culture among Latino/as in U.S. culture and how it manifests itself through cultural expressions such as literature, music, films and social media. Our

readings focus on musical genres, writers and popular culture from various Latino/a groups. Our topics will include: migration, language, the body, gender roles, sexual orientation and identity politics in the works of authors and artists.

250. La Frontera: Cultural Identities on the Mexican-U.S. Borderland.

This course investigates the cultural expressions derived from the interactions among people on both sides of the Mexico-U.S. border. The goal is to understand the different ways in which immigration, drug smuggling and transnational industries affect the everyday lives of borderlanders through historical and critical approaches to the cultural expressions (music, images or other forms of discourse) that have served as mechanisms to mediate the contradictions arising out of the border. Also offered through *Native American Studies* and cross-listed with *Peace Studies*.

255. Latino Popular Culture.

We will examine media organizations and their participants in their roles in shaping popular culture. We will also reflect on the impact of Latino media production on identity formation as a mode of revealing and reproducing ideology and political struggle. This course includes key readings in cultural economy, political economy, cultural studies, history and sociology. Emphasis is on various cultural expressions of ethnic subcultures in the United States and their complex negotiations with the dominant culture and their co-resisters in a global/local struggle over meaning.

302. Latino Cultural Studies and Cultural Analysis

Students will be exposed to the understanding of forces behind the production and circulation of cultural artifacts (e.g. films, regional fiction, romance novels, advertising) and their meanings; the cultural construction of race, ethnicity, and gender; the visual and spatial dimensions of everyday experience; and the relationship of private and public spheres. The course is focused on the historical, social and cultural experience of Latino communities and will expose students to the understanding and deconstruction of cultural artifacts, such as art, music, or literature, and cultural identifications, such as popular, sexual, racial, or national identities.

352. Clinic: The Effects of Globalization on Human Rights

Students will be exposed to some of the ways in which drastic global economic and social re-structural policies are shaping the living conditions and have infringed on human rights in Latin America. This Clinic seeks to develop both theoretical and practical skills, through students' involvement in concerted and focused activities including research and documentation of human rights violations, and in the support of advocacy initiatives before different NGOs and/or institutions.

3000-3999. Special Topics.

Special topics courses offer students the opportunity to study specific topics in CLAS when offered by departments. The content of each course or section of these 200-level special topics courses varies and will be announced each semester.

4000-4999. Special Topics.

Special topics seminars offer students the opportunity to study specific topics in CLAS when offered by departments. The content of each course or section of these 300- or 400-level special topics courses varies and will be announced each semester.

CLAS 479. Independent Study.

This course offers students the opportunity to conduct an in-depth investigation of a particular topic on an individual basis with a CLAS faculty sponsor.

CLAS 489,490. SYE Independent Study.

Independent research project for seniors only, with supervision from a CLAS faculty sponsor.

Departmental Offerings

Economics

265S. The Spanish Economy, the EU and the Latin American Challenge. (*Spain Program*)

This course analyzes the possibilities for economic cooperation between the European Union and Spain, and Latin American economies. Study will focus on the challenges associated with the important structural changes that are taking place in Europe as well as Latin America in the context of the growing integration of both regions in international markets. Prerequisite: Econ 100.

Government

228. Latin American Politics.

This course introduces students to the politics of Latin America, a geographically and socially diverse region with wide-ranging levels of economic development. Tracing the roots of current political conflict to the colonial era and early years of independence under the shadow of an increasingly powerful United States, the primary focus of the course is on political change in Latin America today.

337. Torture, Truth and Memory.

Authoritarian regimes have often committed massive human rights abuses that included murder, torture, disappearances and forced adoptions. Drawing on memoirs, torturers confessions, declassified documents, films, literature and analytical texts this course explores the ongoing struggle over who will interpret the political past, and what roles justice and forgiveness might play in securing democracy for the future. *Also offered through Peace Studies.*

381. U.S. Foreign Policy Toward Latin America.

This course tracks the development of U.S. policy toward Latin America and shows how asymmetric power relations have influenced resolution of key problems in the Western Hemisphere. The course will review formative events such as U.S. military occupation of countries in the Caribbean Basin and Cold War covert operations. Students will consider how the United States and Latin America see shared policy problems differently, including the debt crisis, immigration, illicit drug flows, and environmental problems.

History

233. Colonial Latin America.

This course surveys the formation and historical development of colonial Latin America. We begin with initial encounters between indigenous peoples of the Americas and Iberians in the 15th century and end with Portugal and Spain's loss of their mainland colonies in the Americas in the 1820s. Part of our task is to understand the dynamics of race, class and gender in the colonial societies that developed from the violent collision of cultures during the conquest.

234. Modern Latin America.

This course surveys the history and development of modern Latin America. We begin with a brief overview of the colonial and early national periods, but the main focus of the course is from 1870 to the present. Some of the issues that concern us include the historical roots of the human and cultural diversity of modern Latin America, the region's relationships to a changing world economy, politics and human rights, and migration and diasporic cultures. *Also offered through Peace Studies.*

256. Slavery and Freedom in the Americas.

This course surveys the genesis and dissolution of the transatlantic slave trade and the slave societies that created the demand for this trade in both North and South America and the Caribbean. The perspective is Atlantic in scope, trying to understand the impact of this forced migration on Africa and Africans and on American societies, defined as all of the

Americas, not just the U.S. We also discuss some of the movements to abolish the slave trade and slavery itself, examining how the people involved defined freedom.

Modern Languages and Literatures

Spanish

103,104. Intermediate Spanish.

201. Advanced Spanish.

Review and expansion of the four skills, with emphasis on the oral and written expression of ideas in Spanish on topics of current interest and cultural significance in the Spanish-speaking world. Materials studied include journalistic texts, videos, audiotapes, songs and literary works. For students who have completed Spanish 103,104, or who have four years or more of Spanish at the secondary level.

202. Hispanic Cultural Studies.

A language course with the aim of acquainting students with current Hispanic culture through the analysis of literary texts, films, advertisements and other materials drawn from Spain, Hispanic America and the Latino community in the United States. Includes a research project on a cultural topic.

206S. Spain and Latin America: Construction of a Common Cultural Space. (*Spain Program*)

España y América Latina: la construcción de un espacio cultural común course touches on Latin American and Spanish fundamental topics on anthropology, focusing on cultural heritage and colonization discourses and how they are reflected in the collective imagination on both sides of the Atlantic. The course analyzes the challenges and the role of such challenges in the globalized world with its sociodemographic and cultural specificities.

221. Latin America in Film.

This class examines how Latin America is represented in films by directors from Hispanic America, Brazil, Europe and the United States. The films form the basis of conversation and research on themes related to contemporary history, interethnic conflict, traditional gender roles and immigration. The class is conducted entirely in Spanish, though some of the theoretical and technical readings on film are in English.

246. Oral Expression in Spanish.

Analysis of contemporary oral usage through the study of film, video and audio materials as well as printed texts. Advanced pronunciation practice. Study of techniques of oral presentation. Assignments are designed to promote the development of persuasive skills and include formal debates on contemporary issues and other public speaking activities.

317. Taller de Literatura Creativa.

The Taller de Literatura Creativa, conducted entirely in Spanish, offers guided writing exercises on a weekly basis. Students learn how to criticize each other's work in constructive ways, incorporating the results of these discussions in additional drafts of their creative work. The themes of these poems, short stories and non-fictional works revolve around Hispanic culture and study abroad on SLU-sponsored programs, primarily in Spain and Costa Rica. The workshop is a place where students can compare these abroad experiences as well as experiences about being a Spanish-speaker in the U.S. Toward the end of the semester, students work collectively to edit material and to produce the online cultural journal *Aquí y Allá*. The instructor is a published writer of poetry and prose fiction.

344S. Survey of Latin American Literature. (*Spain Program*)

(equivalent to SPAN 444 and should only be taken once, either in Spain or on the SLU campus)

See description below for SPAN 444.

444. Survey of Latin American Literature. (equivalent to SPAN 344)

Indigenous oral traditions and texts from the period prior to the present. Authors studied from the colonial period include Bernal Díaz del Castillo, Bartolomé de las Casas and Sor Juana Inés de la Cruz. Contemporary authors include Borges, García Márquez, Allende and Rigoberta Menchú.

445. Literary Translation: Theory and Practice.

In this workshop, students use translation as a tool to learn how to express themselves more effectively in both English and Spanish. Theorists such as Octavio Paz, José Ortega y Gasset, Willis Barnstone, Carol Maier, Walter Benjamin, Tejaswini Niranjana and others help illuminate the practice of translation in a variety of genres that include poetry, autobiography, book reviews and subtitling of films. For students with considerable background in Spanish, including, preferably, residence in a Spanish-speaking country.

449. Afro-Hispanic Culture and Literature. (*In Spanish*)

This course explores the African Legacy in the culture of the Hispanic Caribbean: Cuba, the Dominican Republic and Puerto Rico. While examining a variety of texts we will engage in conversation around topics that include slavery and resistance, cultural racism, class, identity construction and representation. The course also incorporates cuisine, music, dance and other sources as the basis for work that may bring in creative, disciplinary or career interests. Taught in Spanish, and permission of the instructor is required.

489, 490. SYE: Independent Study.

Religious Studies

238. Global Christianities.

This course explores Christianity outside the United States and Europe. Catholic and Protestant Christianities in addition to newer forms of Christianity are included, and case studies are drawn from Africa, Asia, and Latin America. Pentecostal Christianity (also called Charismatic Christianity) is a particular focus. The course considers the conflict and interplay of older forms of Christianity, often part of the inheritance of colonialism, with more recent arrivals; probes the relationship between religion and the processes of globalization; and questions whether any of these forms of Christianity can be described as globalized, and, if so, whether global Christianity resists or supports globalization. *Also offered in Global Studies.*

Independent study in French, Portuguese or other fields and departments may be credited to CLAS with permission of the coordinator.

Additional information and a complete list of the approved courses for the minor can be obtained through the coordinator of Caribbean, Latin American and Latino Studies or the Center for International and Intercultural Studies.

Chemistry

Major and minor offered; major in biochemistry jointly administered with biology; combined major with environmental studies

More information on these majors and important advice on planning for this major can be found at <http://www.stlawu.edu/chemistry>

Major Requirements

A student majoring in chemistry elects from two basic courses of study:

Plan 1 provides basic preparation for medical or dental school and secondary school teaching. It also provides greater flexibility for those who wish to participate in study abroad programs.

Plan 2 is endorsed by the committee on professional training of the American Chemical Society (ACS); satisfactory completion of this course of study entitles the student to certification by the society. Those contemplating graduate study in chemistry or careers in industrial research are encouraged to opt for this plan.

The core chemistry requirements for both courses of study are:

CHEM 103 & 104. General Chemistry

CHEM 205. Quantitative Analysis

CHEM 221. & 222. Organic Chemistry

CHEM 341. Quantum Chemistry

Two 0.5 unit SYE courses over two semesters (Unless special permission is obtained in advance to do the full unit in one semester), CHEM 489 and/or 490 (must be original laboratory research for plan 2)

*It is recommended that CHEM 103 and 104 be taken during the first year, CHEM 221 and 222 during the second year, and CHEM 205, during the spring semester second year.

Additional chemistry courses required for Plan 1:

- 2 courses chosen from the following:

Inorganic chemistry (CHEM 303), Biochemistry (CHEM 309), Thermodynamics and Kinetics (CHEM 342), Environmental Chemistry (CHEM 306)

- 1 unit advanced laboratory courses selected from:

Physical Chemistry Lab (CHEM 353, 0.5 unit), Advanced Organic Chemistry I and II (CHEM 351, CHEM 354, 0.5 units each), Biochemistry Research Methods (CHEM 394, 0.5 or 1.0 unit), Instrumental Analysis (CHEM 452, 0.5 unit), Advanced Inorganic Chemistry (CHEM 403, 1.0 unit)

Additional chemistry courses required for Plan 2:

- CHEM 342. Biophysical Chemistry,
- CHEM 303. Inorganic Chemistry,
- Biochemistry, one of the following:

Biochemistry (CHEM 309) or Biochemistry Research Methods (CHEM 394, 0.5 or 1 unit) or Synthesis of Pharmaceutical Substances (CHEM 324)

- 2 units advanced laboratory courses selected from:

Physical Chemistry Lab (CHEM 353, 0.5 unit), Advanced Organic Chemistry I and II (CHEM 351, CHEM 354, 0.5 unit each), Biochemistry Research Methods (CHEM 394, 0.5 or 1.0 unit), Instrumental Analysis (CHEM 452, 0.5 unit), Advanced Inorganic Chemistry (CHEM 403, 1.0 unit)

- 1 unit in-depth content:

Advanced Organic Chemistry I and II (CHEM 351, CHEM 354, 0.5 unit each), Instrumental Analysis (CHEM 452, 0.5 unit), Advanced Inorganic Chemistry (CHEM 403, 1.0 unit), Synthesis of Pharmaceutical Substances (CHEM 324, 1 unit), Advanced Biochemistry (CHEM 415)

Required courses in other departments:

- MATH 135 & 136. Calculus*
- PHYS*

103,104 or 151,152 for plan 1

151,152 for plan 2

*We recommend completing the math requirements in the first year and physics during the second.

Note that to fulfill prerequisites for moving from CHEM 103 to 104, a grade of 1.75 is required. To advance from CHEM 104 to 221 and 205, from 221 to 222 and from 222 to 309 requires a grade of 2.0 or higher.

Except for transfer students, a maximum of two courses applied toward the chemistry major or minor may be taken at other institutions.

Honors

Chemistry department honors require a minimum GPA of 3.5 in major courses, original laboratory research, and the submission and defense of a thesis. The student must consult with the project mentor and assemble a thesis committee including three faculty members (at least two from chemistry) by the end of the first semester of his or her senior year. The committee will conduct the oral examination that is part of the student's presentation and defense. Qualified students can elect to complete the requirements for honors within the context of the senior project. A minimum grade of 3.5 on the senior project is required for honors. Students do not register for honors; an honors award will be reflected with a course title and number change on the transcript.

Planning

Because of course prerequisites, it is important that those considering a chemistry major complete General Chemistry in their first year and discuss their plans with a chemistry faculty member. While there is some flexibility to allow for off-campus programs or late starts in the major, such options require careful planning. It is also important to schedule in the mathematics and physics prerequisites for upper-level chemistry courses.

Suggested Courses

Many of the most important and stimulating chemical research areas involve projects at the interface of chemistry with other disciplines, including biology, geology, physics, psychology and computer science. Based on their interests, students should consider introductory and advanced coursework in at least one of these disciplines.

Minor Requirements

A minor in chemistry entails completion of CHEM 103-104, CHEM 221-222, one additional elective at the 200 level or above, and one additional elective at the 300 level or above. An SYE mentored by a chemistry professor, following all chemistry SYE guidelines, may serve as one of the electives.

Combined Major

A combined environmental studies–chemistry major is available. Refer to the entry for Environmental Studies in this *Catalog* for details.

Research and Independent Study

Student research is at the heart of the chemistry curriculum and culminates in a year-long senior project carried out in close collaboration with a faculty mentor. Students are encouraged to avail themselves of research opportunities prior to the senior year. Both academic year and a limited number of paid summer research assistantship positions are available every year. The Stradling Fund provides a stipend for a research assistantship each summer and other sources of funding are normally available to support summer student research. Many chemistry students have also won SLU fellowships for summer research with a chemistry mentor.

Honors

Chemistry department honors require a minimum GPA of 3.5 in major courses, original laboratory research, and the submission and defense of a thesis. The student must consult with the project mentor and assemble a thesis committee including three faculty members (at least two from chemistry) by the end of the first semester of his or her senior year. The committee will conduct the oral examination that is part of the student's presentation and defense. Qualified students can elect to complete the requirements for honors within the context of the senior project. A minimum grade of 3.5 on the senior project is required for honors. Students do not register for honors; an honors award will be reflected with a course title and number change on the transcript.

Advanced Placement Credit

Students scoring a 4 or 5 on the AP chemistry exam or a 6 or 7 on the high level chemistry IB exam are eligible to receive 1.25 units of credit for CHEM 103. These students may enroll in CHEM 104 in the spring but may choose to enroll in CHEM 103 in the fall if they prefer.

Certification to Teach Chemistry

Consult the Education section of this *Catalog*, the Education Department webpage at <http://www.stlawu.edu/education/undergraduate-programs>, and/or speak to the Coordinator of the Teacher Education program in the education department as early as possible.

Courses

103, 104. General Chemistry. (1.25 units each)

This course is an introduction to chemistry for science and non-science majors. Both courses use in-class experimentation, discussion, and lecture to ask and answer questions of general chemical interest, including applications in biology, physics, astronomy and geology. Students discuss experimental data using the logic and language of chemistry and are frequently asked to substantiate conclusions using both conceptual and quantitative reasoning. Topics include water and its unique properties, atomic structure and properties, molecular structure, types of chemical bonding and reactions, redox systems and electrochemistry, reaction equilibria, thermodynamics and kinetics. Three class periods plus one laboratory period per week; students may also participate in optional weekly peer-led team learning workshops. Prerequisites: secondary school algebra or enrollment in a college mathematics course. A grade of 1.75 or higher in 103 is required to fulfill the prerequisite for enrollment in 104. A grade of 2.0 or higher in 104 is required to fulfill the prerequisite for enrollment in 200-level courses. Required for the neuroscience major.

3000–3999. Special Topics in Chemistry.

The content of each course or section of these 100- or 200-level special topics courses varies and will be announced each semester. They may be intended for majors or nonmajors. Not all of these courses will count toward the chemistry major, minor, or the Chymist Honor Society.

205. Quantitative Analysis. (1.25 units)

An introductory course dealing with the chemical, physical and logical principles underlying modern quantitative chemical analysis. Among the broad topics treated are data evaluation, titrimetry, solution equilibria, chromatography and absorption spectroscopy. Lectures plus one laboratory per week. Prerequisite: CHEM 104 (with a 2.0 grade or higher) or permission of instructor. *Also offered as ENV5 205.* Offered only once per year, usually in the spring semester.

221, 222. Organic Chemistry. (1.25 units each)

An introductory course focusing on the chemistry of naturally occurring and synthetic carbon compounds; description and determination of structure with an emphasis on spectroscopic methods; reactivity and its theoretical basis; mechanism; and synthesis of organic compounds. The microscale laboratory emphasizes preparation, purification and identification of organic compounds, isolation of organic substances, mechanistic studies and separation techniques. Spectroscopic methods are applied to structure elucidation. Prerequisites: CHEM 104 with a grade of 2.0 or higher. Acceptance into 222 requires a grade of 2.0 or higher in 221. CHEM 221 is required for the neuroscience major.

303. Inorganic Chemistry.

Inorganic chemistry comprises the study of all elements of the periodic table and the trends that unite them. This course begins from a theoretical basis describing chemical bonding and structure in the context of molecular orbital theory and hard/soft acid/base theory. These theories are applied to coordination complex synthesis and the applications of coordination, organometallic, and bioinorganic compounds. Applications of inorganic principles of rational design are explored in fields including medicine, renewable energy, geoscience, and catalysis. Prerequisite: CHEM 222.

306. Environmental Chemistry and Toxicology.

This course is designed for chemistry majors and students in environmental studies who have a strong background in chemistry. It explores the sources and levels of chemical pollutants, the pathways along which they move through the

environment, and the toxicological effect they have on humans and other living things. Prerequisite: CHEM 221 or permission of instructor. *Also offered as ENV5 306.* Offered in alternate years, usually in the spring semester.

309. Biochemistry.

The course is organized around several themes: the relationship of structure to function in biomolecules, production of energy, regulation and control of metabolism. Topics covered to illustrate these themes include enzyme action and regulation, hemoglobin and the transport of oxygen and carbon dioxide, metabolism of carbohydrates for energy production, structure and function of biological membranes, and structure and function of molecules involved in transmission and expression of genetic information. Prerequisite: CHEM 222 with a grade of 2.0 or higher or permission of instructor. Counts toward the neuroscience major (cellular track). *Also offered as BIOCH 309 and BIOL 309.*

324. Synthesis of Pharmaceutical Substances.

An advanced course in organic synthesis applied to the production of pharmaceuticals. Both strategic planning of synthetic routes and methodology for execution are focal points. Methods for carbon-carbon bond formation, functional group interconversion and manipulation of oxidation state are emphasized, as are all relevant control and selectivity issues. Differences among discovery syntheses, pilot plant scale-up and commercial routes are discussed. Emphasis on the organic chemistry utilized to create these substances is supplemented by consideration of the molecular basis of their biological activities. Offered only in the spring semester.

341. Physical Chemistry.

A study of the curious consequences of quantization and the wave-particle duality of light and matter in chemical systems. Experimental evidence, usually collected from spectroscopic results, is used to understand the postulates of quantum chemistry and gain insight into the macroscopic properties of atoms and molecules. Topics include tunneling, molecular motions, quantum mechanical origins of orbitals and energy levels of the hydrogen atom, selection rules for spectroscopy and an introduction to computational methods. Offered only in the fall semester. Prerequisites: CHEM 104, PHYS 104 or 152, MATH 136.

342. Thermodynamics and Kinetics.

This course introduces the mathematical and theoretical bases for chemical equilibria and kinetics. The extrema principle will be used to predict the direction of chemical equilibria in a wide variety of chemical and biochemical reactions. This principle shows that reactions which maximize entropy and minimize enthalpy are spontaneous. We will study several ways to calculate familiar quantities like Gibbs energy, as well as new, more sophisticated quantities like partition functions to better understand molecular driving forces. In the last part of the course, we will study reaction kinetics to determine the timescales and possible reaction mechanisms of favorable reactions. Offered only in the spring semester. Prerequisites: CHEM 104, PHYS 104 or 152, MATH 136.

351. Advanced Organic Laboratory: Synthesis, Separation, Analysis. (0.5 unit)

Experimental emphasis on advanced laboratory techniques associated with organic synthesis, structure elucidation and study of reaction mechanism. Examples include diastereo- and enantio-selective reactions, low temperature reactions, organometallic reagents, sample manipulation, multistep syntheses, natural product isolation and structure determination. Various chromatographic separation techniques are explored. Analysis by IR, GC-MS, multi-nuclear one and two-dimensional NMR and UV-VIS is integral to experiments. Classroom presentations on theory associated with reactions undertaken, separation science and spectroscopic analysis accompany and complement the laboratory work. This course is writing-intensive; special emphasis is placed on written and oral presentation of experimental results. Two lectures and two laboratories per week. Normally taken by first-semester juniors. Offered only in the fall semester for the first seven weeks. Prerequisite: CHEM 222.

352. Inorganic Chemistry Laboratory. (0.5 unit)

Laboratory experiments emphasize the synthesis, characterization, and properties of inorganic compounds. This includes synthesis in an inert atmosphere and its associated techniques. Products of inorganic syntheses will be characterized by a

variety of techniques that include ultraviolet-visible, infrared and nuclear magnetic resonance spectroscopy. Written assignments are designed to develop rhetorical skills using chemical language, primary literature sources, practical data processing and presentation skills. The course is organized into one lecture and two laboratories per week. Normally taken in the junior year. Offered only in the spring semester for the second seven weeks. Prerequisites: CHEM 205 and 341 or 342.

353. Physical Chemistry Laboratory. (0.5 unit)

Laboratory experiments investigate questions in the fields of physical and biophysical chemistry. The lab has two central learning goals: develop your ability to design interesting and feasible research questions and learn how to use a variety of instruments. Spectroscopic methods such as ultraviolet-visible fluorescence, infrared, and Raman are used to study binding reactions, energy transfer between molecules, protein denaturing and characterization of unknowns. Discussion of primary literature is used to place experiments in the context of broader scientific knowledge, and to learn more about scientific writing. In writing assignments, data analysis and scientific reasoning are emphasized. This course is normally taken by second-semester juniors. Offered in the spring semester most but not all years. Prerequisites: CHEM 205 and 341 or 342.

354. Advanced Organic Chemistry Synthesis Laboratory (0.5 unit)

Organic synthesis is the art and science of using simple molecular building-blocks to make complex, valuable molecules. In CHEM 221, 222, and 351, you have been exposed to standard organic reactions and techniques. In Advanced Organic Synthesis Lab, you will: (1) apply previous knowledge to multi-step synthesis; (2) develop the problem-solving skills needed for success in chemical research; and (3) learn some of the more technically challenging reactions and techniques that you would encounter in either an academic or industrial organic synthesis group. Prerequisite: CHEM 222. CHEM 351 is also strongly encouraged.

389, 390. Research for Juniors. (0.5 or 1 academic credit)

394. Research Methods in Biochemistry. (0.5 unit)

This course focuses on introducing basic laboratory techniques and skills that are common in fields related to biochemistry. Attention is paid to both theory and application. Students keep a detailed laboratory notebook and write up an extended project in the style of a journal article. Prerequisites: CHEM 222 and any one of BIOL 231, 245, 246, 250, 391, or CHEM 309 (which can be taken as a co-requisite). Required for the biochemistry major and also carries credit toward the biology major/minor and the chemistry major/minor. Offered only in the spring semester. *Also offered as BIOL 394 and BIOCH 394.*

4000-4999. Special Topics in Chemistry.

The content of each course or section of these 300-level or 400-level special topics courses varies and will be announced each semester.

403. Advanced Inorganic Chemistry.

Modern inorganic and materials chemistry is explored in the classroom and laboratory. Topics include catalytic systems, nanoparticles, surfaces, thin layers, and other condensed phases. Microscopy, crystallography, and time-resolved spectroscopy are crucial tools to understand these materials, while symmetry, group theory, and solid-state physics provide a theoretical basis. Prerequisite: CHEM 303 or permission of instructor.

415. Advanced Biochemistry.

A variety of topics are covered in depth, depending on student interest. The course begins with an overview of metabolism and its hormonal regulation. Other topics may include protein synthesis and targeting, molecular immunology, sensory systems and neurotransmission, hormone action, membrane transport, and photosynthesis. Through both written and oral presentation, students develop their abilities to use the scientific literature and

communicate in science. Prerequisite: CHEM 309 or permission of instructor. Counts toward neuroscience major (cellular track). *Also offered as BIOCH 415.*

452. Instrumental Analysis. (0.5 unit)

An advanced course emphasizing instrumentation in methods of chemical analysis. Principal instrumental methods examined include absorption and emission spectrometry, electroanalytical methods and chromatographic and other separation methods. Some introduction to analog and digital signal processing principles and computer-assisted data acquisition and processing is presented. Two lectures and two laboratories per week. Offered only in the fall semester for second seven weeks. Prerequisites: CHEM 205, 342, and 351 or 352.

489, 490. SYE: Research for Seniors. (0.5 or 1 unit of academic credit)

Student research is at the heart of the chemistry curriculum and culminates in a year-long senior project carried out in close collaboration with a faculty mentor. In special cases, it is possible to complete the SYE in one semester with the approval of the advisor and the chair. Examples of recently completed senior projects can be found at the department's Web page. For the senior project, students enroll each semester in Chemistry 489 or 490, for which they typically receive .5 unit of credit each. Students undertaking the American Chemical Society certified degree option must enroll in 489 or 490 and complete a project that involves original laboratory research.

Computer Science

Major and minor offered under the auspices of the mathematics, computer science and statistics department.

Visit the mathematics, computer science, and statistics department webpage at www.stlawu.edu/math-computer-science-and-statistics.

Major Requirements

There are 11 requirements for a major in computer science: four required basic CS courses, three required core courses, two elective courses, one mathematics course, and one Senior-Year Experience (SYE).

Basic Courses (four required)

CS 140. Introduction to Computer Programming.

CS 219. Techniques of Computer Science.

CS 220. Computer Organization.

CS 256. Data Structures.

Core Courses (three required)

CS 362. Algorithm Analysis.

CS 364. Programming Languages.

CS 380. Theory of Computation.

Electives (any two)

Any 300-level non-core CS course can count as an elective.

Mathematics (one required)

MATH 280. A Bridge to Higher Mathematics.

Senior-Year Experience *(one required)*

There are several ways to satisfy the SYE requirement. First, completing the SYE requirement for another major also satisfies the computer science requirement. Second, with permission of an instructor, students may conduct a project in CS489 or CS498. Third, with permission of the department chair, students may take a third -elective course.

Mathematics Courses

Although only one mathematics course is required for the CS major, students are strongly encouraged to consider other courses in mathematics and statistics, particularly if they are interested in pursuing graduate study.

Honors

Students wishing to receive honors in computer science must conduct an honors project in CS 498 and have a minimum GPA of 3.5 in the major.

Minor Requirements

The minor in computer science consists of six courses, including CS140, 219, 220, 256 and two additional computer science electives at the 300-level or above.

Advanced Placement

Students who enter St. Lawrence with a 4 or 5 on the Advanced Placement Computer Science A test will receive credit for CS 219. Students who complete the Advanced Placement Computer Science Principles with at least a 4 will receive credit for CS 140. Other students may begin in CS 219 if their background is sufficiently strong. The CS 140 requirement will be waived for such students, but they will not receive University course credit.

Courses

140. Introduction to Computer Programming.

An introduction to programming using a high-level language. Assumes no prior knowledge of programming, and focuses on essential skills. Students learn to create programs ranging from practical utilities to simple games. Offered every semester.

219. Techniques of Computer Science.

An in-depth look at computing and programming in a high-level language. Introduces more advanced programming problems and more principled programming techniques. Prerequisite: CS 140 or the equivalent. Offered every semester.

220. Computer Organization.

An in-depth look at the underlying organization and architecture of modern computer systems. Topics include data representation, the organization of CPUs including caches and the memory hierarchy, digital circuits, machine language, and an introduction to assembly language programming. Prerequisite: CS 219. Offered in spring semester.

250. Computer Science Seminar.

Explores topics of interest beyond the core Computer Science curriculum. The course is worth 0.25 credit, meets once per week, and is graded pass/fail. As topics vary from one offering to the next, it is possible for students to repeat the course for credit. Prerequisite: CS 219. Offered as scheduling allows.

256. Data Structures.

An overview of the essential strategies for the organization, retrieval and processing of data. Topics include arrays, lists, stacks, queues, maps, and trees, as well as an introduction to algorithm analysis. Prerequisite: CS 219. Offered in fall semester.

302. Symbolic Logic.

A study of elementary symbolic logic. Topics include sentential and predicate logic. Prerequisite: MATH 280 or CS 220 or PHIL 202. *Also offered as PHIL 302 and MATH 302.*

318. Graph Theory.

Graph theory deals with the study of a finite set of points connected by lines. Problems in such diverse areas as transportation networks, social networks and chemical bonds can be formulated and solved by the use of graph theory. The course includes theory, algorithms, applications and history. Prerequisite: MATH 217 or 280. Offered every other year. *Also offered as MATH 318.*

321. Computer Networking.

An overview of computer networking and the technologies behind the internet. Topics include protocols at the application level (HTTP, DNS, FTP, BitTorrent, etc.), transport level (TCP/UDP), and network level (IP/ATM), as well as issues related to network security. Prerequisite: CS 256. Offered as scheduling allows.

332. Web Programming.

Introduces the concepts and languages of modern web programming. Topics include HTML/CSS, client-side and server-side scripting, and interaction with a database. Prerequisite: CS 256. Offered as scheduling allows.

340. Software Engineering.

Examines the challenge of creating reliable, maintainable software in teams. Introduces modern tools and strategies for design, version control, testing, debugging, and documentation. Prerequisite: CS 256. Offered as scheduling allows.

345. Database Systems.

A look at how data is logically organized, physically stored on a digital device, and queried. Focuses primarily on relational database systems and structured queries. Other topics include non-relational data models, privacy, security, performance, and reliability. Prerequisite: CS 256. Offered as scheduling allows.

362. Algorithm Analysis.

An investigation of core techniques for designing and analyzing algorithms for computational problem-solving. Introduces well-known algorithms for common types of problems, and teaches students to evaluate algorithm efficiency. Prerequisites: CS 256 and MATH 280. Offered in fall semester.

364. Programming Languages.

Addresses several advanced topics in programming: the process of code interpretation, the principles behind the design of programming languages, and the paradigms of functional and concurrent programming. Prerequisite: CS 220 or 256. Offered in spring semester.

370. Operating Systems.

An overview of operating system principles. Topics include process scheduling and synchronization, memory management including virtual memory, file system interfaces and implementations, and design considerations for desktop/ mobile platforms. Prerequisites: CS 220 and 256. Offered as scheduling allows.

374. Artificial Intelligence.

A programming-intensive introduction to the concepts and uses of artificial intelligence. Teaches students to approach complex, messy problems with strategies like heuristic search, genetic algorithms, and machine learning, and explores the simulation of human abilities in areas like natural language processing. Prerequisite: CS 256. Offered as scheduling allows.

380. Theory of Computation.

Addresses the theoretical basis of computer science. Introduces a hierarchy of computational models and the types of problems they can and cannot solve, as well as a set of problem complexity classes and their relationships. Prerequisite: MATH 280. Offered every other spring semester. *Also offered as MATH 380.*

389. Independent Project.

Permission required.

489. SYE: Senior Project.

Permission required.

498. SYE: Senior Honors Project.

Permission required.

Conservation Biology

Major offered

Note that students majoring in Conservation Biology may not also double-major or minor in Biology or in the Biology–Environmental Studies combined major. First-year students considering a Conservation Biology major should seek early advisement from a participating faculty member and should begin the introductory courses required for the major in the first year.

More information on this multidisciplinary major can be found at www.stlawu.edu/conservation-biology.

Major Requirements

Conservation Biology majors must complete a predetermined set of courses (outlined below) and are strongly encouraged to complete a significant period of study outside of northeastern North America through study abroad, study at a biological field station, or through participation on certain courses with a travel component. Students should consult with a Conservation Biology faculty member in planning how to complete this expectation. Students should note that completion of the Conservation Biology major fulfills the Integrated Learning Component of the general education requirement and that completion of the required GS 101 to fulfill the Social Science general education requirement.

Required Courses

Full course descriptions can be found by visiting the *Catalog* section for the sponsoring department.

I. Core Courses

Students must take all of the following courses:

- BIOL 101 and 102. General Biology
- GS 101. Introduction to Global Studies I: Political Economy
- BIOL 221. General Ecology
- BIOL. 440. Conservation Biology (*seniors only*)

II. Allied Science or Math Courses

Students take one of the following options:

- A. GEOL 103. Dynamic Earth **and** GEOL 104. Evolving Earth. (*both with lab*)
- B. CHEM 103 **and** CHEM 104. General Chemistry (*both with lab*)
- C. Any two of the following four:
 - STAT 113. Applied Statistics
 - STAT 213. Applied Regression Analysis
 - MATH 135. Calculus I
 - MATH 136. Calculus II
- D. STAT 113. Applied Statistics **and** GS 233. GIS (*with lab*)
- E. CS 140. Intro to Computer Programming and CS 219. Techniques of Computer Science

III. Electives

Students completing the major must take at least one advanced ecology elective, one advanced global studies elective, and one global perspectives elective. In addition, students must fulfill a biodiversity requirement by taking four courses from offerings in ecology and organismal diversity. To fulfill the biodiversity requirement, students should take a minimum of two organismal diversity courses. The other two courses can be one of the following combinations: two additional organismal diversity courses; or, an organismal diversity and a conservation science course; or, a conservation science and an additional advanced ecology course. Only one organismal diversity course focusing on vertebrate animals may be counted toward completing requirements for the major. Approved courses are listed below. Students may petition the major coordinator to have other courses fulfill these electives. Students may count up to two courses taken while abroad toward the requirements for the major

The following fulfill the Advanced Ecology elective:

- BIOL 330. Ecology of Lakes and Rivers (with lab)
- BIOL 335. Winter Ecology (with lab)
- BIOL 360. Marine Ecology
- BIOL 380. Tropical Ecology
- And certain special topics courses.

The following fulfill the Advanced Global Studies elective:

- GS 301. Theories of Global Political Economy
- GS 324. Global Public Goods: Exploring Solutions for the 21st Century
- GS 365. Rethinking Population and Environment

*To fulfill the Biodiversity Requirement, students may take either three organismal diversity courses **or** two organismal diversity courses and one conservation science course.*

Organismal diversity courses (only one about vertebrates will count toward the major requirement):

- BIOL 209. Vertebrate Natural History (*with lab*)
- BIOL 215. Fundamentals of Animal Diversity (*with lab*)
- BIOL 218. Ornithology (*with lab*)
- BIOL 224. Biology of Plants (*with lab*)
- BIOL 227. Mammalogy (*with lab*)
- BIOL 231. Microbiology (*with lab*)
- BIOL 258. Ethnobotany (*with lab*)
- BIOL 319. Plant Systematics (*with lab*)
- BIOL 325. Mycology (*with lab*)

Conservation science courses:

- BIOL 230. Food from the Sea (*with lab*)
- BIOL 242. Biodiversity Conservation and Management in East Africa (*Kenya Semester Program*)
- And certain special topics courses.

The following fulfill the Global Perspectives elective. Students must take one:

- ANTH 102. Cultural Anthropology
- ANTH 251. Humans and Other Animals
- ANTH 425. Environmental Conservation in Africa
- ECON 228. African Economies
- ECON 234. Comparative Economics

- ECON 236. Globalization Issues: Equity, the Environment and Economic Growth
- ECON 308. Environmental Economics
- ECON 336. Economic Development
- ECON 384. Natural Resource Economics
- ENVS 261. Sustainable Agriculture
- ENVS 263. Global Change and Sustainability
- GS 259. Global-local Environmentalisms
- GOVT 312. Environmental Law and Politics
- GOVT 327. Politics of Development and Underdevelopment
- PHIL 310. Philosophy of the Environment
- SOC 253. Race, Class and Environmental Justice
- SOC 465. Environmental Sociology

Students may also work with their advisor to petition for other courses to fulfill the global perspectives elective.

Students are encouraged to consider taking at least one semester of independent research with a faculty member and to study a foreign language, but doing so is not a requirement of the major.

Independent Research

Students who wish to conduct independent research may do so by taking customized research methods courses (BIOL 381 and 382), or as seniors, by taking BIOL 468 and 469 (SYE: Tutorial Research) and BIOL 489 and 490 (SYE: Experimental Research). Students must discuss possible projects with members of the biology faculty. For more detail, see www.stlawu.edu/conservation-biology.

Honors

To graduate with honors in Conservation Biology, a student must have a 3.5 major GPA and must satisfactorily complete a 2-unit, year-long honors research project. Students conducting honors projects enroll in 1.0 unit of independent research (BIOL 489) during the fall and 1.0 unit of honors research (BIOL 499) in the spring of the senior year. The project is supervised and finally approved by an honors committee comprised of the project advisor and two other faculty members. Students wishing to conduct an honors project should consult with potential project advisors by the end of the junior year.

Economics

Major and minor offered

Visit the economics department webpage at www.stlawu.edu/economics.

Major Requirements

- 100. Introduction to Economics (1 unit)
- 200. Quantitative Methods (1.5 units)
- 251. Intermediate Microeconomic Theory. (1 unit)
- 252. Intermediate Macroeconomic Theory. (1 unit)
- Five electives, at least four at the 300-400 level (5 units)

Majors must maintain a grade point average in economics of at least 2.0 and must earn a grade of at least 2.0 in both ECON 251 and 252. A grade of P (pass) in ECON 251 or 252 does not count as a 2.0. No more than one independent

project or off-campus economics course may count toward the minimum number of economics courses required for a major or minor.

Students interested in majoring in economics should take ECON 100 (Introduction to Economics) as early as possible, preferably during their first year. Credit for ECON 100 is granted to students who earn a grade of 4 or 5 on the College Board's Advanced Placement Examinations in microeconomics or macroeconomics.

ECON 200 (Quantitative Methods in Economics) is a research methods course. It is recommended that this course be taken as early as possible, preferably before ECON 251 and 252. STAT 113 (Applied Statistics) is a prerequisite for ECON 200. Students who have completed Statistics 213 may choose not to take ECON 200 and instead choose an additional economics elective (at the 200- level or higher). ECON 200 may not be taken pass/fail.

ECON 251 (Intermediate Microeconomic Theory) and ECON 252 (Intermediate Macro-economic Theory) are economic theory courses required of all majors. Every 300 and 400-level course in economics has either ECON 251 or ECON 252 as a prerequisite. Potential majors are advised to take ECON 251 and ECON 252 during the sophomore year. First-year students can register for ECON 251 and ECON 252 by permission only. ECON 251 and 252 must be taken at St. Lawrence.

Although ACCT 203 and 204 do not count toward the major in economics, it is strongly recommended that economics majors take one or both of these courses at some point during their time at St. Lawrence.

Students should work closely with their academic advisors to select courses for the major and those interested in graduate programs, especially graduate work in economics, should discuss their plans with their advisor as early as possible.

Students interested in graduate study in economics are advised to pursue the economics–mathematics interdisciplinary major or to take as many courses in that major as possible. Students interested in graduate work in business are advised to take ACCT 203 and 204, CS 140 (Introduction to Computer Programming), MATH 135 (Calculus I) and ECON 313 (Financial Economics).

Minor Requirements

100. Introduction to Economics. (1 unit)

200. Quantitative Methods. (1.5 units)

251. Intermediate Microeconomic Theory. (1 unit)

252. Intermediate Macroeconomic Theory. (1 unit)

Two electives, at least one at the 300-400 level (2.0 units)

Minors must maintain a grade point average in economics of at least 2.0. The economics minor may not be combined with a major in Business in the Liberal Arts.

Certification to Teach Social Studies

Consult the Education section of this *Catalog*, the Education Department webpage at <http://www.stlawu.edu/education/undergraduate-programs>, and/or speak to the Coordinator of the Teacher Education program in the education department as early as possible.

Honors

Department honors are awarded to students who have, upon graduation, at least a 3.5 average in economics courses and have successfully completed an honors project. Students who expect to pursue an honors project should consult with their advisor and the department chair as soon as possible in their junior year. Prospective honors students should also take ECON 342 (Econometrics) during their junior year (See also Honors in the Curriculum section of this *Catalog*.)

Courses

Accounting

203. Financial Accounting.

An introduction to the basic financial accounting process, the underlying principles and the development and analysis of financial statements. Includes a weekly, computer-oriented laboratory session. Not open to first-year students.

204. Managerial Accounting.

An introduction to the accounting procedures and methods used for internal management purposes. Topics include cost accounting, differential analysis, responsibility accounting, budgeting and performance analysis. Prerequisite: ACCT 203. Not open to first-year students.

Economics

100. Introduction to Economics.

A general introduction to the discipline of economics, including both microeconomics and macroeconomics. The course is designed to develop an understanding of how economic principles and analysis can be used to study social problems and issues. Topics include supply and demand, comparative advantage, inflation, unemployment, economic growth, money and the banking system. Applications and issues vary by section. *Also offered through Peace Studies.*

200. Quantitative Methods in Economics.

An introduction to mathematical and statistical techniques used in economic analysis. Topics include the representation of economic hypotheses, sources and uses of economic data, probability, hypothesis testing and regression analysis. Emphasis is on the application of statistical techniques to economic problems. Prerequisites: ECON 100 and STAT 113. *Also offered through Statistics.*

209. The Economics of Gender and Family.

This course examines ways basic economic theory has been applied to questions of gender. It explores a variety of empirical and historical evidence about the economic status of women, the division of labor in the household, contemporary changes in labor markets, the economic forces affecting the ongoing evolution of the American family and the effects of government policy on all these. The course may also discuss the role of economics, as well as its limits, in understanding social phenomena. Offered every other year. Prerequisite: ECON 100.

228. African Economies.

An overview of sub-Saharan African economies with emphasis on basic economic principles, problems and indigenous institutions within an African context. Current development and structural adjustment issues are analyzed as well. Contrasts and comparisons with North American counterparts are made. Special emphasis is placed on exploring how cultural differences affect economic activities and institutions. Students learn of the diversity and complexity of economic relationships in African societies and increase their understanding of economics in their own society. Offered every other year. Prerequisite: ECON 100. *Also offered through African Studies.*

234. Comparative Economics.

This course offers a broad perspective on the history of the economies of the U.S./Western Europe, the former Soviet Union and the developing world by comparing the economic and political institutions in each. A historical look at the economic arguments for markets and planning provides theoretical framework for detailed exploration of the evolution of capitalism, the rise and fall of socialism and current attempts at reform in Russia and other countries, and the influence that both systems, along with colonialism, have had on the economic development of the rest of the world. The focus is on relationships among institutions societies adopt, the processes by which those institutions emerge, and the

economic consequences that follow. Majors in other social sciences or area studies programs are encouraged to enroll. Offered every other year. Prerequisite: ECON 100. *Also offered through Peace Studies and as GS 234.*

236. Globalization Issues: Equity, the Environment and Economic Growth.

Do globalization and economic growth contribute to increased inequality within countries and among them? Under what circumstances do global market forces contribute to the impoverishment of already disadvantaged nations and to the benefit of the already advantaged? What is the relationship between economic growth and damage to environmental resources? Under what circumstances do global market forces contribute to the degradation of the environment? This course endeavors to answer these questions and more, beginning with a study of recent literature by professional economists as well as by examining other data and evidence. Offered occasionally. Prerequisite: ECON 100. *Also offered through Peace Studies.*

251. Intermediate Microeconomic Theory.

Expands upon basic models of supply and demand, consumer theory, the theory of the firm and production, and theories of market behavior learned in Introduction to Economics. Examines the role of prices in the allocation of resources and examines the effects of changes in policy on economic choices. Prerequisite: ECON 100.

252. Intermediate Macroeconomic Theory.

A study of economic aggregates, including the determination of national income, employment and the price level, the topics covered include inflation, unemployment, economic growth, international macroeconomics and the appropriateness and effectiveness of monetary and fiscal policies. Prerequisite: ECON 100.

289, 290. Independent Project.

Individual study of a topic under the supervision of a faculty member. Prerequisites: GPA of at least 3.0 in economics and permission of instructor.

305. Industrial Organization and Public Policy.

A theoretical and empirical analysis of the structure, conduct and performance of American industry. Emphasis is placed on the use of microeconomic theory to analyze the effects of public policies on market incentives and resource allocation. Topics include theories of the firm, monopolization, mergers, antitrust law, price fixing, price discrimination and other contemporary problems. Prerequisite: ECON 200 and 251.

307. Law and Economics.

This course analyzes the law using economic principles. In particular, it employs the techniques of microeconomic theory in the study of policy issues and legal rules. Topics such as property rights, externalities, contract law, tort law (accidents), product liability and criminal adjudication are critiqued in terms of how different incentive structures motivate economic actors. The course includes the study of how economic goals conflict with and complement other goals of the law, such as justice and fairness. Prerequisite: ECON 251.

308. Environmental Economics.

An analysis of deficiencies of the market system and existing property rights structure that generates pollution problems. This course applies the theories of externalities, public goods, the second-best, nonmarket valuation, and benefit-cost analysis to environmental policy and regulation. Alternate policy options are considered, including command-and-control and incentive-based approaches. This course discusses local environmental quality issues (such as the management of municipal and toxic waste) and global problems (such as ozone depletion and climate change that require international policy). Students learn tools of economic analysis and their application to environmental issues and problems. Prerequisite: ECON 251.

309. Labor Economics.

A study of labor markets and the role they play in the determination of wages, employment and working conditions. The demand for labor by employers, leisure-labor supply decisions by households, investment in human capital, distribution of earnings among individuals and the effects of labor unions are discussed. Topics covered may include analysis of the role of government policy in the areas of income maintenance, unemployment, education, and occupational health and safety. Prerequisites: ECON 200 and 251.

311. Money and Banking.

This course explores the roles of money, banks and government policy in promoting economic growth and stability in a modern economy. In particular, the course investigates the operational principles of modern banks and the Federal Reserve System and compares their strengths and weaknesses to other historical and theoretical banking systems. The course focuses on the effects of monetary institutions and policy on macroeconomic stability, including inflation and business cycles. Other topics may include the history of American banking, current issues in bank regulation, electronic money, the role of financial markets and international monetary economics. Prerequisite: ECON 252.

313. Financial Economics.

This course is a standard course in investments. Among the subjects to be covered are the role of financial intermediaries and financial instruments, the time value of money, bond valuation, stock valuation, risk and return, market efficiency and investment companies. Special attention is devoted to hedge funds, options and futures. Prerequisites: ECON 200 and 251.

315. Public Sector Economics.

This course uses microeconomic tools and theory to examine the efficiency of markets and to enumerate potential roles for government when markets fail. The efficiency and equity of government expenditures and tax policies are examined by looking at their impact on individual behavior and the distribution of income. Current policies of state, local and federal governments are examined to see how real-world complications (like politics and information problems) can lead to outcomes that are very different from economic prescriptions. Prerequisites: ECON 200 and 251.

322. International Economics.

This course focuses on the theory of international trade and finance and its application to current policy problems such as protection, intervention in foreign exchange markets, international debt and foreign investment. Prerequisites: ECON 251 and 252 or permission of instructor. *Also offered through European Studies.*

330. History of Economic Thought.

Analysis of the development of major economic concepts. Ideas are examined for their relevance both to their own time and to ours. Coverage extends from the ancient philosophers into the 20th century, with special emphasis on Adam Smith, Karl Marx, and John Maynard Keynes. Offered occasionally. Prerequisites: ECON 251 and 252 or permission of instructor. *Also offered through European Studies.*

333. Austrian Economics.

An introduction to the body of ideas known as the Austrian School of economics, which is associated with the work of Ludwig von Mises and F. A. Hayek. The course explores the history of the school and how its approach to economics compares with the neoclassical orthodoxy, covering topics such as: the nature of human action, the role of knowledge in the market, the process of economic calculation, competition as a discovery process, the Austrian theory of the business cycle, the problems of socialism and regulation, and the Hayekian critique of social justice. Offered every other year. Prerequisites: ECON 251 and 252.

336. Economic Development.

This course examines the problems of economic growth and development in the less developed countries (LDCs) of Asia, Africa and Latin America. Although a variety of approaches to development economics are studied, the analysis of new institutionalist economics is emphasized. By the end of the semester, participants should be able to understand (1) the

economic diversity, as well as the diversity of development problems, among LDCs, (2) the conditions necessary or conducive to economic growth and the institutional hindrances to growth, and (3) the economic implications of alternative development strategies and policies. Prerequisites: ECON 200, 251 and 252. *Also offered through African Studies.*

342. Econometrics.

A study of statistical techniques economists have found useful in analyzing economic data, estimating relationships among economic variables and testing economic theories. Topics include multiple regression, probit and logit analysis, heteroscedasticity, autocorrelation and simultaneous equations models. Prerequisites: ECON 200, 251 and 252 and MATH 135. *Also offered as STAT 342.*

344. Mathematical Economics.

A systematic study of the mathematical structure of economic theory, with emphasis on the application of calculus and linear algebra to economic analysis. Topics include optimization theory, comparative statics analysis of market and macroeconomic models, general equilibrium analysis and game theory. Prerequisites: ECON 251, 252, MATH 205 and 217.

362. American Economic History.

This course offers an overview of the economic development of the United States. The specific topics covered will vary by instructor, but have included the economic causes of the American Revolution, the evolution of financial markets, the economics of slavery and Reconstruction, the Populist movement, the growth of government in the Progressive Era, the effects of war and other crises on the U.S. economy, and the Great Depression. Emphasis is placed on the role economic theory can play in understanding pivotal events of U.S. history and their relevance for current events. Prerequisites: ECON 251 and 252. *Also offered as HIST 362.*

371. Behavioral Economics.

Early economists knew that their models described a simplified, idealized type of behavior, but it is only in the past few decades that we have systematically studied the ways in which human behavior is different from what “rational” models suggest. This course covers theory and empirical research aimed at explaining key differences between standard economic models and the choices made by real people. The focus is on understanding behavioral models and their implications for both business and policy. Prerequisites: ECON 200 and 251.

376. Experimental Economics.

Experimental economics is the study of how various kinds of experiments help economists improve their models. The course explores, and involves participation in, a wide variety of experiments that have contributed to our understanding of how markets clear, the effects of various public policies, and issues in human decision making in the field of behavioral economics. The emphasis is on learning research methods; each student will prepare and run at least one in-class experiment as well as writing an original proposal to study a topic of their choosing. This course provides excellent preparation for students interested in using the economics lab for summer research or senior projects. Prerequisites: ECON 200 and 251.

384. The Economics of Sustainability and Natural Resources.

This course complements Economics 308 (Environmental Economics). Standard economic approaches to problems of economic and ecological sustainability and natural resources are presented and criticized from a variety of different perspectives to give students a deeper appreciation of the role of economic analysis in achieving sustainable futures in the context of natural resource scarcity. Specific topics may include economics and population growth, economics and environmental ethics, economics of energy, materials, water and marine resources. Prerequisites: ECON 251.

389, 390. Independent Project.

Individual study of a topic under the supervision of a faculty member. Prerequisites: GPA of at least 3.0 in economics and approval by the department.

410/411. Federal Reserve Challenge I and II. (ECON 410 is 1 unit/ ECON 411 is 0.5 unit)

This course prepares students to compete in the Fed Challenge, a competition sponsored by the Federal Reserve System, in which teams from participating schools present monetary-policy analyses to a panel of judges at regional Federal Reserve Banks and regional winners advance to a national competition in Washington, D.C. It is an excellent opportunity for students to develop professional skills such as strong knowledge of macroeconomic and financial data, solid command of software to create charts and presentation materials, and extensive practice of oral communication skills. The course may be taken as a junior (ECON 410), then as a senior (ECON 411). Prerequisites: ECON 200 or STAT 113, ECON 251 and 252, or permission of the instructor.

450. SYE: Senior Seminar.

The purpose of the seminar is to provide an integrative experience for senior majors that will allow them to use what they have learned in previous courses to study a particular issue in economics. Writing, speaking and research skills are emphasized. The issues and topics that form the basis of the seminar vary by semester and instructor. Prerequisites: ECON 200, 251 and 252, and senior standing. Course descriptions will be provided to majors in the spring of their junior year.

489, 490. SYE: Senior Independent Research.

Individual study, under the supervision of a faculty member, that provides an integrative experience for senior majors, allowing them to use what they have learned in previous courses to study a particular topic in economics. Majors choosing this option for their SYE in the fall are encouraged to enroll in ECON 495. Prerequisites: ECON 200, 251, 252, senior standing, GPA of at least 3.0 in economics and approval of the department prior to the semester the project begins.

495. Senior Honors Seminar.

Designed to prepare senior majors who are eligible for departmental honors, this seminar is focused on enhancing capabilities in conducting scholarly work in economics. The seminar is offered in the fall of each academic year and it is presumed that students enrolled plan to complete an honors thesis during the spring semester. Prerequisites: GPA of at least 3.5 in economics and approval of the department chair for those pursuing Honors.

498-499. SYE: Honors.

These courses are for senior majors who are eligible for department honors. Each student plans and writes an honors thesis under the guidance and supervision of a faculty member. Prerequisites: GPA of at least 3.5 in economics and approval of the department. Students must enroll in Economics 495 in the fall of their senior year.

Economics– Mathematics

Major offered

More information on this interdisciplinary major can be found at www.stlawu.edu/math-computer-science-and-statistics/economics-mathematics-combined-major.

The disciplines of economics and mathematics are closely related in many respects. Economics has relied heavily on mathematical analysis in the development of economic theory, while mathematics has provided solutions to optimization and control problems posed by economists. Economists have also used modern statistical techniques to test their theories, and statisticians have developed procedures appropriate for analyzing economic data. The interdisciplinary major in

economics–mathematics gives students an opportunity to explore the relationship between these disciplines through a highly structured program of study.

The objectives of the interdisciplinary major are:

1. To provide students whose primary interest is economics an opportunity to study economic theory and applied economics more thoroughly and more rigorously than is possible in the usual curriculum.
2. To introduce important areas of economics, and applications of mathematics and statistics to students whose primary interest is mathematics.
3. To provide a background for students interested in graduate study in economics, applied mathematics, statistics, and management science.
4. To provide training in mathematics, statistics, and econometrics for those entering directly into employment upon graduation.

Major Requirements

Economics

- 100. Introduction to Economics.* (1 unit)
- 251. Intermediate Microeconomic Theory.** (1 unit)
- 252. Intermediate Macroeconomic Theory.** (1 unit)
- 342. Econometrics (also offered as STAT 342) (1 unit)
- 344. Mathematical Economics. (1 unit)

Three electives, at least two at the 300-400 level (3 units)

Mathematics

- 135. Calculus I.* (1 unit)
- 136. Calculus II.* (1 unit)
- 205. Multivariable Calculus. (1 unit)
- 217. Linear Algebra. (1 unit)
- 325. Probability (also offered as STAT 325). (1 unit)

Two electives at the 300-400 level or MATH 280 (2 units)

**These courses may be omitted with advanced placement credit or other advanced standing. Students considering graduate work in economics are strongly encouraged to take MATH 280 and MATH 305.*

***ECON 251 and 252 must be passed with a grad of 2.0 or higher.*

Statistics

- 326. Mathematical Statistics **or** 343. Time Series Analysis. (1 unit)

Education

Minors offered (certification or educational studies)

Visit the education department's webpage at www.stlawu.edu/education.

The education department offers two sequences of undergraduate courses that students may use to explore teaching, learning and public school teacher certification: an educational studies minor that does not include student teaching, and a certification minor in education that culminates in the professional semester (student teaching), which is required for teaching certification.

St. Lawrence offers the following teacher certification programs, which are registered and approved by the New York State Education Department for grades 7-12: English, mathematics, biology, chemistry, earth science, physics, social studies, French and Spanish. The University also offers a registered and approved teaching certification program for K-12 art.

To pursue teacher certification, please read this section of the *Catalog* carefully and/or speak to the coordinator of the teacher education program in the education department as early as possible.

Requirements for New York State Teaching Certification

The programs described in this *Catalog* are registered and approved by the New York State Education Department and meet the regulations for initial teaching certification established by the New York State Board of Regents. St. Lawrence University's Teacher Education Program holds full national accreditation by the Teacher Education Accreditation Council (TEAC) for a period of seven years, from November 2013 to November 2020. Students can be recommended for an initial teaching certification in New York by successfully completing the following requirements:

1. A bachelor's degree in the liberal arts with an academic major in a discipline functionally related to the teaching certificate. Specific requirements for each separate major are outlined below by certificate areas.

NOTE: For students seeking certification in 7-12 general science, students must major in one of the natural sciences (biology, chemistry, geology, physics), complete the requirements for initial certification in that subject, and also complete a total of five courses in at least two additional natural sciences listed here — for example, major in biology and complete three chemistry courses and two geology courses, or major in geology and complete two physics courses, one biology course and one chemistry course.

Certification to Teach Art K-12

Students seeking initial certification as K-12 art teacher in New York must major in Art and Art History, with a Studio Art or Combined concentration, and also complete the certification minor in education. These majors will be exempt from the studio SYE seminar course that would coincide with their professional teaching semester. Art and Art History majors intending to complete student teaching after graduation in the University's Post-Baccalaureate Teacher Certification Program must complete the same requirements for the Art and Art History major and the precertification educational studies minor in education (or its equivalent) as undergraduates.

Certification to Teach Biology 7-12

Students seeking initial certification as a 7-12 biology teacher in New York must major in biology and also complete the certification minor in education. Biology majors intending to complete student teaching after graduation in the University's Post-Baccalaureate Teacher Certification Program must complete the Biology major and the precertification Educational Studies minor in education (or its equivalent) as undergraduates. Extension to Teach General Science 7-12 - consult the note at the beginning of this section.

Certification to Teach Chemistry 7-12

Students seeking initial certification as a 7-12 chemistry teacher in New York must major in chemistry and also complete the certification minor in education. Chemistry majors intending to complete student teaching after graduation in the

University's Post-Baccalaureate Teacher Certification Program must complete the Chemistry major and the precertification Educational Studies minor in education (or its equivalent) as undergraduates. Extension to Teach General Science 7-12 -consult the note at the beginning of this section.

Certification to Teach Earth Science 7-12

Students seeking initial certification as a 7-12 earth science teacher must complete a major in Geology and the certification minor in Education. The following coursework must be completed as a part of, or in addition to, the major: GEOL 110 (Environmental Geology) or GEOL 310 (Hydrology and Hydrogeology), GEOL 112 (Global Climate), GEOL 415 (Tectonics) and PHYS 102 (Introduction to Astronomy). Geology majors intending to complete student teaching after graduation in the University's Post-Baccalaureate Teacher Certification Program must complete the precertification Educational Studies minor in education (or its equivalent) as undergraduates and all of the earth science requirements listed above (or their equivalents). Extension to Teach General Science 7-12-consult the note at the beginning of this section.

Certification to Teach English 7-12

Students seeking initial certification as a 7-12 English teacher in New York must major in English and also complete the certification minor in education. Students are encouraged to include all four surveys of British and American literature (ENG 225, 226, 237 and 238) in their major, along with the following additional courses: ENG 319 or 320 (Shakespeare), and PCA 111 (Rhetoric and Public Speaking) or 113 (Introduction to Performance Studies). English majors intending to complete student teaching after graduation in the University's Post-Baccalaureate Teacher Certification Program must complete the English major and the precertification Educational Studies minor in education (or its equivalent) as undergraduates.

Certification to Teach French 7-12

Students seeking initial certification as a 7-12 French teacher in New York must major in the language and also complete the certification minor in education. Francophone studies majors intending to complete student teaching after graduation in the University's Post-Baccalaureate Teacher Certification Program must complete the Francophone Studies major and the precertification Educational Studies minor in education (or its equivalent) as undergraduates. To qualify for the professional semester (student teaching), students must spend at least a semester studying abroad in a country where the student's major language is the primary language.

Certification to Teach Mathematics 7-12

Students seeking initial certification as a 7-12 mathematics teacher in New York must major in mathematics and also complete the certification minor in education. Strongly recommended for the teaching certificate in mathematics are courses in geometry, statistics, computer science and physics. Mathematics majors intending to complete student teaching after graduation in the University's Post-Baccalaureate Teacher Certification Program must complete the Mathematics major and the precertification Educational Studies minor in education (or its equivalent) as undergraduates. Students should consult early with a member of the mathematics, computer science and statistics department to schedule required courses around the professional semester.

Certification to Teach Physics 7-12

Students seeking initial certification as a 7-12 physics teacher in New York must major in physics and also complete the certification minor in education. Physics majors intending to complete student teaching after graduation in the University's Post-Baccalaureate Teacher Certification Program must complete the Physics major and the precertification Educational Studies minor in education (or its equivalent) as undergraduates. Extension to Teach General Science 7-12 -consult the note at the beginning of this section.

Certification to Teach Social Studies 7-12

NOTE: For students seeking certification in 7-12 social studies, students must major in anthropology, economics, global studies, government, history, or sociology. Regardless of the major, a minimum of 21 semester hours is required in the study of New York, United States and world history and geography.

Anthropology majors

Students seeking initial certification as a 7-12 social studies teacher in New York can major in anthropology. In addition to completing the certification minor in education, students majoring in anthropology must also take HIST 103 (Development of the United States, 1607-1877) and 104 (Development of the United States 1877-Present); one economics course (ECON 100, Introduction to Economics, is recommended if only one course is taken); one government course (GOVT 103, Introduction to American Politics, is recommended if only one course is taken); and at least two courses in the major that illuminate U.S. and/or world history and geography. Students are also encouraged to take courses in other social sciences and area studies to round out their preparation for teaching social studies. Anthropology majors intending to complete student teaching in the University's Post-Baccalaureate Teacher Certification Program after graduation must complete the precertification Educational Studies minor (or its equivalent) as undergraduates and all of the social science requirements listed above (or their equivalents).

Economics majors

Students seeking initial certification as a 7-12 social studies teacher in New York can major in economics. In addition to completing the certification minor in education, students majoring in economics must also take one government course (GOVT 103, Introduction to American Politics, is recommended if no other government course is taken); HIST 103 (Development of the United States, 1877-present); GS 102 (Introduction to Global Studies II: Race, Culture, Identity); and at least one course in the major that illuminates U.S. and/or world history and geography. Students are also encouraged to take courses in other social sciences and area studies to round out their preparation for teaching social studies. Economics majors intending to complete student teaching in the University's Post-Baccalaureate Teacher Certification Program after graduation must complete the precertification Educational Studies minor (or its equivalent) as undergraduates and all of the social science requirements listed above (or their equivalents).

Global Studies majors

Students seeking initial certification as a 7-12 social studies teacher in New York can major in global studies. In addition to completing the certification minor in education, students majoring in global studies must also take one economics course (ECON 100, Introduction to Economics, is recommended if only one course is taken); one course in government (GOVT 103, Introduction to American Politics, is recommended if only one course is taken); HIST 103 (Development of the United States, 1607-1877); HIST 104 (Development of the United States, 1988-Present); and at least one specified course in the major that illuminates U.S. and/or world history and geography. Students are also encouraged to take other courses in other social sciences and area studies to round out their preparation for teaching social studies. Global studies majors intending to complete student teaching after graduation in the University's Post-Baccalaureate Teacher Certification Program must complete the precertification Educational Studies minor (or its equivalent) as undergraduates and all of the social science requirements listed above (or their equivalents).

Government majors

Students seeking initial certification as a 7-12 social studies teacher in New York can major in government. In addition to completing the certification minor in education, students majoring in government must also take one economics course (ECON 100, Introduction to Economics, is recommended if only one course is taken); HIST 103 (Development of the United States, 1607-1877) and HIST 104 (Development of the United States, 1877-Present); GS 102 (Introduction to Global Studies II: Race, Culture, Identity); and at least one specified course in the major that illuminates U.S. and/or world history and geography. Students are also encouraged to take courses in other social sciences and area studies to round out their preparation for teaching social studies. Government majors intending to complete student teaching in the University's Post-Baccalaureate Teacher Certification Program after graduation must complete the precertification

Educational Studies minor (or its equivalent) as undergraduates and all of the social science requirements listed above (or their equivalents).

History majors

Students seeking initial certification as a 7-12 social studies teacher can major in history. In addition to completing the certification minor in education, students majoring in history must also take one economics course (ECON 100, Introduction to Economics, is recommended if only one economics course is taken) and one government course (GOVT 103, Introduction to American Politics, is recommended if only one government course is taken). Students must concentrate their studies in the major on courses that illuminate U.S. and/or world history and geography. Students are also encouraged to take courses in other social sciences and area studies to broaden their preparation for teaching social studies. History majors intending to complete student teaching after graduation in the University's Post-Baccalaureate Teacher Certification Program must complete the precertification Educational Studies minor (or its equivalent) as undergraduates and all of the social science requirements listed above (or their equivalents).

Sociology majors

Students seeking initial certification as a 7-12 social studies teacher in New York can major in sociology. In addition to completing the certification minor in education, students majoring in sociology must also take HIST 103 (Development of the United States, 1607-1877); HIST 104 (Development of the United States, 1988-Present); GS 102 (Race, Culture, Identity); one economics course (ECON 100, Introduction to Economics, is recommended if only one course is taken); and at least one course in the major that illuminates U.S. and/or world history and geography. Students are also encouraged to take courses in other social sciences and area studies to round out their preparation for teaching social studies. Sociology majors intending to complete student teaching after graduation in the University's Post-Baccalaureate Teacher Certification Program must complete the precertification Educational Studies minor (or its equivalent) as undergraduates and all of the social science requirements listed above (or their equivalents).

Certification to Teach Spanish 7-12

Students seeking initial certification as a 7-12 Spanish teacher in New York must major in the language and also complete the certification minor in education. Spanish majors intending to complete student teaching after graduation in the University's Post-Baccalaureate Teacher Certification Program must complete the Estudios Hispánicos major and the precertification Educational Studies minor in education (or its equivalent) as undergraduates. To qualify for the professional semester (student teaching), students must spend at least a semester studying abroad in a country where the student's major language is the primary language.

1. **Completion of the certification minor** (9.5 courses) in education, which includes the five pre-requisite courses and the 4.5 professional semester (student teaching) courses.
2. A passing grade in at least one semester of study at any level in a language other than English.
3. Passing scores on three New York State Teacher Certification Examinations (NYSTCE):
 - Portfolio-based Teacher Performance
 - Assessment (edTPA)
 - Educating All Students Test (EAS)
 - Content Specialty Test (CST) in the area of certification
4. **Completion of specified workshops** (offered in the professional semester curriculum) on topics mandated by New York Education Law:
 - Identification and Reporting of Child Abuse
 - Safety and Fire Prevention in Public Schools
 - Violence Prevention in the Public Schools
 - Development of a Safe Learning Environment
 - Prevention of Alcohol, Drug, and Tobacco
 - Abuse in School-Age Populations

5. **Fingerprint clearance** through the State of New York and the Federal Bureau of Investigation (FBI).

With careful planning, these requirements can be completed during the four-year undergraduate curriculum, leading to teaching certification upon graduation. Students should check regularly with the education department at St. Lawrence to learn about changes to the requirements or the program.

Minor Programs

Certification Minor

Students may be admitted for the certification minor in education at any time during the sophomore year or later, providing they have good academic standing at the University. A 2.0 grade point average is required in the certification minor for graduation and a 2.5 grade point average in the prerequisite courses is required for entry into the professional semester. The certification minor consists of the following five pre-requisite courses plus the 4.5 professional semester courses:

Pre-requisite Courses to the Professional Semester

(also known as the "precertification educational studies minor" for students who plan to complete the University's Post-Baccalaureate Teacher Certification Program)

250. Teaching and the Context(s) of Learning: Teacher as Researcher.
350. Teaching in a Differentiated Classroom: Meeting the Needs of All Learners.
450. Principles of Teaching Adolescents: Curriculum, Instruction and Assessment.

Any other two EDUC courses.

Professional Semester (Student Teaching)

The professional semester (student teaching) requires a full load of 4.5 courses in education, to be taken during one semester of the senior year. Student teaching in English, mathematics, science and social studies is offered only during the fall semester; student teaching in world languages and art is offered only during the spring semester.

405. Seminar: The Dynamics of School Teaching.
406. SYE: Supervised Student Teaching.
- 410-415. Methods, Materials and Literacy Development in the Content Area.
(only one methods course for each certificate area required)
436. Individual Differences in Inclusive Classrooms.
437. Classroom Organization and Management. (0.5 credit)

Educational Studies Minor

The Educational Studies minor consists of any five courses in education not included in the professional semester (student teaching) and not including 250, 350 or 450. Up to one course from another department that closely relates to education (e.g. Sociology of Education, Gender in Schools, TESOL, and others) or pre-approved study abroad courses in education may also be used towards the five courses. Students may be admitted for the minor in education at any time during the sophomore year or later, providing they have good academic standing at the University. A 2.0 grade point average is required in the minor for graduation.

Students planning to apply to complete the precertification Educational Studies minor and the professional semester as a post-baccalaureate student in the University's Post-Baccalaureate Teacher Certification Program may complete this minor

with prerequisite coursework for certification as an undergraduate (e.g. 250, 350, 450 and two additional education electives), and identify themselves as pre-certification when they declare their Educational Studies minor.

Criteria for Admission into Student Teaching

Students intending to student-teach in any fall semester should submit an application to the education department by February 15, and an application portfolio by March 15, of the previous semester. Students intending to student-teach during any spring semester should submit an application to the education department by September 15, and an application portfolio by October 15, of the previous semester. The Academic Advising Committee will review applications for admission into student teaching on the basis of the following criteria:

1. Senior standing (or higher) at the University, verified by transcript attached to the application.
2. Satisfactory social standing at the University, verified by communication from the dean of student life and co-curricular education.
3. Satisfactory academic writing, verified by evidence that the student has cleared any prior IWC on the transcript.
4. Satisfactory academic achievement at the University, verified by one of the following:
 - a 2.5 cumulative GPA
 - a 3.0 average the semester before student
 - teaching *or*
 - approval by the Academic Advising Committee
5. (a) Satisfactory completion at the 2.5 level or higher of the three prerequisite courses in education (Education 250, 350 and 450).
(b) Satisfactory completion at the 2.5 level or higher of two additional courses in education.
6. (a) Recommendation by the department of the academic major, verified by communication from the department chair or designee.
(b) A 2.8 cumulative GPA in the major (or content area equivalent)
(Students seeking certification in 7-12 French or Spanish must complete at least one semester abroad.)
7. Recommendation by the department of education faculty members under whom the student has studied, verified by internal communication with the teacher education program coordinator.
8. An application portfolio, submitted via LiveText, evidencing successful completion of field experience requirements in the prerequisite education courses.

Students may register for the professional semester once they are admitted to student teaching by the Academic Advising Committee. Student teaching placements in the schools are arranged only by the University's coordinator of teacher education and the school administrators. Because weekly seminars during the professional semester are required, student teaching placements are generally made within St. Lawrence County.

Post-Baccalaureate Teacher Certification Program

For St. Lawrence undergraduates who do not complete the certification minor in education, the Post-Baccalaureate Teacher Certification Program offers an alternative route to initial teaching certification. In this graduate program, St. Lawrence students who complete the prerequisite courses for student teaching as part of the precertification Educational Studies minor as undergraduates, and who receive a grade of 2.5 or higher in each course, may then apply for student teaching during any appropriate semester following graduation with a bachelor's degree. Students who undertake this option must apply to the education department both for admission to the graduate school and also to the professional semester.

Their applications for student teaching will be reviewed by the Academic Advising Committee using the same criteria listed above. Students in the program take the 4.5 courses of the professional semester as graduate-level courses and pay graduate tuition. Three of the courses will count toward the master's degree in general studies in education at St. Lawrence.

The Post-Baccalaureate Teacher Certification Program is also open to St. Lawrence students (and graduates of other accredited colleges) who did not complete the prerequisite courses prior to graduation. In those cases, students must complete graduate courses in education that are equivalent prerequisites to student

teaching, so the program will take longer than one semester. In addition, they must satisfy the University's requirements for subject matter competency in the teaching field. Information about application procedures and details regarding the Post-Baccalaureate Teacher Certification Program are included in the *Graduate Studies Catalog*, available at www.stlawu.edu/education/resource/graduate-catalog.

Initial Teaching Certification in Other States and in Canada

The teacher preparation program at St. Lawrence provides sufficient academic preparation for initial certification in most U.S. states, even though New York State no longer participates in the interstate reciprocity agreement for teacher preparation. To be certified in any state, the student must apply directly to the education agency in charge of teaching certification in that state. Acceptance of academic preparation and/or New York State certification by another state does not exempt an applicant from completing state-specific competency testing requirements or mandated workshops, which each state may determine separately.

To meet standards for a Certification with Conditions (Ontario) or Provisional Certification of Qualification (initial certificate) in other Canadian provinces, students must first be certified in New York State, and then apply to the province using the current New York certificate. Because certification standards in other states and provinces are changing, students should check with the education department for details regarding specific certification requirements in any other state or province.

Courses

153. Introduction to Teaching

This course is intended for students who do not plan to become certified teachers. It is an introduction to curriculum design, assessment, and practices that support student engagement. The course is ideal for students considering teaching in private schools, non-school environments (libraries, museums, outdoor education programs) and considering programs like Teacher For America. Through a combination of readings, lesson planning exercises and multiple reflections on teaching and the type of teacher students would like to become, the course will serve as excellent preparation for teaching in a variety of contexts. The course is not open to students who took EDUC 250 or who plan to take EDUC 250.

203. Contemporary Issues in American Education.

This course introduces students to the range of current and critical issues in American education. In this course, we will consider how political, ideological, social and cultural forces shape schooling. Through class discussions, assignments, and other class activities, students will explore current, overarching questions in education including: What is the purpose of schooling? Who benefits/suffers from these purported ideals and goals? Are schools designed to equalize society? Or do schools further reproduce societal norms and social class? Should schools play a role in challenging the status quo? How are social constructs such as race, class, and gender reproduced in the classroom? How do capitalism, globalization, and democracy play out in education? Further, what is the teacher's role and responsibility for educating students within the political and historical context of schooling in America?

225. Rhetoric and Community Peer Mentors

This course is designed to train students who will work as rhetoric and communication mentors in the University's WORD Studio. Permission of instructor required. Fulfills ARTS Distribution (2013 curriculum).

250. Teaching and the Context(s) of Learning: Teacher as Researcher.

Students will learn how context informs curriculum, instruction and assessment practices. Students will translate data (broadly understood) into meaningful, effective practices to improve student learning outcomes. The course introduces students to teacher research and action research methodologies, and it positions inquiry into one's own classroom, school, and community as an important part of professional practice. Students will consider how teachers act as learners, researchers, leaders, advocates, and more. Students will spend at least twenty hours in school (and other settings), using research skills to observe and learn about adolescents and the social contexts of their learning.

253. Can Education be Reformed?

When one looks at the landscape of educational reform, one is tempted to compare it to the classic Western film *The Good, the Bad and the Ugly*. There have been visionaries and opportunists, and sometimes it is hard to tell the difference between the two. Sadly, we often forgot that in the rush to reform schools, the biggest casualties are often those most at risk: students. In this course we will look at attempts to reform education, and—in the process—question whether it is the system that is most in need of reform or the reformer mindset. This is not to say that the status quo is necessarily acceptable or desirable. But, it is to say that maybe we are looking for improvement in all the wrong places. We will do a range of readings in educational philosophy, educational theory and educational policy, with the goal that each student will create a final project aimed at responding to questions related to education reform and educational reformers.

270. Outreach to Schools I.

Outreach to Schools is both a set of courses and a University program. The program seeks to “bridge the gap” between the University campus and the public schools by having college students teach lessons in public schools as requested by the K-12 school teachers. The courses expose college students to research-based educational practice by designing and teaching lessons that apply constructivist learning theory in classroom situations; they are student-run courses tightly structured and monitored by the instructor. EDUC 270 focuses on public education and the development of teaching skills. Open only to education minors. Pre-requisite: EDUC 203, 250 or 305.

273. Teaching and Teachers

The main goal of this course is to ask two related questions. What is good teaching? Can good teaching be taught? Using a variety of sources—novels, film, educational research, journalism, autobiography—we will think together about the complexities of teaching and the variety of (often conflicting) visions of what good teaching is. By the end of the semester you will have develop a vision (or visions) of what good teaching looks like, and you will determine if—and possibly how—it can be taught.

305. Educational Psychology.

A consideration of psychological principles and theories applicable to learning and teaching, with emphasis on the public schools. Particular attention is paid to such areas as human growth and psychosocial development, motivation, theories of learning and teaching, evaluation and assessment, student differences, and behavior management in the classroom. Additional topics include: emotional and behavioral disturbances in adolescence, bullying, substance use and abuse, and adolescent sexuality. A field experience is required.

350. Teaching and Literacy in a Differentiated Classroom: Meeting the Needs of All Learners.

This course is an introduction to teaching for students who intend to teach in secondary schools, with a focus on students who intend to become certified teachers. Students will be introduced to differentiated instruction and understanding by design, and will plan lessons using these approaches to curriculum and instruction. The goal of differentiated instruction and understanding by design is planning lessons that engage and challenge each learner. In order to accomplish this goal, students in this course will study learners, the content area they intend to teach and how literacy works in their content area. Particular attention will be paid to culturally responsive pedagogies, inclusive education, special education and English language learners. Students will spend at least twenty hours observing and teaching at a local secondary school. There are no prerequisites for the course, but this course is by permission of the instructor only. Fulfills the DIV 13 requirement (2013 curriculum).

353. American Philosophies of Education.

This course will examine how American thinkers and writers describe the struggle to become an educated person. The authors that we will read together this semester all come to a point where they ask: Why does the world seem to conspire against individuals who aim to become educated? Each of our authors sees the struggle for education in different ways, describing it as a struggle: against the old (world); against our self and our self-conceptions; against injustice; against our language; against our forms of thinking and ways of knowing; against racism and other forms of prejudice; against our limitations (real and perceived). Together we will witness the struggles for education that our authors manage to (beautifully) express, and we will work together to discover what lessons these expressions hold for our understanding of education and our own struggles to become educated.

370. Outreach to Schools II.

Outreach to Schools is both a set of courses and a University program. The program seeks to “bridge the gap” between the University campus and the public schools by having college students teach lessons in public schools as requested by the K-12 school teachers. The courses expose college students to research-based educational practice by designing and teaching lessons that apply constructivist learning theory in classroom situations; they are student-run courses tightly structured and monitored by the instructor. EDUC 370 concentrates on advanced teaching skills as well as organizational and evaluative skills important for effective operation of the program. Open only to education minors. Pre-requisite: EDUC 270.

405. The Dynamics of School Teaching.

Student teaching seminar prepares student teachers to enter schools prior to full-time student teaching, addresses issues or concerns that arise throughout the professional semester and assists student teachers in understanding their own socialization in the teaching profession. Special workshops cover state-mandated topics including school safety and fire prevention, violence prevention, the identification and reporting of child abuse and the prevention of drug/alcohol/tobacco abuse. Open only to seniors and graduate students approved for the professional semester. Prerequisites: Education 250, 350, 450. Enrollment by permission only.

406. SYE: Supervised Student Teaching.

Students in the professional semester enroll in EDUC 405, 406, one methods course (410-415), 436 and 437 for a full semester of student teaching in the public schools. General supervision is provided by University supervisors in concert with cooperating teachers in the classroom setting. EDUC 405, 410-415, 436 and 437 are taught intensively during the first four weeks of the semester, at which time student teachers undertake a 40-hour field experience in the classroom. Then the courses change to a weekly evening schedule for the remaining student teaching experience, so that student teachers may be teaching in classrooms full-time. Instructors discuss problems and concerns arising throughout the professional semester and assist student teachers in understanding their own socialization in the teaching profession. Open only to seniors and graduate students approved for the professional semester. Prerequisites: EDUC 250, 350, 450. Enrollment by permission only.

408. Critical Aspects of Teaching ESOL

This course will critically examine the ESL teach-abroad phenomenon and while not a teaching certification course, students will leave this course with a fundamental understanding of and practical applications for teaching ESL/EFL. This course will examine trends and issues in the field of TESOL, will practice writing and teaching lesson plans, and will highlight the importance of understanding culture, learner characteristics, and situational information in planning and teaching. Students will also gain practical experience teaching English. Students will develop an understanding of the complexities of teaching ESL/EFL and why being a native English speaker is not enough of a qualification for success. Fulfills DIV13 Distribution (2013 curriculum) Dual listed as LANG 408.

410-415. Methods, Materials and Literacy Development in the Content Area.

As a part of the professional semester, separate courses are offered in art (EDUC 410), English (EDUC 411), world languages (EDUC 412), mathematics (EDUC 413), the sciences (EDUC 414) and social studies (EDUC 415). Each methods course involves a study of standards and objectives, special techniques appropriate for the teaching of the particular subject, materials and aids for facilitating instruction, lesson and unit planning and assessment, and an analysis of problems unique to the teaching of the subject. Focus is on strategies for language and literacy. Open only to seniors and graduate students approved for the professional semester. Prerequisites: EDUC 250, 350, 450. Enrollment by permission only.

436. Individual Differences in Inclusive Classrooms.

This course addresses the need for teachers to facilitate the learning of students with a variety of special needs in inclusive classroom settings. Attention is paid to the special education referral and planning process spelled out by the Individuals with Disabilities Education Act (IDEA), the role of the classroom teacher in meeting the educational needs of mainstreamed students and strategies for helping all students to meet the New York State learning standards. A field experience in the public schools is required. Open only to seniors and graduate students approved for the professional semester. Prerequisites: EDUC 250, 350, 450. Enrollment by permission only.

437. Classroom Organization and Management. (0.5 credit)

This course is designed to assist student teachers in the professional semester to develop successful approaches to classroom management for diverse learners. Students investigate the current theories in classroom organization and behavior management, critically analyzing them according to recent research on learning and school structure. As a part of the professional semester, students have opportunities to apply theories learned in the course in actual classroom situations. Open only to seniors or graduate students approved for the professional semester. Prerequisites: EDUC 250, 350, 450. Enrollment by permission only.

450. Principles of Teaching Adolescents: Curriculum, Instruction and Assessment.

This course prepares students for teaching in secondary schools. The purposes, problems, issues, strategies, and materials in teaching at the middle and high school levels will be examined critically through classroom discussions, individual and group work, a field experience and class projects. This course is as much about the methods as it is about their underlying pedagogies and their overarching, though often unexamined, principles. A field experience in the public schools is required, with the objective of encouraging reflection and building connections between theory and practice. Entry in the professional semester at St. Lawrence University is contingent upon successful completion of this course at the 2.5 level or higher. EDUC 250 and 350 are prerequisites.

455. Language Acquisition and Literacy Development Across the Curriculum.

A multidisciplinary consideration of the ways young people learn the language arts (speaking, reading, writing and listening) across the subject matter disciplines. This course addresses language acquisition and literacy development for students who are native English speakers and students who are English language learners. A field experience in the public schools is required. Students must register for one of the 1.5-hour CBL labs to complete the field experience.

Graduate Programs

Graduate courses may be taken for graduate credit only. Undergraduate students who have three or fewer units to complete before graduation may enroll in graduate courses with the permission of the instructor. In addition to the Post-Baccalaureate Teacher Certification Program, St. Lawrence offers master's degree programs in teaching, educational leadership and counseling, with programs leading to certificates of advanced study in educational leadership and counseling as well. Completion of a master's degree program at St. Lawrence helps meet requirements for initial and/or professional teaching certification in New York State as well as provisional and/or permanent certification in educational administration and/or school guidance and mental health.

English

Majors and minors offered

Visit the English department webpage at www.stlawu.edu/english.

Requirements for the Major

The English Major in Literary Studies

A minimum of 10 semester units in English:*

1. Five courses at the 100, 200, or 3000 level, to include ENG 250 and four other introductory courses (one of which may be in creative writing).
2. Five courses at the 300, 400 or 4000 level, with no more than two courses from any one of the Studies rubrics. These five courses must include a Senior Seminar (ENG 450).

The English Major in Creative Writing

A minimum of 10 semester units in English:*

1. Five courses at the 100, 200, or 3000 level, to include ENG 250, one other literature course, and two introductory creative writing courses (201, 223, 241, 242, 243, 244, 293, or 295).
2. Five courses at the 300, 400, or 4000 level. These five courses must include a Senior Seminar (ENG 450). Two courses must be taken under the Studies in Advanced Writing (AW) rubric, but no more than two courses may be taken from any one of the Studies rubrics.

*Students may take more than the minimum of 10 courses in English. However, no more than 14 units in a single department will receive credit toward graduation.

Studies Rubrics for 300 and 4000-Level Courses

Applied Theory Studies (AT)

These courses provide advanced practice of some of the literary theories studied at the 200 level. Students develop an increased sophistication with the creative dimensions of literary criticism, and the critical dimensions of creative writing. Prerequisite: ENG 250.

Author Studies (AS)

These courses offer close analysis of the literary craft as practiced by specific authors. Study focuses on creative concerns such as voice, aesthetics, style, recurring themes, milieu, influence and rhetorical design. Prerequisite: ENG 250.

Genre Studies (GS)

These courses examine the evolution, definition and practice of specific literary genres and modes. While developing an understanding of the theoretical assumptions of those specific genres, students also consider factors influencing the popular reputations of the genres. In addition, the courses examine topics such as genre hybridity and anti-genre aesthetics. Prerequisite: ENG 250.

Studies in Advanced Writing (AW)

These courses develop advanced practice of the literary genres offered at the 200 level. Students work independently, with emphasis on craft, voice and style. Peer manuscript review, through workshops and other structures, sharpens

students' critical skills. The courses also study a range of model authors in the specific genre. Prerequisite: The 200-level introduction to the advanced genre.

Studies in Literary Traditions (LT)

These courses situate the study of literature within historical and ideological contexts. The establishment and development over time of literary traditions will be traced as students examine the relationship between social values, cultural currents and literary production. Prerequisite: ENG 250.

Requirements for the Minor

The English department offers two ways to minor in English, each one consisting of a group of six courses.

1. **The English minor in literary studies** requires ENG 250 (Methods of Critical Analysis); two literature courses at the 200 or 3000 level; and three literature courses at the 300, 400, or 4000 level.
2. **The English minor in creative writing** requires ENG 250 (Methods of Critical Analysis); one literature course at the 200 or 3000 level; three writing courses, one of which must be from the Studies in Advanced Writing (AW) rubric; and one literature course at the 300, 400, or 4000 level.

Environmental Studies–English Major

The environmental studies–English major gives students an opportunity to combine seven core courses in environmental studies with seven core courses/electives in English, thus providing substantial study in both disciplines, as well as in their intersection. The interdisciplinary major seeks to attract students who combine an interest in the environment with the desire to explore existing literature and to create new literature on environmental themes. Note that students pursuing this major may not also major in English. Please consult the Environmental Studies section of this *Catalog* for the complete list of courses.

Certification to Teach English

Consult the Education section of this *Catalog*, the Education Department webpage at <http://www.stlawu.edu/education/undergraduate-programs>, and/or speak to the Coordinator of the Teacher Education program in the education department as early as possible.

Courses

125. Introduction to Dramatic Scripts.

Students are introduced to the formal aspects of play texts and develop the critical skills necessary to read plays and critique live and video performances. Representative dramas from the Greeks to the present are investigated in terms of character development, dialog, settings and central ideas, as well as their original theatrical contexts: theater architecture, stage conventions, scenic devices, costuming, and acting techniques. The emphasis is on analysis of scripts and the relationship among performance conditions, cultural context and dramatic conventions. *Also offered as PCA 125.*

190. Introduction to Literary Forms.

In this course, students will be introduced to the concept of literary genres. Each section focuses on a single genre—poetry, fiction, fairy tales, nature writing, graphic novels—with a view to describing and illustrating its major characteristics. We will explore the varieties within generic types, and our selections will be drawn from a wide historical range. As we study the particular literary form, students will also learn to respond critically to the challenges posed by literary texts and receive guidance in the composition of effective written responses to them. Topics vary according to instructor and semester. No seniors.

3,000-3,999. Special Studies in Language and Literature.

The content of each course or section of these introductory special topics courses is different and is announced in the *Class Schedule*. Open to all students.

200. Sophomore Seminar.

The Sophomore Seminar is a seminar on the enduring value of literature—why we read it, how it brings us pleasure, and how it makes us better people. It examines how literature enables us to imagine new possibilities for ourselves and our world, and how it helps us to connect with ideas we have never considered. It is a seminar that emphasizes the value of literature in a liberal arts education. Topics will vary according to instructor and semester. Sophomores only.

201. Journalism.

A general study of journalistic principles and methods, as well as extensive practice in the gathering and writing of news. In the first half of the semester, students learn to analyze and compose basic types of stories in a style particular to new media, with an emphasis on accuracy, clarity and efficiency. In the second half of the semester, students practice and refine their reporting skills in an atmosphere closely resembling the conditions of a modern newsroom. They cover actual events of local, state, national and international importance as they unfold in real time—all under the pressure of real deadlines.

212. The London Stage.

Offered by St. Lawrence's program in England. Students read, view and discuss plays being produced in London during the semester. The formal study of the plays and their productions is supplemented by frequent attendance at various forms of theatre and occasional tours and lectures. Students with some background in drama may petition to take this course as 312L and substitute an independent project for the regular course work (*see below*).

215. Dramatic Texts in Context.

This course takes a sustained look at the theatrical and cultural contexts of plays that enable theatre practitioners to make informed choices regarding how to stage them. Topics for the course may be organized through time period – Greek and Roman drama, medieval English drama, contemporary American drama, for instance – or through thematic content: plays across time periods that foreground questions of identity formation, gender, sexuality, religion, class, or politics. Students should expect significant performance work in this class; however, no previous acting experience is required. *Also listed as PCA 215.*

222. Introduction to Multi-Ethnic American Literature.

This course introduces students to a broad range of literary arts crafted by racial minorities in the U.S. during the last two centuries. The main questions of early ethnic literature revolve around what it means to be a first- and second-generation American: how might we assimilate to this new and exciting country and how can we enrich it? More contemporary authors ask why and how race continues to define the self and how the current generation relates to ethnic traditions that might seem distant. As we read novels, poems, non-fiction, and drama, we will explore this set of questions as well as how the answers might change according to the intersections of gender, sexuality, class, ethnicity, and immigration. This survey course will enable us to glimpse into the experiences and histories of different racial groups: African Americans, Asian Americans, Latino/a Americans, and Indigenous Peoples.

223. Playwriting.

This course explores the processes of composition characteristic of the playwright. In a series of weekly assignments, various aspects of the art are introduced: dialogue, characterization, dramatic action, and others. The course concludes with the writing of a one-act play. Students read exemplary plays from the modern repertoire. *Also offered as PCA 223.*

225, 226. Survey of English Literature I and II.

These courses provide an overview of British literature, beginning with the Anglo-Saxon period and extending into the 20th century. Selections may be drawn from fiction, nonfiction, poetry, and drama. Both courses invite students to explore developments in British literature through the lens of different historical contexts, and both feature a variety of writings from different social classes, genders, and cultural traditions. ENG 225 begins with the earliest works in English literary history, ends at 1700, and includes selections from Medieval, Renaissance, and Restoration literature. ENG 226 includes selections from Neoclassical, Romantic, Victorian, and modern literature. Students contemplating graduate study in English are strongly recommended to take both courses. *Also offered through European Studies.*

228. Irish Literature.

A cultural studies course on 20th-century Ireland, with a focus on literature. Literary texts are contextualized by cinematic and musical sources, history and politics. The course examines the ways literature from the early 20th century and the contemporary period has been used to create and represent the postcolonial nation of Ireland, what stories it tells about history, identity and nationhood. Attention is paid to the vexed relationship between the Irish nation/culture/people and the divided politics that occupy the island today. Authors include Yeats, Joyce, Lady Gregory, Synge, O'Casey, Friel, Nuala O'Faolain, Edna O'Brien, Heaney, Muldoon, Doyle and others. *Also offered through European Studies.*

230. Introduction to African American Literature

Beginning with the voices of poet Phillis Wheatley and abolitionist Sojourner Truth and the slave narratives of Frederick Douglass and Harriet Jacobs, the course traces the vast expressions of the black experience through poetry, political writings and speeches, autobiography, fiction, drama, sermons, and music into the present. The course asks students to connect history and literature to gain an understanding of the black experience and black literary innovations. Writers might include W.E.B. Du Bois, Ida B. Wells, Zora Neale Hurston, Richard Wright, James Baldwin, Audre Lorde, Malcolm X, and Toni Morrison. *Also offered through African American Studies.*

231. Adirondack Literature

This course explores the literary history of the Adirondacks in an effort to understand how natural and cultural forces have shaped a sense of place in this storied geographic region. We'll examine a series of colonial encounters between Euro-American and Native American peoples in the eighteenth century; we'll study the rise of the nineteenth-century Romantic movement and the cult of wilderness that inspired the creation of the Adirondack Park; and we'll read a variety of regional writing by full-time residents whose work is deeply rooted in the labors and struggles of a people attempting to make a living in a harsh environment. Along the way, we'll ask the following questions: How have different people, over the past three centuries, viewed and valued the landscape? How have they exploited, defined, and defended the Adirondack wilds? And what lessons for the future—environmental, social, or otherwise—can we draw from our study of this particular region?

237, 238. Survey of American Literature I and II.

These courses offer an overview of American literature from the early colonial era to the present, with selections from fiction, nonfiction, poetry, and drama. Both courses invite students to view American literature through the lens of different historical and literary contexts and both feature writers who helped define the American literary canon. The courses examine the American literary imagination by focusing on a set of key issues that preoccupied the nation: colonial contact and resistance; slavery and abolition; women's rights; environmental politics; the rise of capitalism; modern cities and travel; movements for social justice and equality; and the shifting relationship between self,

community, nation, and world. ENG 237 covers writings from the colonial period to 1865; ENG 238 concentrates on literary texts from the Civil War until the early 21st century. Students can take the courses in any order.

239. Introduction to Canadian Literature.

The background and development of Canadian literature in English. Though beginning with a survey of late 19th and early 20th-century writing, the course emphasizes post-1920 Canadian literature, especially that written since 1940.

240. Writing in the World.

Students will be introduced to ways that creative writing is revitalized by its commerce with the world—that writing can be a means of understanding, and even an engine of change. Students will produce original creative work (some of which will involve background research), craft critical responses to course readings and activities, and give oral presentations on outside texts. Instructors will offer regular skills lectures, and student pieces will be “workshopped” in small group and whole class settings. Topics and writing genres will vary according to instructor and semester. Open to all students; no previous creative writing experience needed.

241. Techniques of Fiction.

In this introductory course on the basics of writing prose fiction, we will read and analyze a variety of short stories with an eye toward becoming better fiction writers ourselves. By reading diverse authors, periods, and approaches to storytelling, we will become more adept at important techniques such as narrative form, characterization, and point of view. We will compose a series of short exercises that may be reviewed in workshop for possible inclusion in a portfolio of significantly revised and polished work.

242. Techniques of Poetry.

An introductory study of prosody and poetics. Class attention is divided among student writing, theory and published models. Weekly writing assignments address a variety of technical issues connected with both traditional and experimental verse, while reading assignments providing examples to follow or possibilities for further study. Matters of voice, affect, intuition, chance and imagination are given as much attention as those analytic skills necessary for clear communication. All students are required to share their oral and written work for group discussion and critique.

243. Techniques of Creative Non-Fiction.

In this introductory course on the basics of writing literary nonfiction, we will read and analyze a variety of examples of creative nonfiction, including memoirs and personal essays, with an eye toward becoming better nonfiction writers and readers ourselves. By encountering diverse authors, periods, and approaches to storytelling and sharing insights and knowledge about our personal encounters with the world around us, we will improve our application of various important techniques such as form, structure, persona, characterization, and voice. We will compose a series of short exercises that with revisions may become longer memoirs and personal essays to share with the class workshop, and assemble a final portfolio of revised and polished work.

244. Techniques of Screenwriting.

An introductory study of basic technical problems and formal concepts of screenwriting. The study of produced screenplays and formal film technique, along with writing scene exercises, builds toward the construction of a short (50-minute) script. *Also offered as PCA 244, and through Film and Representation Studies.*

245. Literature in Context.

Students will be introduced to the ways in which literary works engage with the world that lies outside the text: historical events, social movements, political issues, artistic trends, scientific developments, geographic regions, and so on. Each course focuses on a specific work or set of works that have developed within particular real-life contexts, and students will learn strategies for analyzing the relationships between texts and contexts. While the course emphasizes critical reading, writing, and research skills, students may also have the opportunity to engage in creative writing as well. This course is

suitable for students at any stage of their academic careers. Topics vary according to instructor and semester; open to all students.

250. Methods of Critical Analysis.

This course introduces students to a range of theoretical methodologies used by creative writers and literary scholars. While each section of the course may focus on a different theme or on a different group of primary texts, all sections encourage students to learn and to apply a variety of methods with the goal of crafting critical analyses of literature. In addition, students learn to situate their own critical analyses in conversation with those of other literary scholars, to employ literary and other kinds of evidence in support of their arguments, and to document this research with the conventions most commonly employed in the field of literary study. Students will continue applying the course methodologies in upper-division creative writing and literary studies courses.

263. Native American Literature.

This course concentrates on Native American literature printed in English. Some versions will focus exclusively on contemporary fiction; others will take a historical approach to Native writing from the colonial era to the present day; and still others will survey multiple genres, including creation stories, memoirs, nature writing, poetry, short stories, and novels. Students will come to recognize some of the subjects and themes common to Native American studies, and they will learn to examine the forms and techniques of Native American literature. *Also offered through Native American Studies.*

293. A Literary Harvest.

This is a creative writing course in literary nonfiction that focuses on food, food security, and farming. In *Closing the Food Gap*, Mark Winne talks about affordable access to good, healthy food as an issue of social and environmental justice. While environmental writers and activists such as Wendell Berry, Michael Pollan, and Vandana Shiva have alerted us to the ecological, ethical, and health problems associated with large-scale industrial farming, the North Country has long been a haven for sustainable, small-scale organic agriculture. The course has both a CBL component and a cross-cultural, comparative focus (India). Students will do their CBL work on a local farm or in a food kitchen, and are required to sign up for the CBL lab as well. Prerequisite: ENVS 101. *Also offered as ENVS 293.*

306. AW: Advanced Screenwriting Workshop.

An extension and intensification of ENG 244. Students are expected to work independently on the preparation of two feature-length screenplays. Workshop format emphasizes the revision and editing process. Prerequisite: ENG 244. *Also offered as PCA306 and through Film and Representation Studies.*

307. GS: The Short Story.

In this course, we explore the evolution of the short story—especially in the United States—with special attention to how authors from diverse backgrounds have used this literary genre from the mid-1900s forward. We'll pay special attention to story collections, including story cycles, graphic stories, novels-in-stories, and thematically-linked stories. We will also explore how authors have utilized the short story's flexibility to capture and respond to social and political movements, important historical periods, and the influence of technological and cultural changes. Prerequisite: ENG 250.

308. AW: Advanced Creative Non-Fiction Writing.

Building upon the techniques that we acquired in ENG 243, Techniques of Creative Nonfiction, we will seek to deepen our exploration of writing, reading, and analyzing literary essays by reading a diverse range of authors who challenge basic approaches to writing memoirs and literary essays. We will focus on more nuanced concerns, such as style, voice, narrative stance, and structure, and we may experiment with forms and sub-genres such as the lyric essay, the segmented essay, and other hybrid forms. We will also read theory and criticism on creative nonfiction so as to better understand the possibilities this genre offers writers. In a workshop setting, we will analyze our own work in depth with an eye toward deep, comprehensive revision. Preparing the final portfolio will allow us to learn how to line-edit our prose as well as how to critically situate our own work within the genre. Prerequisite: ENG 243.

309. AW: Feature Writing/Literary Journalism.

In this course, students study the basic techniques of literary journalism, a specific genre that combines best practices of journalistic reporting with creative writing. Students survey examples of excellent feature stories, develop their own topics, and produce a series of feature stories, experimenting with various sub-genres, story lengths and literary approaches. Prerequisite: ENG 201, 221, 243, or 295.

310. AW: Advanced Fiction Writing.

Building upon the craft techniques that we acquired in ENG 241, Techniques of Fiction, we will seek to expand our repertoire of approaches to writing, reading, and analyzing short fiction. We will do this by reading an eclectic range of authors who challenge basic storytelling approaches by experimenting with structure, style, voice, and point of view. We will also read theory and criticism on writing fiction and the short story so as to better understand the possibilities this genre offers writers. We'll discuss our writing in a workshop setting, and, in the preparation of a final portfolio, will learn how to line-edit our prose as well as how to critically situate our own work within the genre. Prerequisite: ENG 241.

311. AW: Advanced Poetry Workshop.

An extension and intensification of ENG 242. The class combines workshop critique of student poems with discussions of readings in twentieth century and contemporary poetry (including Modernism, Confessionalism, the Beats, the Black Mountain School, the New York School, and Ellipticism). Poetic theory is also discussed. Students are required to submit a formal manuscript of poems, an arts poetica or manifesto, and to read from their work in public. Prerequisite: ENG 242.

312. GS: The London Stage.

Offered by St. Lawrence's program in England. Students attend the same plays as the ENG 212L class but undertake an independent project instead of the regular classwork. Prerequisites: two English courses, one of which must include the study of drama, and permission of the instructor.

315. AS: Chaucer

This course introduces you to the Father of English literature – Geoffrey Chaucer. Chaucer was the son of a wine merchant, a servant to three kings, a member of Parliament, and an inspired poet. He also was the first author to write in the English language – and what stories he wrote! Examples include *The Canterbury Tales* (a collection of racy narratives told by pilgrims for entertainment), *Troilus and Criseyde* (a tragic romance about two lovers separated by the Trojan War), and several dream visions like *The Book of the Duchess*, *The Parliament of Fowls*, *The House of Fame*, and *The Legend of Good Women* (all poems that explore the reality of waking existence through the subconscious of dreamers). We will examine Chaucer's prodigious and learned output in the context of his own life and the historical turmoil of the mid- to late-fourteenth century that transformed it, focusing on the complex issues of religion, class, gender, sexuality, politics, and authorial influence with which Chaucer himself engages. Prerequisite: ENG 250. *Also offered through European Studies.*

316. LT: English Literature of the Middle Ages

What do you think of when you hear the word “medieval”? King Arthur, Lady Guinevere, and Sir Lancelot? Magic, faeries, and monsters? Bubonic plague? *Game of Thrones*? All of these answers are right – to certain extents – but would you have guessed that the Middle Ages also left us with the University system and the liberal arts curriculum, cathedrals, and those nativity plays you may have performed in during elementary school? People in the medieval period were smart, innovative, socially and culturally aware, and had a deep sense of piety that they expressed through creative and devotional outlets, one of which was literature. Topics for this course will vary and will be arranged thematically, but will consistently foreground questions about identity formation, prejudices, gender, sexuality, religion, and politics as we interrogate the literature of our medieval past, a literature that thought of itself as modern and cutting edge. Examples of texts and authors you may encounter in this course could include but are not limited to epics like *Beowulf*, *The Tain*, and *Sir Gawain and the Green Knight*; Old English maxims and riddles; Middle English lyrics; civic and touring drama;

saints' lives; romances like Marie's *Lais* and Malory's *Morte D'Arthur*; John Gower's *Confession of Love*; William Langland's *Piers Plowman*; and mystical writings by Margery Kempe, Julian of Norwich, Ricard Rolle, and the anonymous author of *The Cloud of Unknowing*. Prerequisite: ENG 250. *Also offered through European Studies.*

319. AT: Shakespeare in Performance

An intensive study of Shakespeare's plays in performance, and theories of staging, including original practice and contemporary adaptation on stage and screen. Instructors will select from the tragedies, histories, comedies, and romances for thematic integrity. Students should expect significant performance work. Also offered as PCA 319 and through European Studies. Prerequisite: ENG 250.

320. AS: Shakespeare

An intensive study of Shakespeare's plays and their cultural context, including but not limited to the early modern era and successive centuries' reception and interpretation. Instructors will select from the tragedies, histories, comedies, and romances for thematic integrity. Students should expect some performance work. Also offered as PCA 320 and through European Studies.

324. GS: Elizabethan and Jacobean Drama

This course surveys early modern English drama from 1580 to 1640, exploring a selection of comedy, tragedy, and history plays written not by Shakespeare but by his contemporaries. We will consider a range of questions about genre, authorship, gender, performance and performance theory, and the transformation of theatrical conventions from the early days of popular theatre to the last years before Parliament closed the playhouses in 1640. A particular point of emphasis will be the plays' production histories from their earliest stagings to contemporary revivals and adaptations; to this end, we'll study early modern "original practices" to help us understand what sixteenth- and seventeenth-century spectators would have seen (and heard) when they attended a play at The Rose or Blackfriars theatres. Authors studied may include Christopher Marlowe, Thomas Dekker, Ben Jonson, Thomas Kyd, Thomas Middleton, John Ford, John Webster, and William Heminge. Prerequisite: ENG 250. *Also offered through European Studies.*

325. LT: Eighteenth-Century English Literature.

From the Financial Revolution to the French Revolution, the eighteenth century was a period of tremendous change. Literature reflects this period of exciting possibilities in new and evolving genres. In studying texts across the century, we examine how authors use significant form to engage both shifting values and timeless questions about what it means to be human. Prerequisite: ENG 250.

328. LT: English Romanticism.

The Industrial Revolution. The French Revolution. Abolition. World exploration. The British Romantic period saw huge paradigm shifts in ideas about human rights, the natural world, and what it meant to be "English." This period also saw a set of intellectual and aesthetic revolutions that resulted in a nearly complete overturning of what were considered the aims of "good" poetry and fiction. This course will explore the works of Romantic writers and thinkers such as poets William Wordsworth and John Keats, novelists Mary Shelley and Jane Austen, and critics Edmund Burke and Samuel Taylor Coleridge as they responded to these many revolutionary changes. Prerequisite: ENG 250. *Also offered through European Studies and Outdoor Studies.*

331. LT: American Romanticism: 1830-1860.

In this course students will embark on a wild ride through the canon of mid-nineteenth-century American literature. During this literary odyssey, we'll explore both land and sea in the company of several great American writers: Cooper, Emerson, Fuller, Thoreau, Poe, Hawthorne, Melville, Whitman, and Dickinson. Our discussions will highlight the broad philosophical shift from the Enlightenment to Romanticism; the tension between transatlantic contexts and American literary nationalism; the emergence of new forms of environmental aesthetics; and the political agenda of a generation of writers who were committed to radical projects of social reform, sexual freedom, and racial equality. Prerequisite: ENG 250.

334. GS: Reading the Land: Pastoral and Georgic Literature.

Two different ethics have dominated environmental literature since the classical age. The pastoral involves a retreat from society, an escape into the wilderness, and an embrace of rural leisure. Pastoral writing often features shepherds frolicking in fields, tending their flocks, and piping on flutes. In contrast, the georgic celebrates more intensive agricultural labor and promotes an ethic of hard work. Georgic writing often depicts crop-based agriculture, draft animals pulling plows, and farmers who are committed to a particular piece of ground. In this course, we will study the pastoral and georgic modes as they took shape in the work of the Roman poet Virgil, gained popularity in British literature, and then migrated across the Atlantic to America and across genres from poetry into prose. To conclude the semester, we will discuss the emergence of a “new” georgic in response to contemporary environmental concerns. Prerequisite: ENG 250.

339. LT: The Eighteenth-Century Novel.

The novel is a relatively new genre that emerged in the early eighteenth century. Why did the English novel originate at this time? What did authors imagine it as being and doing? And how did the genre evolve during this century? To answer these questions, we will situate the novel within its historical contexts, examine eighteenth-century debates about the form, and read influential examples by writers such as Aphra Behn, Daniel Defoe, Samuel Richardson, Henry Fielding, Horace Walpole, and Jane Austen. Prerequisite: ENG 250.

340. LT: The Victorian Novel.

The British Victorians ran the mightiest global power of their time and struggled with many of the same issues as we do—both public (technology, prejudice, pollution) and private (love, marriage, family). This course examines their novels within this context, and we will read a selection of works written in both the realistic tradition and in novelistic forms that arose or resurfaced late in the period (science fiction, horror, and detective fiction). Prerequisite: ENG 250. *Also offered through European Studies.*

346. LT: American Literature and the Environment.

This course explores the relationship between American culture and the natural environment through the lens of literary expression. We will study the evolution of environmental aesthetics from the colonial period through the Romantic era and into the twentieth century. Students will draw upon the insights of environmental history and apply them to literary analysis. The course will generally take shape around a particular theme (e.g., the history of frontier settlement, the politics of wilderness preservation, Adirondack literature, Arctic/Antarctic exploration, animal studies, environmental justice movements, or the desert/ocean aesthetic). Prerequisite: ENG 250. Meets the EL requirement. *Also offered as ENVS 346.*

352. GS: Contemporary Literature and the Environment.

A study of the contemporary literary response to rising national interest in the natural world and rising awareness about the danger to natural resources. Readings are predominantly in prose (novels and essays), with some poetry included. Among the questions the authors ask: as we approach the natural world, how can we move beyond metaphors of dominion? What are the biases of gender, geography, and culture that we bring to our inquiry? What is the relationship between the human and the “natural”? What does it mean to fully invest ourselves in our local environment? Prerequisite: ENG 250. *Also offered as ENVS 352, and through Outdoor Studies.*

353. AT: Time and Self in Modernist British Fiction.

This course focuses on an era of radical change and experimentation in fictional narrative, during which new ideas in psychology, philosophy, and science accompanied the development of new fictional techniques designed to explore and revise how time and identity might be represented. Readings are largely in British fiction from 1900 to 1930. Prerequisite: ENG 250. *Also offered through European Studies.*

354. GS: The Modern American Novel.

A study of modern American novelists from Dreiser, Cather, and Lewis through Hemingway, Fitzgerald, Faulkner, and important writers of the 1930s. Prerequisite: ENG 250.

355. LT: Contemporary British Novel.

This course focuses on the post-World War II British novel. Authors studied have included: Julian Barnes, A. S. Byatt, Angela Carter, John Fowles, William Golding, Kazuo Ishiguro, Doris Lessing, Ian McEwan, Iris Murdoch, V. S. Naipaul, Salman Rushdie, Zadie Smith, and Jeanette Winterson. Prerequisite: ENG 250. Also offered through European Studies.

356. LT: Contemporary American Literature.

How do American writers conceptualize past, present, and future from a contemporary moment, and how does literature structure our contemporary identities in a global age? Focusing on U.S. fiction, this course examines works from the 1950s to the present in historic, social, political, and aesthetic contexts. Course texts engage with a variety of themes related to the construction and deconstruction of American identity. Topics include the culture of the Cold War; postmodernism and paranoia; consumerism and technology; Native American dispossession and resistance; the legacy of slavery; diaspora and displacement; issues of identity and collective memory; border crossing and migration; globalization; and the post-9/11 world. Questioning shifting definitions of citizenship and nationhood in a period characterized by transnational circuits of exchange, we also consider whether it even makes sense to speak in terms of national affiliations and literatures in an era of globalization. Prerequisite: ENG 250.

357. Postcolonial Literature and Theory.

This course introduces a distinct way of organizing literary study, substituting for the study of national traditions the notion of postcoloniality as a global condition affecting not only literature but also categories we use to think about human experience: relations between colonizers and colonized and between culture and power; identity, authenticity and hybridity; roots, motherland, mother tongue; nationality. Readings may include contemporary literature produced in the Indian subcontinent, Australia, New Zealand and the Pacific, Africa, Canada and the Caribbean, as well as important theoretical texts about postcoloniality. Prerequisite: English 250. *Also offered as Philosophy 357 and Global Studies 357.*

364. AS: J.R.R. Tolkien.

This course explores the endlessly alluring world of Middle-earth, which J. R. R. Tolkien was developing throughout the sixty years of his adulthood. Our real-world contexts for this exploration might include his work as a 20th-century scholar of medieval languages and literatures, his service as a lieutenant his during World War I, and his love of the natural world, while our literary contexts might include his translations or rewritings of Anglo-Saxon epic, medieval romance, Norse myth, and Arthurian legend. Certainly, we will be reading *The Hobbit*, *The Lord of the Rings*, *The Silmarillion*, and selections from Tolkien's scholarship and short fiction. Prerequisite: ENG 250 or FRPG 1011 (the Tolkien FYP).

368. Contemporary American Poetry

This course examines post-modern American poetics through close attention to collections published after 1970 and traces how contemporary poets have borrowed from, challenged, and continued to develop the poetic theory and social engagement characteristic of major movements like Confessionalism, the Beats, the New York School, the Black Arts movement, and the L-A-N-G-U-A-G-E poets. Prerequisite: ENG 250.

389, 390. Projects for Juniors.

Student-initiated projects involving significant study and writing carried out through frequent conferences with a faculty sponsor. These projects are completed in addition to the five courses required for the advanced level of the major. Prerequisites: junior standing, a 3.25 GPA in English, and approval by the departmental Honors/Independent Projects committee. Proposals must be submitted to the committee by March 1 of the semester preceding the beginning of fall projects, and by November 1 of the semester preceding spring projects.

4,000-4,999. Special Studies in Language and Literature.

The content and the studies rubric area of these advanced special topics courses varies, and is announced when the *Class Schedule* is published prior to registration.

409. Internships in Communications.

The department sponsors a limited number of closely supervised internships on campus. There are various prerequisites for these, and an application process for enrollment. Information about internships is available in the English department office. The internship counts as a writing course and is completed in addition to the five courses required for the advanced level of the major.

450. SYE: Senior Seminar.

Senior seminars are designed to provide students with the opportunity to apply the knowledge and skills they have developed in their own progress toward completion of the major. Seminars vary in topic, but each requires participants to complete a substantial writing project and to contribute both formally and informally to classroom discussions. Prerequisites: ENG 250 and senior standing.

489,490. Projects for Seniors.

Student-initiated projects involving significant study and writing carried out through frequent conferences with a faculty sponsor. These projects are completed in addition to the five courses required for the advanced level of the major. Prerequisites: senior standing, a 3.25 GPA in English, and approval by the departmental Honors/Independent Projects committee. Proposals for fall projects must be submitted to the committee by March 1 of the semester preceding the beginning of fall projects, and by November 1 of the semester preceding the beginning of spring projects.

498. Honors Projects.

Honors Projects are offered in the fall semester only and are for students working on an independent project to submit for departmental honors in the spring semester. Students meet regularly with their individual project advisors and as a group several times during the semester for guidance about conducting research, revising, and preparing thesis manuscripts. These projects are completed in addition to the five courses required for the advanced level of the major, and students must have completed at least two courses at the 300, 400, or 4000 level by the time of application. Prerequisites: senior standing, a 3.5 GPA in English, and approval by the departmental Honors/Independent Projects committee. Proposals must be submitted to the committee by March 1 of the semester preceding the beginning of the project. Proposals must be submitted to the committee by March 1 of the semester preceding the beginning of the project.

Environmental Studies

Major and interdisciplinary majors offered

A student may choose environmental studies as a stand-alone major, a combined major in conjunction with other departments (see below), or as one field in a multi-field major (see Curriculum, Multi-field Major Program). Students can earn a B.S. degree emphasizing environmental science via combined majors with biology, chemistry, geology, mathematics or psychology; or a B.A. degree in the stand-alone major or in a combined major with economics, English, government, philosophy or sociology.

Restrictions

1. Students desiring to major in any of the environmental studies majors must have earned a minimum of 2.25 in ENVS 101 to be admitted to the major.
2. For the stand-alone major and all combined majors, all Nature/Society (N/S) courses, and all required dual-listed electives, must be taken in the environmental studies department at St. Lawrence University.
3. For students undertaking double majors and including environmental studies as one of the two majors, no more

than two courses dual-listed with the department of the second major may be counted as electives toward the environmental studies major.

4. For the stand-alone major no more than two courses can be counted as electives from other institutions and University-approved abroad/away programs. For all combined majors only one ENV5 course can be counted.
5. Students intending to pursue an interdisciplinary major in environmental studies must take 101 by the end of their fourth semester.
6. A major in environmental studies cannot be declared later than the mid-point of a student's fifth semester, or equivalent.

Stand-Alone Major

The stand-alone major (B.A.) serves students who wish to concentrate their efforts in environmental studies. This major is tailored to individual interests and emphasizes depth in selected subjects, as well as the integrative, interdisciplinary approaches of environmental studies.

Requirements

All interdisciplinary majors in environmental studies require the following courses:

ENV5 101. Introduction to Environmental Studies. (1 unit)

Environmental Science and Policy (ESP) courses (4 units)

Nature/Society Course (1 unit)

Natural Science Elective (1 unit)

Social Science/Humanities Elective (1 unit)

Electives* (3 units)

Total: 11 units

**Courses must be from approved dual-listed courses taught by faculty in other departments on campus.*

Interdisciplinary Majors

Environmental studies, in conjunction with other departments, has created 10 interdisciplinary majors, allowing students to integrate substantial efforts in traditional disciplines with environmental studies. These majors are designed for students who wish to acquire expertise in another department while still benefiting from the integrative approaches of environmental studies. Five B.S. options are available with natural science departments: biology, chemistry, geology, mathematics and psychology. Five B.A. options are available with departments in the social sciences and humanities: economics, English, government, philosophy and sociology. In each interdisciplinary major, it is essential that the student work closely with advisors in both departments.

Progress in both halves of the interdisciplinary major should take place at about the same pace.

Interdisciplinary Major - Core Courses

All interdisciplinary majors in environmental studies require the following courses:

101. Introduction to Environmental Studies. (1 unit)

Environmental Science and Policy (ESP) courses (3 units)

Nature/Society Course (1 unit)

Electives* (2 units)

Total: 7 units

**One elective must be a dual-listed natural science course for B.A. students or a social science or humanities course for B.S. students. Some combined majors require an SYE in either department which may raise the total units to 8 if taken in environmental studies. Honors is always in the major, incorporating both departments and at least one committee member from each department. The faculty mentor may be in either department.*

Environmental Studies–Biology

Interdisciplinary Major Core (*listed above*) (7 units)

Biology

101,102. General Biology. (3 units)

221. General Ecology. (1 unit)

Electives* (5 units)

Total: 16 units

*Electives that are dual-listed should be taken under the biology number. These electives count toward the biology portion of the combined major. Biology electives must include two 300- or 400-level courses. And one of the following: (1) four units with lab, (2) three units with lab and one unit of lab or field based SYE, or (3) two units with lab and one unit of research methods with lecture and lab. Students planning for graduate work in biology should take General Chemistry and Statistics.

Environmental Studies–Chemistry

Interdisciplinary Major Core (7 units, listed above)

Chemistry

103,104. General Chemistry. (2.5 units) **Or**

105. Accelerated General Chemistry. (1.25 units)

205. Quantitative Analysis. (1.25 units)

221, 222. Organic Chemistry. (2.5 units)

306. Environmental Chemistry and Toxicology. (1 unit)

341. Quantum Chemistry and Spectroscopy. **or**

342. Biophysical Chemistry. (1 unit)

Lab courses, to be selected from: (2 units)

351. Advanced Organic Laboratory.

352. Inorganic Chemistry Laboratory.

353. Physical Chemistry Laboratory.

452. Instrumental Analysis.

Total: 16 or 17.25 units

Environmental Studies–Economics

Interdisciplinary Major Core (*listed above*): (7 units)

Economics

100. Introduction to Economics. (1 unit)
200. Quantitative Methods in Economics. (1.5 unit)
251. Intermediate Microeconomic Theory.* (1 unit)
252. Intermediate Macroeconomic Theory.* (1 unit)
308. Environmental Economics. **or**
384. Natural Resource Economics. (1 unit)

Electives* (3 units)

Total: 15.5 units

**Electives that are dual-listed should be taken under the economics number. Dual-listed electives count toward the economics portion of the combined major. Economics electives must include at least two 300- or 400-level courses. Economics majors must pass Econ 251 and Econ 252 with a grade of 2.0 or higher.*

Environmental Studies–EnglishInterdisciplinary Major Core (*listed above*) (7 units)

English

- A.** At least three writing courses, two of which are in the sequence:
- 201 and 309 Journalism
 - 241 and 310 Fiction
 - 242 and 311 Poetry
 - 243 and 308 Creative Nonfiction
 - 243 and 309 Nonfiction/Journalism
 - 244 and 306 Screenwriting
 - A relevant special topics course in writing or independent study in writing may count as one course.

The following may also count as writing courses:

- 202. Creative Expressions. (*Adirondack semester*)
 - 293. A Literary Harvest.
- B.** At least four literature courses, which must include:
1. At least one of the following 200-level survey courses:
 - 226. Survey of English Literature.
 - 237. Survey of American Literature.
 - 263. Native American Fiction.
 2. ENG 250. Methods of Critical Analysis.
 3. At least one of the following 300-level literature courses:
 - 328. English Romanticism.
 - 331. American Romanticism: 1830-1860.
 - 334. Reading the Land: Pastoral and Georgic Literature.
 - A relevant special topics seminar or independent study in literature.
 4. At least one dual-listed English/Environmental Studies course:
 - 346. American Literature and the Environment.
 - 352. Contemporary Literature and the Environment. (4 units)

Total: 14 units

Note: Courses that are dual-listed should be taken under the course number for English. These electives count toward the English portion of the combined major.

Environmental Studies–Geology

Interdisciplinary Major Core (*listed above*) (7 units)

Geology

- 103. The Dynamic Earth. *with lab* (1 unit)
- 211. Geomorphology. (1 unit)
- 216. Sedimentology. (1 unit)
- 319. Hydrology and Hydrogeology. (1 unit)
- 362. Geochemistry. (1 unit)
- Geology elective at the 200 or 300 level (1 unit)
- 103. General Chemistry. (1.25 units)
- 135. Calculus. (1 unit)

Total: 15.25 units

It is also recommended that all Environmental Studies–Geology majors *take the following courses*:

CHEM 104, MATH 136, and either PHYS 151 or BIOL 101.

**Electives that are dual-listed should be taken under the course number for geology. These count toward the geology portion of the combined major.*

Environmental Studies–Government

Interdisciplinary Major Core (*listed above*) (7 units)

Government

103. Introduction to American Politics.* (1 unit)

105. Introduction to Comparative Politics.* (1 unit)

108. Introduction to International Politics.* **or**

206. Introduction to Political Theory. (1 unit)

290, 291, 292, or 293. Research Seminar. (1 unit)

343. Ecology and Political Thought. (1 unit)

Electives** (2 units)

Total: 14 units

**At least one of these courses must be taken as a writing-intensive course.*

***Electives that are dual-listed should be taken under the government number. These dual-listed electives count toward the government portion of the combined major. Government electives must include one international course and one theory course (usually 108 and 206).*

Environmental Studies–Mathematics

Interdisciplinary Major Core (*listed above*) 7 units

Mathematics

135. Calculus I. (1 unit)

136. Calculus II. (1 unit)

205. Multivariate Calculus. (1 unit)

230. Differential Equations. (1 unit)

350. Mathematical Modeling. (1 unit)

Mathematics elective (1 unit)

Statistics

113. Applied Statistics. (1 unit)

213. Applied Regression Analysis. (1 unit)

Total: 15 units

Environmental Studies–Philosophy

Interdisciplinary Major Core (*listed above*) 7 units

Philosophy

201. Ancient Philosophy. (1 unit)

202. Reasoning. (1 unit)

203. Ethical Theory. (1 unit)

206. Introduction to Political Theory. (1 unit)

208. Modern Philosophy. (1 unit)

310. Philosophy of the Environment. (1 unit)

Electives* (2 units)

Total: 15 units

**Electives that are dual-listed should be taken under the philosophy number and count toward the philosophy portion of the combined major.*

Environmental Studies–Psychology

Interdisciplinary Major Core (*listed above*) (7 units)

Psychology

100. Introductory Psychology. **or**

101. Introductory Psychology. (*with lab*) (1 unit)

205. Research Methods in Psychology. (1 unit)

318. Environmental Psychology. (1.25 units)

Electives* (5.25 units)

Total: 15.5 units

**Electives must include at least one course from the biological/evolutionary list and one from the social/cognitive list (see psychology). One course from the biological/evolutionary theme must be taken for lab credit. One elective must be a seminar or independent project. Note: STAT 113 or ECON 200 must be taken prior to or concurrently with PSYC 205.*

Environmental Studies–Sociology

Interdisciplinary Major Core (*listed above*) (7 units)

Sociology

110. Global Problems. or

112. Inequality. or

161. Social Problems and Policy. or

187. Environment and Society. (1 unit)

Other courses may be considered, in consultation with the department chair.

- 203. Foundations of Social Theory. (1 unit)
- 300. Qualitative Research Methods. **or**
- 301. Quantitative Research Methods. (1 unit)

Two socio-environmental dynamics courses (2 units)

- 235. Earning a Living.
- 253. Race, Class, and Environmental Justice.
- 257. Environmental Problems.
- 278. China's Market Transition.
- 288. Dilemmas of Development.
- 314. Nomads in World History.

- 377. Sociology of Consumption.

Other courses may be considered, in consultation with the department chair.

Two electives in sociology* (2 units)

Capstone: one additional 300/400 socio-environmental dynamics course with research component (1 unit)

Total: 15 units

*Electives that are dual-listed should be taken under the sociology number and count toward the sociology portion of the combined major.

Honors in Environmental Studies Majors

Students enrolled in one of the environmental studies majors may pursue honors in that major. To qualify for graduation with honors, students must have a minimum grade point average of 3.5 in all courses of the major at the time of graduation. In addition, students must successfully complete an honors project supervised, or read, by at least one faculty advisor in the environmental studies core. An honors project involves primary data collection, analysis of that data, and rigorous literature review. An honors project is usually completed over the course of an academic year as 1.5 or 2.0 units of credit, depending on the project, with the advisor's consent. Juniors interested in the honors program should consult with the environmental studies faculty. (See also Honors in the Curriculum section of this *Catalog*.)

Courses

The "N/S" designation indicates that this course meets the **Nature/Society** requirement. The "ESP" designation indicates that this course meets the **Environmental Science and Policy (ESP)** requirement for the environmental studies major.

101. Introduction to Environmental Studies.

This one-semester course is an introduction to the basic concepts and inter-relationships needed to understand the complexities of environmental problems. A survey of the characteristics of natural environments and human populations is followed by a study of environmental degradation and alternative solutions to environmental problems. The student is introduced to the roles of many disciplines (including both the natural and social sciences) in the study of environmental problems. The emphasis is on interdisciplinary thinking.

103. Religion and Ecology.

How does religion shape human understanding of, and participation in, ecological systems? This course samples widely from a range of religious traditions to come to a better understanding of the diverse ways that people have developed for interacting with animals, plants, water, and the land, and how those behaviors work in tandem with systems of knowledge and practice. The class has a substantial focus on environmental ethics, and thinks hard about how different religious systems might contribute to either or both environmental degradation and solutions to environmental problems. Traditions sampled include Islam, Christianity, Hinduism, Daoism, Judaism, Buddhism, Native American religions, and Wicca/Neo-Paganism. *Also offered as REL 103.*

105. Energy.

This course covers the nature of energy, its application in modern society and a variety of issues associated with that use. We will study the physical principles of mechanical, thermal, electrical, optical and nuclear energy in order to better understand the role of energy in society, focusing on fossil fuels, electric power plants, automobiles, global warming, the ozone layer and energy conservation, as well as nuclear, solar and other power sources. This course makes extensive use of elementary algebra and scientific notation. 105 is taught in a lecture format with shorter integrated lab activities. *Also offered as PHYS 105.*

110. Environmental Geology.

Environmental geology is a multidisciplinary field of applied science that involves the study of the interaction of humans with the geologic environment including the biosphere, the lithosphere, the hydrosphere, and the atmosphere. The field of environmental geology includes, but is in no way restricted to: 1) the study of the structure and processes of the earth, mineral, and rocks, especially those that are near-surface or have some significant effect upon humans, 2) the study of natural hazards and disasters, including defining and mitigation (or adaptation) of human exposure and threat, 3) managing industrial and domestic waste disposal and minimizing or eliminating effects of pollution, and 4) managing safe and environmentally responsible stewardship of geological resources, including minerals, fossil fuels, and water and land use. This course is designed to give the student basic understanding of the processes and materials of the earth and relate these concepts/products to human activities. *Also offered as GEOL 110.*

112. Global Climate.

Climate is perhaps the single most important and pervasive factor controlling global ecosystems and human well-being. This interdisciplinary course examines global climate from a historical perspective, beginning with the formation of the solar system and continuing through geologic time to the present. Topics include the development of the atmosphere; the workings of the global “heat engine” of atmosphere, oceans and continents; evidence for past climate change; causes of global climate change; the effects of climate change on human evolution; and the effects of human evolution on the global climate system. This is a studio lab course. *Also offered as GEOL 112 and PHYS 112 and through Global Studies.*

187. Environment and Society.

This course explores the complex interrelations between human societies and the environment via the sociological perspective. The sociological perspective is a means of making the familiar aspects of our lives, and our understandings of the world, seem strange and new. In doing so we can better analyze our world and our place in that world especially with regard to human and natural interactions. In this course we will learn about the concepts, theories, and methods that sociologists use to understand critical issues of environmental degradation and ecological crises and how these problems are experienced differently depending on one’s location in global society. By the end of the course students will become familiar with analytical tools that enable an understanding of some underlying drivers of environmental degradations and ideas of what can be done to chart a better future. *Also offered as SOC 187.*

205. Quantitative Analysis. (1.25 units)

An introductory course dealing with the chemical, physical and logical principles underlying quantitative chemical analysis. Among the broad topics treated are data evaluation, titrimetry, solution equilibria, potentiometry and absorption spectroscopy. Lectures plus one laboratory per week. Prerequisites: ENVS 101; CHEM 104 or 105 (with a 2.0 grade or higher) or permission of instructor. *Also offered as CHEM 205.* Offered only in the spring semester.

209. Vertebrate Natural History.

A field-oriented course that explores the biology of vertebrate animals, with emphasis on understanding the diversity, life history, evolution and unique adaptations of vertebrates. The laboratory focus is on developing scientifically sound skills in observation and on learning to identify local vertebrates. Some extra class meetings are required for regional field excursions and for identifying local vertebrates at the times of day when they are active. Offered alternate fall semesters. Prerequisites: ENVS 101, BIOL 101, BIOL 102 or permission of instructor. *Also offered as BIOL 209 and through Outdoor Studies.*

211. Geomorphology.

Geomorphology, literally “earth-shape-study,” is the study of the landscape, its evolution and the processes that sculpt it. The purpose of this course is to enhance the student’s ability to read geologic information from the record preserved in the landscape. This is achieved through understanding the relationship between the form of the Earth’s surface and the processes that shape that form. Students combine quantitative description of the landscape with study of landscapeshaping processes into a comprehensive investigation of the dynamic landscape system including glaciation, hills, rivers, mountains and plains. Prerequisite: ENVS 101 and GEOL 103. *Also offered as GEOL 211.*

221. General Ecology.

A study of the factors influencing the abundance and distribution of species, including interactions between individuals and their physical/chemical environment, population dynamics and the structure/function of communities and ecosystems and their responses to disturbance. Labs are field-oriented and emphasize characteristics of local communities or specific techniques such as estimation of population density. Lectures and one lab per week. Prerequisites: ENVS 101; BIOL 101, 102 or equivalent; or permission of instructor. *Also offered as BIOL 221 and through Outdoor Studies.*

231. Health Effects of Pollution. (N/S)

An introduction to the scientific study of environmental agents and their human health effects. Emphasis is on the environmental causes of disease, including biological agents, hazardous waste, radiation, pesticides, flame retardants, drinking water contaminants, food additives, housing, occupational hazards and stress. Case studies illustrate how health effects are investigated by epidemiology and how theories of disease have evolved. Procedures for establishing regulatory policy and health standards are also discussed. Prerequisite: ENVS 101.

251. Independent Projects in Environmental Studies.

For students desiring to do individual research in environmental studies. May be elected only after submission of a written proposal during the prior semester and approval by core faculty of environmental studies. Prerequisites: ENVS 101 and permission of instructor.

253. Race, Class, and Environmental Justice.

This course focuses on the distribution of environmental degradation and environmental protection, both domestically and globally. The social processes that generate synergistic racism and class stratification, affecting the distribution of ecological costs and benefits, are explored. Substantive topics include the siting of hazardous facilities and thermo-nuclear weapons testing, the socio-ecological conditions of migrant farm workers, extraction of resources from Native lands, and the transnational export of toxic waste to the "Global South." The course examines the origins and impacts of a distinct environmental justice movement that has emerged in the U.S. Written and oral assignments involve individual and collaborative quests for socially equitable solutions to socio-eco-historical injustices. Prerequisite: ENVS 101. *Also offered through Sociology.*

258. Ethnobotany.

Ethnobotany is an interdisciplinary field drawing on concepts from both natural and social sciences to investigate human-plant interactions. This course illustrates the importance of plants in our everyday life and the influence of human activities on plant populations. Independent projects center around surveys and experiments on socio-economically important plants. Field trips and labs explore Native American reservations, botanical gardens, greenhouses, nature reserves and plant population survey techniques. Three hours lecture and one three-hour laboratory per week. Prerequisite: General BIOL 101 and ENVS 101. *Also offered as BIOL 258 and ANTH 258.*

263. Global Change and Sustainability. (N/S)

This course broadly considers how we perceive our relationship with planet Earth, our home. The course examines how social systems can be organized to lessen their impact on natural systems, lessen inequalities within generations, and ensure the viability of natural resources for future generations. To do this, the course critically examines the concept of sustainable development as it develops through the United Nations and enacted by countries. Students also consider case studies that exude principles of sustainability that may be more satisfying than those developed by the UN. The course ends with a thorough critique of the idea of sustainable development and a reflection on alternative models of the human/nature relationship that may be more effective. The course includes a lab component where students apply the largely theoretical in-class work to hands-on, physical work at our department's Environmental Sustainability Landscape (ESL) and other sites in the North Country where people are attempting to lessen their footprint on the planet, all-the-while critically examining the concept of work in relation to sustainability. Prerequisite: ENVS 101. *Also offered through Peace Studies.*

271. Landscape Ecology. (with lab) (N/S)

The course provides theoretical principles of landscape ecology linked with planning and the design of landscapes and the restoration of degraded environments. Lecture explores the ecological processes inherent to landscape ecology. Students will develop spatial assessment skills through the use of GIS in the lab and field. Characterization of landscape patterns and dynamics for detecting or simulating landscape change (i.e. fragmentation) and consequences for species and populations will be the basis of student projects. Pre-requisite: ENVS 101.

275. Energy and the Environment. (N/S)

this course examines the nexus of energy, environment, and economics from an interdisciplinary perspective. To do this, we will begin with a discussion of how the collapse of societies is related (or not related) to resource and energy depletion, evolving into a discussion of topics such as the limits to growth and peak oil. The middle portion of the course is dedicated to an examination of how the major sources of energy for current society impact the environment. The last part of the course focuses on how the idea of economic growth has evolved from the pre-industrial world to today, and how this current understanding of economic growth can lead to overexploitation of both energy and environmental resources. Prerequisite: ENVS 101. *Also offered through Peace Studies.*

293. Literary Harvest.

This is a creative writing course in literary nonfiction that focuses on food, food security, and farming. In *Closing the Food Gap*, Mark Winne talks about affordable access to good, healthy food as an issue of social and environmental justice. While environmental writers and activists such as Wendell Berry, Michael Pollan, and Vandana Shiva have alerted us to the ecological, ethical, and health problems associated with large-scale industrial farming, the North Country has long been a haven for sustainable, small-scale organic agriculture. The course has both a CBL component and a cross-cultural, comparative focus (India). Students will do their CBL work on a local farm or in a food kitchen, and are required to sign up for the CBL lab as well. Prerequisite: ENVS 101. *Also offered as ENG 293.*

301. Pollution of Aquatic Ecosystems with lab. (ESP) (1.25 units)

After introducing major physical, chemical and biological aspects of the ecology of lakes, rivers and coastal waters, the course focuses on the consequences of human activities on aquatic ecosystems: cultural eutrophication, oxygen-demanding wastes, persistent toxic chemicals, acidification, oil and metal pollution, global warming, and the effects of water diversions and impoundments. Lab projects emphasize water sampling and analysis, stream assessment using biotic indices, analysis of contaminants in runoff and sediments, and models of phosphorus in lakes and bio-accumulation of persistent toxins. Prerequisite: ENVS 101 or BIOL 101 or GEOL 103.

302. Air Pollution. (ESP)

This course examines the sources, chemistry, transport and ecological and social impacts of major air pollutants. Our scale of study moves from global to regional to local. Issues include global climate change, stratospheric ozone depletion, urban air quality, photochemical smog, acidification and local industry. Emphasis is on consequences of industrialization and urbanization in both developed and developing countries. While primary focus is on ecological impacts, we also consider the equity issues, policy and implementation strategies for protecting air quality. Prerequisite: ENVS 101.

303. Land Use Change in the Adirondacks. (ESP)

Using the Adirondacks as a case study, this course examines current activities in land planning and the importance of historical context. Study of Adirondack history begins with 16th century information from European explorers and Native Americans. Emphasis is then placed on industrial and recreational use in the 19th century. The course highlights formation of the State Forest Preserve and the Adirondack Park, and regulations governing private land use. Study of the present utilizes political theory such as internal colonization and coreperiphery. The course employs local examples through discussion and field trips. Prerequisite: ENVS 101. *Also offered as ODST 203.*

306. Environmental Chemistry and Toxicology.

This course is designed for chemistry majors and students in environmental studies who have a strong background in chemistry. It explores the sources and levels of chemical pollutants, the pathways along which they move through the environment and the toxicological effect they have on humans and other living things. Prerequisites: ENVS 101 and CHEM 221 or permission of instructor. *Also offered as CHEM 306.* Offered in alternate years, usually in the spring semester.

310. Philosophy of the Environment.

What obligations, if any, do we have towards the environment? What changes should we make in our own lives in light of those obligations? How does material consumption relate to our happiness? If we can be happy consuming less, why do so many of us continue to consume so much? How do our attitudes towards the environment reflect our social position? What is the difference between the natural and the artificial? This course examines such questions in order to come to grips with our relationship with the environment, and what these ideas mean for the way we lead our lives. Students will explore these questions in relation to the global community, to our local community, and in relation to their own lives and choices. Prerequisite: any 100-level philosophy course, or ENVS 101, or permission of the instructor. *Also offered as PHIL 310, ODS 310 and also offered through Peace Studies.*

318. Environmental Psychology.

This lecture-lab course studies the relationships between humans and physical environments, both natural and built. Topics include environmental assessment, attitudes and behavior toward the environment, and the psychological effects of such environmental factors as crowding, architectural design, extreme environments, pollution and natural disasters. The laboratory is required of all students. Prerequisites: ENVS 101 and PSYC 100 or 101. *Also offered as PSYC 318 and through Peace Studies.*

319. Hydrology and Hydrogeology.

This course provides an introduction to the movement and storage of water on the Earth's surface (hydrology) and in the subsurface (hydrogeology). We discuss the fundamentals of the water cycle and hydrologic processes at the surface, the transfer of water in and out of the subsurface and the processes of groundwater flow. Human impacts upon water are also examined, including water resources, contamination, changing land-use and climate change. Prerequisite: ENVS 101. *Also offered as GEOL 319.*

326. Once and Future Forests. (ESP)

This course explores the magnificence of forests and trees. We study both the conservation of old-growth forests as well as the establishment of new forests, hence the title of the course – Once and Future Forest. This is an applied, field-oriented, community service, project-based course with a strong focus on the North Country. The in-class portion of the class focuses on forest and tree ecology, and the history of forest disturbance in the North Country. With the lab portion of the course, we work on four ongoing projects. First, we learn about old-growth forests that once blanketed the area. We conduct a forest evaluation of a candidate stand as part of the ongoing North Country Old-Growth Program initiated in the fall of 2005. We also continue work on restoring disturbed and degraded land to a forested and productive landscape at our department's Ecological Sustainability Landscape and Laboratory (ESL₂). Started in 2006, the Forest Corridor Project is establishing a forested corridor connecting three large forest blocks surrounding the ESL. We will also work on a project with the Canton Tree Committee to re-introduce the American chestnut to the North Country. Finally, we continue work on the Locatroph Project establishing a woodlot that will be used to heat the house at the ESL. Taken together, this class focuses on the awe-inspiring nature of forests and trees, and the hope they generate for conserving the environment. More importantly, we develop further our appreciation for trees and forests, particularly for the old, ancient remnant forests that still exist in our midst. Prerequisite: ENVS 101.

327. Topics in Environmental Sustainability. (ESP)

A project-based course that utilizes the ecological sustainability landscape. The specific course content varies from semester to semester depending on the interests of the faculty and students. Possibilities include fiber arts, natural sweeteners, woodlot and orchard management, environmental interpretation and landscape carbon accounting. Emphasis is on experiential education in the context of appropriate reading and reflective exercises. Prerequisite: ENVS 101.

329. Adapting to Climate Change (ESP)

This course focuses on how people are adapting, cannot adapt, or will adapt to climate change. The course initially focuses on the biophysical and sociocultural impacts of climate change, such as increased temperatures, loss of sea ice, sea level rise, and increasing insurance costs. The course then considers how people are now adapting to these changes, how to plan for further changes, what constitutes maladaptation, options for people who live in areas proving to be uninhabitable (an area of law called loss and damage), and others who are dislocated or need to migrate. In doing so, we critically examine the ideas of resilience and vulnerability. The course's geographic focus is on the Arctic where climate change is happening most dramatically and where the impacts are most severe. Particular attention is given to indigenous peoples living in the Arctic, but other vulnerable peoples around the world also draw our attention. With these case studies and foundational understanding of adaptation we then consider international adaptation policy being developed by the United Nations. The class incorporates climate change news as it emerges. The class is run as a seminar with significant student input based on readings and research assignments. Prerequisite: ENVS 101.

331. EcoFibers: Environmental Impacts and Sustainability of Clothing (ESP)

This course examines traditional and modern fibers and textiles, and the environmental impacts of clothing production. We will also look at the usefulness of fiber related businesses in helping to build sustainable, regional economies based on local knowledge and resources. We will explore the techniques of preparing and processing wool, and then spinning and dyeing yarns for knitting. The course will also examine examples of fiber businesses in conservation of biodiversity, sustainable development, and modes of organic production. Some examples of traditional knitting from around the world will be introduced. Fiber types considered will include wool, cotton, silk, and flax. This course has a substantial "hand-on" component. Pre-requisite: ENVS 101.

333. Climate Change Policy and Advocacy. (ESP)

This course focuses broadly on the action groups of people take in the face of climate change. After a survey of relevant climate change science, most of our time will be devoted to the way knowledge, worldviews, and power affect climate change decision-making at the international level of the United Nations. The class incorporates emergent climate change science, policy, and advocacy as it happens. We consider climate change policy, and attendant critiques and advocacy initiatives, at the international and domestic levels. Particular focus is given agreements developed by the United Nations Framework Convention on Climate Change (UNFCCC). We pay close attention to the ongoing negotiations of the UNFCCC as they gear up for the next conference. Prerequisite: ENVS 101. *Also offered through Peace Studies.*

343. Ecology and Political Thought.

Ecology reminds us that our activities are embedded within natural systems. What is the significance of this fact for politics? This course examines how various actors, such as citizens, consumers, social movements, scientific experts, and governmental agencies, conceptualize the relationship between humanity and the natural world. We will evaluate the merits and shortcomings of a variety of approaches to environmental politics, including survivalism, sustainable development, deep ecology, ecofeminism and the environmental justice movement. The course does not satisfy the department's major requirement in political theory. Prerequisite: GOVT 206 or permission of instructor. Prerequisite: ENVS 101. *Also offered as GOVT 343.*

346. American Literature and the Environment.

This course explores the relationship between American culture and the natural environment through the lens of literary expression. We will study the evolution of environmental aesthetics from the colonial period through the Romantic era and into the twentieth century. Students will draw upon the insights of environmental history and apply them to literary analysis. The course will generally take shape around a particular theme (e.g., the history of frontier settlement, the

politics of wilderness preservation, Adirondack literature, Arctic/Antarctic exploration, animal studies, environmental justice movements, or the desert/ocean aesthetic). Prerequisite: ENG 250. Meets the EL requirement. *Also offered as ENG 346.*

349. Outdoor Recreation and Public Land. (ESP)

Land managers are often charged with the contradictory responsibilities of allowing for an unconfined recreation experience while simultaneously maintaining a high degree of resource protection. This course is an interdisciplinary investigation into the field of outdoor recreation management. Emphasis is given to wildland recreation, although activities and events in urban contexts are also explored. The course examines biophysical and social science used to inform outdoor recreation management. Examples of contemporary issues are drawn primarily from US National Parks, although other federal and state public lands are often integrated. Prerequisite: ENVS 101.

351. Internships in Environmental Studies.

Student-arranged study with an environmental organization. The internship comprises three parts: contact with daily operations; intensive work on one particular project; and extensive reading in appropriate areas. May be elected only after submission of a written proposal during the prior semester and approval by core faculty of environmental studies. A letter of support must be received from the sponsoring organization. Prerequisites: ENVS 101 and permission of instructor.

352. Contemporary Literature and the Environment.

A study of the contemporary literary response to rising national interest in the natural world and rising awareness about the danger to natural resources. Readings are predominantly in prose (novels and essays), with some poetry included. Among the questions the authors ask: as we approach the natural world, how can we move beyond metaphors of dominion? What are the biases of gender, geography and culture that we bring to our inquiry? What is the relationship between the human and the “natural”? What does it mean to fully invest ourselves in our local environment? Prerequisite: ENVS 101. *Also offered as ENG 352 and through Outdoor Studies.*

360. Agriculture and the Environment. (ESP)

This course introduces students to the ecological, economic and social dimensions of agriculture, both food and fiber. We critically examine modern, large-scale, industrialized agriculture—how it has arisen and how it affects land, water, biodiversity and human communities—and analyze whether it is sustainable. We then evaluate a variety of models that might represent more sustainable systems, including Native American, permaculture, urban, regenerative, organic and regional food systems. Students visit several local farms and gain hands-on experience in the gardens at the Ecological Sustainability Landscape. Prerequisite: ENVS 101. *Also offered through Peace Studies.*

361. Research Seminar in Environmental Studies.

Faculty-directed research designed for small groups of advanced students. The focus is often on environmental problems of northern New York. Topics are usually defined in response to needs identified by local communities. The course draws together the expertise of students from different majors. Basic concepts and methodologies of field research are applied in practice. Prerequisites: ENVS 101 and permission of instructor.

332. Recreation Policy and Planning: Environmental Impacts and Implications. (ESP)

Outdoor recreation can, and often does, have an adverse effect on the environment. This course investigates impacts of recreation on multiple resources and considers their importance in the context of federal law and land management policies. Particular attention will be given to the National Environmental Policy Act, although specific rules and regulations governing natural, cultural, and experiential resources will be examined. Students will explore potential impacts from various recreation activities and consider how they may be managed in light of relevant policy. At the course's conclusion, each student will be expected to present a case study describing: 1) the resource, experiential, and managerial dimensions of a specific area, 2) potential impacts from recreation activities in that area, and 3) multiple alternatives for managing those impacts. Prerequisite: ENVS 101.

369. Ecological Restoration. (ESP)

This course examines how the principles and techniques of restoration ecology are used in planning and implementing projects in degraded landscapes. An introduction to restoration ecology, conservation of biological diversity, ecological integrity, and sustainable land-use are major themes. Students learn field and analytical techniques pertaining to ecosystem management. Comparisons of restoration frameworks through case study analysis illustrate modeling and analytical techniques for the restoration field. A major course project gives experience in restoration planning and implementation. Where possible, guest lectures by professionals or stakeholders augment student experience. Prerequisite: ENVS 101.

370. Global Amphibian Decline. (ESP)

An introductory theoretical case-based and practical field studies course examining a global perspective on the ecology and conservation of amphibians. Lecture topics include: key aspects of amphibian ecology, habitat destruction, environmental contamination, introduced species, infectious diseases, over-exploitation, and climate change. Approximately 6 hours of night-time field studies are dedicated to learning amphibian survey techniques and collecting geospatial movement data to investigate regional threats to local amphibian species. Pre-requisite: ENVS 101.

379. Renewable Energy Systems. (ESP)

Renewable energy technologies can play a key role in slowing global climate change by reducing greenhouse gas emissions as countries transition away from fossil fuels. The goal of this course is for students to have an in-depth understanding about how renewable energy technologies blend into the greater energy infrastructure of the U.S. and world. In addition to reading about the various renewable energy options, significant class time is dedicated to field trips, labs, or other hands-on learning activities. In general, this class will cover the following areas within renewable energy: solar power, wind power, bioenergy, hydropower, and efficiency. The class is designed for students that have no prior knowledge of renewable energy. Prerequisite: Prerequisite: ENVS 101 or permission of instructor.

380. Tropical Ecology.

A seminar course based on current research in tropical biology. Emphasis is on the structure, function and biology of tropical organisms and ecosystems. Lectures include South American, Australasian and African tropical ecosystems. The course addresses the role of plant-animal interactions, mutualisms, sustainable development, conservation measures and the roles of indigenous cultures in tropical ecosystems. Prerequisites: ENVS 101 and 221. *Also offered as BIOL 380.*

4000-4999. Special Topics.

The content of each course or section of these 300-level special topics courses varies and will be announced each semester.

European Studies

Minor offered

Visit the European studies webpage by linking directly to it from the Majors and Programs page at www.stlawu.edu/european-studies.

Study Abroad

Participation in study programs in Austria, the Czech Republic, Denmark, England, France, Italy, and Spain, as well as through ISEP (the International Student Exchange Program), provides an excellent opportunity to design a European Studies minor that combines on-campus courses with classes taken abroad, research projects undertaken abroad, and

immersion in a European culture. Students should consult with the coordinator about a European studies minor that incorporates study abroad. See also the Center for International and Intercultural Studies programs website: <http://www.stlawu.edu/ciis/programs>.

Global Studies

Students interested in pursuing a global studies major may include courses cross-listed with European studies to meet one of the area studies requirements.

Minor Requirements

I. Introduction to European Studies.

There are two options to meet this requirement:

1. Students who do not study on a European program must take ONE of the following courses: HIST 109 (introduction to European Studies), HIST 205 (Nineteenth-Century Europe), HIST 211 (Women in Modern Europe 1750 to the present), AAH 203 (Art of Northern Renaissance), AAH 204 (Baroque and Rococo Art), AAH 252 (Modern European Art), GER 3008 (Berlin Hollywood), or FRN 3011 (Mediterranean Cities).
2. Students who study on a European program may waive this requirement.

II. Elective Courses.

A minimum of four units of credit. Any course cross-listed with the program meets this requirement. Many courses taught on St. Lawrence's European study programs are included. Consult the program website or the coordinator for a current list of these courses. To ensure breadth, students may count no more than two courses from a single department or program for the minor. Frequently, special topics courses offered in various departments may count as program electives. Students should consult the coordinator about the appropriateness of courses not listed in the current *Catalog*.

III. Language Study.

Students (except native speakers of a European language other than English) must have at least one semester of European language study other than English. This requirement may be filled in several ways, including but not limited to:

1. Completion of a one-semester language course at the appropriate level offered at St. Lawrence or another college or university.
2. Completion of a language course on a continental study abroad program.

IV. Capstone.

The European studies capstone is a one-semester independent study project that students develop with a faculty supervisor of their choice. The proposal must be submitted to the European studies coordinator for approval during the registration advising period of the semester before the project is undertaken. Students will initially be registered for the project with the European studies coordinator, and then reassigned to their project advisors by the registrar. The capstone course is normally undertaken in the senior year as EUR 489,490, a Senior-Year Experience. Students who wish to complete the capstone requirement before the senior year may take the course as EUR 485.

The capstone course proposal must include the following:

- a. A rationale for the way in which this project demonstrates the interdisciplinary nature of the minor. This is required even in the case of a creative project.
- b. The ways in which the project will enhance the student's critical thinking, research skills, and communication skills.
- c. A preliminary literature review that informs the project. This must include the theoretical framework that guides the project.
- d. The ways in which the project is a reflection of the student's unique academic and experiential journey.

The program coordinator is the advisor for the students in the minor. Questions about the minor should be directed to the coordinator.

Departmental Offerings

Art and Art History

- 117. Survey of Art History, Part II.
- 202. Art of the Italian Renaissance.
- 203. Art of the Northern Renaissance.
- 204. Baroque and Rococo Art.
- 206. Art of the Middle Ages.
- 207. Nineteenth Century European Art.
- 252. History of Modern European Art.

Economics

- 322. International Economics.
- 330. History of Economic Thought.

English

- 225, 226. Survey of English Literature.
- 228. Irish Literature.
- 317. Early Modern English Poetry.
- 319, 320. Shakespeare.*
- 324. Elizabethan and Jacobean Drama.*
- 325. Eighteenth-Century English Literature.
- 328. English Romanticism.
- 339. The Eighteenth-Century Novel.
- 340. The Victorian Novel.
- 353. Time and Self in Modern British Fiction.
- 355. Contemporary British Novel.

**Dual-listed with Performance and Communication Arts.*

Government

- 206. Introduction to Political Theory.*
- 330. Politics and Governments of Western Europe.
- 347. Marxist and Critical Theory.

**Dual-listed with Philosophy.*

History

- 109. Introduction to European Studies.

- 110. The Scientific Revolution.*
- 205. Nineteenth-Century Europe.
- 206. Twentieth-Century Europe.
- 211. Women in Modern Europe, 1750 to the Present.
- 254. History of Modern France, 1815 to the Present.
- 267. The Holocaust.**
- 308. European Imperialisms.
- 311. Nineteenth- and Twentieth-Century Science.*
- 371. Eighteenth-Century Europe and the French Revolution.
- 372. European Identities, 1700-2000.
- 471-472. SYE: Seminars in European History.

**Dual-listed with Physics; **dual-listed with Religious Studies.*

Modern Languages and Literatures

French

- 201. Advanced French.
- 202. Advanced French: Contemporary France.
- 227. Current French Writing and Culture.
- 235. Paris.
- 263. School Days.
- 403. Modern Prose Fiction in France.
- 404. French Film.*
- 413. The Theater of the Classical Age.
- 425, 426. Seminar.
- 428. French Women Writers.

**Also offered through Film and Representation Studies.*

German

- 104. Intermediate German.

Spanish

- 213. Introduction to the Cultures of Spain.
- 423. Introduction to Spanish Literature.
- 439. Literature, Film and Popular Culture in Contemporary Spain.*

**Also offered through Film and Representation Studies.*

Music

- 023. Early Music Singers.

- 234. Music in Venice.
- 245. Musics of Eastern Europe.
- 330. “Isn’t It Romantic?” Songs for Theatre, Songs for Salon.
- 333. Mozart and the Classical Tradition.
- 335. The World of Clara and Robert Schumann.

Performance and Communication Arts

- 319, 320. Shakespeare.*
- 324. Elizabethan and Jacobean Drama.*
- 338. Twentieth-Century Avant-Garde.*

**Dual-listed with English.*

Philosophy

- 201. Ancient Philosophy
- 206. Introduction to Political Theory.*
- 208. Modern Philosophy.
- 301. Philosophy of Science.
- 327. Existential Philosophy.

**Dual-listed with Government.*

Physics

- 110. The Scientific Revolution.*
- 311. Nineteenth- and Twentieth-Century Science.*

**Dual-listed with History.*

Religious Studies

- 206. Introduction to the New Testament.
- 227. Religion in Ancient Greece and Rome.
- 231. Christian Religious Traditions.
- 267. The Holocaust.*
- 272. The Crusades.

**Dual-listed with History.*

Sociology

- 203. Foundations of Social Theory.
- 307. The Sociology of Karl Marx. (Community-Based Learning Component)

**Also offered through Global Studies.*

Students uncertain about the appropriateness of courses not listed above should contact the coordinator.

Courses

485. Independent Project.

For students who wish to complete the capstone requirement before the senior year, this requires a major independent research project that draws on experiences across the curriculum and allows students to reflect on and integrate those experiences. If students have studied abroad, they are encouraged to use that experience as context for their research.

489, 490. SYE: Independent Project.

The senior project is a major independent research project that draws on experiences across the curriculum and allows students to reflect on and integrate those experiences. If students have studied abroad, they are encouraged to use that experience as context for their research.

Film and Representation Studies

Minor offered

Visit the program's webpage at www.stlawu.edu/film-and-representation-studies.

Minor Requirements

Students pursuing the minor are required to take six FILM courses:

211. Introduction to Film Studies *or*

251. History of the Cinema. *or*

271. World Cinema

and five electives in Film and Representation Studies.

Courses

211. Introduction to Film Studies.

This is the first course in a sequence that examines the structures, techniques, history and theory of film. Questions of history and theory are treated only in passing; the prime focus is on learning to identify, analyze and articulate what we see when we watch a film. The course studies the terminology used to describe film techniques and applies this terminology to the films viewed. The goal is to pass from close analysis of film technique and film construction to interpretation. Students learn not only how a film is constructed, but also how the techniques employed contribute to its values and meaning.

222. Documentary Filmmaking.

Students study style and technique in the documentary film, and make a short documentary film. In looking at documentary films, the course discusses questions of truth and value as they come into play for filmmakers and filmgoers. In making documentary films, we consider how to collect and represent different truths and values.

234. Chinese Literature and Film.

This course provides an overview of Chinese literature and film. The first half surveys traditional Chinese literature with a focus on masterpieces in the golden ages of various genres. The second half introduces modern Chinese literature with a

focus on film, including representative works by well-known writers Lu Xun and Ba Jin, and famous film directors such as Zhang Yimou, Chen Kaige, Wang Xiaoshuai and others. The aim is to enhance students' interests and skills in reading and analysis of Chinese literature and film, and improve students' understanding of the history, society and culture of China. All works are read in English translation. *Also offered as LTNT 234.*

236. Buddhism and Daoism through Literature and Film.

This course examines the essence of Buddhism and Taoism by exploring the rich, colorful, and fascinating religious world in Asian literature and film. Topics include Taoist fairytales, dream adventure, traveling in the netherworld, longevity practice, salvation, retribution, chan/zen, magical arts, as well as religious ideas in film and their relationship with modern society. By taking this course, students will acquire a fundamental knowledge about Buddhism, one of the three major religions in the world, and Taoism, the wide-spreading Chinese philosophy and religion; savor wisdom and mysticism in the east, which are included mainly in the Taoist classics, Chan/Zen Buddhism, and literary works; enjoy the best literary works and films in Asia; acquire useful knowledge about scholarly works; and develop skills of critical thinking and scholarly research. *Also offered through Asian Studies.*

239. Media Industries.

This course surveys the historical development of traditional media industries such as newspapers, magazines, books, television, radio, film, music recording and video games, as well as the issues related to the emergence of digital technologies epitomized by the Internet. It likewise focuses on the historical evolution of two other closely related fields—advertisement and public relations. *Also offered as PCA 239.*

244. Techniques of Screenwriting.

An introductory study of basic technical problems and formal concepts of screenwriting. The study of produced screenplays and formal film technique, along with writing scene exercises, builds toward construction of a short (50-minute) script. *Also offered as ENG 244 and PCA 244.*

251. History of the Cinema.

This course examines the development of film technology and film technique from the 19th century to 1960, and the place of the new medium in the evolving cultural-social contexts of the 20th century. Subjects include early experiments in photography; the beginnings of narrative cinema; special effects; new camera dynamics; the development of cinema stars; theories of editing and montage; the introduction of sound; film aesthetics; deep focus photography and realism; and color photography. The course studies films by Lumière, Méliès, Eisenstein, Chaplin, Lang, Renoir, Rossellini, Welles, Truffaut and others. Movements and genres studied include German Expressionism, poetic realism, forms of comedy, film noir, Italian neo-realism and French New Wave.

255. Popular Culture.

This course introduces students to key themes in the study of popular media and to debates about the role of media in contemporary societies. It also introduces methodologies used to study culture and asks students to apply them to case studies from music, sports, comics, fashion, television, cyberculture, film or advertising. Emphasis is on various cultural expressions of ethnic subcultures in the United States and their complex negotiations with the dominant culture and their co-resisters in a global/local struggle over meaning. *Also offered as GS 255.*

263. Australian Cinema.

Using Australian films as the primary texts, this course explores how Australian national identity is constructed. We look at what constitutes a national cinema (independent, government-sponsored and Aussiewood), then focus on three variables that heavily determine both the shape of Australian cinema and national identity: the power of nature, the relationship of aboriginal peoples to non-indigenous peoples, and the role of class and gender construction. Topics include white masculinity as it is constructed in relation to both nature and war; feminine(ist) themes; ethnicity and immigration; revising history and national identity to include Aboriginal peoples; and the emergence of a global postmodern cinema. *Also offered as GS 263.*

269. Digital Media and Culture I.

A combination studio/seminar that explores the major theoretical issues surrounding the continually evolving culture of digital technology and the effects on various aspects of contemporary life including: aesthetics and perception, creative production, morality, contemporary art discourse, visual culture, entertainment, identity and other forms of social effects/affects. Studio projects will investigate the creative potentials of social media software, digital painting, photography, and video. Projects will respond conceptually to theoretical issues that are being discussed in class. An emphasis on individual voice, creativity, and methods of idea development will be encouraged throughout the term. Brainstorming and critique are common, and will follow the Harkness Method of student-centered discussion and inquiry to help students learn to think critically, listen analytically, and interact respectfully. *Also offered as AAH 269.*

271. World Cinema.

This course complements Film 251 by exploring the history of film outside Western Europe and the United States. Films for each semester are typically selected from four or five regions: recent regional emphases have included East Asia, South Asia, the Middle East, Eastern Europe, West Africa and Latin America. Along with developing skills in analyzing film, students read about the history of film in different countries, consider the ways directors fit into both local and global histories of cinema, and explore the social terrain upon which filmmakers work.

281. Music Video.

Music television created new ways of visualizing music, new ways of seeing sound. This course looks at the rise of music video in the 1980s, its predecessors and its influences. While we focus primarily on the history and criticism of music video, the course also contains a substantial production component that includes creating and editing sound and video files. Offered occasionally. *Also offered as MUS 281.*

302. Theories of Global Cultural Studies.

An introduction to the growing field of cultural studies through examination of its major theoretical paradigms, particularly as these bear on the question of unequal global power relations. These may include Marxism, critical theory, post-structuralism, feminist theory and emerging work in postmodernism and post-colonial studies. Students explore strategies for “reading” cultural practices and texts not simply as reflections of reality, but as political interventions, expressions of desire, attempts to persuade and producers of power. Through a combination of theoretical criticism and analysis of specific materials, students prepare to undertake independent research with an informed understanding of how cultural studies challenge and enrich traditional social science and humanities approaches. Prerequisite: GS 101 or 102. Also may be counted toward the minors in Native American Studies and Peace Studies. *Also offered as GS 302.*

306. AW: Advanced Screenwriting Workshop.

An extension and intensification of ENG 244. Students are expected to work independently on the preparation of two feature-length screenplays. Workshop format emphasizes the revision and editing process. Prerequisite: ENG 244. *Also offered as PCA 306 and ENG 306.*

310. Culture & Media.

Print or electronic mediating technologies have accompanied humans for more than five centuries and at some point people started questioning the extent to which they influenced, or as we will learn to say, co-constructed our everyday reality. This class surveys some of the important intellectual contributions to this inquiry – media theories and seminal studies. At the same time, it follows some of the most significant contemporary debates that reflect the symbiotic relationship between the media and our own culture. *Also offered through Performance and Communication Arts.*

311. Film Theory.

This seminar offers a survey of film theory: its history, its important concepts and figures and its key theoretical movements. We begin with “classical” film theory, including auteur theory, realism, genre theory and political criticism. Much of the course, however, is given to contemporary film theory: semiotics, Marxism, psychoanalysis,

feminism/masculinity studies, African-American film studies, postmodernism, postcolonial and global studies. To ground all this theory, we view, discuss and write about an eclectic collection of films. Prerequisite: FILM 211 or FILM 251.

340. Blogging the Globe: News Analysis and Investigative Journalism.

This course fosters the tools necessary to be critical readers and viewers of the news in a complex, globalized media environment while also giving students the opportunity to become investigative journalists themselves. In addition to examining patterns in how global events are covered in mainstream and independent/alternative media outlets in the U.S. and elsewhere, the course explores deeper structural issues concerning discourse, ideology and the representation of “other” cultures; the relationship between media, corporate and state power; and the role of institutions in defining the bounds of “legitimate” knowledge. Students in the course contribute to The Weave, an online public Intellectual project, by researching and blogging about underreported stories. Prerequisite: GS 101 or 102. *Also offered as GS 340 and PCA 312.*

369. Digital Media and Culture II.

A continuation of Digital Media and Culture I. New and more complex software will be introduced. Students will be expected to spend time developing innovative and complex ideas and forms and advancing their vision(s) via digital media processes. This is a combination studio/seminar course and includes videos, readings and reflections, and written analyses. New visions of authorship will be encouraged as will continual encouragement to consider how one’s work could function in a socially transformative way. Brainstorming and critique are common, and will follow the Harkness Method of student-centered discussion and inquiry to help students learn to think critically, listen analytically, and interact respectfully. Depending upon student interest and experience, this course may be offered in conjunction with AAH 269 by instructor permission only. Prerequisites: AAH 131, 269. *Also offered as AAH 369.*

404. French Film.

This course combines an historical view of the French cinema, an introduction to the techniques of film analysis and an examination of the major issues in film theory. Topics include the pioneers of cinema, the “classical” films of the 1930s and ’40s, the films of the “nouvelle vague” in the ’50s and ’60s and recent trends in film production. The work of filmmakers such as Renoir, Clouzot, Truffaut, Beineix, Godard and Resnais is studied. *Also offered through Film and Representation Studies and European Studies and as FR 404.*

439. Literature, Film and Popular Culture in Contemporary Spain.

After the Franco regime (1939-1975), Spaniards began to explore and question cultural, historical and sexual identity. This course examines post-totalitarian Spanish literature, arts and popular culture made possible by the political transition to democracy. The aim is to use the theoretical framework of cultural studies as a means of understanding contemporary Spanish culture. Materials analyzed include films, television programs and commercials, novels, short stories, magazines and popular songs. *Also offered as SPAN 439.*

Gender and Sexuality Studies

Minor offered

Visit the gender and sexuality studies webpage by linking directly to it from the Majors and Programs page at www.stlawu.edu/gender-and-sexuality-studies.

Minor Requirements

Below are the requirements for the minor in gender and sexuality studies.

Required Courses

1. One of the following courses: GNDR 103 (Gender and Society) *or* GNDR 201 (Gender in a Global Perspective) *or* GNDR 280 (Sexuality, Society and Culture).
2. GNDR 290 (Gender and Feminist Theory).
3. A methods course or an additional upper-division theory course: GNDR 301 (Masculinities) *or* GNDR 334 (Feminist Philosophy) *or* GNDR 369 (Making Sexualities).
4. Electives:
 - a) Minors must take two additional gender and sexuality studies or cross-listed electives, at least one of which should be at the 300 or 400 level (these courses may also count toward the praxis requirement if they meet the criteria listed below).
 - b) No more than one of these elective courses may be taken in any single department other than gender and sexuality studies.

**Elective courses are approved for cross-listing by the gender and sexuality studies advisory board, and are listed in the Course Catalog with both gender and sexuality studies and the relevant department or program (i.e., anthropology, art and art history, Canadian studies, English, global studies, government, history, modern languages and literatures, performance and communication arts, philosophy, psychology, religious studies and sociology).*

Praxis Requirement

In addition, students must engage in two praxis projects wherein they use what they have learned in the minor to foster social change. One project can be met on campus through a course, but the other must be met off campus.

- A. On Campus Options
 - *Courses that will meet the on-campus requirement are:* GNDR 280 (Sexuality, Society and Culture) or GNDR 335 (Sex Talk) or GNDR 352 (Transnational Feminist Activism).
 - Students may also petition to have a Community-Based Learning course count: work in the community must focus on issues of gender and sexuality.
 - Students can also meet this requirement with activist work on campus by organizing or co-organizing at least three events for any of the following theme houses and community groups: the Women's Resource Center, La Casa Latina, Carefree Black Girls, Spectrum or for the Advocates Program. Students who choose to meet the requirement through direct action must include a two-page typed statement chronicling their work on campus and how it speaks to the minor.
- B. Off Campus Options
 - Research fellowships, internships or externships, off-campus study, community-based learning or community organizing. Students must include a one-page typed statement chronicling their experience and how it speaks to the minor.

Courses

Because gender and sexuality studies is interdisciplinary, many of its courses are taught in several academic departments. These courses are approved by the advisory board and are listed on APR 2.0 with both gender and sexuality studies and the relevant department(s). Students are advised to consult each semester's *Course Catalog* to review the current offering of gender and sexuality studies cross-listed elective courses. Additionally, *Special Topics* electives are offered most semesters.

103. Gender and Society.

This interdisciplinary course examines gender roles, identities and institutions through their intersections with race, ethnicity, class and sexuality.

201. Gender in Global Perspective.

Gender constructs cultural, political and socio-economic relations across class and racial lines in the Western world and throughout the rest of the world, although the concepts and structures that define gender roles can and do differ significantly. This course examines the global constructions of gender through examples chosen from indigenous and diasporic communities in Asia, Africa and the Americas; discusses the variable impacts that these constructions have had particularly on women's lives; and introduces theories of transnational feminism. *Also offered through Global Studies and Peace Studies.*

272. Coming-Out Stories.

Among the many questions this course addresses: Are identity politics in contemporary North American culture passé, boring and irrelevant? How does the critical literature help us better engage the autobiographical pieces that lesbians write? How do lesbians negotiate the rugged terrain of feminism? How do African-American lesbians choose the oppression to which they hold allegiance? The purpose is not simply to compare and consider the profundity (and often trauma) of the experience of "coming out," but also to define terms we think we understand or know.

280. Sexuality, Society and Culture.

An exploration of the cultural facets of our sexuality and how we come to understand sexuality in our everyday lives. Are sexual feelings biological, or do they emerge from particular historical and social formations? How does sexuality come to operate as something that is just natural? What does love have to do with it? How has the concept of sexuality shifted from sex acts to sexual identities? How is sexuality linked to race, class and gender? How is sexuality linked to the political? The answers to these questions provide a broad understanding of gender and sexuality studies. We rigorously examine the concept of sexuality through theoretical, empirical and creative frameworks.

290. Gender and Feminist Theory.

This course examines theoretical explanations of gender, gender difference and gender inequality in society. The course includes introductions to some of the questions that shape contemporary feminist theory, feminist writings in multiple disciplines and feminist movements inside and outside the academy. The course focuses on how an awareness of intersections of race, class, sexuality, gender and ethnicity is vital for disciplinary and interdisciplinary study in feminist theory. Theoretical works are drawn from the humanities, arts and literature and the social sciences. Prerequisite: GNDR 103. *Also offered as PHIL 290.*

301. Studies in Masculinities.

This course calls on students to investigate their own lives in relation to historically and locally dominant prescriptions of what men and women "should" be. Combining readings of "great books" with a wide range of material from the burgeoning field of critical studies of masculinity, the course also includes a field research methods component that enables students to design and carry out creative research projects into the local gender systems in which they attempt to forge their own identities. *Also offered through African-American Studies.*

334. Feminist Philosophy.

An introduction to some of the questions that shape feminist philosophy today. What connections are there between feminist philosophy and feminist writing in other disciplines and feminist movements inside and outside the academy? Does feminist philosophy transform traditional philosophical discourse and the academy? The course focuses on how an awareness of intersections of race, class, sexuality, gender and ethnicity is vital for disciplinary and interdisciplinary study in feminist philosophy. *Also offered as PHIL 334.*

335. Sex Talk.

Sex Talk is an examination of dominant discourses around gender, sex and sexuality with the objective being to have students not only critically analyze these discourses but to interrupt their creation in order to foster counter discourses that challenge hegemonic norms, including misogyny and homophobia. We will explore youth culture and university cultures, and examine how these cultures create, are created by, respond to, and challenge patriarchy, hegemonic masculinities and femininities. The course culminates in students designing and delivering peer education programs/performances on campus. Also offered as PCA 335. Permission of instructor required.

352. Transnational Feminist Activism.

This course examines social, economic, political and cultural projects throughout the world organized by women to address the concerns of women. We investigate specific groups that identify themselves as feminist as well as the various feminisms that define them. Equally important are those groups that reject or challenge the label of feminism as a Western and therefore imperialist or neo-imperialist ideology and present alternatives for women's collective action. Finally, we explore the possibilities and practices of transnational or women's global activism by participating in a community-based learning project with a local organization engaged in feminist activism. *Satisfies one praxis requirement.*

367. Feminist Post-Colonial Theory.

Postcolonial theory addresses issues of identity, culture, literature and history arising from the social context of colonization, resistance to colonization, liberation from colonization and the formation of new nations. It crosses the boundaries of the social sciences and humanities in its approach to theory and analysis of the discourses used to constitute colonial and postcolonial subjects. We begin with some classic texts of postcolonial theory before moving to a focus on specifically feminist debates and texts within postcolonial studies. Literature and film are used in dialog with theoretical texts to examine questions about gender and women's issues in various societies. *Also offered as GS 367, ENG 367 and PHIL 367.*

369. Making Sexualities.

Sexuality culturally operates as a central trope by which we come to "know" ourselves as sexed people (that is, female or male) and how we come to understand our desire. In this course we unpack sexuality from a cultural and gendered perspective — we discuss how we have come to know sexuality culturally, materially and in our everyday lives. In doing so, we explore topics such as the invention of modern notions of sexualities, queer identity, love, pornography and sex work through reading, writing, artistic expression and research. This course is reading and writing-intensive.

479,480. SYE: Internships.

Students are required to spend eight hours per week in an internship at an agency that deals with gender-related issues and problems, such as sexual identity, domestic violence, sexual assault, the feminization of poverty, and conceptions of masculinity and femininity among students. Students reflect on their experiences in a journal that applies gender studies concepts to the experiences, attend bi-monthly service learning workshops with other campus interns, and prepare a research paper related to issues relevant to the internship. Prerequisite: GS 103 and permission of the instructor.

489,490. SYE: Independent Study.

Individual study of a topic, which must be approved by the gender and sexuality studies advisory board in the semester prior to be undertaken. Independent study may be used to satisfy the sixth course research requirement. Prerequisite: GS 103 and permission of the instructor.

Geology

Major and minor offered

Visit the geology department webpage at <http://www.stlawu.edu/geology>.

Major Requirements

Core Courses (9-10.5 units)

Students entering the geology major take the following nine to eleven courses to meet minimum department requirements for graduation with the Bachelor of Science degree in geology:

103. The Dynamic Earth *or* 110. Environmental Geology *and* 115. Oceanography.

104. The Evolving Earth.

203. Mineralogy.

206. Invertebrate Paleontology.

211. Geomorphology.

216. Sedimentology *or* 316. Carbonate Sedimentology *and* 320. Regional Field Studies: Geology of the Caribbean.

302. Igneous and Metamorphic Petrology.

350. Structural Geology.

Elective (1) at the 200 or 300 level

None of these required core courses will be accepted toward the major if taken pass/fail. Certain courses are designated as Major Credit Restricted (MCR). Only one such course can count toward the geology, geology-physics or environmental studies–geology combined major as an elective. Normally, 200-level courses are appropriate for sophomores, 300-level for juniors and 400-level for seniors.

Students should consult the course descriptions in this *Catalog* for information on prerequisites and sequencing of both required and advanced courses.

Required Cognates (3.5 units)

Same as for Geology majors

Majors are required to take at least one semester of the following courses:

Chemistry

103. General Chemistry. *and*

Mathematics

135. Calculus. *and*

Physics

151. University Physics. *or* Biology 101. General Biology.

It is highly recommended that the two-semester sequence of each be completed by both geology and environmental studies–geology majors. Career and graduate school options may be limited otherwise.

Suggested Courses

No student is permitted to take more than 14 units in any one department.

Directed studies and senior honors thesis options are available to seniors on an arranged basis with geology faculty members. Directed studies and senior honors thesis are not counted toward the major but are counted for SYE credit.

It is strongly recommended that students who anticipate graduate study or a professional career in geology also take statistics and geographic information systems (GIS), and attend one of the many summer field camps.

Combined Major in Environmental Studies–Geology

Students with an interest in combining the integrative approaches of environmental studies with the focused scientific study of geology may wish to pursue the combined major of environmental studies–geology. The combined major includes six to seven geology courses, three cognates, and seven units in environmental studies (16.5 units total) as follows:

Environmental Studies Core (7 units)

For specifics on the Environmental Studies core, see the Environmental Studies section of this *Catalog*.

Geology (6-6.5 units)

- 103. Dynamic Earth.
- 211. Geomorphology.
- 216. Sedimentology. *or* 316. Carbonate Sedimentology *and* 320. Regional Field Studies: Geology of the Caribbean.
- 319. Hydrology and Hydrogeology.
- 362. Geochemistry.
- Elective (1) at the 200 or 300 level

Certification to Teach Earth Science

Consult the Education section of this *Catalog*, the Education Department webpage at <http://www.stlawu.edu/education/undergraduate-programs>, and/or speak to the Coordinator of the Teacher Education program in the education department as early as possible.

Honors and Senior Thesis

Senior thesis study is undertaken voluntarily by students who wish to conduct original research in a close working relationship with one or more geology faculty members. (See also Honors in the Curriculum section of this *Catalog*). A 3.5 GPA upon completion of all courses in the major and the completed senior thesis chaired by a member of the geology faculty are both needed for the distinction of honors. The senior thesis course (GEOL 489, 490) may be taken regardless of a student's average in the major if permission of a faculty member is obtained. Thesis work is expected to lead to a finished written product (thesis) for appropriate credit. The department encourages its students to consider a senior thesis as part of a capstone experience; this should be undertaken only after careful discussion with faculty advisors. Guidelines for the thesis are available from the department chair.

Minor Requirements

Students with a general interest and who wish to have a basic understanding of the Earth and its processes, or who have a strong interest in a particular aspect of geology or earth science teaching and want to learn more about the subject, may

minor in geology. There are several areas of potential concentration, and student should consult with their advisor in designing a minor. GEOL 103, 104 and at least four additional one-unit courses at the 200 level or above are required in all cases.

Courses

103. The Dynamic Earth.

An introduction to the study of the Earth intended for students with little or no previous exposure to geology or other science. The course examines the materials from which the Earth is made and the forces that govern their distribution; it explores the formation, abundance and distribution of economically useful earth materials (oil, natural gas, coal, strategic metals, precious minerals, water resources) and examines natural hazards such as volcanoes, earthquakes, radiation exposure and floods. Laboratory work gives students hands-on and field experience with rocks, minerals and many kinds of maps.

104. The Evolving Earth.

An introduction to stratigraphic principles and the methods by which we can reconstruct geological events that have shaped the modern Earth. Where have modern ideas about the Earth come from? How do geologists unravel the history of the Earth? What has happened in the Earth's history? The course examines fundamental controversies that have faced geology throughout its history as a science, reviews in detail the methods that geologists use to determine past events, and examines evidence recorded in rocks and fossils during the past 4.6 billion years to build an understanding of Earth's history. Prerequisite: GEOL 103 or permission of instructor.

110. Environmental Geology. (MCR)

Environmental geology is a multidisciplinary field of applied science that involves the study of the interaction of humans with the geologic environment including the biosphere, the lithosphere, the hydrosphere, and the atmosphere. The field of environmental geology includes, but is in no way restricted to: 1) the study of the structure and processes of the earth, mineral, and rocks, especially those that are near-surface or have some significant effect upon humans, 2) the study of natural hazards and disasters, including defining and mitigation (or adaptation) of human exposure and threat, 3) managing industrial and domestic waste disposal and minimizing or eliminating effects of pollution, and 4) managing safe and environmentally responsible stewardship of geological resources, including minerals, fossil fuels, and water and land use. This course is designed to give the student basic understanding of the processes and materials of the earth and relate these concepts/products to human activities. *Also offered as ENVS 110.*

112. Global Climate. (MCR)

Climate is perhaps the single most important and pervasive factor controlling global ecosystems and human well-being. This interdisciplinary course examines global climate from a historical perspective, beginning with the formation of the solar system and continuing through geologic time to the present. Topics include the development of the atmosphere; the workings of the global "heat engine" of atmosphere, oceans and continents; evidence for past climate change; causes of global climate change; the effects of climate change on human evolution; and the effects of human evolution on the global climate system. *Also offered as ENVS 112 and PHYS 112.*

115. Oceanography.

This broad introductory course explores the oceans of the world, the living organisms of the ocean and the vast mineral wealth of the ocean floor. The course explores oceanography through discussion of elementary scientific concepts in the context of geology, biology, chemistry and physics. Topics include the origin of oceans; the composition and history of seawater; oceanic currents, tides, waves and beaches; the sea floor; plant and animal life in the sea; oceanic resources and food; and marine pollution.

117. Dynamic Ocean Online. (*Summer only; online only*)

This online course is an introduction to geological and physical oceanography which provides students with an understanding of the marine environment and natural and human impacts on it. Topics include ocean in Earth system, plate tectonics, marine sediments, atmosphere and ocean, currents, waves and tides, coastal ocean and shoreline processes. It also includes study of oceans and climate change, ocean's role in global warming, and ocean acidification.

120. Roadside and Rivercuts: North Country Landscapes through Geological Field Trips.
(*Special Summer Program*) (2 units)

This special, field-intensive geology course will help you understand and appreciate the geological background of northern New York, from Lake Ontario to Lake Champlain, including the Adirondacks through a synergistic combination of in-class lectures and field-oriented lectures and laboratories. In-class lecture periods will be 3 hours/day/twice weekly (M&W) and cover topics germane to the following day's field-oriented lectures/labs. The twice-weekly (9 hours/day, T&H) field trips will focus on various components of this landscape: landforms, rock outcrops, settlement (including industrial development and mines), energy supply systems, etc. You will learn to collect, record and identify the minerals, rocks and glacial materials that form the basis of this environment and the processes that cause them.

203. Mineralogy.

An introduction to the nature of the crystalline state as displayed by the common rock-forming minerals through their physical and chemical properties. Topics include symmetry and its graphical representation; the relationship between crystal morphology and internal structure; hand-specimen description and recognition; mineral phase equilibria and mineral origins; economic uses; and an introduction to petrology and such analytical tools as the petrographic microscope and x-ray diffractometer. Prerequisite: GEOL 103.

206. Invertebrate Paleontology.

This course focuses on principles of invertebrate paleobiology, morphology and taxonomy as they are applied to the study of fossils. All macro-invertebrate groups having a significant fossil record are examined. Laboratory work centers on techniques employed in fossil preparation, on recognition of taxa from fossil material, and on the stratigraphic and evolutionary significance of invertebrate fossils. Oral and written presentations on paleontological issues are expected of each student as an introduction to the literature of the discipline. Participation in a field trip is expected. Prerequisite: GEOL 103.

207. Paleocology.

The challenge of understanding the organizing principles, the evolution of and the functioning of ecosystems of the Earth is the essence of this course. Earth is entering a time of massive extinction, which happens first to species and then to communities and ecosystems. In paleocology one aim is to understand how, why and when ecosystems collapse by studying the geologic record of such collapse events in the past. Such understanding may reveal our future. Techniques employed in these studies blend theory with application. The course is appropriate for students who have some paleontology or biology experience. Offered every other year. Prerequisite: GEOL 206 or permission of instructor.

210. Optical Mineralogy.

This course involves a study of the nature of light in its interaction with crystalline material. Specifically, it studies the optical characteristics and properties of minerals and how minerals may be identified using the petrographic microscope. Participants gain experience in microscopic mineral identification and in the preparation of rock thin sections. Offered occasionally. Prerequisite: GEOL 103.

211. Geomorphology.

Geomorphology, literally "earth-shape-study," is the study of the landscape, its evolution and the processes that sculpt it. The purpose of this course is to enhance the student's ability to read geologic information from the record preserved in the landscape. This is achieved through understanding the relationship between the form of the Earth's surface and the processes that shape that form. Students combine quantitative description of the landscape with study of landscape-

shaping processes into a comprehensive investigation of the dynamic landscape system including glaciation, hills, rivers, mountains and plains. Prerequisite: GEOL 103. *Also offered as ENV5 211.*

216. Sedimentology.

This course explores the processes of sedimentation and their products in different depositional environments. It covers characteristics and origins of sedimentary rock types; processes that erode, transport and deposit sediments; and postdepositional modification. Emphasis is on modern depositional environments and how their study can help us better understand ancient depositional environments. The course also covers the principles of stratigraphy and reconstruction methods of sea level and paleoclimate. Field and laboratory analyses, including petrography, focus on description and classification of sedimentary rocks, and on the interpretation of their origin. Field trips required. Prerequisite: GEOL 103.

217. Dinosaurs. (MCR)

Few groups of animals are more recognized than the Dinosauria; likewise, there are few groups about which more misinformation (pseudoscience) has been circulated. (Was Jurassic Park actually Jurassic?) In the setting of vertebrate evolution, this course presents the science of Dinosauria, explains the history of their study, and investigates the origins of the group, its paleoecology, collection techniques, morphology and taxonomy. We consider cutting-edge issues of dinosaur research (are birds simply dinosaurs with feathers?), and confront all manner of misinformation, anachronism and illusion based on dinosaur myths.

241. Field Methods for Environmental Scientists.

This interdisciplinary course is intended for students interested in environmental science (e.g., environmental studies, biology, geology or chemistry majors or minors). Familiarization with experimental design and statistics and training in field techniques includes map and compass work, basic surveying, and water, soil, vegetation and faunal sampling. Introduces students to the use of Geographic Information Systems (GIS) for research in environmental science. Students acquire a working knowledge of ArcView GIS software and gain experience creating and managing GIS projects. Students interested in developing highly marketable GIS and field skills in the context of environmental research should consider taking this course. *Also offered as BIOL 241.*

280,281. Directed Studies in Geology. (MCR)

Semester-long studies in appropriate areas of the earth sciences may be designed in consultation with an individual instructor in the geology department. May use seminar format when appropriate. Prerequisite: GEOL 103 and permission of instructor and sophomore standing are required.

3000-3999. Special Topics. (MCR)

Numerous special topics course are offered annually and generally involve a field component and travel. These courses are designed to provide students with the field experience needed to be competitive for graduate and professional positions. The content of each course or section of these 200-level special topics courses varies and will be announced each semester.

302. Igneous and Metamorphic Petrology.

Petrology is the study of the origin of rocks, based on detailed observation of rock characteristics (petrography) together with theoretical/experimental approaches. This course provides a review of the occurrence, characteristics and origins of the common igneous and metamorphic rocks. Areas of study include the origin and differentiation of primary magmas, common rock associations, metamorphic zones and facies, the nature of the deep crust, and use of phase diagrams in the understanding of igneous and metamorphic petrogenesis. The relationship of plate tectonics to the formation of these generally holocrystalline rocks is emphasized. Prerequisite: GEOL 103 and 203 or permission of instructor.

314. Glacial and Quaternary Geology.

This seminar examines the details of at least two million years of Earth history. During this period, extreme fluctuation in the climate caused great ice sheets to form and melt many times, working profound changes on the environment. The course examines the causes, mechanics and effects of glaciation in the context of long-term climatic and environmental change. Prerequisite: GEOL 103 and 211 or permission of instructor.

316. Carbonate Sedimentology.

Carbonate Sedimentology is an advanced course that examines carbonate sedimentology and depositional environments. The course includes field trips to several classic localities in the country. The course focuses on the temporal and spatial makeup and controls on mineralogy and constituent composition of sedimentary carbonates, and introduces students to carbonate facies, carbonate platform models, sequence stratigraphy, carbonate cycles, orbital (Milankovitch climate) forcing and porosity in carbonates as well as field and lab methods. It will provide an understanding of why no other rock type is as economically important as carbonates, major reservoirs for petroleum, base metals and potable water. Prerequisite: GEOL 103, and two 200-level geology courses.

317. Micropaleontology.

Micropaleontology is the branch of the earth sciences that deals with fossil organisms too small to resolve in detail with the unaided eye. This course introduces students to the broad range of micropaleontological techniques and to the numerous groups of fossils on which these are practiced. Microfossils are the basis for most synthesis of global climate change, biostratigraphy of ocean basins and regional and global rock correlation. The modern time scale is built on them. Both light and scanning electron microscopy are employed by students in the course. Offered every other year. Prerequisite: GEOL 103 and 206 or permission of the instructor.

318. Geotechnical Writing. (MCR)

A major responsibility of all scientists, regardless of their employment, is to convey the technical results of their work to any of several audiences in a factual, informative and accurate manner. Most of this process requires particular writing skills. In geology these are combined with a wide range of graphics techniques around which text is often formed, with unique methods of reference citation and the need for careful attention to the ethics of ideas and their attribution.

319. Hydrology and Hydrogeology.

This course provides an introduction to the movement and storage of water on the Earth's surface (hydrology) and in the subsurface (hydrogeology). We discuss the fundamentals of the water cycle and hydrologic processes at the surface, the transfer of water in and out of the subsurface and the processes of groundwater flow. Human impacts upon water are also examined, including water resources, contamination, changing land use and climate change. Prerequisite: GEOL 103. *Also offered as ENVS 319.*

320. Regional Field Studies. (0.5 units)

Field-based studies form the core of geological inquiry. The purpose of this course is to enrich students' understanding of the process of conducting geological research in the field. The course consists of on-campus trip preparation and data analysis and reporting, and a field trip lasting approximately two weeks. Field trip locations and topics vary. Students may be responsible for some costs. Prerequisite: GEOL 103 or permission of instructor.

350. Structural Geology.

The deformation of rocks through brittle and ductile processes is the focus of structural geology. This course examines how forces such as those associated with plate tectonics and mountain-building are recorded in rocks on the regional, outcrop and microscopic scale. The genesis, recognition and classification of structures such as folds, faults, joints and microstructures, as well as the mechanical behavior of rocks and stress and strain are studied as important components in deciphering the tectonic and deformational history of an area. The laboratory emphasizes application of theory to field problems. Prerequisite or co-requisite: GEOL 103 and 203 or permission of instructor. *Also offered through Outdoor Studies.*

362. Geochemistry.

Geochemistry is the study of the distribution, concentration and cycling of the elements in Earth materials. The course explores the composition and origin of the solar system and Earth's lithosphere, hydrosphere and atmosphere. It focuses on the tools utilized by geochemists, including major, trace and rare earth element analyses, stable and radiogenic isotopes, geochronology, and sampling methods and retrospective studies, and introduces new and emerging concerns in environmental geochemistry. The use, misuse and presentation of chemical analyses are explored in detail. Prerequisites: GEOL 103 and 203, CHEM 103 and 104 or 105, or the permission of the instructor.

380, 381. Directed Studies in Geology. (MCR)

Semester-long studies in appropriate areas of the earth sciences may be designed in consultation with an individual instructor in the geology department. May use seminar format when appropriate. Permission of instructor and junior standing are required.

391. Research Methods in Scanning Electron Microscopy. (.5 unit)

Detailed instruction in the use of a scanning electron microscope (SEM) and support techniques such as critical point drying, specimen coating (standard vacuum and sputter coating), specimen fixation, black and white photographic techniques and computer image acquisition and analysis. The theory and practice of energy-dispersive x-ray analysis (EDAX) for determining atomic element makeup and element mapping is also learned. Prerequisite: any 200 or 300-level science course, or permission of the instructor. *Also offered as BIOL 391.*

4000-4999. Special Topics. (MCR)

Numerous special topics courses are offered annually and generally involve a field component and travel. These courses are designed to provide students with the field experience needed to be competitive for graduate and professional positions. The content of each course or section of these 300-level special topics courses varies and will be announced each semester.

415. Tectonics.

A comprehensive overview of the theory of plate tectonics. The historical development of the theory is reviewed, considering in detail the contributions of continental drift, geosynclines, apparent polar wandering, sea floor spreading and geomagnetic reversals. Current interpretations of the plate tectonic theory are discussed in relation to rock assemblages, geophysics and paleogeographic reconstructions. There is significant emphasis on the nature and origin of orogenic belts. Offered occasionally. Prerequisite: GEOL 103.

489, 490. SYE: Directed Studies in Geology. (MCR)

Semester-long studies in appropriate areas of the earth sciences may be designed in consultation with an individual instructor in the geology department. May use seminar format when appropriate. Permission of instructor and senior standing are required. Counts for SYE credit. Prerequisite: permission of instructor.

498, 499. SYE: Senior Thesis. (MCR)

The senior thesis is an extended application of a student's geological background toward research of an original nature. It involves posing questions, developing hypotheses, conducting field and/or laboratory work, applying scholarship and library research, interpreting results and compiling those results into a finished thesis for submission to the department. Completion of Senior Thesis may lead to graduation with honors (see Honors in the Curriculum section of this *Catalog*). Guidelines and deadlines for thesis preparation should be obtained from the department chair. Counts for SYE credit. Prerequisite: permission of instructor.

Geology–Physics

Interdisciplinary major offered

More information on this interdisciplinary major can be found at www.stlawu.edu/physics/geology-physics.

Students with an interest in geophysics may prepare for graduate study in that field by choosing the interdisciplinary major in geology and physics. The requirements of this major include advanced work in both physics and geology, but there is some flexibility in the choice of courses to meet the specific needs of the student.

Major Requirements

1. Five units of geology; must include 203, 350 and Geology Senior Seminar.
2. Four and one half units of physics; must include 151, 152, 307, 317 and 333.
3. Two additional units chosen from appropriate courses in geology or physics at the 200 level or above.
4. A senior research project in some area of geophysics, with advisors from both geology and physics departments.

Recommended Courses

Mathematics

205. Multivariable Calculus.

230. Differential Equations.

Advising is provided through both the geology and physics departments. Since this major is expected to serve students with a wide range of interests, anyone considering it is encouraged to consult with these departments about appropriate scheduling of courses, including interdepartmental offerings.

Students contemplating this major should also be aware of possibilities for advanced placement in chemistry, mathematics and physics courses that could provide added flexibility to their programs. Students should register for PHYS 151, 152 and not PHYS 103, 104.

Global Studies

Major and minor offered

Visit the global studies department webpage at <http://www.stlawu.edu/global-studies>.

Major Requirements

The Global Studies major requires 15 units, including second language study. Students are expected to complete the core courses in the department; some or all other courses can be taken outside the department depending upon choices students make for their concentrations.

I. Core Courses (8 units)

101. Introduction to Global Studies: Political Economy.

102. Introduction to Global Studies: Race, Culture and Identity.

290. Research Methods in Global Studies.

301. Theories of Global Political Economy.

302. Theories of Global Cultural Studies.

Two (2) Global Studies electives (GS designation), one at the 200 level and one at the 300 level, and should normally fit in with the student's choice of concentration (*below*).

489 or 490. SYE: Senior Project. **or**

498,499. SYE: Honors Project.

II. Choice of Concentrations (7 units, including study of a second language).

Students have three tracks they can choose from to mold their concentration, which can be satisfied with department courses, other on-campus courses, general education requirements courses, and off-campus courses.

These are:

- A. *Comparative area studies*: complete three (3) courses in each of two geographic or cultural areas; and one semester of a second language; **or**
- B. *One-area intense study*: complete four (4) -courses in one geographic or cultural area and three semesters of a second language related to their area concentration; **or**
- C. *Area and thematic study*: complete three (3) courses in one geographic or cultural area, and three (3) courses in one thematic area; and one semester of a second language.

Programs available for students' geographic or cultural area concentrations include:

- Arabic Studies
- African Studies
- African-American Studies
- Asian Studies
- Canadian Studies
- Caribbean, Latin American, and Latino Studies
- European Studies
- Native American Studies
- Other areas (e.g., Middle Eastern or Islamic Studies) with approval of the department chair.

Programs available for students' thematic area concentrations include:

- Environmental Studies
- Gender and Sexuality Studies
- Peace Studies
- Media and Communications Studies
- Migration Studies
- Public Health Studies
- Development Studies
- Business Studies
- Religious Studies
- Other areas with the approval of the department chair.

It is strongly recommended that global studies majors spend at least a semester in off-campus study, gaining field experience. They are also required to study a second language. The courses taken off campus typically count toward the relevant area of concentration and often allow students to do field research toward the senior project.

It is also recommended that global studies majors take at least one (if not two) Geographic Information Systems (GIS) courses. Employers increasingly seek graduates with knowledge of GIS and critical geospatial and cartographic skills sets.

Minor Requirements

The global studies minor consists of six courses: GS 101, 102, either 301 *or* 302, two (2) electives in global studies, normally one at the 200 level and one at the 300 level, and a semester of second language study.

Honors

To receive honors in global studies, students must achieve a minimum GPA of 3.5 in the major and 3.2 overall and submit for evaluation a project of substantial length. Further details may be obtained in the department office.

Certification to Teach Social Studies

Consult the Education section of this *Catalog*, the Education Department webpage at <http://www.stlawu.edu/education/undergraduate-programs>, and/or speak to the Coordinator of the Teacher Education program in the education department as early as possible.

Courses

101. Introduction to Global Studies I: Political Economy.

An introduction to the reasons for the emergence of a global political economy. Using case studies, students examine the basic concepts and vocabulary in the political-economic analysis of globalization, such as free trade, capital accumulation, international division of labor, neo-liberalism, privatization, structural adjustment and sustainable development. The course explores the consequences of changing patterns of transnational economic and governance structures for nation-states, ecosystems and people's lives, and examines the repercussions of economic globalization. Discussion of the opposition movements that have formed to contest globalization, such as those emerging from labor movements, environmentalism and feminism. Also required for the major in Conservation Biology and may be counted toward the minor in Peace Studies.

102. Introduction to Global Studies II: Race, Culture, Identity.

Examination of their own identities and social locations leads students to an understanding of how those identities exist in a global matrix of cultural, economic and political relationships. Students are introduced to various theoretical and political positions on identity, with a focus on gender, race, ethnicity, class, spirituality and sexuality. While much of the material is drawn from the contemporary era, the historical context of European conquest and expansion and the Middle Passage frame a critical examination of the evolving ideas of "America" and the "West." *Also offered occasionally as CLAS 102 and may be counted toward the minors in African-American Studies, Native American Studies and Peace Studies.*

218. Cities and Globalization.

Cities reflect and embody the myriad and complex processes of globalization, challenging the nation-state's role in circumscribing people's life and activities. A few "global cities" are the control points for the organization of new forms of economic, political and social geographies associated with global processes. Other large "world" cities in both the developed and the developing world are incorporated into the global urban system through the economic, cultural and political power they exercise at different scales — local, national, transnational, regional, and global. The objective of this course is to critically understand the relationship between cities and globalization, and to appreciate cities as sites of struggle associated with globalization. When possible, the course includes a field trip to Toronto, Canada.

222. Asian Political Economy in the Global Age.

This course covers the geographical and historical rise of East Asian economies in the context of "quasi-states" in the world economy, the spectacular economic growth of China, and the social and economic crisis gripping South Asia in the context of contemporary debates about neo-liberalism, gender, identity, community and communalism. What are the prospects for East and South Asia in the new global millennium? Topics include regional perspectives on global capital

accumulation, global inequalities, human rights discourse, fundamentalism and social movements. Also may be counted toward the minor in Asian Studies.

230. Secrets and Lies: Nationalism, Violence and Memory.

This course explores the complex and difficult processes through which nations confront—or fail to confront—their histories of colonization, genocide and other types of mass violence. Through a comparative look at case studies such as South Africa, Israel/Palestine and the United States, the course examines a variety of collective responses to mass violence, including denial, truth commissions, war crimes trials and reparations. Also may be counted toward the minor in Peace Studies.

233. GIS. (with lab)

Geographic Information Systems (GIS) is the use of computers to manage, display and analyze spatial or geographical information. This course introduces students to the basic concepts, functions, and applications of GIS. We discuss maps, data sources and management, and geographic techniques, including global positioning systems, aerial photography and satellite imagery. Through a series of lab exercises students explore the analytical functions of GIS, such as proximity, overlay and three dimensional modeling. To further understand GIS practices and applications, each student develops a GIS project with data appropriate to his or her area of interest. *Also offered as GEOL 233.*

238. Global Christianities.

This course explores Christianity outside the United States and Europe. Catholic and Protestant Christianities in addition to newer forms of Christianity are included, and case studies are drawn from Africa, Asia and Latin America. Pentecostal Christianity (also called Charismatic Christianity) is a particular focus. The course considers the conflict and interplay of older forms of Christianity, often part of the inheritance of colonialism, with more recent arrivals; probes the relationship between religion and the processes of globalization; and questions whether any of these forms of Christianity can be described as globalized, and, if so, whether global Christianity resists or supports globalization. *Also offered as REL 238.*

255. Popular Culture.

This course introduces students to key themes in the study of popular media and to debates about the role of media in contemporary societies. It also introduces methodologies used to study culture and asks students to apply them to case studies from music, sports, comics, fashion, television, cyberculture, film or advertising. Emphasis is on various cultural expressions of ethnic subcultures in the United States and their complex negotiations with the dominant culture and their co-resisters in a global/local struggle over meaning.

259. Global-Local Environmentalisms.

This course explores the ways environmental social movements and environmental conflicts are experienced across multiple scales: global and local. We will examine the role that broad-based and influential environmental or development efforts play in defining contested landscapes and concepts of “nature” more broadly. In addition, we will consider how they engage with variously positioned local communities that often have deeply rooted and socially and culturally rich connections to those same landscapes. We will focus on particular case studies addressing wilderness preservation, fortress conservation and environmental justice efforts in the global North and South.

260. Transnational Migration.

Students acquire a global perspective on the nature of migration movements, why they take place and how they affect migrating peoples, as well as the societies receiving them. Themes include transnationalism and new approaches to national identity and citizenship; migration as a social network-driven process; gendered migration; migration and the formation of ethnic minorities. The course analyzes how transnational movements of people, goods and services affect and transform the relationships between cities and nations and explores the political meaning of contemporary nationalism and the possibilities of new forms of citizenship. Emphasis is on the (trans)formations of Latino identities in the U.S. *Also offered occasionally as CLAS 260 and may be counted toward the minor in Native American Studies.*

262. Globalization and the African Diaspora

In an increasingly interconnected and interdependent world, Africa appears marginalized or absent from contemporary imaginations and discourses of globalization. Yet, Africa, a heterogeneous continent differentiated along geographical, historical, social, cultural, religious, economic, and political lines among others, has been and continues to be integral to the global economy. Through an interdisciplinary diasporic approach, this course examines how particular global processes intersect with and manifest differently in and across specific places and social realities in the Africa diaspora. It explores the complex historical place of Africa in the global economy through the forced and voluntary dispersion of Africans and the legacies of slavery, colonialism, racism, underdevelopment, and globalization. By engaging with the works of diaspora African scholars, academics, activists, and various visual and literary artists, the course aims to widen students' perspectives and understanding of how global and transnational exchanges articulates myriad intersecting social practices and identities in the African diaspora. Themes covered in the course include migration, urbanization and youth cultures, global and popular culture, gender and sexuality, social media, diaspora literature, politics and social justice. *Also offered as AFS 262.*

264 Global Public Health: Critical Approaches

Global public health is an interdisciplinary field that addresses how to achieve health and well-being in an interconnected world. This course will explore how health and well-being are conceptualized and pursued in the context of global diversity and inequality. Students will consider how class, race, gender, sexuality and (dis)ability shape health opportunities and challenges for individuals, groups and populations. The course will address established social determinants of health including: food security, housing, health care, education, work and income, the ecosystem, peace and social justice. This course fulfills the diversity (DIV) requirement.

273. A Literary Harvest.

While environmental writers and activists such as Wendell Berry, Bill McKibben and the Indian physicist Vandana Shiva have alerted us to the ecological, ethical, and health problems associated with factory farming, the North Country has long been a haven for sustainable, small-scale organic agriculture. This is a creative writing course in literary nonfiction that focuses on food, food security, and farming. It has both a CBL component and a cross-cultural, comparative focus (India). The community-based learning takes place in the course's required lab component. Students will draw from nonfiction readings, their CBL work, and past experience, including travel, to examine the themes from both a local and global perspective. *Also offered as ENG 293.*

290. Global Studies Research Methods.

An introduction to research approaches that take into account the economic and political context of the production of culture, textual analysis and people's perceptions. Objectives are to examine the philosophy and epistemology of qualitative methods, to understand various approaches to qualitative research, to develop the skills to design a qualitative research project, to gather and analyze qualitative data, and to present the preliminary findings. For their final project, students produce a research design for their SYE and apply learned research strategies to their own research questions. The course emphasizes the importance of critical awareness of the practical, social and ethical issues that arise in doing cultural and social analysis and research in everyday settings.

301. Theories of Global Political Economy.

This course explores the complex relationship between states and economies at the global level. Its primary purpose is to provide a critical understanding of the major theoretical and analytical issues that constitute the crucial challenge to the study of global political economy today. It moves beyond the traditional agenda of international political economy, namely trade and investment, to address a wide range of alternative theories, concepts and themes, including the origins, functions and impacts of transnational corporations, international financial institutions, regional and global trade organizations and non-governmental organizations involved in social movements. Prerequisite: GS 101.

302. Theories of Global Cultural Studies.

An introduction to the growing field of cultural studies through examination of its major theoretical paradigms, particularly as these bear on the question of unequal global power relations. These may include Marxism, critical theory, post-structuralism, feminist theory and emerging work in postmodernism and post-colonial studies. Students explore strategies for “reading” cultural practices and texts not simply as reflections of reality, but as political interventions, expressions of desire, attempts to persuade and producers of power. Through a combination of theoretical criticism and analysis of specific materials, students prepare to undertake independent research with an informed understanding of how cultural studies challenge and enrich traditional social science and humanities approaches. Prerequisite: GS 101 or 102. *Also may be counted toward the minors in Native American Studies and Peace Studies.*

324. Global Public Goods: Exploring Solutions for the 21st Century.

This course addresses attempts to initiate, coordinate and execute solutions to problems that many understand as being not solely local in origin and implication, but rather connected with other sites, across the world (e.g., cultural destruction, disease and health care, financial crises, ecological destruction, aging and social security challenges, state and non-state actor violence, migration). Framing issues in the language of global interests, the metaphor of “public goods” invites an approach that seeks commonalities with an eye toward action that allow forms of cooperation to be imagined and achieved. Students produce a major paper on one theme written over the semester as part of their course obligations. *Also may be counted toward the minor in Peace Studies.*

333. Ethics of Global Citizenship.

This research seminar is designed to address, from a philosophical perspective, some of the difficult ethical questions arising from the global organization of the world. Readings include classical, non-western and alternative theories of justice and peace. The course interrogates the discourses surrounding patriotism and cosmopolitanism, peace and violence, terrorism and war, justice and retribution, and the debates surrounding relativism versus universalism, especially with regard to the claims for human rights. Students undertake research projects dealing with the ways these issues are being negotiated in countries where they studied abroad, and develop ethical positions on their own responsibilities toward global citizenship. *Also offered as PHIL 333 and may be counted toward the minor in Peace Studies.*

340. Blogging the Globe: News Analysis and Investigative Journalism.

This course fosters the tools necessary to be critical readers and viewers of the news in a complex, globalized media environment while also giving students the opportunity to become investigative journalists themselves. In addition to examining patterns in how global events are covered in mainstream and independent/alternative media outlets in the U.S. and elsewhere, the course explores deeper structural issues concerning discourse, ideology and the representation of “other” cultures; the relationship between media, corporate and state power; and the role of institutions in defining the bounds of “legitimate” knowledge. Students in the course contribute to The Weave, an online public Intellectual project, by researching and blogging about underreported stories. Prerequisite: Global Studies 101 or 102. *Also offered as FILM 340 and PCA 312.*

350. Global Palestine.

This course explores the global significance of the modern colonization of Palestine and the resulting Palestinian struggle for national liberation. Moving beyond conventional interpretations of the conflict between Israel/Zionism and the Palestinians, the course emphasizes Palestine’s location within a set of broader global structures and processes including settler colonialism, militarization, social acceleration, solidarity movements, and the relationship between state and non-state forms of terrorism. Students develop familiarity with important theoretical concepts within global studies while also furthering their understanding of why Palestine, despite its small size, continues to matter so much to so many. *Also may be counted toward the minors in Arabic Studies and Peace Studies.*

365. Rethinking Population, Health and Environment.

This course addresses complex interrelations among and between population, health and the environment in an increasingly interdependent world. The aim is to provide theoretically and empirically grounded understandings of the historical and contemporary evolution of various population dynamics, including demographic change, public health,

diseases, human migration, urbanization, disasters, and population-environment patterns. The course employs an interdisciplinary approach to identify critically how economic, political, cultural, social and environmental factors operating across multiple scales (local to global) shape the intersection of population, health and the environment. Through specific case studies, the course also explores current challenges in global health, population policies around reproductive rights, health systems and reforms, environment change, and emerging issues around equity, social, and environmental justice. This course may be counted toward the major in Conservation Biology.

367. Feminist Postcolonial Theory.

Postcolonial theory addresses issues of identity, culture, literature and history arising from the social context of colonization, resistance to colonization, liberation from colonization and the formation of new nations. It crosses the boundaries of the social sciences and humanities in its approach to theory and analysis of the discourses used to constitute colonial and postcolonial subjects. We begin with some classic texts of postcolonial theory before moving to a focus on specifically feminist debates and texts within post-colonial studies. Literature and film are used in dialog with theoretical texts to examine questions about gender and women's issues in various societies. *Also offered as ENG 367, GNDR 367 and PHIL 367.*

390. Independent Study.

409. Internship: The Weave.

This project-based internship course is designed for students who are interested in independent media and the promotion of public dialogue about important global issues. Students in the course serve as one-semester interns for The Weave (<http://www.weavenews.org>) an independent media project focused on stories that are not receiving sufficient attention from the mainstream news media. Through working on collaborative projects, students develop practical skills in a number of areas such as formal presentations, fundraising, community outreach, public relations, media production, event planning, grant writing, and organizational development.

412. Cross Cultural Perspectives of Healing.

This class uses healing traditions as the lens with which to examine culture. During the semester students will have the opportunity to meet healers from around the world. In a typical semester presenters include a Traditional Chinese Medical practitioner, an Ayurvedic physician (from India), a shaman from Peru, an exorcist, a native American healer, an allopathic physician, new age healers, a Christian Scientist and others. *Also offered as REL 412 and BIOL 412.*

489, 490. SYE: Senior Project.

498, 499. SYE: Honors Project.

Government

Major and minor offered

Visit the government department webpage at www.stlawu.edu/government.

Major Requirements

Students entering St. Lawrence with an interest in government and politics are strongly advised to enroll in two of the 100-level core courses (103, 105, 108) during their first year, one of which should be taken as a writing-intensive version (103W, 105W, 108W). Students should also seek early advising from a government department faculty member.

The major in government requires the completion of nine units distributed as follows:

1. **Core Courses (4):** Government majors must complete the introductory course for each of the four disciplinary subfields: American Politics (103), Comparative Politics (105), International Politics (108) and Political Theory (206). One of the three 100-level courses must be designated writing intensive and should be completed before the end of the sophomore year. These four introductory courses must be taken in residence on the St. Lawrence campus.
2. **Research Seminar (1):** During the sophomore or junior year, ideally after completion of the writing-intensive course, majors must take one of the government Research Seminars (290, 291, 292, 293). Students may take only one research seminar.
3. **Elective Courses (4):** The remaining four units may be earned through a selection of elective courses. At least one of the electives must be a 300/400-level course taken on campus. Students may count up to one unit of internship coursework and one unit of independent study toward the elective requirements. Students who complete the two-course SYE: Honors Thesis may not also use an internship or an independent study course to meet the major requirements, although such courses do count toward the units required for graduation. No more than two of the elective courses may be taken off campus.

A major may elect no more than four out of nine units for the major in any one subfield of the discipline. The academic work of transfer students in political science is evaluated upon entry into the department for determination of credit. In no case may a transfer student majoring in government take fewer than five government courses at St. Lawrence.

Minor Requirements

The minor in government requires the completion of five units distributed as follows:

1. Core Courses (2). Government minors must complete two of the following introductory courses: American Politics (103), Comparative Politics (105), International Politics (108) and Political Theory (206). These courses must be taken in residence on the St. Lawrence campus.
2. Research Seminar (1). During the sophomore or junior year, minors must take the government Research Seminar (290).
3. Elective Courses (2). The remaining two units may be earned through a selection of upper-level (i.e. non-introductory) elective courses. The department will credit one upper-level government course taken in a St. Lawrence-sponsored off-campus program. Internships in government do not count as courses toward the minor.

Honors

Departmental honors are awarded at graduation to majors who have achieved a minimum grade point average of 3.5 in government courses and who have also received an “honors” designation on the senior thesis. Additional information regarding the senior honors thesis can be found on the departmental website. (See Honors in the Curriculum chapter of this *Catalog*.)

Certification to Teach Social Studies

Consult the Education section of this *Catalog*, the Education Department webpage at <http://www.stlawu.edu/education/undergraduate-programs>, and/or speak to the Coordinator of the Teacher Education program in the education department as early as possible.

Courses

Introductory

103. Introduction to American Politics.

Who gets what and how? This course answers that question by introducing the major institutions and actors of the American political system, including the Constitution, parties, interest groups and the legislative, executive and judicial branches of government. The course also examines the cultural, ideological and economic contexts in which American politics occurs, as well as the mechanisms and possibilities of political change.

105. Introduction to Comparative Politics.

Comparative politics analyzes how demands emerge, power is exercised and benefits are distributed in different countries. It uses both historical and contemporary evidence to examine how societies respond to these challenges in order to appreciate and learn from the differences among them. Developing societies, communist and formerly communist regimes, as well as industrialized democracies, are analyzed and compared as a basis for evaluation and judgment.

108. Introduction to International Politics.

An analysis of international relations as a political process with particular emphasis on patterns of conflict and cooperation. Major areas of study include theories concerning the nature of the international system, nationalism, balance of power, collective security, alliance systems, international law and organization, political economy, war, deterrence, arms control and disarmament, the emerging international order, human rights and the environment. *Also offered through Peace Studies.*

206. Introduction to Political Theory.

A study of the answers that philosophers from Plato to Marx have given to the question, "How should political life be organized?" This question leads us to consider the related problems of justice, power, equality, freedom and human nature. The course includes discussion of the strengths and weaknesses of liberal democracy. *Also offered as GOVT 103 and through European Studies and Peace Studies.*

Research Seminars

290, 291, 292, 293. Research Seminars.

Research seminars cover topics related to American Politics (290), Comparative Politics (291), Political Theory (292), and International Politics (293). The specific topics of these seminars vary depending on the interests of faculty and students. Recent topics have included China's Rise, Israeli-Palestinian Conflict, Presidential Elections, Comparative Environmental Politics and the Politics of Inequality. The seminars are designed to acquaint students with research problems, strategies and techniques relevant to the field. This course is required for all government majors and minors and should be completed in the sophomore or junior year. Students may take only one research seminar.

American Politics

302. The American Legal System.

This course explores the workings of the courts at all levels of the U.S. legal system. The primary goal is to increase and broaden our understanding of what happens in courts, why it happens, and how courts fit into the larger political system. Much of our attention will focus on actors in the legal system (lawyers, juries, interest groups and especially judges) as we consider how their behavior is shaped by and in turn shapes our legal and political institutions and environments. Students will be asked to weigh in on contemporary debates surrounding the legal process and to grapple with some of the difficult normative questions associated with American courts. Recommended as preparation for GOVT 307. Prerequisite: GOVT 103.

303. Political Parties, Interest Groups and Voting Behavior.

Two mechanisms try to organize ordinary citizens so that government may be responsive to people's needs: parties and interest groups. One of their aims has been to organize citizens into rational, effective voting blocs. This course looks at how parties and interest groups work and at whether or not they are fulfilling their purpose. Prerequisite: GOVT 103.

307. Constitutional Law.

This course examines the constitutional jurisprudence of the United States Supreme Court and how its decisions have shaped the contours of the relationship among political institutions and between the individual and the state. Among the areas of law explored are presidential powers; the powers of Congress; freedom of speech, press and religion; equal protection; federalism; and the rights to privacy, to bear arms and to vote. While working toward a fuller understanding of Supreme Court jurisprudence, the course also aims to develop students' capacity for logical and legal reasoning. Prerequisites: GOVT 302.

309. Congress.

An institutional and behavioral examination of the legislative process in Congress, with attention to current policy issues. Prerequisite: GOVT 103.

310. The U.S. Presidency.

An examination of the functions of the presidency, with stress on the development of the executive branch in response to political needs and opportunities. Prerequisite: GOVT 103.

314. Politics and the Media.

Most Americans learn most of what they know about politics from the media. But critics charge that the media's picture of politics is distorted. This course explains how the picture is distorted and why. In addition to news media, the course will look at the political and social messages of primetime television, Hollywood film and the advertising industry.

316. Ethics in Business and the Professions.

This seminar looks at the relation between public policy and ethical dilemmas in the arenas of corporate life and professional service. The course asks students to examine the sorts of moral dilemmas they can expect to encounter in their chosen fields of work and takes a case-study approach to such topics as employee rights, information disclosure, Affirmative Action, sexual harassment and whistleblowing, and the roles that public policy should — or should not — play in relation to these issues.

Comparative Politics

221. Latin American Politics.

This course introduces students to the politics of Latin America. Tracing the roots of current political conflict to the colonial era, the primary focus of the course is on underdevelopment and political change in Latin America today. The course examines the roles of key political actors, including the military, indigenous peoples and the church. It explores patterns of development, introducing theories that seek to explain persistent poverty and inequality as well as the periodic swings between authoritarianism and democracy in the region. The course material emphasizes current pressures for political inclusion, tracking social movements and human rights. Themes are illustrated with case studies. *Also offered as CLAS 221.*

320. African Politics.

This course explores the evolution of power and authority across Sub-Saharan Africa. The first part of the course traces the changing dynamics of African states through pre-colonial history, colonialism and conquest, the rise of nationalism and independence, and democratization and authoritarian backsliding in order to provide a foundation for understanding both region-wide and country-specific trends in politics and development. Building on this foundation, the second part of the course analyzes contemporary prospects and challenges facing today's African states as they

attempt to manage the interests of ethnically diverse societies, reform political institutions, spur development and decrease inequality, adapt to climate change, grapple with human rights, counteract political violence, and compete in the global economy. Especially recommended for students who plan to participate in the Kenya Semester Program or the Global Francophone Cultures Program and students returning from these programs. *Also offered through African Studies.*

322. Chinese Politics.

An introductory survey of China from four perspectives: China as China, China as a Communist party state, China as a developing country, and China as a rising power. Through these lenses, the course examines the historical factors that have shaped contemporary Chinese institutions and the Chinese Communist Party. It also examines China's influence and security concerns within the international community. Especially recommended for students who plan to participate in an off-campus program in China and for students returning from the program. *Also offered as ASIA 322 and through Peace Studies.*

324. Asia: Beyond the Great Wall.

Asia is currently one of the most dynamic and consequential regions in the world. This course seeks to answer the following questions to make sense of this vast and diverse area: How is the "West" (and especially the U.S.) to understand Asia's rise in the global context? What political and economic factors explain developmental success and failure in the region? Will Asia decide the future of democracy in the global context? Does thinking about Asia as a region makes sense like a European Union? This course aims to provide students with a deeper historical, political, and economic understanding of Asia within the global context.

325. Canadian Politics.

An introductory survey of the formal institutions and the processes of Canadian politics. Emphasis is on the federal government and on federal-provincial relations. Topics covered include the parliamentary process, parties and voting.

328. Political Institutions in the Developing World.

Can the choice of certain political institutions promote better representation, political stability, more government accountability, less corruption, or improved economic performance in developing countries across sub-Saharan Africa, Latin America, the Middle East, and Asia? This course tackles these questions by introducing students to the main approaches in comparative institutional analysis and exploring the design and consequences of a wide range of political institutions (or "rules of the political game") such as state structures, electoral systems, executive powers, the legislature, the judiciary, and sub-national structures. Discussions center on debates about the trade-offs between representation and efficiency, whether political behavior can be shaped by incentives, the impact of historical legacies, and the unique challenge of implementing formal institutional rules in societies where informal practices shape much of the political life. Prerequisite: Any 100-level Government course or permission of the instructor.

330. European Politics.

This course focuses on West European governments, political parties and social movements. It seeks to provide students with essential information about West European politics, as well as contemporary theories about advanced capitalist democracies. Comparisons between European and American politics are frequent so that students may better see the distinctiveness of each. Issues examined include the European welfare state, the significance of the European Union, the changing contours of political conflict and the emergence of multiculturalism in Europe. Especially recommended for students who plan to participate in an off-campus program in Europe and for students returning from those programs. Prerequisite: GOVT 290-3 or permission of the instructor. *Also offered through European Studies.*

331. Middle East Politics.

This course examines the political development of the Arab and non-Arab states in the Middle East since the fall of the Ottoman Empire. The course adopts both a thematic approach, comparing history, culture, religion and the role of foreign intervention, as well as a country-based approach, examining the politics and policies of specific Arab and Non-Arab countries. The objective of the course is to provide students with an understanding of the challenges facing the

region and those studying it. Students participating in this course will be involved in an elaborate simulation game in which they represent regional state and non-state actors. Prerequisite: GOVT 105. Introduction to Comparative Politics. *Also offered through Peace Studies.*

337. Torture, Truth and Memory

Authoritarian regimes have often committed massive human rights abuses that included murder, torture, disappearances, involuntary exile and forced adoptions. As a condition for transitioning to democratic governance outgoing military leaders insisted on amnesty for those crimes, but societies have sought to come to terms with their human rights history through other means such as truth commissions, forensic anthropology, investigative journalism, international prosecution, collective memory projects and popular culture. Drawing on memoirs, torturers' confessions, declassified documents, films, literature and analytical texts this course explores the ongoing struggle over who will interpret the political past, and what roles justice and reconciliation may play in securing democracy for the future. Course readings will center on Latin American cases, and students can apply those lessons in other world regions through their research papers. *Also offered as CLAS 337 and through Peace Studies.*

365. Human Rights in the Context of Global Politics.

Is it possible to achieve a world where human rights are recognized and respected by all societies, and guaranteed to all peoples? A utopian notion, surely. But even to begin to move towards such a world, there are a number of questions we must first address. What are the historical roots of the concept of human rights? Can there be such a thing as universal human rights, that is, rights that are recognized as valid for all states, societies, and cultures? Or is a relativistic notion of human rights more compatible with global justice? What has been the impact of globalization on the development of human rights? Through what sorts of associations and institutions are people working to bring about an international society where respect for human rights is a regulative norm? Are their struggles illusory? These are just some of the questions this course will address.

Political Theory

343. Ecology and Political Thought.

Ecology reminds us that our activities are embedded within natural systems. What is the significance of this fact for politics? This course examines how various actors, such as citizens, consumers, social movements, scientific experts and governmental agencies, conceptualize the relationship between humanity and the natural world. We evaluate the merits and shortcomings of a variety of approaches to environmental politics, including survivalism, sustainable development, deep ecology, ecofeminism and the environmental justice movement. Does not satisfy the department's major requirement in political theory. Prerequisite: ENVS 101, GOVT 206, or permission of instructor. *Also offered as ENVS 343.*

345. Political Theories of Violence and Nonviolence.

Carl von Clausewitz famously remarked that "war is a continuation of politics by other means," which suggests that politics is intimately connected with violence even as it seeks to avoid it. In this discussion-based seminar we will examine how key figures throughout the history of political thought have conceptualized the relationship between politics, violence, and non-violence. Topics covered in the course include just war theory, the role of violence in the state, non-violent civil disobedience, and revolutionary violence associated with working class and anti-colonial struggles. *Also offered as PHIL 343 and through European Studies and Peace Studies.*

347. Marxist and Critical Theory.

A survey of the basic elements of Marxist political theory and of the major streams of contemporary thought that have emerged in response to it. Some of the theorists whose work we might examine include Gramsci, Horkheimer and Adorno, Marcuse, Habermas and Foucault. Feminist, African-American and Caribbean interpreters of Marx may also be studied. *Also offered through European Studies.*

349. American Political Thought: Eighteenth and Nineteenth Centuries.

An examination of the main currents of political thinking from the Colonial period to the end of the 19th century. The course begins with the Puritan Divines and continues through the start of the Progressive era. Thinkers considered might include Paine, the Federalists, Jefferson, Emerson, Margaret Fuller, Thoreau, Frederick Douglass and Charlotte Perkins Gilman.

350. American Political Thought: Twentieth Century.

An examination of the main currents of political thinking in the United States from the Progressive Era through the end of the 1960s. Thinkers considered include the Social Darwinists, Thorstein Veblen, W.E.B. DuBois, Jane Addams and John Dewey. We also look at both the resurgence of conservative thought in the 1950s and some of the sociological critiques of the post-war era out of which the New Left, civil rights, Black Power, feminist and ecological movements grew.

368. Democracy and Its Critics.

Most countries in the world today are democratic, but there is no single model of democracy and no consensus on what the term means. This applied political theory course reviews models of democracy across the centuries, including classical democracy, competitive elitism, participatory democracy and deliberative democracy. The course focuses on the democratic principles behind the models, drawing on the work of major Western thinkers from ancient Greece, the Italian Renaissance city-states, 18th- and 19th-century France and England, as well as the United States. It centers discussion around themes such as representation, participation, majority rule and the transformative potential of modern technology for democratic practice. *Also listed as PHIL 368.*

International Politics

281. U.S Foreign Policy toward Latin America.

This course examines U.S. foreign policy toward Latin America from the issuance of the Monroe Doctrine to the present. We will track the development of the inter-American system in a context of U.S. hegemony and show how asymmetric power relations have influenced resolution of key problems in regional relations. The course will review changing U.S. policies toward the region, such as dollar diplomacy, the Good Neighbor policy, and the Alliance for Progress, as well as formative events such as U.S. military occupation of countries in the Caribbean Basin as well as Cold War covert operations. Students will consider how the United States and Latin America see shared policy problems differently, including the debt crisis, immigration, illicit drug flows, and environmental problems, and how states nonetheless sometimes cooperate in the resolution of them. *Also offered as CLAS 281.*

360. International Relations Theory.

An advanced seminar on the theories of international relations. The principal contending theories of international relations are investigated and critiqued. Although the nation-state system remains the primary focus of scholars of international relations, other major non-state actors of the international system are examined. Prerequisite: GOVT 108 or permission of instructor. *Also offered through Peace Studies.*

361. American Foreign Policy.

A study of the formulation, conduct and administration of United States foreign policy, particularly since 1945. The course examines the directions of U.S. foreign policy since 1989 and the goals and values that have guided foreign policy in the new environment. What directions should American policy take in contemporary foreign relations and what goals and values should guide that policy direction? Prerequisites: GOVT 108.

363. International Organization and Global Governance.

This course introduces students the structure, actors and processes of global governance. Students will consider the role of formal interstate institutions (United Nations, NATO, EU, etc.) as well as the emergence of global governance

processes and applications that go beyond these formal institutional arrangements. It investigates the global transformations that influence changing forms of global governance, including debates on successful humanitarian intervention, traditional and non-traditional security, climate change and the roles played by both state and non-state actors in such contexts. Prerequisite: GOVT 108 or permission of instructor. *Also offered through Peace Studies.*

364. Terrorism and Human Rights.

This course examines the challenges facing democracies combating terrorism in the post-9/11 setting. States tend to become less democratic when combating terrorism; however, the goal of this course is to examine alternative strategies to the “war” on terror, strategies that lean even more towards human rights observance rather than democratic deficit. This course is interdisciplinary and interactive, largely based on class discussion rather than lectures. We tackle questions of law, policy, and the psychology of fear. Prerequisite: GOVT 108. *Also offered through Peace Studies.*

372. Canada in World Affairs.

A broad survey of the Canadian experience in international politics. Ultimately it is an inquiry into the relationship among the international system, the elusive Canadian national interest and the limited set of foreign policy tools at the disposal of the Canadian government. Prerequisite: GOVT 108 or permission of instructor.

Special Topics Courses

3000 Series (200-Level Courses)

4000 Series (300-Level Courses)

In addition to the courses listed above, each semester the Government Department offers a number of courses covering special topics in the fields of American politics, comparative politics, international politics and political theory. Courses at the 200 level are given a course number in the 3000 series. Courses at the 300 level are given a designation in the 4000 series. The content of each course or section of these 200-level or 300-level special topics courses varies and will be announced each semester.

Advanced Studies

479, 480. SYE: Internships.

Kwame Nkrumah once said, “Thought without practice is empty; practice without thought is blind.” This course brings the two together. Students are required to spend at least eight hours per week in an internship at a local community service agency, dealing with such problems as poverty, crime, illiteracy, environmental degradation, domestic violence and so on. Students reflect on the field experience by writing a research paper related to the internship, keeping a journal that reflects on the field experience in a scholarly way and attending a series of workshops designed to help them conceptualize their experiences. Prerequisites: GOVT 103 and 290-3, an overall GPA of 2.8 or better and permission of instructor.

489, 490. SYE: Independent Projects.

Individual study of a topic approved by the department under the direction of a faculty member. Prerequisites: GOVT 103, 290-3, an upper-level course on a topic related to the project and an overall GPA of 2.8.

497, 498. SYE: Senior Thesis.

The senior thesis offers the qualified student an opportunity for more intensive work in the field. Minimum criteria for admission to the program are a 3.5 average in government courses, a satisfactory overall academic record, completion of Government 290-293 with a grade of 3.0 or better and the presentation of an acceptable research proposal. Interested students are required to submit a research proposal to the department near the end of the spring semester of the junior year.

History

Major and minor offered

See also combined majors in History and African Studies, History and Asian Studies, History and Modern Languages.

Visit the history department webpage at www.stlawu.edu/history.

Major Requirements

The requirements for the major in history are flexible enough to enable a student to pursue personal interests and goals and at the same time foster an appreciation for the diversity of the human experience. To qualify for a major in history the following minimum requirements must be met:

1. A minimum of 10 history courses must be completed.
2. **At least four courses (at any level)** must be drawn from four of the following broad categories into which the history curriculum is divided: a) Africa, b) Asia, c) Europe, d) Latin America and the Caribbean, e) Middle East, f) North America, g) Transnational.
3. At least one course must be a 299 Historical Research Methods seminar, which must be taken before the senior year.
4. At least one course must be at the 300 level.
5. **At least one course must be a Senior-Year Experience (SYE)**, which may be fulfilled by a 400-level research seminar involving a substantial research project, by the two-semester Honors Project, or by a 400-level independent study (see below).
6. No more than three courses at the 100 level may be credited toward the major.
7. Students must maintain a minimum 2.0 GPA in the major.

Honors

The honors program in history enables qualified students to engage in intensive original work in the senior year. Admission to the program, at the discretion of the department, requires a GPA of at least 3.5 in the major. Students seeking admission must apply to the chair of the department by no later than May 1 of the junior year. Honors are granted upon the successful completion of an honors thesis written under the direction of a faculty advisor. Completion of the honors thesis earns two credits toward the major (History 498 and 499) and fulfills the SYE requirement. Completion of a written historiography and other requirements by the end of the fall semester (History 498) is required for admission to History 499 in the spring.

Minor Requirements

A minor in history provides students with an opportunity to select courses that satisfy their interest in the field while learning the tools of the historian's craft. To qualify for a minor in history the following minimum requirements must be met:

1. **A minimum of six (6) history courses** must be completed.
2. **At least one course must be a 299 Historical Research Methods seminar**, which must be taken before the senior year.
3. **At least one course must be an SYE course.**
4. **No more than one course at the 100 level** may be credited toward the minor.
5. **Among the minimum of six courses**, not more than one may be an independent study (489, 490) or an internship (481, 482).
6. **Students must maintain a minimum 2.0 GPA** in the minor.

Advanced Placement Credit.

A 4 or 5 in one AP course may count for major credit.

Certification to Teach Social Studies

Consult the Education section of this *Catalog*, the Education Department webpage at <http://www.stlawu.edu/education/undergraduate-programs>, and/or speak to the Coordinator of the Teacher Education program in the education department as early as possible.

Courses

100-Level Courses

Courses at the 100 level, designed specifically for first-year students and sophomores, provide a broad introduction to African, American, Asian, Middle Eastern, Caribbean and Latin American, and European history.

103. Development of the United States, 1607-1877.

This course surveys the creation and development of American society from the European invasions and settlement of North America to the Reconstruction period at the close of the Civil War. While the course follows the chronological development of and changes in American society, it also considers, in some depth, the major ideas and social movements that gave shape to the nation through primary and secondary sources. Topics include Puritans, the American Revolution, slavery, the Great Awakening, federalism, sectionalism, the Civil War, and Reconstruction drawing on the racial and ethnic diversity of the American experience. *Also offered through Native American Studies and Peace Studies.*

104. Development of the United States, 1877-Present.

The development of American society from the end of Reconstruction to the present. Emphasis is on the institutions, ideas, and movements that have shaped modern American society. Using both primary and secondary material, the course discusses the chronological development of and changes in American society as well as such topics as industrialization, urbanization, consumption and popular culture, the United States as a world power, the civil rights and women's movements, the Vietnam War, Watergate, and the end of the Cold War. *Also offered through Peace Studies.*

105. Early Asian Civilizations.

An introduction to the history of Asia to 1800 CE. The course focuses on several themes, all turning around how cultures and societies evolve and develop in interaction with each other. We explore cultural encounters through trade, war and diplomacy, personal encounters between individuals of different cultures and the processes of cultural diffusion, and pay attention to geography and the critical use of primary documents. *Also offered through Asian Studies and Peace Studies.*

106. Modern Asia.

This course examines the Asian region from 1650 to the present. We discuss the creation, dismantling, and continuing remnants of colonialism, World Wars I and II in the Asian context, the Cold War, the Korean and Vietnam Wars, and recent economic development. The course begins with an overview of Asian geography, culture, and history. It is designed to introduce students to major events and issues of modern Asia and also to improve students' skills in critical reading, writing, use of primary and secondary sources, and oral communication. *Also offered through Asian Studies and Peace Studies.*

108. Introduction to African Studies.

This course serves as a broad, interdisciplinary introduction to the study of Africa. Course materials and readings are designed to give special emphasis to African initiatives and perspectives in shaping their own history. African interactions in a global context are emphasized to highlight issues such as the Atlantic slave trade and colonization. Other topics include cultural diversity, geography and environment, religious expression, and development. At the end of the course

students will be able to see how Africans have participated in world historical events and explain the many forces that have shaped African societies over the past 500 years. *Also offered as AFS 101.*

109. Introduction to European Studies.

This course is an introduction to the histories and cultures of what we now call Europe, with particular focus on the different ways inhabitants of the region have defined their identities, especially in relation to other groups (from the Greco-Roman idea of “civilization” and “barbarians” to the medieval vision of “Christendom” to the Cold War division between Eastern and Western Europe to the current European Union). We explore the geographical, social, and cultural worlds of Europeans in several historical moments and in the present, but do not survey the entire history of “western civilization.” The course will also consider how European culture and history relate to the history of the rest of the world. *Also offered through European Studies.*

110. The Scientific Revolution.

This course covers the development of scientific thought in the period 1500 to 1725. It examines changing views of nature in the fields of anatomy and physiology, astronomy, and physics. Although the primary focus is on specific scientific developments, they are discussed in the context of concurrent social, economic, and religious changes. *Also offered as PHYS 110 and through European Studies.*

115. Introduction to Caribbean and Latin American Studies.

This course is an introduction to the richness of Caribbean and Latin American cultures, the region’s turbulent history of conquest and colonization, the diversity of its peoples and history, and the challenges of its development. An important objective of the course is to examine our individual places in the histories of the Americas in comparative perspective. The course provides a framework for study on St. Lawrence’s Costa Rica or Trinidad programs. *Also offered as CLAS 104.*

160. The Islamic World.

This course is designed as an introduction to the history of the Middle East and to some of the ways in which historians have approached that history. Topics to be considered include the development of classical Islamic culture, the nature of the Sunni–Shii split, the role of non-Muslims in Islamicate societies, jihad, gender and sexuality, and the relationship of the Middle Eastern history to wider historical changes. No previous knowledge or background in Islam or Middle Eastern history is required or expected. *Also offered through Peace Studies.*

200-Level Courses

Courses at the 200 level are primarily intended for sophomores and upper-class students, but are open to interested first-year students as well. These courses generally combine lectures and classroom discussions. They are more advanced than the introductory surveys, but broader in their treatment than most courses at the 300 or 400 level.

203. Early Canada, 1534-1867.

After laying eyes upon the eastern coast of Canada in May 1534, the French explorer Jacques Cartier remarked that it resembled the “land that God gave to Cain.” Despite Cartier’s initial misgivings, Canada presented numerous opportunities to Europeans, as it had for the First Nations. For three centuries, the northern half of North America was an imperial domain of the French, and then of the British. In 1867, the Dominion of Canada was created, and the first steps toward the Canada that we know today were taken. This course explores the political, economic, social, and cultural life of Early Canada, from the age of European contact to Confederation. *Also offered through Canadian Studies.*

204. Modern Canada.

On July 1, 1867, the three British North American colonies of Nova Scotia, New Brunswick, and the United Province of Canada (early Québec and Ontario) joined to create the Dominion of Canada. From the time of Confederation to the end of the Great War, Canada remained in the shadow of Great Britain. In the period following the war, the dominion moved toward closer relations with the United States. It is between these two empires, one across the Atlantic Ocean, the

other on the North American continent, that Canada's evolution as a nation might be understood in the broadest sense. Yet, such an approach masks the internal forces that moved Canada from dominion status to one of the world's most prolific international actors of the twentieth century. In this course, we will examine the "making" of modern Canada from Confederation to the end of the twentieth century by focusing upon the imperial and continental contexts, as well as domestic political, economic, social, and cultural factors. *Also offered through Canadian Studies.*

205. Nineteenth-Century Europe.

An overview of the political, social, cultural, and intellectual history of Europe in the 19th century, from the French Revolution to the outbreak of the First World War. This era saw the disintegration of previous ways of understanding the world and the rise of new visions of cultural, social, and political organization. Movements including liberalism, nationalism, socialism, feminism, and imperialism sought to reshape the European landscape, while economic and scientific transformations altered Europeans' experience and perception of the world. We consider a variety of texts, including novels, poetry, speeches, manifestos, visual art, and music. *Also offered through European Studies.*

206. Twentieth-Century Europe.

An overview of the political, social, cultural, and intellectual history of Europe in the 20th century. Wars, economic upheavals, revolutions, and genocidal atrocities reshaped Europe in the first half of the century, radically altering the physical and psychic landscape. Feminism, socialism, communism, and fascism challenged the political system, while the intellectual and artistic avant-garde questioned basic assumptions of European culture. The Cold War, decolonization, and attempts to express a new European identity defined the second half of the century. We consider a variety of texts, including novels, poetry, speeches, art, and films. *Also offered through European Studies.*

207. Civil War and Reconstruction.

This course addresses the social, political, and cultural issues surrounding the Civil War and the efforts to resolve them before, during, and after the war. While attention is paid to the military nature of the conflict, special emphasis is on social and political developments that shaped the Civil War and Reconstruction eras. Topics of study include the road to disunion; the dismantling of slavery; race relations before, during, and after the conflict; amendments to the constitution; and the construction of citizenship in the post-war era.

208. Ottoman Empire and Early Modern Europe.

This course examines the rise and development of the Ottoman Empire from its origins in early 14th-century Anatolia to the end of the 18th century. In addition to tracing the development of political and military institutions, the course explores changing social relations, with particular attention to the role of women and non-Muslim populations in Ottoman society. A particular emphasis is the relation of the Ottoman Empire to wider global trends and its diplomatic, military, and cultural interactions with Europe.

211. Women in Modern Europe, 1750 to the Present.

This course surveys the roles of women in the political, economic, and social history of modern Europe. Beginning with the 18th century, the course traces the public and private activities of women and the changing cultural definitions of those activities up to the present. Topics include the Enlightenment, industrialization, revolutionary and wartime activities, feminist movements, and the rise of the welfare state. *Also offered through European Studies.*

213. Global Environmental History.

This course explores the new field of environmental history, which examines how plants, animals, and microbiota as well as humans have interacted in the history of the world. We will begin with a survey of twentieth-century environmental history, discussing the themes of the impact of the industrial revolution and use of fossil fuels, the economic and political forces involved in environmental destruction, as well as efforts to understand environmental problems and fix them. We then study the global expansion of Europe between the 10th and 20th centuries, focusing on the effects of the movement of pathogens, human migration, climate, geography, flora, and fauna. Students will work on their own research projects,

and present their findings to the class. The course provides practice in critical reading, writing, research, discussion-leading, and oral presentation.

229. Introduction to Native American History.

This course introduces students to key themes in the study of the history of indigenous peoples, focusing primarily on those peoples' theme of Native peoples' reactive adaptations to historical change. *Also offered through Native American Studies and Peace Studies.*

230. The Middle East in the Nineteenth Century.

This course examines the "long 19th Century" in the Middle East, from the end of the eighteenth century to ca. 1920. In doing so, it will center on the chief questions of the era: European imperial intervention, nationalism, and the challenges of modernization. Key questions will include integration into world markets, the development of Islamic modernism, sectarianism and communal violence, and the changing status of women and non-Muslims. No previous knowledge of the Middle East is required or expected for this course.

231. The Modern Middle East.

This course examines the history of the Middle East from the end of World War I to the present. The class addresses issues such as the development of national states, the rise of political Islam, changing understandings of gender and sexuality, the Arab-Israeli Conflict, oil, growing US involvement in the Middle East. A central focus of the class is understanding the contemporary Middle East in its historical context.

233. Colonial Latin America.

This course surveys the formation and historical development of colonial Latin America. We begin with initial encounters between indigenous peoples of the Americas and Iberians in the 15th century and end with Portugal and Spain's loss of their mainland colonies in the Americas in the 1820s. Part of our task is to understand the dynamics of race, class, and gender in the colonial societies that developed from the violent collision of cultures during the conquest. *Also offered through Caribbean, Latin American, and Latino Studies and Peace Studies.*

234. Modern Latin America.

This course surveys the history and development of modern Latin America. We begin with a brief overview of the colonial and early national periods, but the main focus of the course is from 1870 to the present. Some of the issues that concern us include the historical roots of the human and cultural diversity of modern Latin America, the region's relationships to a changing world economy, politics and human rights, and migration and diasporic cultures. *Also offered through Caribbean, Latin American, and Latino Studies and Peace Studies.*

239. Imperial Spain.

This course considers Spain as both an agent and an object of colonization. Its chronological sweep is broad, from ancient times through the 19th century. The central portion of the course focuses on Spain at the height of its imperial power, from the mid-16th to the mid-17th centuries, with Miguel de Cervantes' *Don Quijote* (in a modern English translation) as an important source. Themes include religious, cultural and racial diversity in Spain and its empire, and the price of empire for Spanish development.

243. Origins of U.S. Foreign Policy (Colonial Era to 1900).

Since its creation, the United States has been connected with the wider world through trade, immigration, territorial expansion, and war. This course examines the roots and characteristics of American foreign policy and foreign relations from colonial times through the nineteenth century, while giving attention to how domestic politics, public opinion, society, and culture responded to and shaped government policies and international relations. We also consider how ideas about race and gender influenced policies and relations with other nations; how the territorial expansion of the United States affected Native Americans; and how the peoples of other nations responded to U.S. policies. *Also offered through Peace Studies.*

244. U.S. Foreign Relations 1900-1945.

A history of the development of U.S. foreign policy and relations, beginning with the war in the Philippines at the turn of the century, and continuing through the Second World War and the emergence of the Cold War. In addition to examining traditional diplomacy and economic relations, we consider how public opinion and assumptions about race, ethnicity, and gender influenced U.S. foreign policy and actions. We also examine international responses to U.S. government policies and actions and to the expansion of American culture abroad. *Also offered through Peace Studies.*

246. The Cold War.

The United States and the Soviet Union were the rival superpowers in the Cold War, but European, African, Asian, and Latin American and Caribbean nations also were enmeshed in the conflict, sometimes in “hot” wars that killed hundreds of thousands of people and devastated communities and natural environments. In class lectures, discussions, and research-based presentations, this course explores answers to such questions as: What caused the Cold War, and could it have been avoided? How did the Cold War affect international and domestic politics, everyday life, and culture in various nations? Why did it finally end (or did it)? What are the legacies of the Cold War? *Also offered through Peace Studies.*

252. Conflict in Africa.

From discussions of Darfur, to genocide in Rwanda, conflict is often the center of contemporary discourse about Africa. But what do we mean by conflict in Africa? Is it as violent and widespread as the media portrays? This course uses case studies throughout the last two centuries of African history to examine broad social and political dimensions of conflict. Cases examine issues such as colonialism, ethnicity, generational tensions, and genocide from diverse perspectives. The course is primarily discussion based and will challenge students to develop their thoughts on issues through oral debates and writing assignments. No prerequisites are required. *Also offered as AFS 252 and through Peace Studies.*

253. Colonial British America.

In this course we examine the lives of the Native American, European, and African inhabitants of Colonial British America. The history of colonial British America includes more than stereotypes of Puritans, Plymouth Rock, Thanksgiving, and witches. By focusing on the social, economic, and intellectual factors that comprised the colonial world, we come to understand the influences that reach beyond this era into the present day.

254. History of Modern France, 1815 to the Present.

This course provides an upper-level survey of French history from the Restoration through the Fifth Republic. The legacy of the 1789 Revolution, the origins of the Dreyfus Affair, the Vichy Regime and the Resistance, de Beauvoir’s feminism, de Gaulle’s and Mitterand’s presidencies, the rise of the National Front, and the confrontation between Islam and republicanism are among many topics explored. The course includes cultural and social history as well as politics and foreign policy. *Also offered through European Studies.*

256. Slavery and Freedom in the Americas.

This course surveys the genesis and dissolution of the transatlantic slave trade and the slave societies that created the demand for this trade in both North and South America and the Caribbean. The perspective is Atlantic in scope, trying to understand the impact of this forced migration on Africa and Africans and on American societies, defined as all of the Americas, not just the U.S. We also discuss some of the movements to abolish the slave trade and slavery itself, examining how the people involved defined freedom. *Also offered through African-American Studies, Caribbean, Latin American, and Latino Studies and Peace Studies.*

263. African-American History to 1865.

A survey of the social, political, cultural, and economic history of African Americans from the 1600s to the end of the Civil War. Topics include the Atlantic slave trade, colonial and antebellum slavery, family life, resistance to slavery and African-Americans’ participation in the Civil War, and contributions to the building of the nation. *Also offered through African-American Studies.*

264. African-American History, 1865-Present.

A survey of the social, political, cultural, and economic history of African-Americans from 1865 to the present day. Topics include Reconstruction, the implementation of segregation, the Harlem Renaissance, African-Americans' participation in both World Wars and Vietnam, the civil rights movement, the black power movement, and activism in the 1980s and 1990s. *Also offered through African-American Studies.*

267. The Holocaust.

This course focuses on the development of the Holocaust from 1933 to 1945, with attention to the motives of its perpetrators and the experience of victims and bystanders. Topics include historical Christian anti-Semitism and the creation of modern anti-Semitism, legal exclusion of Jews from German life under the Nazis, ghettoization of Eastern European Jews, and the development of Nazi policy from ethnic cleansing to genocide. The course also explores the relationship between the genocide perpetrated against the Jews and Nazi persecution of other groups such as Slavs, Roma, and the disabled. Finally, we consider the Holocaust's legacies for Jewish and German identity, and for understanding genocide broadly. *Also offered as REL 267 and through European Studies and Peace Studies.*

272. The New South.

A survey of the history of the Southern United States from Reconstruction to the present. The primary focus is on the political, economic, and social history of the South, although attention is paid to its cultural history, especially through an examination of stereotypes about the South. A major theme is the interrogation of the notion of Southern "distinctiveness," how that notion has served the needs of the nation outside the South, and whether the South is still a culturally distinct region. *Also offered through African-American Studies.*

273. Civil Rights Movement.

This course examines the civil rights movement from *Brown v. Board of Education* to the battles over Affirmative Action at the nation's most prestigious colleges and universities today. The course traces the ideological developments and struggles in the movement, especially as major protest activities spread outside the South to the North and West; it focuses on the events of the movement and on the disagreements over strategies, tactics, and goals among various civil rights organizations and leaders. The course uses a variety of texts to explore the movement, including memoirs, scholarly articles and monographs, Hollywood feature films, and documentaries. *Also offered through African-American Studies and Peace Studies.*

280. History of Women in America.

This course examines the history of women in the United States in the context of broad social changes between 1600 and 1990. Political, social, legal, demographic, and economic changes all shaped and informed the experiences of women in the colonies and the United States; the course examines how women responded to these changes and how they worked to bring about changes that improved the circumstances of their lives. Gender relations, race relations, industrialization, immigration, and family structure provide focal points throughout the course.

282. Modern Japan.

This course covers Japanese history from the Tokugawa to the present. Treatment is thematic, including the rise and fall of the Tokugawa, Japan's encounter with the imperialist powers, Taisho democracy, World War II, and social/economic trends since that war. We will read novels, memoirs, and biographies, and use film as well. Students will write response papers on the readings, give oral presentations on research projects, and take turns leading discussion.

286. Modern Iran.

This course examines the history of Iran in the modern era. After an overview of Iran under Safavid rule and the early Qajars, this course will focus on social, political, and cultural transformations in Iran from the late 19th century to the present. Topics of particular interest will include the question of "modernity," the role of the ulema, the Constitutional and Islamic revolutions, the rise of political Islam, the role of Iran in regional politics, and issues of gender and sexuality.

Classes will alternate between formal lectures and seminar-style discussions. The instructor assumes motivated students willing to work and to be challenged.

289. Independent Study.

Designed for the exploration in depth of a topic not covered by an existing course, an independent project requires a proposal designed with the faculty sponsor that is approved by the department chair the semester prior to its undertaking. Only one such course may count toward the major or minor.

292. Modern China.

This course covers three revolutions in modern Chinese history: 1) the rise of the Communist Party; 2) the Cultural Revolution of 1966-1976, using memoirs of Chinese who lived through that decade; 3) the “economic revolution” of the 1980s and 1990s in the context of the Pacific Rim region. *Also offered through Asian Studies and Peace Studies.*

293. Public History.

History is an active process and much of historians’ research takes place in archives and libraries. In this course we explore the field of public history, which includes the collection, cataloging and dissemination of histories that takes place through public sites such as libraries, historical societies and museums. We also practice in the field with an examination of the histories of Canton, St. Lawrence County, and the North Country. The course introduces and utilizes various tools of the discipline of history, such as document analysis, critical reviews, and an understanding of historiography as we research and write local history. Part of the research into this second element of the course will take place through an internship at a local institution such as a historical society or museum.

299. Seminar on Historical Research Methods.

This course, required for the major and the minor in history, is designed to offer students an opportunity to learn about and practice the tools of the historian’s craft while examining a particular topic in detail. The main focus is the “history of the history” of the particular topic, also known as historiography. While topics vary, the course proceeds in seminar fashion and entails extensive reading and writing assignments. Prerequisite: a 100- or 200-level history course.

3000-3999. Special Topics in History.

The content of each course or section of these 200-level special topics courses varies and will be announced each semester.

300-Level Courses

Courses at the 300 level are discussion-based seminars that explore a focused topic in depth, utilizing a variety of tools of historical analysis. They generally include an expectation of student research. Students registering for 300-level courses must have at least one 100- or 200-level history course or permission of the instructor.

308. European Imperialisms.

The development, transformations, and decline of European imperialism with an emphasis on the 19th and 20th centuries. We focus on the ways that European constructions of gender and race influenced and were influenced by the encounters between colonizer and colonized. A partial list of topics includes the French in North and West Africa and Southeast Asia, the Dutch in the East Indies and Southern Africa, and the British in Ireland and India. *Also offered through African Studies, European Studies, and Peace Studies.*

311. Nineteenth and Twentieth-Century Science.

This course examines a few of the major developments of the 19th and 20th centuries in some detail. Topics include evolution, genetics, and a synthesis of the two; the wave theory of light and special relativity; the discovery of the atomic and nuclear structure of matter; and the Manhattan Project. Also considered are the various ways historians of science go

about constructing the stories they write as well as some of the historiographic issues they face. *Also offered as Physics 311 and through European Studies.*

321. Senegal in the World.

Senegalese culture and society emerged from the interactions of groups that circulated in, out, and back to the western-most section of Africa over centuries: indigenous fishing people, pastoralists, farmers and craftspeople; Arab traders and religious teachers; French colonial forces; West African soldiers and students among others. Today Senegalese citizens live, work, and move (sometimes at great risk) throughout the world. In this course, we will explore these encounters and their consequences with the goal of developing a more nuanced understanding of the complex society that is Senegal today. *Also offered through African Studies.*

325. The Vietnam War.

In this seminar we will examine what Vietnamese call "the American War" (1950s to 1973), as well as key events preceding this, and the aftermath of the communists' victory in 1975. To understand what is more broadly considered "The Second Indochina War," it is necessary to learn about earlier Chinese, French, and Japanese efforts to control the region known as Indochina. Moreover, what Americans think of as "The Vietnam War" involved many nations, among them the People's Republic of China, the Soviet Union, South Korea, Thailand, Australia, and New Zealand. We consider a variety of perspectives: those of Vietnamese communists, anti-communists, and "the people in the middle"; of other countries' supporters and opponents of the war, including policymakers, soldiers, and demonstrators; and of Laotians and Cambodians who also experienced war. We also examine how the war influenced American domestic politics, society, and culture—and continues to do so. *Also offered through Peace Studies.*

331. Imagining the South.

"You should need a passport to come down here." In 2002, a character in the movie *Sweet Home Alabama* used these words to characterize the South as a region so unlike the rest of the nation that it is better thought of as a foreign country. This course explores the various ways in which the South has been depicted by non-Southerners and Southerners alike. A variety of genres — historical texts, memoir, fiction, film, music — are used to interrogate the images of the South and to ask what national purposes these images have served and continue to serve. *Also offered through African-American Studies.*

333. The Age of the American Revolution.

An in-depth examination of the causes, progress, and consequences of the American Revolution, including a summary of the constitutional, economic, and social development of the colonies to 1763; the alteration of British colonial policy after 1763 and the American response; internal unrest within the colonies; the development of a revolutionary movement culminating in the Declaration of Independence; the war to secure independence; and the Constitution of 1787. *Also offered through Native American Studies and Peace Studies.*

340. Race, Ethnicity, and Baseball.

This course takes a historical and philosophical look at race and ethnic relations in the United States since the Civil War as reflected in the history of professional baseball both on and off the field. Throughout the course, we will devote our attention to epistemological and moral questions related to race and ethnicity. What is race or ethnicity? Do we have a moral obligation to eradicate discrimination based on race or ethnicity?

352. Playing Indian: Native American Stereotypes in American History and Imagination.

When are Indians not Native Americans? When they are the stereotypes created as expressions of the cultural and historical hegemony of a predominantly non-Native society that obscures the diverse realities of the real people. Since the 15th century, when Native peoples were named "Indians" by a very confused explorer, Natives have been regarded as more historical objects than agents. We discuss the historical construction and use of "Indians" by colonists, modern (non-Native) Americans, and Native Americans themselves, and examine Indian stereotypes in the construction of the American ideal in history, art, film, literature, television, and music. *Also offered through Native American Studies.*

362. Topics in American Economic History.

This course offers an overview of the economic development of the United States. The specific topics covered will vary by instructor, but have included the economic causes of the American Revolution, the evolution of financial markets, the economics of slavery and Reconstruction, the Populist movement, the growth of government in the Progressive Era, the effects of war and other crises on the U.S. economy, and the Great Depression. Emphasis is placed on the role economic theory can play in understanding pivotal events of U.S. history and their relevance for current events. Prerequisites: ECON 251 and 252. *Also offered as ECON 362.*

365. Colloquium in American History.

Topics vary. Consult the semester course schedule for current offerings.

368. Palestine and the Arab-Israeli Conflict.

This class explores the development of two competing nationalism movements, Israeli and Palestinian, from their roots in the 19th century to the present day. Beyond gaining an understanding of the development of “the conflict,” this course pays particular attention to the development of both Israeli and Palestinian identities and societies. Other key considerations are the interaction between politics and history and an examination of some of the key historiographical debates in the field, including the wars of 1948 and 1967, the peace process, and the “authenticity” of national constructions and nationalist claims. Texts include secondary and primary source readings, novels, and films.

371. Eighteenth-Century Europe and the French Revolution.

This course examines the origins of the French Revolution in 18th-century Europe and the revolution itself. Topics include social, economic, and cultural as well as political questions; the consequences of the revolution for France, Europe, and the world up to 1815 are considered. The ever-changing historiography of the revolution provides the organizing principle for the course. *Also offered through European Studies and Peace Studies.*

372. European Identities, 1700-2000.

This seminar examines the construction and transformation of European identity in the 19th and 20th centuries. The impact of the encounters between Europeans and non-Europeans on the culture and society of both old and new Europe is a particular focus. Beginning with the debates on national identity in the early 19th century and continuing with inter-European migration and colonial expansion, the course examines the developing relationship between European and colonial peoples that led to the establishment of significant immigrant communities in the West. The course concludes with an assessment of topics relevant to current European social and political concerns. *Also offered through European Studies.*

373. Japan and the United States in World War II, 1931-1952.

In this course we examine the relationship between Japan and the United States in the 1930s, 1940s and 1950s. We discuss anti-war political activism in the U.S. and Japan, the internment of Japanese-Americans, the role of propaganda in both countries, the bombing of Hiroshima and Nagasaki, and the Allied occupation of Japan after the war. We work on writing and oral communication skills and discuss such concerns as how cultures understand and misunderstand each other. *Also offered through Peace Studies.*

375. Colloquium in European History.

Topics vary; consult the semester course schedule for current offerings. *Also offered through European Studies.*

376. Colloquium in African History.

Topics vary; consult the semester course schedule for current offerings.

377. Colloquium in Asian History.

Topics vary; consult the semester course schedule for current offerings. *Also offered through Asian Studies.*

378. Colloquium in Caribbean and Latin American History.

Topics vary; consult the semester course schedule for current offerings. *Also offered through Caribbean, Latin American, and Latino Studies.*

379. Colloquium in Middle Eastern History.

Topics vary; consult the semester course schedule for current offerings.

382. Genocide in the Modern World.

The last two centuries have seen mass violence on a scale unprecedented in human history. Among the most horrifying forms this violence took was the attempt to systematically exterminate whole religious/ethnic/national groups, which Raphael Lemkin coined the term “genocide” to describe. In this course, we examine individual historical cases of genocide (including the colonial killings of indigenous peoples, the Armenian genocide, the Holocaust, Khmer Rouge Cambodia, and the Rwandan genocide) and also consider theoretical approaches that seek to explain its causes and dynamics. We also survey the history of attempts to prevent genocide. *Also offered through Peace Studies.*

471-480. SYE: Senior Seminars.

Senior seminars, restricted to senior majors and minors, are normally limited to 10 students and require the production of a substantial research paper that includes original research. Successful completion of an SYE seminar course, an independent-study SYE, or honors thesis is required for the major. Topics vary; consult the semester course schedule for current offerings. Prerequisite: HIST 299.

471-472. SYE: Seminars in European History.

Also offered through European Studies.

473-474. SYE: Seminars in American History.

475-476. SYE: Seminars in Asian History.

Also offered through Asian Studies.

477-478. SYE: Seminars in Comparative History.

480. SYE: Seminar in Contemporary Africa.

From political strife to economic and social challenges, contemporary African issues current are often described as primordial conditions or products of recent political failures. However to understand Africa today, one must move beyond these simplistic explanations. This course will challenge students to use an interdisciplinary approach to examine how contemporary issues must be examined within a complex historical framework. As a research seminar a substantial portion of class time and assignments are devoted to producing a significant research paper. A background in history and African studies is strongly recommended. *Also offered as African Studies 480.*

481, 482. Internships.

These courses provide an opportunity for qualified juniors and seniors to obtain credit for work at local, state, or national historical agencies, archives, or museums. Supervision is provided by the host agency. Responsibility for evaluating the experience rests with the history department faculty coordinator. The internship must be set up in the prior semester at the initiative of the student, in consultation with one faculty member and the chair. Prerequisite: permission of instructor and chair of the department.

489, 490. SYE: Independent Study.

To qualify, students must have a 3.2 GPA in the history department. Normally, students should have senior standing, with a major or minor in history. Applicants must demonstrate that the study they wish to pursue has serious intellectual

merit and that their objectives cannot be accomplished within the framework of existing course offerings. This course must be set up in the prior semester. Prerequisite: permission of instructor and chair of the department.

498, 499. SYE: Honors Thesis.

History and Modern Languages

Four majors offered: History and French, History and Spanish, History and German, and History and Multi-Languages

Requirements in History for all History-Language Interdisciplinary Majors

Seven units in History.

1. 299. Seminar on Historical Research Methods
2. 471-480. SYE: Senior Seminars (in which the student conducts research related to her or his language focus)
3. FIVE one-unit electives selected from the appropriate list below.
 - One of these electives must be at the 300 level
 - Any other four electives, no more than two at the 100 level
 - A minimum of three courses must be drawn from the list of electives related to the student's language focus or approved by the department chair as involving substantial coursework related to the student's language focus.

Requirements for the History and French Major

Seven units in History as described above.

Seven units at the 103 or higher level in French.

Students already proficient at the intermediate level will receive credit for 103 and 104 upon completion of a higher level course in this language and will need only 5 units of this language to complete the major.

Total 14 units

Requirements for the History and Spanish Major

SEVEN units in History as described above.

SEVEN units at the 103 or higher level in Spanish.

Students already proficient at the intermediate level will receive credit for 103 and 104 upon completion of a higher level course in this language and will need only 5 units of this language to complete the major.

Total 14 units

Requirements for the History and German Major

SEVEN units in History as described above.

SEVEN units at the 101 or higher level in German.

Students already proficient at the beginning level will receive credit for 101 and 102 upon completion of a higher level course in this language and will need only 5 units of this language to complete the major.

Total 14 units

Requirements for the History and Multilanguage Major

SEVEN units in History as described above.

THREE courses at the 100-level or above in one of the following languages: Arabic, Chinese, Italian, German, or Swahili.

THREE courses at the 200-level or above in either French or Spanish

Total 13 units

HISTORY-FRENCH History Electives

- HIST 109. Introduction to European Studies.
- HIST 203. Early Canada.
- HIST 204. Modern Canada.
- HIST 205. 19th c. Europe.
- HIST 206. 20th c. Europe.
- HIST 211. Women in Modern Europe.
- HIST 221. Senegal in the World.
- HIST 254. Modern France.
- HIST 299. The French Revolution; European Sexualities; World War I.
- HIST 308. European Imperialisms.
- HIST 371. 18th c. Europe and the French Revolution.
- HIST 372. European Identities, 1700-2000.

Additional special topics courses offered in European history, African history, and North American history.

France Program:

- Various courses at the University of Bordeaux (Spring Semester)

HISTORY-SPANISH History Electives

- HIST 109. Introduction to European Studies.
- HIST 115. Introduction to Caribbean, Latin American, and Latino Studies.
- HIST 205. 19th c. Europe.
- HIST 206. 20th c. Europe.
- HIST 211. Women in Modern Europe.
- HIST 233. Colonial Latin America.
- HIST 234. Modern Latin America.
- HIST 239. Imperial Spain.
- HIST 256. Slavery and Freedom in the Americas.
- HIST 299. The US & Cuba.
- HIST 372. European Identities, 1700-2000.

Additional special topics courses offered in Caribbean & Latin American history, European history, and North American history.

Spain Program:

- HST/GNDR/SPAN 383S. History of an Emancipation: Women in Spain, 1750-1995.

Costa Rica Program:

- Various courses at the University of Costa Rica

Trinidad Program:

- Various courses at the University of the West Indies

HISTORY-GERMAN History Electives

- HIST 109. Introduction to European Studies.
- HIST 205. 19th c. Europe.
- HIST 206 .20th c. Europe.
- HIST 246. The Cold War.
- HIST 267. The Holocaust.
- HIST 299. World War I.
- HIST 372. European Identities, 1700-2000.
- HIST 375. The Weimar Republic & the Rise of the Nazis.
- HIST 382. Genocide in the Modern World.
- HIST 472. Weimar & Nazi Germany.

Additional special topics courses offered in European history.

Austria Program:

- HIST 277V. The Formation of Europe: The Habsburg Empire.

HISTORY-MULTILANGUAGE History Electives

In addition to the above-listed electives for French, Spanish, and German, the following electives are also appropriate, depending on the student's language of secondary focus.

Arabic:

- HIST 160. The Islamic World.
- HIST 208. Ottoman Empire and Early Modern Europe.
- HIST 286. Modern Iran.
- HIST 368. Palestine and the Arab-Israeli Conflict.

Additional special topics courses offered in Middle Eastern history.

Chinese:

- HIST 105. Early Asian Civilizations.
- HIST 106. Modern Asia.
- HIST 292. Modern China.

Additional special topics courses offered in Asian history.

Swahili:

- HIST 108. Introduction to African Studies.
- HIST 252. Conflict in Africa.

Additional special topics courses offered in African history

Intercollegiate Athletics and Recreation

Minor offered in Sports Studies and Exercise Science.

Visit the intercollegiate athletics and recreation webpage at www.saintsathletics.com, or, for information on the academic minor, go to www.stlawu.edu/sport-studies-and-exercise-science.

International Economics and Modern Languages

Four majors offered

Visit the program's webpage at

www.stlawu.edu/economics/international-economics-modern-languages-combined-major.

Requirements in International Economics for All Majors

Economics

100. Introduction to Economics. (1 unit)

200. Quantitative Methods in Economics.* (1.5 unit)

251. Intermediate Microeconomics Theory.** (1 unit)

252. Intermediate Macroeconomics Theory.** (1 unit)

THREE electives in Economics (3 units)

At least two of these electives at the 300/400 level. At least two of these electives must include:

236. Globalization Issues.

322. International Economics.

336. Economic Development.

Total: 7.5 units

**STAT 113 (Applied Statistics) is a prerequisite for 200. Students who pass STAT 213 (with a grade of 2.0 or higher) may choose an additional economics elective (at the 200 or higher level) in lieu of ECON 200.*

***ECON 251 and 252 must be passed with a grade of 2.0 or higher.*

Requirements for the International Economics and French Major

Economics

Requirements from above (7.5 units)

Modern Languages – French

SEVEN units at the 103 or higher level (7 units)

Total: 14.5 units

**Students already proficient at the intermediate level will receive credit for 103 and 104 upon completion of a higher level course in French and will need only 5 units of French to complete the major.*

Requirements for the International Economics and German Major

Economics

Requirements from above (7.5 units)

Modern Languages – German

SEVEN units at the 102 or higher level (7 units)

Total: 14.5 units

**Students already proficient at the intermediate level will receive credit for 103 and 104 upon completion of a higher level course in German and will need only 5 units of German to complete the major.*

Requirements for the International Economics and Spanish Major

Economics

Requirements from above (7.5 units)

Modern Languages – Spanish

SEVEN units at the 103 or higher level (7 units)

Total: 14.5 units

**Students already proficient at the intermediate level will receive credit for 103 and 104 upon completion of a higher level course in Spanish and will need only 5 units of Spanish to complete the major.*

Requirements for the International Economics and Multilanguage Major

Economics

Requirements from above (7.5 units)

Modern Languages

THREE courses in one of the following languages:

Arabic, Chinese, Italian, Swahili (3 units)

plus

THREE courses in French at/above 200 level,

or

THREE courses in German at/above 103 level,

or

THREE courses in Spanish at/above 200 level (3 units)

Total: 13.5 units

Although not required, participation in an abroad program related to one's language specialization is strongly recommended.

Honors

Graduation with honors may be recommended upon the basis of grades, the completion of an honors project approved and supervised by a faculty member, and an oral presentation on the thesis. Students who expect to undertake such a program should consult with the chairs of the Economics and Modern Languages departments in the last term of their junior year. Such projects must have the approval of both departments.

Mathematics

Major and minor offered.

Visit the mathematics, computer science and statistics department webpage at www.stlawu.edu/math-computer-science-and-statistics.

The following sentence has appeared in every St. Lawrence *Catalog* since 1896: "Instruction in this department is intended to aid in the development of exact, concise and independent reasoning, to cultivate the imagination and to inspire habits of original and independent thought."

Major Requirements

The requirements for a major in mathematics are a total of 11 units of mathematics and statistics, including:

MATH 135. Calculus I.

MATH 136. Calculus II.

MATH 205. Multivariable Calculus.

MATH 280. A Bridge to Higher Mathematics.

MATH 305. Real Analysis, *or* MATH 306. Complex Analysis.

MATH 315. Group Theory, *or* MATH 316. Ring Theory.

At least four of the eleven units must be at the 300 level or above. MATH 110, 123 and 134 may not be counted toward the major in mathematics. CS 140 may count as an elective toward the major in mathematics, as does any statistics course with the exception of students majoring/minoring in a combination of Mathematics and Statistics. Please see the note below.

Students must fulfill a Senior-Year Experience (SYE) requirement either in mathematics/statistics as one of the eleven courses in the major or by completing an SYE outside the department.

Students planning to major in mathematics are encouraged to complete MATH 280 before the end of the sophomore year, because this course is a prerequisite for many courses at the 300 level and above.

Students considering graduate work in mathematics are strongly encouraged to take MATH 217 (Linear Algebra) and MATH 305, 306 and 315, 316 (a full year each of analysis and algebra). Students considering graduate work in statistics are strongly encouraged to take MATH 217, MATH 305, and CS 140 in addition to majoring or minoring in statistics.

Students planning to participate in an off-campus program should seek early advice from the department on the best way to plan their major program.

Note: By their very nature, the disciplines of mathematics and statistics are closely connected, and several of the courses offered within the department can be used towards a major or minor in both. However, to ensure that the students who wish to double major (or major and minor) in the two fields have sufficient depth of knowledge within each field, there

are some limitations on the number of courses that can count towards both. Details can be found at the Mathematics, Computer Science, and Statistics department webpage.

Honors

Honors work in mathematics provides the student with an opportunity for more independent and creative work in pure or applied mathematics. A minimum GPA of 3.5 in the major is required to receive honors in mathematics. In addition, each student applying for honors must complete a departmentally approved honors project. This work is completed as a senior year experience project. Interested students should consult the department chair.

Minor Requirements

The requirements for a minor in mathematics are MATH 135, 136, 205 and four additional mathematics/statistics courses, at least three of which must be at the 200 level or above. MATH 110, 123 and 134 may not be counted toward the minor in mathematics. CS 140 may count as an elective toward the minor in mathematics. Statistics courses may also count, although there are rules if one chooses to major/minor in both mathematics and statistics. Details can be found on the department webpage.

Related Programs

The department teams with economics and environmental studies to offer interdisciplinary majors in economics–mathematics and environmental studies–mathematics. The department also supports the major and minor in computer science as well as a major and minor in statistics that incorporate courses from mathematics and several other departments. The requirements for these programs are described elsewhere in this *Catalog*.

Certification to Teach Mathematics

Consult the Education section of this *Catalog*, the Education Department webpage at <http://www.stlawu.edu/education/undergraduate-programs>, and/or speak to the Coordinator of the Teacher Education program in the education department as early as possible.

Advanced Placement in Calculus

Students who have seen some calculus before are encouraged to register for MATH 136, Calculus II, or MATH 205, Multivariable Calculus. Students starting in MATH 136 who receive a grade of 2.0 or higher will receive credit for MATH 135. Students starting in MATH 205 who receive a grade of 2.0 or higher will receive credit for MATH 135 and MATH 136. This is true for all students who have taken any calculus course before college. For those students who have taken the AP course, students receiving a grade of 4 or 5 on the AB exam receive credit for MATH 135, and students receiving a grade of 4 or 5 on the BC exam receive credit for MATH 135 and MATH 136. Students unsure of placement within the calculus sequence should talk to any member of the department.

Courses

110. Concepts of Mathematics.

An introduction to significant ideas of mathematics, intended for students who will not specialize in mathematics or science. Topics are chosen to display historical perspective, mathematics as a universal language and as an art, and the logical structure of mathematics. This course is intended for non-majors; it does not count toward either the major or minor in mathematics; students who have passed a calculus course (MATH 135, 136 or 205) may not receive course credit for MATH 110.

123. Mathematics of Art.

This course explores the connections between mathematics and art: how mathematics can provide a vocabulary for describing and explaining art; how artists have used mathematics to achieve artistic goals; and how art has been used to explain mathematical ideas. This course is intended for non-majors; it does not count toward either the major or minor in mathematics. Offered in alternate years.

134. Precalculus.

A development of skills and concepts necessary for the study of calculus. Topics include the algebraic, logarithmic, exponential and trigonometric functions; Cartesian coordinates; and the interplay between algebraic and geometric problems. This course is intended for students whose background in high school was not strong enough to prepare them for calculus; it does not count toward the major or minor in mathematics. Students who have passed a calculus course (MATH 135, 136 or 205) may not receive course credit for MATH 134.

135. Calculus I.

The study of differential calculus. The focus is on understanding derivatives as a rate of change. Students also develop a deeper understanding of functions and how they are used in modeling natural phenomena. Topics include limits; continuity and differentiability; derivatives; graphing and optimization problems; and a wide variety of applications.

136. Calculus II.

The study of integral calculus. Topics include understanding Riemann sums and the definition of the definite integral; techniques of integration; approximation techniques; improper integrals; a wide variety of applications; and related topics. Prerequisite: MATH 135 or the equivalent.

205. Multivariable Calculus.

This course extends the fundamental concepts and applications of calculus, such as differentiation, integration, graphical analysis and optimization, to functions of several variables. Additional topics include the gradient vector, parametric equations and series. Prerequisite: MATH 136 or the equivalent.

206. Vector Calculus.

A direct continuation of Mathematics 205, the main focus of this course is the study of smooth vector fields on Euclidean spaces and their associated line and flux integrals over parameterized paths and surfaces. The main objective is to develop and prove the three fundamental integral theorems of vector calculus: the Fundamental Theorem of Calculus for Line Integrals, Green's Theorem, Stokes' Theorem, and the Divergence Theorem. Prerequisite: MATH 205. Offered as interest warrants.

217. Linear Algebra.

A study of finite dimensional linear spaces, systems of linear equations, matrices, determinants, bases, linear transformations, change of bases and eigenvalues.

230. Differential Equations.

An introduction to the various methods of solving differential equations. Types of equations considered include first order ordinary equations and second order linear ordinary equations. Topics may include the Laplace transform, numerical methods, power series methods, systems of equations and an introduction to partial differential equations. Applications are presented. Prerequisite: MATH 136. Offered in spring semester.

250. Mathematical Problem-Solving.

Students meet once a week to tackle a wide variety of appealing math problems, learn effective techniques for making progress on any problem, and spend time writing and presenting their solutions. Participation in the Putnam mathematics competition in early December is encouraged but not required. This course is worth 0.25 credit, meets once per week, and is graded pass/fail. Since topics vary from semester to semester, students may repeat this course for credit.

280. A Bridge to Higher Mathematics.

This course is designed to introduce students to the concepts and methods of higher mathematics. Techniques of mathematical proof are emphasized. Topics include logic, set theory, relations, functions, induction, cardinality, and others selected by the instructor.

302. Symbolic Logic

A study of elementary symbolic logic. Topics include sentential and predicate logic. Prerequisite MATH 280 or CS 220 or PHIL 202. *Also offered as PHIL 302 and CS 302.*

305. Real Analysis.

A rigorous introduction to fundamental concepts of real analysis. Topics may include sequences and series, power series, Taylor series and the calculus of power series; metric spaces, continuous functions on metric spaces, completeness, compactness, connectedness; sequences of functions, pointwise and uniform convergence of functions. Prerequisites: MATH 205 and 280. Offered in fall semester.

306. Complex Analysis.

Topics include algebra, geometry and topology of the complex number field, differential and integral calculus of functions of a complex variable. Taylor and Laurent series, integral theorems and applications. Prerequisites: MATH 205 and 280. Offered in spring semester.

315. Group Theory.

An introduction to the abstract theory of groups. Topics include the structure of groups, permutation groups, subgroups and quotient groups. Prerequisite: MATH 280. Offered in spring semester.

316. Ring Theory.

An introduction to the abstract theory of algebraic structures including rings and fields. Topics may include ideals, quotients, the structure of fields, Galois theory. Prerequisite: MATH 280. Offered in fall semester.

318. Graph Theory.

Graph theory deals with the study of a finite set of points connected by lines. Problems in such diverse areas as transportation networks, social networks and chemical bonds can be formulated and solved by the use of graph theory. The course includes theory, algorithms, applications and history. Prerequisite: MATH 217 or 280. Offered every other year. *Also offered as CS 318.*

319. Geometry.

This course presents a selection of nice results from Euclidean geometry, such as the Euler line, the nine-point circle and inversion. Students explore these topics dynamically using geometric construction software. A portion of the course is also devoted to non-Euclidean geometry, such as spherical, projective or hyperbolic geometry. This course is especially recommended for prospective secondary school teachers. Prerequisite: MATH 217 or MATH 280. Offered as interest warrants.

321. Financial Mathematics.

An introduction to the modern mathematics of finance. This course develops the mathematics necessary in an arbitrage-free model to understand the connections and pricing of stocks, bonds, futures, forwards and a variety of derivatives and options. The course derives the Capital Asset Pricing Model for portfolio optimization, and covers the theory behind the Black-Scholes model for pricing options.

323. History of Mathematics.

This seminar is primarily for juniors and seniors, and covers topics in the history of mathematics. Offered every other year.

325. Probability.

This course covers the theory of probability and random variables, counting methods, discrete and continuous distributions, mathematical expectation, multivariate random variables, functions of random variables and limit theorems. Prerequisite: MATH 205. Offered in the fall semester. *Also offered through Statistics.*

333. Mathematical Methods of Physics.

Important problems in the physical sciences and engineering often require powerful mathematical methods for their solution. This course provides an introduction to the formalism of these methods and emphasizes their application to problems drawn from diverse areas of classical and modern physics. Representative topics include the integral theorems of Gauss and Stokes, Fourier series, matrix methods, selected techniques from the theory of partial differential equations and the calculus of variations with applications to Lagrangian mechanics. The course also introduces students to the computer algebra system Mathematica as an aid in visualization and problem-solving. Prerequisites: MATH 205 and PHYS 152. Offered in fall semester. *Also offered as PHYS 333.*

341. Number Theory.

The theory of numbers addresses questions concerning the integers, such as “Is there a formula for prime numbers?” This course covers the Euclidean algorithm, congruences, Diophantine equations and continued fractions. Further topics may include magic squares, quadratic fields or quadratic reciprocity. Prerequisite: MATH 217 or MATH 280 or permission of the instructor. Offered every other year.

370. Topology.

An introduction to topology. Topics may include the general notion of a topological space, subspaces, metrics, continuous maps, connectedness, compactness, deformation of curves (homotopy) and the fundamental group of a space. Prerequisite: MATH 280. Offered as interest warrants.

380. Theory of Computation.

The basic theoretical underpinnings of computer organization and programming. Topics include the Chomsky hierarchy of languages and how to design various classes of automata to recognize computer languages. Application of mathematical proof techniques to the study of automata and grammars enhances understanding of both proof and language. Prerequisites: MATH 280. Offered in spring semester. *Also offered as CS 380.*

389, 390. Independent Projects.

Permission required.

450. SYE: Senior Seminar.

Permission required.

489. SYE: Senior Project for Majors.

Permission required.

498.SYE: Senior Honors Project for Majors.

Permission required.

Modern Languages and English

Two majors offered: English and French and English and Spanish.

Visit <http://www.stlawu.edu/modern-languages/majors-minors> for more information.

Requirements in English for all majors: 6 units

English Literature

1. 250. Methods of Critical Analysis
2. 450. SYE: Senior Seminar
3. Two literature courses at the 200 or 3000 level
4. Two literature courses at the 300 or 4000 level

English Creative Writing

1. 250. Methods of Critical Analysis
2. 450. SYE: Senior Seminar
3. One literature course at the 200 or 3000 level
4. One literature course at the 300 or 4000 level
5. To creative writing courses in the same genre, one at 200 level and one at 300 level

Requirements for the English and French major

English requirements from above: 6 units.

Modern Languages – French

1. 201. Advanced French
2. 202. Advanced French: Contemporary France
3. Two elective courses at the 200 or 300 level
4. Two elective courses at the 400 level
5. One unit senior project which would combine both fields

Total 13 units

Requirements for the English and Spanish major

English requirements from above: 6 units.

Modern Languages – Spanish

1. 201. Advanced Spanish
2. 202. Hispanic Cultural Studies
3. Two elective courses at the 200 or 300 level
4. Two elective courses at the 400 level
5. One unit senior project which would combine both fields

Total 13 units

Modern Languages and Literatures

Majors offered in Francophone Studies, Estudios Hispánicos (Spanish), and Multi-Language. Minors offered in Arabic Studies, Chinese Studies, Francophone Studies, German Studies, Italian Studies and Estudios Hispánicos (Spanish)

Requirements for Majors and Minors

For details on specific study abroad programs, visit www.stlawu.edu/ciis.

Francophone Studies (major and minor)

The major consists of nine courses:

- Five electives at the 103-104 level or above.
- Two electives at the 300 level or above.
- Two electives at the 400 level.

The minor consists of six courses at the 103-104 level or beyond.

Courses at the 300 level are offered only in France. Students who do not participate in the France program must therefore take at least four courses at the 400 level. In France, courses are taught in French, or in English, but only those courses taught in French count towards the major or minor.

Students on the program in France receive three units toward the Francophone studies major or minor if they take courses in French at the university (300-levels), they will get 2 units if they take courses in English and French language classes at the University of Bordeaux.

Estudios Hispánicos (major and minor)

The major consists of ten courses beyond the 104 level:

- Five electives at the 200 level or above.
- Three electives at the 300 level or above.
- Two electives at the 400 level.

Students who begin Spanish at St. Lawrence at a level higher than 201, 202 are exempt from two major units. Except for LANG 350, courses at the 300 level are offered only in Spain and Costa Rica; 400-level courses, including Independent Study and Honors Project, are offered only on campus.

Spanish 423: Introduction to Spanish Literature (equivalent to Spanish 323) and Spanish 444: Survey of Latin American Literature (equivalent to Spanish 344) are required courses for the major.

It is possible to earn four units toward the major during a semester in Spain (Madrid) or Costa Rica (San José); students who remain a year in Spain may earn seven units toward the major.

The minor consists of six units at the 201-202 level or beyond.

Students on the programs in Spain or Costa Rica may count three courses (semester program) or five courses (year program) toward the minor.

International Economics and Modern Languages (four majors)

Students can construct a major by completing seven required courses in economics and specific requirements in either French, German, Spanish or multi-language. For details and further obligations, see the International Economics and Modern Languages section of this *Catalog* or visit <http://www.stlawu.edu/modern-languages/international-economicslanguages-majors>.

Multi-Language (major)

The major consists of:

- Four units in each of three different languages. (Students may not choose Swahili as one of the three languages for this major.)

- Four units beyond the 104 level in one of these languages, designated the language of concentration.

Students who major in multi-language may minor in Francophone studies or Estudios Hispánicos only when the minor language is not one of the three languages of their multi-language major.

Arabic Studies (minor)

The minor consists of six courses:

- Four language courses, of which two must be taken on campus.
- Two courses from the approved list given below.

Special topics related to the Arabic culture and Arabic world taught in other disciplines count toward the minor.

If Arabic is also part of a multi-language major, students are required to take two additional classes for the minor in Arabic Studies.

All classes in Jordan count toward the minor.

Arabic

101, 102. Elementary Arabic.

103, 104. Intermediate Arabic.

201. Advanced Arabic.

3009: Conversational Arabic & Media

489, 490. SYE: Independent Study.

Global Studies

350. Global Palestine.

Government

290. Israeli-Palestinian Conflict.

331. Politics of the Middle East.

History

160. The Islamic World.

230. The Middle East in the Nineteenth Century

231. The Modern Middle East

368. Palestine and the Arab-Israeli Conflict.

379. Colloquium in Middle Eastern History.

Religious Studies

224. Islamic Religious Traditions.

Chinese Studies (minor)

The minor consists of six units:

- Four language courses, of which two must be taken on campus.
- Two courses from the approved list given below.

Special topics related to Chinese history and culture taught in other disciplines count toward the minor.

If Chinese is also part of a multi-language majors, students are required to take two additional classes for the minor in Chinese Studies.

All courses taken in the Shanghai program count toward the minor.

Chinese

101, 102. Elementary Chinese.

103, 104. Intermediate Chinese.

201, 202. Advanced Chinese.

489, 490. SYE: Independent Study.

Literature/Asia

232. Cultures of China through Fiction and Film.

234. Chinese Literature and Film.

238. Buddhism and Daoism through Literature and Film.

Government

293. (when offered on topics about China)

322. Chinese Politics.

History

105. Early Asian Civilizations.

106. Modern Asia.

292. Modern China.

Philosophy

223. Asian Philosophy.

Religious Studies

223. Religious Life of China.

German Studies (minor)

The minor consists of six courses:

- Four language courses.
- Two German Studies courses taught in the department in English or from the approved list given below when no German course in English is offered.

Students on the Vienna program may earn up to three units toward the completion of the minor, one for the German language course and two for general German Studies. Those studying abroad in Germany through Colgate's Freiburg Study Group or an ISEP program may earn up to three units toward the completion of the minor for courses approved by the department.

AP Credit: students who have earned a 4 on the AP exam will receive credit for GER 101; those who have earned a 5 will receive credit for GER 101 and GER 102.

Art and Art History

- 117. Survey of Art History II.
- 203. Art of the Northern Renaissance.
- 204. Baroque and Rococo Art.
- 207. 19th Century European Art.
- 252. History of Modern European Art.
- 337. Architecture: Symbol and Ideology

Film and Representation Studies

- 251. History of the Cinema.
- 3043. Science and Cinema.

Government

- 206. Political Theory.
- 330. European Politics.
- 347. Marxist and Critical Theory.

History

- 205. Nineteenth-Century Europe.
- 206. Twentieth-Century Europe.
- 211. Women in Modern Europe, 1750 to the Present.
- 267. The Holocaust.
- 372. European Identities, 1700-2000.
- 375. Colloquium in European History.

Music

- 333. Mozart and the Classical Tradition.
- 335. The World of Clara and Robert Schumann.

Philosophy

- 100. Introduction to Philosophy.
- 203. Ethical Theory.
- 208. Modern Philosophy.

Italian Studies (minor)

The minor consists of six courses:

- Four language courses, of which two must be taken on campus.
- Two courses from the approved list given below.

Special topics related to the Italian history and culture taught in other disciplines count toward the minor.

If Italian is also part of a multi-language major, students are required to take two additional classes for the minor in Italian Studies.

All classes taken in any of the approved St. Lawrence programs abroad in Italy will count towards the minor.

Italian

101, 102. Elementary Italian I & II.

103, 104. Intermediate Italian I & II.

201. Language through Film and Visual Culture.

489, 490. SYE: Independent Study.

Art and Art History

116. Survey of Art I.

117. Survey of Art History II.

202. Art of the Italian Renaissance.

204. Baroque and Rococo Art.

4401. Baroque and Modern Architecture.

Music

234. Music in Venice.

Performance and Communication Arts

312. The Public Sphere of Renaissance Venice.

Religious Studies

102. Religion and Science.

206. Introduction to The New Testament.

227. Religion in Ancient Greece and Rome.

Caribbean, Latin American and Latino Studies (minor)

Students must earn six units of CLAS credit from at least two departments and/or programs to complete the minor. See the description under Caribbean, Latin American and Latino studies in this *Catalog*.

English for Speakers of Other Languages (ESOL)

(no major or minor)

All courses denoted with an ESOL designation provide instruction and support to students whose first language is not English (including both international students and first generation immigrants). Some students will be assessed prior to the start of their first year and will be notified if mandated to take one or more of the ESOL courses. Courses denoted with LANG/EDUC are for students interested in Teaching English for Speakers of Other Languages (TESOL).

Certification to French or Spanish

Consult the Education section of this *Catalog*, the Education Department webpage at <http://www.stlawu.edu/education/undergraduate-programs>, and/or speak to the Coordinator of the Teacher Education program in the education department as early as possible.

Courses

Arabic

101. Elementary Arabic. (*with lab*)

An introduction to Modern Standard Arabic and Arab culture, for students who have never studied Arabic. The course begins with an introduction to Arabic sounds and letters. The teaching and learning emphasizes the functional use of Arabic and communication in context by means of listening, speaking, reading and writing. The course also introduces students to aspects of Arabic culture and everyday life in the Middle East. At the end of the course, students will be able to read and write Arabic at a basic level. This course meets one of two Diversity (DIV13) requirements. *Also offered through African Studies.*

102. Elementary Arabic. (*with lab*)

This is a continuation of Arabic 101. Students learn to differentiate among verbs, nouns and adjectives and to conjugate verbs in the present and the past. Emphasis is on the four communication skills: reading, listening, writing and speaking. Understanding of more complex elements of Arabic culture and writing is stressed. Prerequisite: ARAB 101 or equivalent. This course meets one of two Diversity (DIV13) requirements. *Also offered through African Studies.*

103. Intermediate Arabic. (*with lab*)

This course is geared toward consolidating skills gained in Arabic 101 and 102 while enhancing the ability to converse and conduct oneself in Arabic. Reading skills are enhanced by exposure to more sophisticated examples of literature. Original written expression is encouraged through composition of short essays. Prerequisite: ARAB 102 or equivalent. *Also offered through African Studies.*

104. Intermediate Arabic. (*with lab*)

This course focuses on expressing yourself: telling about your experiences, expressing opinions and wishes, presenting persuasive speeches. Social roles are practiced and many cultural topics are discussed. Grammar is systematically reviewed. The course involves reading and discussing biographies, geographies, national and religious holidays, and traditions of the Arab World. Arabic media (movies, songs and online resources) supplement readings, expanding contexts and vocabulary for further interaction in Arabic. Prerequisite: ARAB 103 or equivalent. *Also offered through African Studies.*

201. Advanced Arabic.

In this course we focus on Arabic at the advanced level through in-depth examination of grammar, and reading of selected texts to develop the student's ability in the critical oral and written analysis of integral literary texts. Colloquial Arabic will be introduced (Lebanese). Many cultural subjects will be covered as many films will be discussed and analyzed. Offered occasionally.

LANG 350. Teaching Languages.

Designed to help students develop competency in language instruction. **Teaching Languages is offered only for student teaching assistants in the department.** We explore what it means to be part of a communicative classroom; students learn to create pedagogically sound activities that complement the textbook and online materials. Students learn how to integrate available technology into their teaching and create original visual and auditory materials and exercises for use in their own lab sections. Teaching Languages is taught in English and cross-listed among all the languages.

Chinese

101, 102. Elementary Chinese. (*with lab*)

This is a two-semester sequence providing an introduction to the speaking, reading, writing and oral comprehension of modern Mandarin Chinese. Through this course students are expected to be able to communicate in Mandarin Chinese on a basic level. Class sessions plus lab. Open to students with no prior study of Chinese. *Also offered through Asian Studies.*

103, 104. Intermediate Chinese. *(with lab)*

This is a two-semester sequence in intermediate Mandarin Chinese. The course content stresses all the basic language skills of reading, writing, listening and speaking. Emphasis is on active use of the students' vocabulary and grammar. The course includes material every week on Chinese geography, history, culture and society. *Also offered through Asian Studies.*

201, 202. Advanced Chinese.

This is a course in advanced Mandarin Chinese. While continuing to consolidate the foundation which students have built in their intermediate Chinese courses, this course seeks to further develop the student's ability in all four skills of the Chinese language to the point where he or she will be able to communicate effectively with native speakers of the language, and become better prepared to read all varieties of authentic modern-language texts, including newspapers and short stories. *Also offered through Asian Studies.*

232. Cultures of China through Fiction and Film.

This course is designed to introduce the history and culture of China from its earliest beginnings to the late 19th century, covering Chinese institutions, philosophical trends, religions, literature, arts, and special topics such as gender and family, love and friendship, dream and soul, among others. Materials include Confucian and Taoist classics, Buddhist scriptures, literary and artistic works and films, as well as modern scholarly publications. All readings are in English. No knowledge about China and Chinese language is required. *Also offered through Literature in (English) Translation, Asian Studies, and History.*

234. Chinese Literature and Film.

This course provides an overview of Chinese literature and film. The first half surveys traditional Chinese literature with a focus on masterpieces in the golden ages of various genres. The second half introduces modern Chinese literature with a focus on film, including representative works by well-known writers Lu Xun and Ba Jin, and famous film directors such as Zhang Yimou, Chen Kaige, Wang Xiaoshuai, and others. The aim is to enhance students' interests and skills in reading and analysis of Chinese literature and film, and improve students' understanding of the history, society and culture of China. All works are read in English translation. *Also offered through Literature in (English) Translation, Asian Studies, and Film and Representation Studies.*

489, 490. SYE: Independent Study.

Independent study on advanced Chinese or a topic on Chinese literature and culture for seniors only.

English for Speakers of Other Languages (ESOL)

201. Introduction to American Culture.

In this course, students will focus on English for academic purposes through the study of American culture. This course will address language used in academic assignments and class discussions, expand academic vocabulary, and practice the authentic use of the English language. Students will have the opportunity for additional language support during individual meetings with a conversation partner tutor. Non-native English speakers only.

202. Advanced Stylistics.

In this course, students will refine skills related to academic English and will have an intensive study of academic vocabulary. Students will study the authentic use of the English language in reading and writing and will examine

advanced concepts related to academic English. This course works as a support for other courses and will help prepare students to be successful in their academic career. Non-native English speakers only.

TESOL (Teaching English to Speakers of Other Languages).

LANG 408/EDUC 408. Critical Aspects of Teaching English for Speakers of Other Languages.

In this course, students will critically examine teaching English abroad through project-based learning. While not an ESOL teaching certification course, students will leave this course with a fundamental understanding of and practical applications for teaching ESOL (English for Speakers of Other Languages). The larger goal of this course is to examine trends and issues in the field, to practice writing lesson plans, and teaching those plans, and to highlight the importance of understanding culture, and learner characteristics in planning and teaching. Students will develop an understanding of the complexities of teaching ESOL/EFL and why being an English speaker is not enough of a qualification for success.

French

101, 102. Elementary French. (*with lab*)

This two-semester sequence provides an introduction to basic structures and develops skills in speaking, reading, writing and oral comprehension. In class and in the language laboratory, current materials from France and other French-speaking countries familiarize students with aspects of language and contemporary culture. Open to students with little or no prior study of the French language.

103, 104. Intermediate French. (*with lab*)

This two-semester sequence provides a review of basic structures and practice in the skills needed for communication in speaking and writing. The basic text and literary and cultural readings are supplemented by current material from France and other French-speaking countries in the language laboratory. Designed for students with two or more years of high school French who wish to improve their grasp of basic skills and enlarge their working vocabulary. Prerequisite: FR 101, 102 or the equivalent.

201. Advanced French.

Review and expansion of the four skills with emphasis on the oral and written expression of ideas in French topics of current interest and cultural significance in the French-speaking world. Materials studied include films, newspaper and magazine articles, songs and literary texts. For students who have completed FR 104, or who have had at least four years of French at the secondary level. *Also offered through European Studies.*

202. Advanced French: Contemporary France.

This course has a dual focus: linguistic and cultural. Students spend only a small part of their time reviewing important grammar points, but much more on areas of language such as vocabulary-building, idiomatic usage, oral expression and writing. The thematic focus is contemporary France. Students learn about the social and political institutions in France, and about current cultural practices. Films, radio, Web sites, cartoons, popular music, newspapers and magazines expand the study of French society and language. Students completing FR 201 usually enroll in FR 202 in the spring semester. FR 201 is *not* a prerequisite for this course. *Also offered through European Studies.*

227. Current Francophone Writing and Culture.

This course provides a look at France and French-speaking countries today through works of literature and other art and media (film, music, television, etc.) created within the past seven to ten years. Open to students having completed FR 202 or the equivalent. *Also offered through European Studies.*

229. Reading the Congo: History and Representations

In this course, we will explore the different representations of Democratic Republic of Congo, through novels, historical accounts, ethnography, movies or graphic novels. This region has been subjected to various types of cruelty and oppression, since the Belgium colonization. Works studied include Conrad's *Heart of Darkness*, excerpts from Hochschild's *King Leopold's Ghost*; Raoul Peck's film *Lumumba* and Mweze Ngangura's film *Identity Pieces*; the novel *Life and a Half* by Sony Labou Tansi, etc. The goals of the course are not only to explore Congo's history and culture, but also to think critically about the way it has been imagined and represented from the 19th century to the present day. *Francophone Studies students read all course material and write all papers in French. Also offered through History and African Studies.*

235. Paris.

The subject of this course is culture and history of Paris. Students examine not only how the city appears in literature and film, but also how the urban space grew and changed across more than two millennia since the first inhabitants settled on the Ile de la Cité. Maps, paintings, sketches and other historical documents are consulted. Students work on a variety of other texts as well: prose fiction (a detective novel and novellas), lyrics (poetry and popular song), films and histories. All readings, films, writing and classroom discussions are in French.

263. School Days.

Through memoirs, fiction, children's literature and film, this course offers a glimpse of childhood and adolescent experience of school and an opportunity to study education in France and the French-speaking world. Open to students having completed FR 202 or the equivalent. *Also offered through European Studies.*

3000-3999. Special Topics.

The content of each course or section of these 200-level special topics courses varies and will be announced each semester.

LANG 350. Teaching Languages.

Designed to help students develop competency in language instruction. **Teaching Languages is offered only for student teaching assistants in the department.** We explore what it means to be part of a communicative classroom; students learn to create pedagogically sound activities that complement the textbook and online materials. Students learn how to integrate available technology into their teaching and create original visual and auditory materials and exercises for use in their own lab sections. Teaching Languages is taught in English and cross-listed among all the languages.

403. Modern Prose Fiction in France.

This course examines the themes, techniques and sociopolitical contexts of the 20th-century novel. Choice of authors varies from year to year, but has included Gide, Proust, Sartre, Camus, Malraux, Robbe-Grillet, Tournier, Modiano, Duras and others. *Also offered through European Studies.*

404. French Film.

This course combines an historical view of the French cinema, an introduction to the techniques of film analysis and an examination of the major issues in film theory. Topics include the pioneers of cinema, the "classical" films of the 1930s and '40s, the films of the "nouvelle vague" in the '50s and '60s and recent trends in film production. The work of filmmakers such as Renoir, Clouzot, Truffaut, Beineix, Godard and Resnais is studied. *Also offered through Film and Representation Studies and European Studies.*

413. The Theater of the Classical Age.

This course studies selected plays of Corneille, Moliere, Racine, Marivaux and Beaumarchais. It examines dramatic theory and the characteristics of Classical and Baroque theatre, as well as the cultural milieu and arts in 17th and 18th-century France. *Also offered through European Studies.*

425, 426. Seminar.

The topic changes and is announced prior to registration. *Also offered through European Studies.*

428. French Women Writers.

This course offers the opportunity to study and appreciate the contribution to literature and thought, including feminist theory, by women writers from France and French-speaking countries. Works by writers such as George Sand, Colette, Beauvoir, Weil, Djébar and Condé are considered, along with films by Varda, Denis and others. *Also offered through European Studies.*

489, 490. SYE: Independent Study.

For senior students specially qualified. Offered on demand. Also offered through Caribbean, Latin American and Latino Studies.

497, 498. SYE: Honors Project.

See Honors in the introductory section on departmental curriculum.

Study in France.

See the International and Intercultural Studies section of this *Catalog*.

German

101, 102. Elementary German. (*with lab*)

At the elementary level of the language courses sequence (GER 101 in the fall and 102 in the spring), students are gradually immersed into the German-speaking world through activities and assignments targeted at practicing the four language skills: speaking, listening, reading, and writing. The courses also provide a solid grammar basis on which the students build up to the higher levels. The elementary language courses introduce culture of the German-speaking countries both implicitly and explicitly. The former proceeds through grammar exercises with elements of cultural distinctions (e.g., distinction between formal/informal) and thorough vocabulary referring to specific cultural information and practices, such as geography, family, school, etc. The cultural practices in the different German-speaking countries (Germany, Austria, Switzerland) are addressed explicitly in different types of assignments and so are the cultural differences between the American and the German-language cultures. Class sessions plus lab.

103, 104. Intermediate German. (*with lab*)

In the intermediate language courses sequence in German (GER 103 in the fall and 104 in the spring), the complexity of the assignments and activities in all four language skills increases significantly, requiring more intensive work from the students, which brings about greater proficiency in all four language skills. The students respond to more complex questions regarding more abstract concepts and use more sophisticated grammar structures. The texts at the intermediate levels help the students adjust to more complicated structures and vocabulary, greater language fluency, and more complex cultural input. The cultural nuances and differences within the German-language cultures are addressed and discussed explicitly and at a higher level than in the previous courses. The discussions deriving from the readings in the textbook and two films screened during the course, include politics, specific past and contemporaneous cultural production (plastic arts, music, literature), and history. Class sessions plus lab.

201, 202. Advanced German.

In the advanced level courses in German Studies (201 in the fall and 202 in the spring) we move beyond the traditional approach to language courses based on language textbooks and use other types of texts and media. At this level it is assumed that the students have well developed language skills. GER 201 teaches German language, culture, history, and politics of the German-speaking countries in the twentieth and the twenty-first centuries through film. Students practice comprehension of complex questions and film perception as well as use of more sophisticated and specific vocabulary

and grammar structures. This course focuses very strongly on the writing skills and includes more complex writing assignments than the previous levels. GER 202 teaches German language, culture, history, and politics of the German-speaking countries in the twentieth and twenty-first centuries through the genres of short story and poetry. The course has a strong focus on reading comprehension, writing, and discussion. The students read original literary texts in German, which are carefully chosen to challenge them reasonably and enrich their vocabulary, and practice their reception of literary texts beyond mere language comprehension and towards understanding of the literary concepts and structures. In the writing assignments the students learn to analyze literary texts, structure and develop an argument, and improve their writing skills and styles in German.

3000-3999. Special Topics.

The content of each course or section of these 200-level special topics courses varies and will be announced each semester.

LANG 350. Teaching Languages.

Designed to help students develop competency in language instruction. **Teaching Languages is offered only for student teaching assistants in the department.** We explore what it means to be part of a communicative classroom; students learn to create pedagogically sound activities that complement the textbook and online materials. Students learn how to integrate available technology into their teaching and create original visual and auditory materials and exercises for use in their own lab sections. Teaching Languages is taught in English and cross-listed among all the languages.

489, 490. SYE: Independent Study.

Independent study is intended for exceptionally qualified students only. Permission of the instructor is required. See application procedure on the home page of the departmental Web site.

Study in Austria and Other Places through ISEP.

See the International and Intercultural Studies section of this *Catalog*.

Italian

101, 102. Elementary Italian. (*with lab*)

This two-semester sequence provides an introduction to basic structures and develops skills in speaking, reading, writing and oral comprehension. In class and in the language laboratory, current materials from Italy are used to familiarize students with aspects of language and contemporary culture. ITAL 101 (offered in the fall semester) is open to students with little or no prior study of the Italian language; ITAL 102 (offered in the spring semester) requires 101 or its equivalent.

103, 104. Intermediate Italian. (*with lab*)

This two-semester sequence is an intermediate level four-skill course designed for students who have successfully completed ITAL 102 at St. Lawrence or who enter with several years of high school Italian. The course provides a review of Italian grammar with a focus on oral communication and listening comprehension while exposing students to culturally authentic content. Students continue to practice reading skills by working with literary and non-literary texts, and writing skills through creating writing. Movies and visual arts material facilitate students' exposure to the various aspects of contemporary Italy and give them insight into its culture and social structures. ***These courses fulfill ARTS distribution requirement.***

201. Language through Film and Visual Culture.

Designed for students who have previous knowledge of Italian at a 102 level or above, but wish to engage with Italian language and culture through film, creative writing and visual culture. The creative component allows students of different level to perfect their Italian regardless of starting level, while the visual and cinematic material enhances their

awareness of the process of artistic production and exposes them to the history of Italian art and cinema. *This course fulfills ARTS distribution requirement.*

LANG 350. Teaching Languages.

Designed to help students develop competency in language instruction. **Teaching Languages is offered only for student teaching assistants in the department.** We explore what it means to be part of a communicative classroom; students learn to create pedagogically sound activities that complement the textbook and online materials. Students learn how to integrate available technology into their teaching and create original visual and auditory materials and exercises for use in their own lab sections. Teaching Languages is taught in English and cross-listed among all the languages.

Spanish

101, 102. Elementary Spanish. (*with lab*)

The principal goal is the acquisition of a basic level of communicative ability in Spanish. Video, film, audiotapes and the Internet provide current materials from Hispanic America, Spain and the United States Latino community to enhance language learning and knowledge of the culture. Language laboratory activities advance conversational skills and oral comprehension. Open to students with little or no prior study of the language.

103, 104. Intermediate Spanish. (*with lab*)

Spoken and written Spanish are reinforced by a review of grammar and idiomatic strategies for self-expression. The course includes use of videos, music, literature, news broadcasts and the Internet as a means for understanding the contemporary culture of Hispanic America and Spain. Materials in the language laboratory facilitate conversation and increased oral comprehension. Prerequisite: SPAN 101, 102 or equivalent. *Also offered through Caribbean, Latin American and Latino Studies.*

201. Advanced Spanish.

Review and expansion of the four skills, with emphasis on the oral and written expression of ideas in Spanish on topics of current interest and cultural significance in the Spanish-speaking world. Materials studied include journalistic texts, videos, audiotapes, songs and literary works. For students who have completed SPAN 103, 104, or who have four years or more of Spanish at the secondary level. *Also offered through Caribbean, Latin American and Latino Studies.*

202. Hispanic Cultural Studies.

A language course with the aim of acquainting students with current Hispanic culture through the analysis of literary texts, films, advertisements and other materials drawn from Spain, Hispanic America and the Latino community in the United States. Includes a research project on a cultural topic. This course fulfills the diversity distribution requirement. *Also offered through Caribbean, Latin American and Latino Studies.*

213. Introduction to the Cultures of Spain.

A study of the development of the cultures of Spain through history, art, music and literature. The course includes an analysis of Spanish cultural pluralism and its origins. Sources include literary works, texts on aspects of Spanish culture and history, videos and film, examples of Spanish art and music and material drawn from the Internet. Not open to students who have completed a more advanced course. Taught in Spanish, this course fulfills the diversity and humanities distribution requirement. *Also offered through European Studies.*

221. Latin America in Film.

This class examines how Latin America is represented in films by directors from Hispanic America, Brazil, Europe and the United States. The films form the basis of conversation and research on themes related to contemporary history, inter-ethnic conflict, traditional gender roles and immigration. The class is conducted entirely in Spanish, though some

of the theoretical and technical readings on film are in English. This course fulfills the diversity and humanities distribution requirement. *Also offered through Caribbean, Latin American and Latino Studies.*

246. Oral Expression in Spanish.

Analysis of contemporary oral usage through the study of film, video and audio materials as well as printed texts. Advanced pronunciation practice. Study of techniques of oral presentation. Assignments are designed to promote the development of persuasive skills and include formal debates on contemporary issues and other public speaking activities. *Also offered through Caribbean, Latin American and Latino Studies.*

3000-3999. Special Topics.

The content of each course or section of these 200-level special topics courses varies and will be announced each semester.

317. Taller de Literatura Creativa.

The Taller de Literatura Creativa, conducted entirely in Spanish, offers guided writing exercises on a weekly basis. Students learn how to criticize each other's work in constructive ways, incorporating the results of these discussions in additional drafts of their creative work. The themes of these poems, short stories and non-fictional works revolve around Hispanic culture and study abroad on SLU-sponsored programs, primarily in Spain and Costa Rica. The workshop is a place where students can compare these abroad experiences as well as experiences about being a Spanish-speaker in the U.S. Toward the end of the semester, students work collectively to edit material and to produce the online cultural journal *Aquí y Allá*. The instructor is a published writer of poetry and prose fiction.

LANG 350. Teaching Languages.

Designed to help students develop competency in language instruction. **Teaching Languages is offered only for student teaching assistants in the department.** We explore what it means to be part of a communicative classroom; students learn to create pedagogically sound activities that complement the textbook and online materials. Students learn how to integrate available technology into their teaching and create original visual and auditory materials and exercises for use in their own lab sections. Teaching Languages is taught in English and cross-listed among all the languages.

4000-4999. Special Topics.

Designed for students who have completed Spanish 201, 202, special topics courses offer the opportunity to study specific topics in Hispanic culture. The content of each course or section of these 300- or 400-level special topics courses varies and will be announced each semester.

423. Introduction to Spanish Literature. (equivalent to SPAN 323)

An overview of the literature of the Spanish people. Readings from the major periods, from the earliest literature to the present. Authors studied include Cervantes, Calderón, Federico García Lorca and Carmen Martín Gaité. The works are treated as representative, thematically and aesthetically, of their respective ages and the traditions of their genre. *Also offered through European Studies.*

444. Survey of Latin American Literature. (equivalent to S 344)

Indigenous oral traditions and texts from the period prior to the arrival of the Europeans are examined, as are works from the colonial period to the present. Authors studied from the colonial period include Bernal Díaz del Castillo, Bartolomé de las Casas and Sor Juana Inés de la Cruz. Contemporary authors include Borges, García Márquez, Allende and Rigoberta Menchú. *Also offered through Caribbean, Latin American and Latino Studies.*

445. Literary Translation: Theory and Practice.

In this workshop, students use translation as a tool to learn how to express themselves more effectively in both English and Spanish. Theorists such as Octavio Paz, José Ortega y Gasset, Willis Barnstone, Carol Maier, Walter Benjamin, Tejaswini Niranjana, and others, help illuminate the practice of translation in a variety of genres that include poetry,

autobiography, book reviews and subtitling of films. For students with considerable background in Spanish, including, preferably, residence in a Spanish-speaking country. *Also offered through Caribbean, Latin American and Latino Studies.*

449. Afro-Hispanic Culture and Literature.

This course explores the African Legacy in the culture of the Hispanic Caribbean: Cuba, the Dominican Republic and Puerto Rico. While examining a variety of texts we will engage in conversation around topics that include slavery and resistance, cultural racism, class, identity construction and representation. The course also incorporates cuisine, music and other sources as the basis for work that may bring in creative, disciplinary or career interests. *Cross-listed with Caribbean, Latin American and Latino Studies.* Taught in Spanish, and permission of the instructor is required.

489, 490. SYE: Independent Study.

Also offered through Caribbean, Latin American and Latino Studies.

497, 498. SYE: Honors Project.

Working closely with a faculty member, the student develops a project related to Spanish-language literature or culture. Projects may include translations from Spanish to English and they may be interdisciplinary. Students are encouraged to use a variety of media in their projects and, if they participate in a St. Lawrence program in Costa Rica or Spain, to relate their projects to that experience. For additional information, see the description of Honors in the introductory section of the departmental curriculum.

Study in Spain

The following Spanish courses are offered in the Madrid program. Courses are also available in anthropology, economics, English, gender studies, global studies, government, history, fine arts and psychology, either as regular offerings or by special arrangement.

FALL

300S. Masters of the Spanish School: El Greco, Velázquez, Goya and Picasso.

A study of the work of four major Spanish painters, each of whom is considered the greatest painter of his period in Spain: El Greco (Renaissance), Velázquez (Baroque), Goya (Neoclassicism/Romanticism), Picasso (20th century). The course includes a weekly class in one of the museums in Madrid such as the Prado, the Reina Sofia and the Thyssen collection.

301S. Advanced Practical Spanish.

A unit course emphasizing spoken and written Spanish skills. The course is designed to help students achieve and maintain the linguistic skills needed for the program's other courses and for personal and professional activities. Required for program participants.

312S. Migrations and Cultural Diversity in Contemporary Spain.

Students become familiar with migration and cultural diversity in Spanish society from an anthropological and socio-cultural perspective. The course introduces basic notions of socio-cultural anthropology in order to understand contemporary migrations, describe characteristics and problems of Spanish society in the framework of cultural diversity and apply methodological tools of anthropology to present-day Spain. Field work includes visits to public organizations, neighborhoods, public spaces, commercial establishments and cultural institutions.

322S. International Economics.

The theory of international trade and finance and its application to current policy problems such as protection, intervention in foreign exchange markets, international debt and foreign investment. This course is accepted for major credit. Prerequisite: ECON, 251, 252.

323S. Introduction to Spanish Literature. (equivalent to SPAN 423 and should only be taken once, either in Spain or on the SLU campus)

See description for SPAN 423.

328S. Nature and Culture in Spain: Interpreting the Landscapes.

One of the best ways to learn about a country is to travel perceptively through its countryside, villages and cities. Landscapes are a good indicator of natural and cultural diversity. In observing human interaction with the physical environment, students will understand better how nature, communities, and ways of life developed over time. This interdisciplinary course will contextualize the program field trips.

335S. The Spanish Village.

Through readings, interviews and detailed personal observation, students investigate the economic, political and social structure of rural Spain. Includes residence in a village and seminars in Segovia. Required for fall semester program participants.

358S. The Madrid Stage.

A study of the contemporary theater in Spain with a focus on the current season through readings, interviews, discussions and weekly theater attendance.

367S. Political Process in Contemporary Spain.

Focus is on the various political systems (absolute monarchy, republic, dictatorship, constitutional monarchy) that have characterized Spanish politics during the 20th century. The transition from dictatorship to democracy and the salient elements of the current system are emphasized. Arrangements can be made to take this as a history credit.

SPRING

302S. Advanced Practical Spanish.

Continuation of SPAN 301S. Required for program participants.

303S. History of Spanish Art.

An overview of Spanish art from prehistoric cave painting to 20th century masters such as Picasso and Miro. Architectural monuments, sculptures and paintings are studied.

330S. Politics and Governments of Western Democracies.

A study of the history and present structure of several European democracies and the United States. The class includes a segment on the European Union. This course is accepted for government majors.

338S. Introduction to Spain. (0.5 unit)

An introduction to Spain for students who join the program in the second semester. During the first two weeks of the month-long program, students live in small cities in La Mancha, where they investigate the economic, political and social structure of the area through readings, interviews and detailed personal observation. The second two weeks are spent in Madrid with daily language classes and sessions on Spanish art, culture and government.

342S. Spanish Novel of the 20th Century.

An investigation of narrative prose from the Generation of '98 (Unamuno) to the present (Cela, Martín Gaité, Llamazares) as representative of the principal aesthetic and historical movements of the century.

344S. Survey of Latin American Literature. (equivalent to SPAN 444 and should only be taken once, either in Spain or on the SLU campus)

See description above for SPAN 444.

365S. The Spanish Economy, the EU and the Latin American Challenge.

This course analyzes the possibilities for economic cooperation between the European Union and Spain, and Latin American economies. Study focuses on the challenges associated with and the important structural changes that are taking place in Europe as well as Latin America in the context of the growing integration of both regions in international markets. Prerequisite: ECON 100.

383S. History of an Emancipation: Women in Spain 1750-1995.

A study of women's issues—particularly labor, education and the right to vote—in Spain from the Spanish Enlightenment through Francoism to Democratic Spain.

ND 480. Internship.

For additional information on the program, see the program webpage: <http://www.stlawu.edu/ciis/spain>. Program brochures are also available at the Center for International and Intercultural Studies.

Swahili

101, 102. Elementary Swahili. (*with lab*)

The courses incorporate elements of Swahili language and East African culture. The focus is on acquiring basic Swahili grammar, writing, listening, reading and communication skills. The content addresses cultural and social aspects (music, media, etc.) of East African society. There will be student performances of cultural insights of the people in East Africa. This course is open to any student who wants to study a foreign language or Africa and who is interested in the Kenya program. Two one-hour language labs every week enhance oral practice and are also used for remedial work. *Also offered through African Studies.*

3000-3999. Special Topics.

The content of each course or section of these 200-level special topics courses varies and will be announced each semester.

489, 490. SYE: Independent Study.

490 also offered through African Studies.

Music

Major and minor offered

Visit the music department webpage at www.stlawu.edu/music.

Major Requirements

Students wishing to major in music must complete the following requirements:

- MUS 200 or 201.
- MUS 210.
- MUS 220.
- At least five other full-unit courses in music, two of which must be 300-level courses.
- At least three semesters of participation in a music department ensemble.

Honors

To receive honors in music, students must attain a minimum GPA of 3.5 in the major and submit for consideration a substantial senior-year project, which may include study in composition, performance, literature and/or analysis.

Minor Requirements

Students wishing to minor in music must complete the following requirements:

- MUS 200 or 201.
- MUS 210.
- MUS 220.
- At least two other full-unit courses in music, one of which must be a 300-level course.
- At least two semesters of participation in a music department ensemble.

Advanced Standing

Students with a background in music (including fluent reading of at least one clef) may register for MUS 200 or 201 (Music Theory). Students without extensive prior experience in music should begin their coursework with MUS 100 or 101 (Introduction to Music).

Individual Lessons

St. Lawrence students may elect to take individual lessons in voice or on an instrument, space permitting, for a fee of \$300 per semester. Full-time SLU students registered for department ensembles may take lessons for the reduced fee of \$150 per semester. Full-time students enrolled in MUS 101 (Introduction to Music), MUS 201 (Music Theory), or MUS 260 (Rehearsing) will receive lessons at no additional cost. Students claiming this exemption will be graded on lesson participation as a portion of the course grade. Go to www.stlawu.edu/music to download the application form; the deadline for submission is typically the end of the first full week of classes.

Ensembles

Students audition for ensembles at the beginning of each semester instead of registering for ensembles during the normal registration period. Go to www.stlawu.edu/music for information on auditions. Normally, students receive 0.25 unit of credit for taking an ensemble.

021. Laurentian Singers.

A select undergraduate vocal ensemble that performs both on and off campus through the year. Their far-ranging repertoire is drawn from traditional choral sources as well as world and popular idioms. The Laurentian Singers tour each Spring Break.

022. University Chorus.

A choir open to the entire University community. The ensemble performs major works from the choral and choral-orchestral repertoire from the 16th through the 20th centuries.

025. String Orchestra.

An ensemble that performs repertoire from the 17th century through the present. Recent concerts have included works by Antonio Vivaldi, Wolfgang Amadeus Mozart, Franz Schubert and Henry Cowell.

026. Wind Ensemble.

This ensemble explores a range of music covering over 200 years of repertoire in a variety of styles, and is open to wind, brass and percussion players.

027. Rhythm and Roots Ensemble.

This ensemble takes a particular strand of vernacular music as its focus each semester, and is open to guitarists, percussionists, pianists, vocalists, and woodwind and brass players. Recent topics of study include Hawaiian music, the music of Motown, and New Orleans rhythm and blues.

028. Improvisation Lab.

This ensemble provides opportunities for students to develop their interests and skills in a variety of American popular musics. Students research recordings outside of class and use them as the basis for further study in class. Rehearsals emphasize playing by ear in conjunction with using varying degrees of written notation.

029. SoundSandBox.

Do you catch yourself drumming incessantly on tabletops, singing along with the washing machine's beat, or making saxophones out of pizza boxes and broken straws? The SoundSandBox is for you, a place to explore ways of making sound together. Skilled musicians are welcome, but all students may audition for this ensemble. Recent projects include collaborating with NYC-based percussionist Susie Ibarra and accompanying a silent film on Halloween.

Courses

100/101. Introduction to Music.

An introduction to the study of music, this course includes development of listening skills as well as an overview of the basic materials and techniques of musical organization. The music is chosen from a wide range of times and places. Students use the resources of the music library and the Newell Center for Arts Technology for listening, research and composition. As a complement to class work, students attend concerts and recitals on and sometimes off campus. Students may include individual lessons in voice or on an instrument as part of this course. Open to students with little or no prior study of music. Offered every semester.

3000-3999.

The content of each course or section of these 100-level or 200-level special topics courses varies and will be announced each semester.

200/201. Music Theory.

This course is meant to develop abilities in listening to, analyzing, performing and creating music. We engage in different kinds of musical activities: studying the sight and sound of music, playing and singing snippets of music, composing short pieces. Throughout, the intent is to provide critical skills for deepening the understanding of music. Students may include individual lessons in voice or on an instrument as part of this course. Offered every semester.

210. Musics of the World.

This course explores selected musics from Asia, the Pacific, Africa, Europe and the Americas, by means of recordings, films, readings, concerts and hands-on experience. Broad topics for investigation include the development of popular musical styles, the preservation of traditional musical styles and the circulation of indigenous sounds in the world music market. Offered every semester. *Also offered, at the discretion of the instructor, through African Studies, Global Studies and Peace Studies, and/or as ASIA 210.*

220. Music and Technology.

An in-depth look at the practical and artistic issues involved in making music with computers. This includes a study of some fundamental concepts and a practical application of these concepts using the resources of the Newell Center for Arts Technology. The course is divided into two broad sections — (1) the MIDI protocol: what it is, how it works and what you can do with it; (2) digital audio: a brief introduction to acoustics, a study of how audio is recorded and played

back digitally and a consideration of the uses of digital signal processing. Offered every semester. Prerequisite: MUS 100/101, 200/201, or permission of the instructor.

222. Sound for the Stage.

This course explores some of the artistic and practical aspects of using sound in support of theatrical production. The course employs concepts of design drawn from the theater and applies those concepts to the choice of music and sound effects for the stage. We explore the potential of sound and music for the reinforcement of dramatic content and production design concepts, and introduce the production organization common to most theater productions: the collaborative design process and the team approach to production assignments. Offered every year. *Also offered as PCA 202.*

227. Recording Arts.

Recordings of audio materials are a growing part of our world, and making professional recordings is an art that is now within the reach of many. The technology of recording is a combination of listening and performance skills and electronics. Designed to hone skills in producing recorded materials, this course is a practical survey of materials and methods, with core principles applied to projects that will provide an understanding of how to achieve quality recordings by intelligent use of available equipment and spaces. Offered occasionally.

244. Musics of South Asia.

South Asia is the subcontinent that lies south of the Himalayas and includes India, Nepal, Bangladesh, Pakistan, Afghanistan and Sri Lanka. There are also substantial South Asian populations elsewhere. Topics for study include devotional song, Bollywood film music, urban Nepali drumming, and electronic music in New York and London. The course begins with a grounding in the classical music traditions of India, moves on to explore selected musical practices around South Asia, and finishes with a consideration of music's place in the South Asian diaspora. Offered occasionally. *Also offered as ASIA 244.*

245. Musics of Eastern Europe.

In this course, we examine and analyze the music of a region where social and political life has changed dramatically and frequently during the last 150 years. From the revolutions of 1848 to the post-communist struggles of the 1990s, music and musicians often have been drawn into debates about national and regional identities. We proceed from the assumption that notions of identity and difference are evident not only in discourse about musical practices, but also in musical sound itself. Offered occasionally. Prerequisite: MUS 100/101, 200/201. *Also offered through European Studies and Peace Studies.*

260. Rehearsing.

Satisfying performances come out of both understanding one's music thoroughly and rehearsing it efficiently. A weekly, individual lesson focuses on the skills appropriate to your instrument or voice. Class meetings concentrate on (1) reading rhythms and shaping musical phrases; (2) arranging and orchestrating music; and (3) organizing and leading practice sessions and rehearsals. Offered occasionally. Prerequisite: MUS 100/101 or MUS 200/201. May be repeated for credit.

270. Collaboration Across the Arts.

The direction of this course is determined largely by the unique combination of students who participate. Students form groups of two or three to work on a collaborative project of their own design reflecting their collective interests. For example, a pair of students may create a multimedia work that draws connections between image and sound. Students critique works in progress, study exemplary works, discuss relevant aesthetic issues, trace connections across media and consider strategies for collaborative work. Offered every year. Prerequisite: permission of the instructor. *Also offered as AAH 270 and PCA 270.*

281. Music Video.

Music television created new ways of visualizing music, new ways of seeing sound. This course looks at the rise of music video in the 1980s, its predecessors and its influences. While the focus is primarily on the history and criticism of music video, the course also contains a substantial production component that includes creating and editing sound and video files. Offered occasionally. *Also offered as FILM 281.*

4000-4999.

The content of each course or section of these 300-level or 400-level special topics courses varies and will be announced each semester.

300. Musical Structures.

This course is for students who have completed MUS 200 or 201 and wish to continue their study of music analysis. It focuses on the study of musical events such as harmony, melody, rhythm, texture and form in order to develop skills in understanding, analyzing, composing and listening to music. We study harmonic, melodic, rhythmic, textural and formal choices various composers have made and the ways those choices affect how music is perceived. Offered every year. Prerequisite: MUS 200/201.

325. Computer Music Programming.

While the world of computer-generated music includes a wide array of genres, it also incorporates a wide variety of tools. In this course, students will learn to synthesize and process sound with software tools that make few assumptions about what electronic music should be. Class topics will include listening and analysis, techniques for synthesis and signal processing, and composing/performing with MaxMSP and, if time permits, Csound. No prior programming experience is required. Offered occasionally. Prerequisite: MUS 220.

330. “Isn’t it Romantic?” Songs for Theatre, Songs for Salon.

This course explores songs from New York City’s “Tin Pan Alley,” selected from such songwriters as the Gershwins, Richard Rodgers and Irving Berlin, and songs from earlier times and places, such as Franz Schubert in early 19th-century Vienna or Thomas Campion in Elizabethan England. Primary focus is on the music and the lyrics, but we also study the social and cultural contexts of these songs. Some required concerts and video screenings outside of class time. Offered occasionally. Prerequisite: MUS 100/101, MUS 200/201, or permission of the instructor. *Also offered through European Studies.*

333. Mozart and the Classical Tradition.

A survey of the developments in Western vocal and instrumental art music during the years 1750 through 1825, with particular emphasis on the life and artistic contributions of Wolfgang Amadeus Mozart. The course seeks to establish ties between contemporary European society and the art it cultivated. Offered occasionally. Prerequisite: MUS 200/201. *Also offered through European Studies and German Studies.*

335. The World of Clara and Robert Schumann.

It was quite possible for a woman musician to “make it” in 19th-century Europe. Clara Schumann achieved and sustained such a success for her entire professional life. By studying the lives and artistic accomplishments of “priestess of the piano” Clara Schumann (1819-1896) and her husband, the deeply imaginative composer Robert Schumann, we seek to understand Romantic music of the Western cultivated tradition. The course will feature works by both the Schumanns — piano compositions, songs and chamber works — and others of their time. Offered occasionally. Prerequisite: MUS 200/201. *Also offered through European Studies and German Studies.*

337. Avant-garde and Underground Music.

This course covers music that has been considered experimental, radical or transgressive in classical music, jazz and rock. Through surveying European and American perspectives on the relations between the arts and society in the 19th and 20th centuries, we work toward understanding the ideologies that have motivated musicians to locate their styles and practices outside of an imagined mainstream. In studying influential musical works from the last two centuries, we seek

to clarify how musicians have put their ideologies into musical practice. Offered occasionally. Prerequisite: MUS 200/201. *Also offered through Peace Studies.*

350. Composition.

The fundamental activity in this course is observation. Having arrived at a formative idea for a composition by means of a close analysis of a generative source, we begin describing that idea by any of several means (for example, a score, a performance or a sound generator), and making sense of that idea in sound. At the discretion of the instructor, students work with acoustic instruments, digital music technology, or both. Offered occasionally. Prerequisites: MUS 200/201 and MUS 220. May be repeated for credit when course content varies.

470, 471. Advanced Projects in Music.

Independent research in an area of musical study under the guidance of a member of the music faculty. Students must submit a written proposal to the department chair no later than November 15 for projects to be undertaken in the spring semester or April 15 for projects for the following fall. Prerequisites: MUS 200/201, MUS 210, and at least one other course in music.

489, 490. SYE: Independent Study.

Senior-year projects are intended to be the product of several semesters of study, bringing together more than one area of musical endeavor. Students must submit a written proposal to the department chair no later than November 15 for projects to be undertaken in the spring semester or April 15 for projects for the following fall. Prerequisites: MUS 200/201, MUS 210 and at least one other course in music.

Native American Studies

Minor offered

Visit the Native American studies webpage by linking directly to it from the Majors, Minors and Programs page at <http://www.stlawu.edu/native-american-studies>.

Minor Requirements

The Native American studies minor consists of six courses. Students must complete two “foundation” courses:

History

229. Introduction to Native American History.

Performance and Communication Arts

322. Native American Oral Traditions. *or*

330. Ritual Studies. (with permission of the instructor)

Students must also complete a 300 or 400-level course *or* an approved project as a Senior-Year Experience. Three other courses must be selected from the courses cross-listed with the Native American studies program. Students are advised to contact the program coordinator for the most current information on course offerings and program requirements.

Courses

Students should check each semester under both Native American studies and the relevant departments for course offerings.

Departmental Offerings

Anthropology

255. Environmental Perception and Indigenous Knowledge.

Caribbean, Latin American, and Latino Studies

250. La Frontera: Cultural Identities on the Mexican-U.S. Borderland.

Environmental Studies

302. Air Pollution.

Global Studies

102. Introduction to Global Studies II: Race, Culture, Identity.

260. Transnational Migration.

302. Theories of Cultural Studies.

History

103. Development of the United States, 1607-1877.

229. Introduction to Native American History.

333. The Age of the American Revolution.

352. Playing Indian: Native American Stereotypes in American History and Imagination.

Performance and Communication Arts

322. Native American Oral Traditions.

330. Ritual Studies.

In conjunction with the Native American Student -Organization, the program sponsors films, guest speakers and social events throughout the academic year.

Neuroscience

Major offered

More information on this interdisciplinary major can be found at www.stlawu.edu/neuroscience.

Students may elect a cellular track or a behavioral track as described below. It is imperative that first-year students seek early advisement from a biology or psychology faculty member; they should also begin the introductory courses in each department during the first year. Occasionally, the biology and psychology departments offer special topics courses not listed in the *Catalog* that may count toward this major.

Courses

Core Courses (required by both tracks)

Biology

101,102. General Biology. (2.5 units)

288. Introduction to Neuroscience. (1 unit)

389. Advanced Neuroscience. (1 unit)

Chemistry

103, 104. General Chemistry. (2.5 units)

221. Organic Chemistry. (1.25 units)

Statistics

113. Applied Statistics. (1 unit)

Psychology

100 or 101. Introductory Psychology. (1 unit)

Total: 10.25 units

Cellular Neuroscience Track**Biology**

One of the following: (1 unit)

250. Research Methods in Cell Biology (*with lab*)

392. Research Methods in Fluorescence and Confocal Microscopy (*with lab*)

395. Research Methods in Molecular Biology (*with lab*)

Plus three additional courses (with at least 2 units that include lab) from the following list: (3 units)

245. Genetics.

250. Introduction to Cell Biology.

252. Research Methods in Cell Biology (*with lab*)

309. Biochemistry.

312. Developmental Biology (*with lab*)

333. Immunology (*with lab*)

341. Anatomy and Physiology I (*with lab*)

351. Anatomy and Physiology II (*with lab*)

370. Hormones, Disease and Development.

387. Cellular Mechanisms of Memory.

388. Drugs and the Brain (*with lab*).

392. Research Methods in Fluorescence and Confocal Microscopy (*with lab*)

394. Research Methods in Biochemistry (*with lab*)

395. Research Methods in Molecular Biology (*with lab*)

399. Current Topics in Neuroscience.

415. Advanced Biochemistry.

489/490. Senior-Year Experience (SYE) (1 unit)

Behavioral Neuroscience Track

Psychology

205. Research Methods in Psychology. (1 unit)

Plus three additional courses (with at least 2 units that include lab) from the following list:

Biology

341. Anatomy and Physiology I (*with lab*)

351. Anatomy and Physiology II (*with lab*)

357. Behavioral Ecology.

388. Drugs and the Brain (*with lab*)

399. Current Topics in Neuroscience.

489/490. Senior-Year Experience (SYE) (1 unit)

Psychology

327. Sensation and Perception (*with or without lab*)

401. Fundamentals of Learning

402. Memory and Cognition (*with or without lab*)

432. Animal Behavior

438. Human Neuropsychology.

Students majoring in either track must also take 1 unit of ancillary courses. This includes a course from the opposite track, an approved study abroad course, or any of the courses listed below.

Ancillary Courses

Biology

232. Laboratory Animals: Ethics, Care and Techniques. (Note: this is a 0.5 unit course)

233. Neuroscience of Fear

412. Cross-Cultural Perspectives of Healing.

Computer Science

140. Introduction to Computer Programming.

Psychology

317. Abnormal Psychology

326. Hormones and Behavior. (by permission of the instructor)

442. Intellectual and Developmental Disabilities.

A year of physics (PHYS 103-104 or 151-152) and the second semester of organic chemistry (CHEM 222) are highly recommended, especially for those who intend to pursue graduate study in neuroscience.

Note that students majoring in neuroscience may not also major and minor in either biology or psychology.

Advanced Standing

Students scoring a 4 or 5 on the AP biology test must enroll in the first semester of Biology 101 (General Biology) for which they will receive the normal 1.25 units of credit toward the neuroscience major. Students who do well in this course may bypass the spring biology course (Biology 102) and receive the course credit toward the major. This requires approval of the General Biology instructors, who use multiple criteria to determine whether or not the AP student should take the spring course. The AP score of 4 or 5 automatically nominates a student for this option, but the student may also volunteer to forgo it.

Students who have taken Advanced Placement psychology and received a grade of 4 or 5 on the advanced test are eligible to receive 1 unit of credit for PSYCH 100NL. Academic planning forms are available on the neuroscience web page.

Courses

233. Neuroscience of Fear.

Brain structures that control the fear response are shared across humans, mammals, birds, and reptiles. These structures have been evolutionally preserved because fear helps to protect us from danger, injury, and death. Though the dangers of modern society differ substantially from those of our ancient past, aspects of our primal fear instincts remain. Are such emotions merely intrusions from another time or do they still have a function in our consciousness today? With a focus on the fear response, we will examine the evolutionary foundations of emotions, how they are displayed, develop over time, and tie into decision-making in our everyday lives. We will examine this issue from a multidisciplinary perspective, synthesizing recent work from the fields of biology, psychology, neuroscience, and philosophy. Counts as an ancillary course for the neuroscience major. Offered abroad in the summer term. Prerequisites: BIOL 102 or PSYC 101. Also offered as BIOL 233, PSYCH 233.

288. Introduction to Neuroscience. (*with lab*)

This course provides basic understanding of the architecture and processing of information in the brain. Particular emphasis is placed on the cellular properties of cells in the nervous system and how these biophysical properties affect information processing. To this end, students learn neuroanatomy and use computer models to gain insight into the computational power of the brain. Other topics include development of the nervous system, neurophysiology of sensation and homeostatic control mechanisms. Three hours of lecture and three hours of laboratory per week. Offered every fall semester. Prerequisites: BIOL 101, 102. Recommended: BIOL 245, 246 or 250. *Also offered as BIOL 288.*

387. Cellular Mechanisms of Memory.

This course examines the molecular mechanisms of neuronal plasticity. Topics include an analysis of the cellular processes that have been proposed to be at the core of memory formation, with discussion of the electrophysiological methods that have been used to analyze these processes; the biochemical mechanisms for short-term and long-term information storage at the cellular level and the vertebrate and invertebrate experimental models used for studying the molecules involved in memory formation. Prerequisites BIOL/NRSCI 288. Counts toward the neuroscience major (cellular track). Offered in alternate fall semesters. *Also offered as BIOL 387.*

388. Drugs and the Brain. (*with lab*)

This course will focus on how psychoactive drugs modify nervous system function and human behavior. The neurochemical and behavioral techniques used to study drug action will be addressed. Students will learn how drugs are metabolized by the body (pharmacokinetics), act (pharmacodynamics) and affect behavior (psychopharmacology), gaining comprehensive understanding of the neurotransmitter systems of the brain and how different drugs affect these systems. The laboratory component will utilize the nematode *C. elegans* as a model system to explore drug action; students will learn research techniques and carry out independent research. Three hours of lecture and three hours of laboratory per week. Prerequisites: BIOL/NRSCI 288. Counts toward the neuroscience major (both tracks). Offered every spring semester. *Also offered as BIOL 388.*

389. Advanced Neuroscience.

Builds on the fundamental concepts presented in BIOL 288 (Introduction to Neuroscience) and begins to examine neurobiology from a systems perspective. Topics include the biological basis of sexual orientation, sleep and dreaming, sleep disorders, epilepsy and seizures, motivation and addiction, Alzheimer's disease, disorders of thought and volition, and mood disorders. Prerequisite: BIOL/NRSCI 288. Required for the neuroscience major. Offered every spring semester. *Also offered as BIOL 389.*

399. Current Topics in Neuroscience.

This seminar course will cover a wide variety of topics related to current neuroscience research. Our main source of information will be neuroscience primary literature articles available in the public domain. Students enrolled in the course will decide on the topics that will be addressed throughout the semester, will read the primary literature and will lead critical and comprehensive discussions on each research topic. Examples of topics that can be covered in this course include: epigenetics; mirror neurons; autism spectrum disorders; neurobiology of mental disorders; learning and memory; drug abuse and addiction; and the aging brain. Prerequisites: BIOL/NRSCI 288. Counts toward the Neuroscience Major (both tracks). Offered in alternate fall semesters. *Also offered as BIOL 399.*

438. Human Neuropsychology.

This seminar course will examine the function of the human nervous system as it relates to cognition and behavior. Topics covered will include: language, attention, memory, motor skills, visual-spatial processing, problem solving, emotion, and consciousness. Special attention will be paid to the modern methodologies used to study brain-behavior interactions in normal and neuropsychological populations. Lectures, discussions and projects will make use of both empirical and clinical case materials. Prerequisites: BIOL/NRSCI 288 or PYSC 331. Counts toward the Neuroscience major (behavioral track). Offered in alternate fall semesters. *Also offered as PSYC 438.*

489,490. SYE: Senior Project.

Senior research may be conducted with a willing faculty mentor and may be of one semester duration (NRSCI 489, SYE research for 1 unit) or for the entire senior year (NRSCI 489, 490, SYE research for 1, 1.5, or 2 units). Expectations vary, contingent upon the units desired. The project should integrate acquired research skills and/or subject knowledge gained through the major and culminate in an appropriate written format and an oral presentation. Presentation at the St. Lawrence Festival of Science is encouraged.

499. SYE: Honors Research.

Students integrate acquired research skills and subject knowledge gained through the major to collect original experimental data and analyze the results in reference to the existing scientific primary literature. Results will be presented orally to the neuroscience faculty and/or at the annual Festival of Science and be written as an honors thesis, to be bound and archived in both departments and in the science library. Graduation in neuroscience with the designation of honors requires exceptional academic accomplishment as demonstrated by a major GPA equal to or above a 3.5, and completion of a second semester of SYE honors research according to established guidelines. To graduate with honors in neuroscience, students normally take NRSCI 489 in the fall semester and then enroll in NRSCI 499 for the spring semester. In addition, students must: 1) have a neuroscience GPA of 3.5, 2) form a mentoring committee, 3) complete an honors nomination form by the end of the fall semester, 4) submit a written thesis to the committee by the last day of spring classes, 5) present the work at the St. Lawrence Festival of Science.

Outdoor Studies

Minor offered

Visit the outdoor studies webpage at www.stlawu.edu/outdoor-studies.

Minor Requirements

To complete a minor in outdoor studies, students may choose between the on-campus track or the Adirondack Semester intensive off-campus track. Either track requires a minimum of 5.5 units. Both tracks require the acquisition of certain elementary outdoor skills.

On-Campus Track

Students must take:

1. ODST 111 *or* ODST 3003.
2. One course from the science with field lab category
3. Two courses from the Philosophy/English /Environmental Studies/Art category, preferably from different disciplines
4. One additional 0.5-1.0 credit course from the Outdoor Education category
5. One additional 1.0 credit course from the Outdoor Education *or* Philosophy/English /Environmental Studies/Art *or* Science with field lab categories *or* a relevant FYP *or* FYS course.

*Courses in these-required categories include but are not limited to the list below; refer questions to the director.

Outdoor Education

- 111. Principles of Outdoor Leadership.
- 101. Modern Outdoor Recreation Ethics ("MORE"). (0.5 units)
- 115. Introduction to Snow Science and Avalanches.
- 3003. Advanced Topics: Outdoor Leadership

Science with Field Lab

Biology

- 121. The Natural World.
- 209. Vertebrate Natural History.
- 215. Invertebrate Biology.
- 218. Ornithology.
- 221. General Ecology.*
- 227. Mammalogy.
- 224. Biology of Plants.
- 258. Ethnobotany.
- 325. Mycology.
- 330. Ecology of Lakes and Rivers.
- 335. Winter Ecology.
- 360. Marine Ecology.

380. Tropical Ecology.* Medicinal Plant Ecology

440. Conservation Biology.

Geology

103. The Dynamic Earth.

211. Geomorphology.

216. Sedimentology.

320. Regional Field Studies.

350. Structural Geology.

Physics

101/102. Introduction to Astronomy.

Philosophy/English /Environmental Studies/ Arts

English

231. Adirondack Literature

243. Creative Non-Fiction Writing.+

308. Advanced Creative Non-Fiction Writing.+

328. English Romanticism.

334. Reading the Land: Pastoral and Georgic Literature*

346. American Literature and the Environment.*

352. Contemporary Literature and the Environment.*

Environmental Studies

249. Outdoor Recreation and Public Land.

263 Global Change and Sustainability

326 Once and Future Forests

343. Ecology and Political Thought.

371. Landscape Ecology

Philosophy

310 Philosophy of the Environment

Religious Studies

103. Religion & Ecology.

Art

256. Art and Nature.

*Dual-listed with Environmental Studies.

+Only sections including experiences in nature satisfy this requirement.

Intensive Off-Campus Track

1. Four and a half units taken during the Adirondack Semester.
2. One 1 unit elective from the Outdoor Education (other than ODST 111), Field Science or Philosophy/Literature/Environmental Studies/Arts categories, or a relevant FYP or FYS

Courses

111. Principles of Outdoor Leadership

An introduction to outdoor studies that includes many elements of the minor. The course integrates lecture and field experiences that explore the basic theories, concepts and skills in the field of outdoor leadership and education. It also examines personal outdoor recreational ethics as well as knowledge about environmentally sensitive recreation in the outdoors.

101. Modern Outdoor Recreation Ethics. (.5 units)

By means of study, experience and reflection, this half-unit lecture and required lab course attempts to foster a personal environmental ethic as well as knowledge about environmentally sensitive recreation in the outdoors. Course content focuses on historical and present-day philosophies and practices of outdoor pursuits, including backcountry travel, canoeing, climbing, first aid and expedition planning. The course requires five overnight field trips to practice the material covered in the classroom.

115. Introduction to Snow Science and Avalanches.

This eight-day January course integrates theory with scientific technical skills on a unique field-expedition in a mountain range in North America. Students learn the foundation principles of snow science and avalanche study through readings, classroom learning and field experience, and explore the relationship between human behavior and decision-making, and how it affects snow pack stability. Topics include snow science, mountain weather, geology, avalanche search and rescue, backcountry travel, and the human-nature interaction and relationship in a mountainous winter environment, as well as backcountry wilderness skills necessary to recreate, travel and study safely in a mountainous winter environment.

201. Natural History and Ecology of the Adirondacks. (Adirondack Semester)

This field-oriented course emphasizes the natural history, ecology, geology, geography and climate of the Adirondacks. Primary emphasis is on the ecology, life history, local adaptations and uses of Adirondack flora and fauna. Basic ecological concepts such as ecosystem function, community diversity, food web structure, seasonal change, competition, and nutrient cycles are studied by means of field trips and field studies. Studies examine the influence of weather, day length, and geology and may include the movement of stars and planets. Students learn how to record observational data and how to conduct an experiment.

202. Creative Expressions of Nature. (Adirondack Semester)

This course encourages students to view their interaction with the natural world through a literary and artistic lens. To explore the intersection of self, culture, and environment, students will draw on their experiences living and traveling in the Adirondacks and experiment with different modes of artistic expression, including poetry, prose, and environmental sculpture. Meanwhile, through a variety of readings, students will gain an introduction to the conventions and traditions of nature writing, and they will apply that knowledge to their own creative projects.

203. Land Use Change in the Adirondacks. (Adirondack Semester)

Using the Adirondacks as a case study, this course examines current activities in land planning and the importance of historical context. Study of Adirondack history begins with 16th-century information from European explorers and Native Americans. Emphasis is then placed on industrial and recreational use in the 19th century. The course highlights formation of the State Forest Preserve and the Adirondack Park, and regulations governing private land use. Study of the

present utilizes political theory such as internal colonization and coreperiphery. The course employs local examples through discussion and field trips.

277. Knowing Nature. (Adirondack Semester)

Students examine and practice a variety of methods and techniques by which humans know nature. In particular, the course engages the western scientific and the shamanic (as practiced by indigenous cultures) paradigms, and asks how our perception of nature affects how we relate to and treat it. The course will explore the concept of nature as knowing and intelligent through the lenses of recent scientific research and traditional knowledge.

3003. Advanced Topics of Outdoor Leadership and Education.

This intensive, field-based course culminates with a two-week expedition in which students apply the leadership and teaching skills learned through lectures and labs during the semester. This is a student-designed and instructor-facilitated experience, in which students develop risk management plans, course itineraries and outdoor education lesson plans specific to a wilderness expedition, and assume direct leadership roles implementing their developed lesson plans. The course is designed for students who will work as outdoor guides and educators in the St. Lawrence University Outdoor Program and other professional organizations.

Peace Studies

Minor offered

Visit the Peace studies webpage at www.stlawu.edu/peace-studies.

Minor Requirements

A minor in Peace Studies consists of at least five courses, including PEAC 100; three or more courses cross-listed from other academic departments and programs; and either PEAC 400 or PEAC 489. From time to time the program also offers special topics courses that also count towards the minor.

Students must complete the cross-listed courses after taking 100 and before taking 400 or 489. In rare cases, and with the approval of the program coordinator, a student may take one cross-listed course concurrently with 100 if the student is already clear that he or she intends to minor in Peace Studies and consults with the program coordinator and instructor of 100 early in the semester. It is strongly advised that students who want to minor in Peace Studies should declare their minor in their sophomore or junior year to allow for comprehensive planning of the minor and the senior capstone experience. Also in rare cases, and with the approval of the program coordinator, a student may take his or her cross-listed courses concurrently with 400 or 489. In general, however, students take the three cross-listed courses between the introductory course and the capstone course.

No more than one of these cross-listed courses should be a course that counts for the student's major(s) (or other minor, if relevant). Students who intend to minor in peace studies should meet with the program coordinator to plan a set of cross-listed courses that complements their interests in a meaningful way. Some students may focus on a particular peace studies angle: international issues with a focus on a particular conflict, for example. Others may wish for a more broad-based background, choosing an array of courses that helps them gain a wider and interdisciplinary perspective on peace issues.

Students who minor in Peace Studies must keep portfolios of their work in all courses intended for their minor, and are expected to keep in regular touch with the program coordinator about their progress through the minor.

Courses

100. Introduction to Peace Studies.

The purpose of peace studies is to explore the potential for nonviolent methods of building social, political and economic justice. This course intentionally searches for alternative ways of understanding conflict. We will ask questions such as: Can we define “peace” in more positive terms than the unrealistic “absence of conflict”? Can conflict be positive or even transformative? Are “peacemakers” different from the rest of us? Can we all learn to live harmoniously with others who are very different from us? And what are ways to cultivate the inner peace that gives people the strength and insight to deal with conflict creatively and positively? Also offered as PHIL 120.

3000-3999.

The content of each course or section of these 100-level or 200-level special topics courses varies and will be announced each semester.

4000-4999.

The content of each course or section of these 300-level or 400-level special topics courses varies and will be announced each semester.

380. Philosophy of Peace.

In this course we explore the meanings of terms such as peace, justice, conflict, violence, pacifism, conscientious objection, and civil disobedience, and we will consider the relationships among these terms. We will also consider questions such as: Is it possible to create a truly just world? Is it possible to respond to serious conflict or oppression nonviolently? Is the use of violent force ever justified? Is a “just war” possible? We will read classic works by philosophers and others on these topics. We will also reflect on our own identities, how power is constructed in our world, and will conclude the course by envisioning a better world and considering how to work towards creating it. Pre-requisite: PEAC 100 or any 100-level philosophy course or permission of the instructor. Also listed as PHIL 380.

400. SYE: Peace Studies Capstone Seminar.

This course is intended to provide an opportunity for peace studies minors to integrate what they have learned in all of the courses that they have taken for their minor. Students re-examine what they learned in these courses, making connections to important peace studies concepts; they also design integrative projects that draw from and extend those studies, and share their work with each other throughout the course. Prerequisite: PEAC 100. Limited to Peace Studies minors.

489. SYE: Peace Studies Capstone Independent Study.

If a student must take the capstone seminar in a semester during which it is not offered, he or she may take the course as an independent study under supervision of a faculty member.

Departmental Offerings

African Studies

252. Conflict in Africa. (also offered as HIST 252)

320. African Politics. (also offered as GOVT 320)

Anthropology

102. Cultural Anthropology.

Art and Art History

217. Buddhist Art and Ritual.

Asian Studies

106. Modern Asia. (also offered as HIST 106)

125. Early Asian Civilizations. *(also offered as HIST 105)*

210. Musics of the World. *(also offered as MUS 210)*

292. Modern China. *(also offered as HIST 292)*

Canadian Studies

201. Canadian-American Relations.

Caribbean, Latin American and Latino Studies

234. Modern Latin America. *(also offered as HIST 234)*

250. La Frontera: Cultural Identities on the Mexican-U.S. Borderland

337. Torture, Truth, Memory. *(also offered as GOVT 337)*

352. Clinic: The Effects of Globalization on Human Rights. *(also offered in Religious Studies and Sociology)*

Economics

100. Introduction to Economics.

234. Comparative Economics.

236. Globalization Issues: Equity, the Environment and Economic Growth.

Education

203. Contemporary Issues in American Education.

Environmental Studies

216. Climate Change Policy and Advocacy.

261. Agriculture and the Environment.

263. Global Change and Sustainability.

275. Energy and the Environment.

310. Philosophy of the Environment. *(also offered as PHIL 310)*

318. Environmental Psychology. *(also offered as PSYC 318)*

379. Renewable Energy Systems

Film

302. Theories of Global Cultural Studies *(also offered as GS 302)*.

Gender and Sexuality Studies

201. Gender in Global Perspective.

316. Gender and Communication. *(also offered as PCA 315)*

Global Studies

101. Intro I: Political Economy.

102. Intro II: Race, Culture and Identity.

230. Secrets and Lies: Nationalism, Violence and Memory.

301. Theories of Global Political Economy.

302. Theories of Global Cultural Studies. (*also offered as FILM 302*)

324. Global Public Goods.

333. Ethics of Global Citizenship. (*also offered as PHIL 333*)

350. Global Palestine.

Government

108. Introduction to International Politics.

206. Introduction to Political Theory.

320. African Politics (*also offered as AFS 320*).

322. Chinese Politics.

331. Middle East Politics.

337. Torture, Truth, Memory. (*also offered as CLAS 337*)

345. Political Theories of Violence and Nonviolence (*also offered as PHIL 343*).

360. International Relations Theory.

363. International Organization and Global Governance.

364. Terrorism and Human Rights.

History

103. Development of the United States, 1607-1877.

104. Development of the United States, 1877-Present.

105. Early Asian Civilizations. (*also offered as ASIA 125*)

106. Modern Asia. (*also offered as ASIA 106*)

160. The Islamic World. (*also offered as GS 160*)

229. Introduction to Native American History.

233. Colonial Latin America.

234. Modern Latin America. (*also offered through Caribbean, Latin American and Latino Studies*)

243. Origins of American Foreign Policy (Colonial Era to 1900).

244. U.S. Foreign Relations 1900-1950

252. Conflict in Africa. (*also offered through African Studies*)

256. Slavery and Freedom in the Americas.

267. The Holocaust. (*also offered as REL 267*)

273. The Civil Rights Movement.

292. Modern China. (*also offered as ASIA Studies 292*)

299. Seminar on Historical Research Methods. (*when relevant; e.g., Armenian Genocide; World War I*)

308. European Imperialisms.

325. The United States and the Vietnam War.

- 333. The Age of the American Revolution.
- 371. 18th-Century Europe and the French Revolution.
- 373. Japan and the United States in World War II, 1931-1952.
- 382. Genocide in the Modern World.

Music

- 210. Musics of the World. (*also offered as ASIA 210*)
- 245. Musics of Eastern Europe.
- 337. Avant-garde and Underground Music.

Performance and Communication Arts

- 315. Gender and Communication.
- 318. Argumentation and Debate.
- 321. Intercultural Communication.
- 326. American Public Address.
- 329. Rhetoric of Social Movements.
- 331. Presidential Campaign Rhetoric.
- 334. Environmental Communication.
- 335. Sex Talk (*also offered as GNDR 335*).
- 336. Rhetoric and Citizenship.

Philosophy

- 203. Ethical Theory.
- 206. Introduction to Political Theory.
- 310. Philosophy of the Environment. (*also offered as ENVS 310*)
- 333. Ethics of Global Citizenship. (*also offered as GS 333*)
- 343. Political Theories of Violence and Nonviolence (*also offered as GOVT 345*).
- 380. Philosophy of Peace. (*also offered as PEAC 380*)

Psychology

- 215. Cultural Psychology.
- 313. Industrial/Organizational Psychology.
- 318. Environmental Psychology. (also offered as Environmental Studies 318)
- 322. Positive Psychology.
- 325. Social Psychology.
- 423. Psychology of Morality

Religious Studies

- 104. World Religions.

267. The Holocaust (*also offered as HIST 267*).

335. Religion and Violence.

Sociology

110. Global Problems.

112. Inequality.

161. Social Problems and Policy.

169. Media and Society.

235. Earning a Living: Work and Occupations in a Global Economy.

238. Social Services, Agencies and Advocacy. (*with Community-Based Learning*)

239. The Web in Real Life. (*also offered as FILM 240*)

240. New Media, Conflict & Control

268. Sustainable Development.

269. Population and Natural Resources.

275. Medical Sociology.

288. Dilemmas of Development.

Performance and Communication Arts

Major and minor offered

Visit the performance and communication arts webpage at www.stlawu.edu/performance-and-communication-arts.

Major Requirements

Most students who major in the department begin with an interest in one of the two broad areas of inquiry—rhetoric/communication studies or theatre/performance studies. Majors choose a primary area of concentration. Eleven units are required to complete the major. Fulfillment of the major requires the following:

1. All majors take the following four survey courses that will introduce them to various aspects of the major:
 107. Beginning Acting.
 111. Rhetoric and Public Speaking.
 125. Introduction to Theatre.
 127. Introduction to Communication Studies.
2. All majors must complete the research methods course that will introduce them to basic methods of inquiry and philosophical approaches peculiar to various areas of the major:

PCA 250. Communication & Performance Research Methods.
3. Majors must complete six additional courses, at least five of which must be in their primary area of concentration. At least four of these courses must be at 300-level and above.

Courses in rhetoric/communication studies include:

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105. Language as Human Experience. *(Dual-listed by ANTH)*
201. Introduction to Journalism. *(Dual-listed by ENG)*
225. Peer Mentoring in Rhetoric and Communication.
239. Media Industries.
- 3000-3999. Special Topics in Rhetoric/Communication Studies. *(200-Level Courses)*
310. Culture & Media.
311. Advanced Public Speaking.
315. Gender and Communication.
316. Advanced Communication Studies.
318. Argumentation and Debate.
321. Intercultural Communication.
326. American Public Address.
328. Interpersonal Communication.
329. Rhetoric of Social Movements.
331. Presidential Campaign Rhetoric.
333. Persuasion.
334. Environmental Communication.
335. Sex Talk.
336. Rhetoric and Citizenship.
342. Blogging the Globe: News Analysis and Investigative Journalism. *(Dual-listed by GS)*
360. Public Sphere of Renaissance Venice.
361. London Coffeehouse Culture & Modernity.
370. Against Health: Rhetoric & the Health Humanities.
- 4000-4999. Special Topics in Rhetoric/Communication Studies. *(300-Level Courses)*
480. Independent Study.
489. SYE: Senior Project.
498. SYE: Honors Senior Project.
- Courses in theatre/performance studies include:
100. Beginning Ballet.
101. Production Credit.
103. Stagecraft.
106. Performing Diversity.
113. Introduction to Performance Studies.
202. Sound for the Stage.

- 204. Costume Design.
- 215. Dramatic Texts in Context.
- 223. Playwriting.
- 230. Beginning/Intermediate Modern Dance.
- 235. Beginning/Intermediate Jazz Dance.
- 237. Contemporary British Theatre – Intro Level. (*offered off campus in London*)
- 244. Techniques of Screenwriting.
- 255. African-American Drama.
- 270. Collaboration Across the Arts.
- 3000-3999. Special Topics in Theatre/Performance Studies. (*200-Level Courses*)
- 301. Advanced Modern Dance.
- 303. Stage Lighting.
- 304. Arts Management. (*offered off campus in New York City*)
- 306. Advanced Screenwriting.
- 307. Characterization.
- 308. Cultural Encounters. (*offered off campus in New York City*)
- 309. Acting Styles.
- 314. Devising for Performance.
- 317. Performing Poetry.
- 319, 320. Shakespeare.
- 322. Native American Oral Traditions.
- 327. Drama By and About Women.
- 330. Ritual Studies.
- 332. Directing.
- 337. Contemporary British Theatre – Advanced Level. (*offered off campus in London*)
- 338. Twentieth-Century Avant-Garde.
- 340. Performance Art.
- 343. Taboo Performances.
- 344. Children’s Theatre in the Schools.
- 355. Studies in World Dramatic Literature.
- 358. Madrid Stage. (*offered off campus in Madrid*)
- 4000-4999. Special Topics in Theatre/Performance. (*300-Level Courses*)
- 480. Independent Study.
- 490. SYE: Senior Project.

499. SYE: Honors Senior Project.

Honors

To graduate with honors, a major must maintain a 3.5 GPA in the department and a 3.0 GPA overall; the major's senior project proposal must be approved for enrollment in PCA 498/499 SYE: Honors Senior Project; and the student must earn at least a 3.5 in PCA 498/499.

Minor Requirements

Fulfillment of the minor requires six courses and students need to meet the following requirements:

1. All PCA minors must take the following four courses:
 107. Beginning Acting.
 111. Public Speaking.
 125. Introduction to Theatre.
 127. Introduction to Communication Studies.
2. Minors must take two additional courses at 200 or 300 level.

Off-Campus and Transfer Credit

Students wishing to transfer in course credits must produce a syllabus to the department chair for the course they would like considered for credit. Students may transfer up to two credits from off-campus study toward a PCA major or minor.

Courses

100. Beginning Ballet.

Fundamentals of classical ballet including barre, center work and across-the-floor movements with emphasis on body alignment and elements of ballet style. Material is presented in a progression from basic to more complex. Lectures consist of pertinent references to dance history, terminology, movement theory and dance films illustrating related subject matter.

101. Production Credit.

This is a practicum credit for students working on faculty-directed productions. Students are selected through the regular audition process and credit (either .25 or .5 credit units) is based on the size of the role and/or the time commitment involved. Students may take up to 1 unit of production credit. Pass/fail grading only. Permission of instructor required.

103. Stagecraft.

The study and practice of creating scenery for the stage, this course also explores the operation of the theater's physical plant. Material is presented in lectures and is further illustrated through the activities of the production studio.

105. Language as Human Experience.

We will tackle fundamental questions of what language is and how languages both create and constrain human potential. Our method for addressing these questions will be comparative. That is, at every step we will consider how languages do and do not vary across cultures in terms of their form, function and feeling. Along the way, we will examine the structure of language and the ways this structure varies across languages; we will survey the ways in which languages are transmitted from one generation to the next, and consider the ways in which languages inevitably change in the process; and we will explore language as a principal medium in which social identities are formed. No background in linguistics or anthropology is required, but a fundamental curiosity about culture and communication is expected. Offered every semester. *Dual-listed by Anthropology.*

106. Performing Diversity.

Using research, creative writing and personal experiences, this seminar explores various issues of multiculturalism and diversity on the St. Lawrence campus and in America today. We will engage a variety of texts to investigate the links between identity and oppression by race, class, gender, sexual orientation, differing abilities, and religion. As part of a significant research project, members of the class create performance texts (combining video presentations and live performance work) about specific research topic areas. To be a part of this seminar, you do not need prior experience in video production or acting/performance, but you must be willing to get involved with exploring both. This course is available to first-year students only as an FYS.

107. Beginning Acting.

An introduction to the basic mental and physical skills used in acting, including use of imagination, understanding of the self, character analysis, body flexibility and expression, and voice and diction. Coursework includes exploratory and centering exercises, improvisational techniques and scene and monologue study.

111. Rhetoric and Public Speaking.

An introduction to the art of public speaking, focusing primarily on the construction and critique of persuasive discourse. Students study the classical rhetorical tradition as a continuing influence on the contemporary theory and practice of persuasion.

113. Introduction to Performance Studies.

This course engages students in the analysis and performance of texts other than dramas (e.g., poems, short stories, personal narratives). The course emphasizes analysis of the dramatic situation in texts, process-centered workshops, and performance criticism.

125. Introduction to Theatre.

This course is designed to aid the student in an investigation into the various aspects of theatrical performance and process. This course will explore the five main aspects of the theatrical event: director, actor, playwright, designers (costume, scenic, lighting) and audience. Throughout the course students will discover the relationship between text/literature and the artistic nature of theatre to make and enhance meaning.

127. Introduction to Communication Studies.

This course explores the forms, functions, techniques, technologies and institutions of human communication with the goal of enhancing understanding of the complex dynamics of social interaction. Topics include communication and meaning; language, thought and communication; non-verbal communication; gender and communication; intercultural communication; and the mass media.

201. Introduction to Journalism.

A general study of journalistic principles and methods as well as extensive practice in the gathering and writing of news. In the first half of the semester, we will learn how to write and analyze basic types of stories in a style particular to new media, with an emphasis on accuracy, clarity, and efficiency. We will also discuss the mission of the journalist in a democratic society. In the second half of the semester, we will practice and refine such learned writing and reporting skills in an atmosphere closely resembling the conditions in a digital-era newsroom: covering actual events of local, state, national and international importance as they unfold in real time - all this under the pressure of real deadlines. *Dual-listed by English.*

202. Sound for the Stage.

This course explores artistic and practical aspects of using sound in support of theatrical productions. *Dual-listed by Music.*

204. Costume Design.

This course explores the artistic and practical aspects of designing costume for performance. Through a series of projects, students analyze the costume requirements for various plays, research period fashions and develop costume designs for specific characters and productions. Prerequisite: PCA 107 or PCA 125.

215. Dramatic Texts in Context.

This course examines how knowing the theatrical and cultural contexts of plays helps theatre practitioners make informed choices regarding how to stage them. Prerequisite: PCA 107 or PCA 125. *Dual-listed by English.*

223. Playwriting.

This course explores the processes of composition characteristic of the playwright. In a series of weekly assignments, various aspects of the art are introduced, e.g., characterization, dialogue, dramatic action and others. The course concludes with the writing of a one-act play. Students read exemplary plays from the modern repertoire. *Dual-listed by English.*

225. Peer Mentoring in Rhetoric and Communication.

This course is designed to train students who will work as rhetoric and communication mentors in the University's WORD Studio. Permission of instructor required.

230. Beginning/Intermediate Modern Dance.

This course emphasizes development of basic modern dance concepts and technique, including increase of students' strength, control, rhythmic awareness and stage presence. Specific techniques touched upon and/or covered in depth include, but are not limited to, O'Donnell, Nickolas, Garth Fagan and Graham. The course provides an in-depth knowledge of the history of modern dance. Students will strengthen their choreographic skills and produce an original piece.

235. Beginning/Intermediate Jazz Dance.

This course is for the elementary dance student interested in developing the basic movement skills of jazz dance. Emphasis is placed on the Jack Cole technique. Course material consists primarily of building a solid technical base, learning isolations, rhythmic difference and dynamics. The course provides an in-depth knowledge of jazz dance, its phenomenon and its changing character throughout the years. Students are exposed to Broadway, concert and commercial jazz styles, strengthen their choreographic skills and produce an original piece.

239. Media Industries.

This course surveys the historical development of traditional media industries such as newspapers, magazines, books, television, radio, film, music recording and video games, as well as the issues related to the emergence of digital technologies epitomized by the Internet. It likewise focuses on the historical evolution of two other closely related fields advertisement and public relations. *Dual-listed by Film and Representation Studies.*

244. Techniques of Screenwriting.

An introductory study of basic technical problems and formal concepts of screen writing. The study of produced screenplays and formal film technique, along with writing scene exercises, builds toward the construction of a short (50-minute) script. *Dual-listed by English; also offered through Film and Representation Studies.*

250. Communication & Performance Research Methods.

This course introduces students to a variety of qualitative research methods and theoretical lenses used by scholars of communication, rhetoric, and theater. Students will be exposed to existing research that uses these methods and will practice these approaches throughout the semester. The capstone project involves developing an individual research projects that uses a particular method of qualitative analysis to answer questions about a communicative and/or performative text or act.

255. African-American Drama.

African-American drama is a tradition that has unique themes and forms with sources in African ritual and language; gesture and folklore; the Southern Baptist church; the blues; and jazz. Students examine plays, read essays, view videos and listen to music to discover the qualities that make this drama a vital resource of African-American culture and an important social and political voice. *Dual-listed by English.*

270. Collaboration Across the Arts.

The direction of this course is determined largely by the unique combination of students who participate. Students form groups of two or three to work on a collaborative project of their own design reflecting their collective interests. For example, a pair of students may create a multimedia work that draws connections between image and sound. Students critique works in progress, study exemplary works, discuss relevant aesthetic issues, trace connections across media and consider strategies for collaborative work. Prerequisite: permission of the instructor. *Dual-listed by Music; also offered through Art & Art History.*

3000-3999. Special Topics in Rhetoric/Communication Studies.

The content of each course or section of these 200-level special topics courses varies and will be announced each semester.

3000-3999. Special Topics in Theatre/Performance Studies.

The content of each course or section of these 200-level special topics courses varies and will be announced each semester.

301. Advanced Modern Dance.

Advanced Modern Dance is an exploration of advanced modern technique and theory in a variety of styles of modern dance. The class emphasizes educating the body as an instrument for artistic expression as well as development of flexibility, strength, coordination and awareness of principles of motion. The class will also work on choreography and composition exercises using the concepts of space, time, effort and shape.

Prerequisite: PCA 100, PCA 235, or PCA 230.

303. Stage Lighting.

An investigation of theatrical lighting equipment and its applied use in producing drama, concerts, and dance on the modern stage. The course includes a study of basic electricity, lighting instruments, computerized lighting control and design procedures. Materials are presented in a lecture/demonstration format and are further explored in the lighting lab and departmental productions. Prerequisite: PCA 103.

306. Advanced Screenwriting.

An extension and intensification of PCA 244. Students are expected to work independently on the preparation of two feature-length screenplays. Workshop format emphasizes the revision and editing process. Prerequisite: PCA 244. *Dual listed by English; also offered through Film and Representation Studies.*

307. Characterization.

An intensive study of the acting process building on skills developed in PCA 107. The course focuses on character development in psychological realism and is intended to expand the actor's range with both scene and monologue work, as well as to expand skills in voice/body integration and script analysis. Prerequisite: PCA 107 or PCA 125.

309. Acting Styles.

A concentrated study of three theatrical styles: Greek tragedy, Elizabethan drama and comedy of manners. The course includes reading and research on the theatre and culture of each historical period, followed by an intensive exploration of their vocal and physical styles through guided improvisations, exercise and scene study. Prerequisite: PCA 107.

310. Culture & Media.

Print or electronic mediating technologies have accompanied humans for more than five centuries and at some point people started questioning the extent to which they influenced, or as we will learn to say, co-constructed our everyday reality. This class surveys some of the important intellectual contributions to this inquiry – media theories and seminal studies. At the same time, it follows some of the most significant contemporary debates that reflect the symbiotic relationship between the media and our own culture. *Also offered through Film and Representation Studies*. Prerequisite: PCA 111 or PCA 127.

311. Advanced Public Speaking.

Intensive study of the principles and practices of researching, organizing, writing, delivering and criticizing persuasive speeches. Students employ contemporary theories of persuasion to analyze a variety of rhetorical situations. Students construct persuasive speeches for different speaking situations in order to develop critical and practical skills. Prerequisite: PCA 111.

314. Devising for Performance.

This course focuses on the process of adapting and staging non-dramatic texts (e.g., novels, short stories, poems) for performance. The class emphasizes the process of selecting, adapting, scripting and rehearsing texts for performance. Prerequisite: PCA 107, PCA 113, or 125.

315. Gender and Communication.

All of our communications have a gendered component, and all gender performances are, by definition, communicative. In this course, we explore some of the many contexts, media and modalities through which communication and gender intersect. We examine both how we perform gender and how we become gendered through the processes of social interaction. Prerequisite: PCA 127, PCA 111, or GNDR 103.

316. Advanced Communication Studies.

This course surveys contemporary theories and principles of human communication and complements this inquiry with practical exercises designed to test and explain the theories. Course material focuses on interpersonal communication, non-verbal communication, mass communication, intercultural communication and the relationship between gender and communication. Prerequisite: PCA 127.

317. Performing Poetry.

“Milktongue, goatfoot, and twinbird” are the words that poet Donald Hall uses to describe what the voicing and embodying of poetry feels like to him. It’s something with taste and texture in our mouths, something we feel in our bodies, and something that sings, chants, and fills the world with sight and sound. In this course we focus on the performance of various poetic forms: traditional fixed forms, open verse, concrete poems, found poems and others. We will add to Hall’s list of ways to describe what happens when poetry returns to its roots in the oral tradition, and in the process examine the intersections of contemporary poetic theory and performance theory. Prerequisite: PCA 107 or PCA 113. *Dual-listed with English*.

318. Argumentation and Debate.

Study of the nature and functions of argument: the classical and contemporary concepts of rationality, truth, knowledge and models of argument; and the evaluation of argument in formal and ordinary language situations. Students participate in several argumentation and debate assignments to develop critical and practical skills. Prerequisite: PCA 111. *Cross-listed with Peace Studies*.

319, 320. Shakespeare.

An intensive study of Shakespeare's plays; 319 concentrates on Shakespeare's histories, comedies and romances, while 320 focuses on the tragedies. Prerequisites: PCA 125 or ENG 110 and one 200-level English literature course; or two 200-level English courses. *Dual-listed by English; also offered through European Studies.*

321. Intercultural Communication.

This course explores theoretical and rhetorical frames around culture, cultural difference and cultural encounter, the purpose being to enable participants to become more culturally sensitive and effective communicators. Prerequisite: PCA 127. *Dual-listed by African-American Studies.*

322. Native American Oral Traditions.

This course examines the oral literatures of Native Americans and the incorporation of these oral traditions into written texts. Native American oral traditions are examined using written texts, videos and live performances. With a focus on origin stories, mythic heroes, and rituals, the course considers Native American views of storytelling, family, religion/cosmogony and language. Prerequisite: PCA 113 or PCA 125. *Dual-listed by Native American Studies.*

326. American Public Address.

A study of American history through examination of the speeches of spokespersons for social, political, legal and religious institutions and movements. From Thomas Jefferson to George Bush, from Susan B. Anthony to Phyllis Schlafly, from George Wallace to Martin Luther King Jr.: a study of the impact of rhetorical strategies upon ideas and events and of ideas and events upon rhetorical strategies. Prerequisite: PCA 107 or PCA 125. *Cross-listed with Peace Studies.*

327. Drama By and About Women.

Using theoretical writings and dramatic scripts, this course asks what, if anything, is different about reading drama written by women about women. Although the foundations of this course are rooted in a variety of feminist perspectives, it focuses on a way of reading rather than on any one of a group of political stances. Students are expected to respond subjectively to the voices of women articulated in the plays and, at the same time, use critical skills to comprehend the social, historical and cultural contexts that shaped them. Prerequisite: PCA 125.

328. Interpersonal Communication.

This course examines the social situations in which people create and maintain interpersonal relationships, exploring the myriad social and cultural factors that impinge upon the success of these relationships. Topics include identity, relationship formation, family, friendship, intimacy, gender and sexualities, relationships at school and work, conflict, and digitally mediated interpersonal communication. Prerequisite: PCA 111 or 127.

329. Rhetoric of Social Movements.

This course examines the rhetorical strategies employed in contemporary American social movements (civil rights, Vietnam/anti-war movement, women's liberation, American Indian Movement, gay and lesbian rights). Cultural texts, speeches, manifestos, sit-ins, marches and songs drawn from each of these calls for change are examined and interpreted using a variety of rhetorical theories. Prerequisite: PCA 111 or PCA 127. *Cross-listed with Peace Studies.*

330. Ritual Studies.

This course examines the nature of rituals, how humans use rituals, the various types of rituals, and how rituals evolve over time. Students explore the origins, histories, and methods of analysis of rituals as well as learning how we produce them. Prerequisite: PCA 107, 113 or PCA 125.

331. Presidential Campaign Rhetoric.

This course examines the forms and functions of rhetoric within the context of presidential election campaigns. Students engage in a variety of formal and informal oral and written exercises related to the persuasive strategies that candidates, the media and independent organizations use to advance their political agendas. Prerequisite: PCA 111 or PCA 127. *Cross-listed with Peace Studies.*

332. Directing.

This course provides the advanced student with practical skills and an understanding of directing methods, including intensive script analysis, concept development and articulation, composition/picturization and collaboration with other theatre artists. Prerequisites: PCA 107 or 125; PCA 103 is recommended.

333. Persuasion: Analyzing Rhetorical Texts.

This course is designed to foster increased awareness of the diverse forms and functions of persuasion in contemporary society and to improve students' ability to function as discriminating consumers of rhetorical texts. While the course includes extensive reading and analysis of public speeches, it is also intended to heighten student awareness of the presence of persuasive intent in texts not traditionally considered rhetorical, e.g., poems, plays, songs, paintings, music videos and news broadcasts.

334. Environmental Communication.

Environmental Communication (EC) begins with the premise: language shapes how humans live with the natural environment. As a discipline EC recognizes that how we speak about the environment and who is allowed to speak about the environment affect how humans view, interact with, and make policy about their surroundings. Throughout the course students examine how environmental discourse connects issues of citizenship, community building, and environmentalism. Students will encounter theoretical concerns, environmental history, and have opportunities to produce their own environmental communication. Prerequisite: PCA 111 or PCA 127. *Cross-listed with Peace Studies.*

335. Sex Talk.

Sex Talk is an examination of dominant discourses around gender, sex and sexuality with the objective being to have students not only critically analyze these discourses but to interrupt their creation in order to foster counter discourses that challenge hegemonic norms, including misogyny and homophobia. We will explore youth culture and university cultures, and examine how these cultures create, are created by, respond to, and challenge patriarchy, hegemonic masculinities and femininities. The course culminates in students designing and delivering peer education programs/performances on campus. Prerequisite: PCA 111 or PCA 127. *Cross-listed with Peace Studies; dual-listed by Gender and Sexuality Studies.*

336. Rhetoric and Citizenship.

Throughout the course, students explore citizenship through the lens of rhetorical theory and history, study philosophical debates over citizenship, and debate the current state of citizenship in U.S. society. While engaged in these theoretical discussions, students enact their own civic engagement by examining their communities of obligation, identifying concerns in their communities, and using rhetoric to address a community concern. Prerequisite: PCA 111 or PCA 127. *Cross-listed with Peace Studies.*

338. Twentieth-Century Avant-Garde.

Students are exposed to theoretical writings, dramatic texts and performances that reflect the continuing experimentation in the theatre since the 1890s. Students examine artistic reactions to a post-Darwinian and post-Freudian worldview and are exposed to the various methods by which playwrights and theatre practitioners have grappled with finding new ways of articulating what it means to be human in an industrialized world. Prerequisites: PCA 107 or PCA 215. *Dual-listed by European Studies.*

340. Performance Art.

Students read essays about the historical tradition of performance art and the relationship between performance art, theatre, dance and the visual arts, and consider the work of contemporary performance artists such as Karen Finley, Spaulding Gray, Laurie Anderson, Rachel Rosenthal and Pina Bausch. Students also learn about performance art by doing it—by engaging in the process of creating and producing their own performance art pieces. Prerequisite: PCA 107, PCA 113, or 125.

342. Blogging the Globe: News Analysis and Investigative Journalism.

This course fosters the tools necessary to be critical readers and viewers of the news in a complex, globalized media environment while also giving students the opportunity to become investigative journalists themselves. In addition to examining patterns in how global events are covered in mainstream and independent/alternative media outlets in the U.S. and elsewhere, the course explores deeper structural issues concerning discourse, ideology and the representation of "other" cultures; the relationship between media, corporate and state power; and the role of institutions in defining the bounds of "legitimate" knowledge. Students in the course contribute to *The Weave*, an online public intellectual project, by researching and blogging about underreported stories. Prerequisite: PCA 111 or PCA 127. *Dual-listed by Global Studies.*

343. Taboo Performances

A rigorous, academic study of the ways that we read bodies in performance. The course uses a theoretical lens to examine what is deemed "acceptable" onstage versus what is considered "taboo" and the privilege wrapped up in those discourses. Course readings focus on dramatic literature, theory, and criticism. Students read plays which include taboo acts, engage with the criticism and theory of the dramatic literature, and frame the dialogue through performance and body theory. Fulfills DIV13 requirement (2013 curriculum)

355. Studies in World Dramatic Literature.

The study of dramatic literature primarily produced outside the United States and Great Britain. Focus may be upon cultural coherence (e.g., Francophone dramatic literature), discrete dramatic movements on a particular continent (e.g., South African drama), shared thematic concerns (e.g., the role of women) or a period-specific examination of non-Anglo drama. Prerequisite: varies. Prerequisite: PCA 107 or PCA 125.

360. The Public Sphere of Renaissance Venice.

At the peak of its Renaissance period (1480-1530), the Republic of Venice presented itself as a perfect embodiment of Plato's and Aristotle's classical republican model. At the same time, it reached a significant hegemonic position in the Western world measured both by hard (military and economic) as well as soft (political philosophy, arts and architecture) standards of power. This course is conceived as a multidisciplinary reading and research seminar examining the complexity of the public life in the famous Italian city-state. Instructor's permission required. *Dual-listed by Economics, Government, Global Studies, History, Modern Languages (ITAL) and Philosophy.*

361. London Coffeehouse Culture & Modernity.

German philosopher Jürgen Habermas famously described the culture of the early 1700s London coffeehouses as the spark that kindled the advent of modern democracy. Indeed, the last licensing act in England expired in 1695 and with it also the censorship of press. Within the next decade, London was flooded with newspapers and pamphlets that openly scrutinized practically all aspects of public, but also private life. They were read and discussed in coffeehouses that soon became social institutions of their own right. Yet, such idealized world of London coffeehouses also had another, much darker side. Relying on secondary sources as well as original newspaper articles, essays and pamphlets published mainly by Addison, Steele and Defoe, the proposed course's main goal is to help students mentally recreate the atmosphere of London at the dawn of what we call the Enlightenment era. Prerequisite: PCA 111 or PCA 127. *Dual-listed by English.*

370. Against Health: Rhetoric & the Health Humanities.

The links between rhetoric and health reach back to Plato, who famously compared the practical art of medicine to the sham art of rhetoric. According to Plato, medicine was concerned with improving lives and health, and rhetoric was concerned only with improving the appearance of things. This course will flip Plato on his head. By approaching health and medicine as always rhetorically mediated, we will interrogate the emphasis on healthy living that pervades the civic sphere. Our primary objective will be to consider how health, wellness, and sickness are influenced by rhetorical norms and practices; how patient-provider interaction, institutional imperatives, and public deliberation structure health care opportunities and decision-making; how medical discourses influence health care practices and policies; and what these

reveal about the character and function of the rhetorical shaping of health. Readings will delve into topics such as AIDS, contagion, cyberchondria, depression, obesity, and zombies. Prerequisite: PCA 111, PCA 127, or BIOL 3057.

371. By Design

Imagine you've been charged with producing an ad campaign that promotes fair trade coffee for three very different target audiences—say, college students, middle-aged housewives, and the folks who do the purchasing for major restaurant chains. What media would you use to reach each of these audiences? Billboards? Ads on buses and subway trains? Direct mail flyers? Newspaper spots? Radio PSA's? Television PSA's? YouTube videos? A website? Cell phone apps? How would the texts targeting each of the three target audiences differ from one another? How would you justify the media choices and persuasive strategies you selected for each audience? These are the sorts of questions that students enrolled in this course will confront. While some attention will be paid to persuasive texts produced by others and to classical and contemporary theories of persuasion, this will be a project-driven course in which students research a social issue of their own choosing and learn to use a variety of software programs (e.g., Photoshop, In Design, Audacity, & Final Cut Pro) to create a persuasive campaign that targets at least three specific audiences. No prerequisites. Fulfills ARTS Distribution (2013 curriculum).

4000-4999. Special Topics in Rhetoric/Communication Studies.

The content of each course or section of these 300-level or 400-level special topics courses varies and will be announced each semester.

4000-4999. Special Topics in Theatre/Performance Studies.

The content of each course or section of these 300-level or 400-level special topics courses varies and will be announced each semester.

480. Independent Study.

Supervised research on an independent basis. Students wishing to register for independent project credit must submit a proposal for approval before registering for this course. Proposals are due two weeks before the end of classes in the prior semester. Proposal guidelines are available in the Arts Office; proposals should be submitted directly to the faculty member whom the student wishes to supervise the independent study. Only juniors and seniors may propose independent projects. Prerequisite: permission of department chair.

489/490. SYE: Senior Project.

Supervised research on an independent basis. Students wishing to register for independent project credit must submit a proposal for approval before registering for this course. Proposals are due two weeks before the end of classes in the prior semester. They should be submitted directly to the faculty member whom the student wishes to supervise the independent study. Proposal guidelines are available in the department chair's office. Only juniors and seniors may propose independent projects.

498/499. SYE: Honors Senior Project.

The senior project is a capstone designed to allow students to demonstrate their ability to synthesize the analytical and practical skills associated with the discipline. Only those students who have had their senior project proposal approved by the department may register for this course. Proposals are due two weeks before the end of classes in the prior semester. A copy should be submitted to all department members' mailboxes. Proposal guidelines are available in the department chair's office. Students are assigned a three-person honors project committee, one of whom will be designated as the student's primary senior project advisor, with the other two serving as readers. Students must orally defend their project. Project Proposal Guidelines are available in the Arts Office. Students are assigned a senior project advisor who is solely responsible for overseeing the execution and evaluation of the project..

498/499. SYE: Honors Senior Project.

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Philosophy

Major and minor offered

See also Environmental Studies-Philosophy Combined Major

Visit the philosophy webpage at www.stlawu.edu/philosophy.

Major Requirements

A major in philosophy consists of 10 courses, distributed as follows:

1. Core Courses (5)
 - 201 Ancient Philosophy
 - 202 Reasoning
 - 203 Ethical Theory
 - 208 Modern Philosophy
 - 223 Asian Philosophy OR 232 Africana Philosophy

Students are strongly encouraged to begin their philosophical studies with 100, 103 or 120, since a 100-level course is often a prerequisite for core courses. The core courses do not have to be taken in any particular sequence, but we strongly recommend that students take 201 and 208 in sequence in their sophomore year.

2. Electives (4)

At least two electives must be at the 300 level and only one 100-level course may count toward the major.

3. SYE course or course sequence (1)

Normally PHIL 400 Metaphilosophy

Or PHIL 498-499: SYE Honors Thesis (for students eligible for honors and interested in writing an honors thesis).

Honors

To receive honors in philosophy, a student must satisfy the requirements for the major. In addition, he or she must have a 3.5 grade point average in the department and complete a departmentally approved honors project (PHIL 498/499) as his or her SYE.

Minor Requirements

A minor in philosophy consists of five to nine courses that must include:

1. 202 and 203
2. 201 and/or 208
3. 223 or 232
4. Only one 100-level course counts toward the minor.

Preparing for Graduate Studies in Philosophy

Majors considering graduate school in philosophy are strongly advised to take PHIL 302, Symbolic Logic, plus an advanced course in the subfield of philosophy they may wish to specialize in at the graduate level. Those aspiring to graduate school in philosophy should also plan to write a senior thesis.

Preparing for Law School

A philosophy major or minor offers an excellent background for the study of law. A student who wishes to go to law school is strongly advised to take PHIL 202, Reasoning, and PHIL 302, Symbolic Logic. PHIL 206, Political Theory, is also recommended.

Courses

100. Introduction to Philosophy.

A launch-course into the wide world of philosophical inquiry that approaches the field through consideration of such perennial problems as ultimate reality, free will, knowledge, morality, political obligation and the existence of God. Depending on instructor, this course may also explore some aspects of social identity, such as race and gender, from a philosophical perspective. No prerequisites.

103. Philosophy East and West: An Introduction.

A thematic introduction to philosophy, taking a comparative approach, looking at philosophy not only of the Western tradition, but also of the Eastern tradition. Themes include the idea of a “good life,” ethics, knowledge, reality, the self, and aspects of social identity such as race and gender. We critically explore both the commonalities and differences across the traditions. Students learn how to analyze difficult philosophical texts and arguments critically, develop writing skills and ask and answer questions in a philosophical manner. *Also offered as ASIA 213.* No prerequisites.

120. Introduction to Peace Studies.

The purpose of peace studies is to explore the potential for nonviolent methods of building social, political and economic justice. This course intentionally searches for alternative ways of understanding conflict. We ask questions such as, Can we define “peace” in more positive terms than the unrealistic “absence of conflict”? Can conflict be positive or even transformative? Are “peacemakers” different from the rest of us? Can we all learn to live harmoniously with others who are very different from us? What are ways to cultivate the inner peace that gives people the strength and insight to deal with conflict creatively and positively? *Also offered as PEAC 100.* No prerequisites.

201. Ancient Philosophy.

A historical study of Western philosophy from its beginnings in ancient Greece through the end of the classical period, with primary emphasis on Plato and Aristotle. Representative original works are read dealing with such problems as reality, the self, knowledge and value. Prerequisite: any 100-level philosophy course or permission of the instructor. *Also offered through European Studies.*

202. Reasoning.

Critical reasoning is the ability and tendency to be moved by good reasons and not by poor ones. This course examines arguments—how to identify them, how to evaluate them, and how to produce them—so that students will be better prepared to reason critically about issues of importance to themselves and to society. Topics may include both the formal and informal evaluation of arguments, scientific reasoning, and fallacious reasoning. No prerequisites.

203. Ethical Theory.

An introduction to ethical theory, drawing on texts from the Greeks to the present. What is the nature of moral obligation? What character traits are human virtues and vices? How do we discern goodness and evil? How do we justify

ethical judgments of any kind? This is an appropriate selection for students with some previous experience in philosophy and provides an important background for further study in philosophy or other disciplines. Prerequisite: any 100-level philosophy course. *Also offered through Peace Studies.*

206. Introduction to Political Theory.

A study of the answers that philosophers from Plato to Nietzsche have given to the question, “How should political life be organized?” This question leads us to consider the related problems of justice, power, equality, freedom and human nature. The course includes discussion of the strengths and weaknesses of liberal democracy. *Also offered as GOVT 206 and through European Studies and Peace Studies.*

208. Modern Philosophy.

This course examines the history of European philosophy through the “modern” period: the 17th and 18th centuries. This was an important period in that it gave birth to the phenomenon of “modern science” and was also the period of time in which science and religion became disciplines that separated out from philosophy. Fueling these changes were philosophical debates on the nature of knowledge and reality. The course explores both the systematic thinking of key philosophers of this era, and the historical development of the different viewpoints on these topics. Prerequisite: any 100-level philosophy course or permission of instructor. *Also offered through European Studies.*

216. Philosophical Perspectives on Sport.

The study of ethics and moral reasoning is introduced through the lens of sport. Topics such as moral skepticism, ethical relativism, utilitarianism vs. Kantianism, competing concepts of impartiality, the care vs. justice perspective, positive vs. negative duties and the doctrine of double effect are explored. Students will be asked to evaluate their own opinions, beliefs and attitudes that govern their judgment and/or actions within the realm of sport. *Also offered through Sports Studies and Exercise Science.*

223. Asian Philosophy.

The aim of this survey course is to provide students with a *broad introduction* to some of the key thinkers and concepts of some of the major traditions in Asian philosophy: Indian Philosophy, Chinese Philosophy and Japanese Philosophy. The course uses Buddhist philosophy as a *fil conducteur* or guiding thread to narrow the focus, but also covers some non-Buddhist Asian Philosophies. We pay particular attention to the themes of reality, knowledge, self, and ethics, and students have an opportunity for experiential learning. *Also offered through Asian Studies.* Prerequisite: any 100-level philosophy course, or permission of the instructor.

232. Africana Philosophy.

This course engages a set of questions that emerge out of three interrelated bodies of philosophic literature—African philosophy, Caribbean philosophy, and African-American philosophy—which comprise an inclusive category of African diasporic thought (or Africana philosophy). We read texts on the metaphilosophical question, “What is Africana philosophy?” We also engage several philosophers on the political philosophical concerns and legacies of colonization and American slavery, and on the epistemological and ethical questions of Race and racism. Prerequisite: any 100-level philosophy course or permission of the instructor. *Also offered through African Studies and African-American Studies.*

290. Gender and Feminist Theory.

This course examines theoretical explanations of gender, gender difference and gender inequality in society. It includes introductions to some of the questions that shape contemporary feminist theory, feminist writings in multiple disciplines and feminist movements inside and outside the academy. The focus is on how an awareness of intersections of race, class, sexuality, gender and ethnicity is vital for disciplinary and interdisciplinary study in feminist theory. Theoretical works are drawn from the humanities, arts and literature and the social sciences. Prerequisite: GNDR 103. *Also offered as GNDR 290.*

301. Philosophy of Science.

Why does science produce such reliable knowledge? Is there really a “scientific method”? Does science get at truth, or is scientific knowledge socially constructed? In addition to these questions, we consider whether science advances according to a steady and rational process, or whether it advances according to radical “scientific revolutions.” We also try to identify what (if anything) distinguishes scientific knowledge from other kinds of knowledge, and reflect on whether scientific knowledge is comprehensive enough to constitute a complete world-view. Prerequisite: any 100-level philosophy course, PHIL 202, or permission of the instructor. *Also offered through European Studies.*

302. Symbolic Logic.

A study of elementary symbolic logic. Topics include sentential and predicate logic, some philosophy of logic, and Gödel’s Theorem. Prerequisite: Philosophy 202 or permission of instructor. *Also offered through Computer Science and Mathematics.*

303. Philosophy of Science and Religion.

In this course, we examine the nature of scientific knowledge by studying the formulation of the “scientific method” during the logical positivist movement in the early 20th century. Logical positivism failed, and both its rise and fall left us in an epistemological crisis. One effect of this crisis is the common view that science and religion are incompatible. But are they really incompatible? In this course, we will examine the nature of scientific knowledge and religious knowledge, and you can draw your own conclusions! Prerequisites: any 100-level philosophy course, PHIL 202, or REL 102.

310. Environmental Philosophy.

What obligations, if any, do we have towards the environment? What changes should we make in our own lives in light of those obligations? How does material consumption relate to our happiness? If we can be happy consuming less, why do so many of us continue to consume so much? How do our attitudes towards the environment reflect our social position? What is the difference between the natural and the artificial? This course examines such questions in order to come to grips with our relationship with the environment, and what these ideas mean for the way we lead our lives. Students will explore these questions in relation to the global community, to our local community, and in relation to their own lives and choices. Prerequisite: any 100-level philosophy course, or Environmental Studies 101, or permission of the instructor. *Also offered as ENVS (Philosophy of the Environment) 310, ODST 310, and through Peace Studies.*

327. Phenomenology and Existential Philosophy.

Phenomenology is the study of human experience and of the ways things present themselves to us in and through such experience. The core principle of phenomenology is the doctrine of “intentionality.” Every experience, every act of consciousness (seeing, hearing, smelling, remembering, etc.) is intentional: it is always an “experience of” or “consciousness of” something. Existentialism combines the phenomenological tradition of Husserl and Heidegger with the earlier forms of existential philosophy found in such thinkers as Kierkegaard and Nietzsche. Freedom, responsibility, the nature of being, the individual, community and communication are all themes of existential philosophy. The modern existentialism of Sartre, Camus, Merleau-Ponty, and Beauvoir take up the themes of the creation, destruction and reevaluation of meaning in life when there is no absolute standard by which to judge or measure our actions. Prerequisite: PHIL 201, 203, 208, 223, 232 or permission of the instructor. *Also offered through European Studies.*

333. Ethics of Global Citizenship.

This research seminar is designed to address, from a philosophical perspective, some of the difficult ethical questions arising from the global organization of the world. Readings include classical, non-Western and alternative theories of justice and peace. The course interrogates the discourses surrounding patriotism and cosmopolitanism, peace and violence, terrorism and war, justice and retribution, and the debates surrounding relativism versus universalism, especially with regard to the claims for human rights. Students undertake research projects dealing with the ways these issues are being negotiated in countries where they studied abroad, and develop ethical positions on their own responsibilities toward global citizenship. *Also offered as GS 333 and through Peace Studies.*

334. Feminist Philosophy.

In this upper division inquiry based seminar we explore the relationship between ways of knowing and ways of being-in-the-world through textual analysis of feminist philosophical texts on epistemology and ethics. After an introduction to feminist ways of knowing, and readings addressing specific topics of concern for feminist philosophers in the first part of the course, we then engage in readings around a particular theme in feminist philosophy. Themes have included, but are not limited to: the body, the self, intersections of race, class, sexuality, gender and ethnicity, Asian feminist philosophy, contemporary issues. Prerequisite: PHIL 201, 203, 208, 223, 232, GNDR 290 or permission of the instructor. *Also offered as GNDR 334.*

343. Political Theories of Violence and Nonviolence.

Carl von Clausewitz famously remarked that “war is a continuation of politics by other means,” which suggests that politics is intimately connected with violence even as it seeks to avoid it. In this discussion-based seminar we will examine how key figures throughout the history of political thought have conceptualized the relationship between politics, violence, and non-violence. Topics covered in the course include just war theory, the role of violence in the state, non-violent civil disobedience, and revolutionary violence associated with working class and anti-colonial struggles. *Also offered as GOVT 345 and through European Studies and Peace Studies.*

350. Philosophy of Mind.

This course examines the nature of the mind. Is your mind the same thing as your brain? What is consciousness? Could a computer think and feel like we do? How is that we are able to think about the world outside of our own heads at all? Drawing on work in philosophy, psychology, neuroscience, and artificial intelligence, this class investigates questions about the conceptual foundations of the various ways in which we try to understand the mind and brain. Students will not only develop a better understanding of these central questions, but also explore the interplay between philosophical and empirical approaches to a shared problem.

354. Biomedical Ethics with CBL

This course gives students the theoretical and conceptual tools necessary for sophisticated reflection on contemporary ethical issues affecting medicine at large, and better prepares those pursuing a career in medicine for its ethical demands. Students are introduced to a wide array of philosophical approaches to medical ethics, as well as to a varied selection of concrete ethical issues in the medical field. Through a community-based learning component, this course also gives students insight into some of the specific health needs and challenges in the North Country. The Community-Based Learning component further enhances reflection on the difference between ethical thinking in theory and in practice, and promotes understanding of the role that contextual, situated, and experiential knowledge plays in making astute ethical judgments.

359. Philosophy of Language

Language is ubiquitous in our lives. We use it in class, we use it to talk to friends, to read great works of literature, to harm others, to tell jokes, and perhaps, even to think. Our use of it is so common, that it almost begins to seem transparent. We forget we are using language, and we forget what a simply astonishing fact it is that we can understand each other at all. When we think about language, we usually have in mind learning this or that language. But how does language work in the first place? How do words get their meaning? How do the meanings of sentences arise out of the meanings of words? How do words relate to things in the world? How does language relate to thought? How can we use language to communicate rich, context-sensitive meaning? What is a language? In this course, we will investigate the complex and fascinating issues that arise when we turn our attention onto the very ability we use when doing everything from philosophy to texting friends.

367. Feminist Post-colonial Theory.

Post-colonial theory addresses issues of identity, culture, literature and history arising from the social context of colonization, resistance to colonization, liberation from colonization and the formation of new nations. It crosses the boundaries of the social sciences and humanities in its approach to theory and analysis of the discourses used to constitute colonial and post-colonial subjects. *Also offered as ENG 367, GNDR 367 and GS 367.*

380. Philosophy of Peace.

In this course we explore the meanings of terms such as peace, justice, conflict, violence, pacifism, conscientious objection, and civil disobedience, and we will consider the relationships among these terms. We will also consider questions such as: Is it possible to create a truly just world? Is it possible to respond to serious conflict or oppression nonviolently? Is the use of violent force ever justified? Is a “just war” possible? We will read classic works by philosophers and others on these topics. We will also reflect on our own identities, how power is constructed in our world, and will conclude the course by envisioning a better world and considering how to work towards creating it. Pre-requisite: any 100-level Philosophy course, or PEAC 100. *Also offered as PEAC 380.*

400. SYE Seminar: Metaphilosophy.

This course provides an opportunity for critical reflection on the nature and value of philosophy itself. What is philosophy? What are the methods of philosophical inquiry? Does philosophy have value in today’s world? We read what other philosophers, past and present, and in both Western and non-Western traditions, have had to say about these questions. Other members of the philosophy department will visit the class to share their own perspectives and methods. Students practice and reflect on a variety of philosophical methodologies and will be encouraged to clarify their own philosophical identities. Prerequisite: PHIL 201, 203, or 208, or permission of instructor. Limited to senior philosophy majors and minors.

402. Philosophy Tutorial.

Under faculty supervision, the student assists in the teaching of an elementary course in philosophy. Limited to majors.

468. SYE: Independent Study.

A one-semester SYE independent study option for students who are unable to complete an SYE in any other way. Students must complete an independent study project worthy of SYE designation under supervision of a faculty member. Prerequisite: permission of department chair.

469. SYE: Independent Study: Metaphilosophy.

Occasionally a student who wishes to take Metaphilosophy as an SYE is unable to take the seminar version of this course (which is only offered in the spring), either because of graduating at the end of fall semester, or because of scheduling conflicts in the spring with another course required for graduation. In those cases, the student can take the Metaphilosophy course as an independent study under supervision of a faculty member. Prerequisite: permission of department chair.

489,490. SYE: Research and Thesis.

Intended for students who are not eligible for honors but wish to fulfill their SYE requirement by completing a philosophy thesis during the senior year. In the fall, the student registers for 489 and conducts research under the supervision of a faculty member. In the spring, the student registers for 490 and develops a philosophical thesis and defends it in a departmental seminar. Students interested in this SYE option must submit a research proposal in the spring of their junior year; these proposals will be considered after honors proposals are evaluated. Limited to majors.

498-499. SYE: Honors Research and Thesis.

Intended for students who are eligible for honors and wish to fulfill their SYE requirement by completing a philosophy thesis during the senior year. In the fall, the student registers for 498 and conducts research under the supervision of a faculty member. In the spring, the student registers for 499 and develops a philosophical thesis and defends it in a departmental seminar. Students interested in this SYE option must submit a research proposal in the spring of their junior year. Limited to majors.

Physics

Major and minor offered

Visit the physics department webpage at www.stlawu.edu/physics.

St. Lawrence offers interdisciplinary majors in biology–physics and geology–physics. For more information visit www.stlawu.edu/physics/biology-physics or www.stlawu.edu/physics/geology-physics.

Major Requirements

The requirements for a major in physics total 11.5 course units, which include three half-unit courses, PHYS 317, 318, and 452. PHYS 151, 152, 221, 222, 307, 308, 333, 489 (or 498) and one additional full-unit course at the 400 level make up the other ten course units. In preparation for senior-year research, we strongly recommend that physics majors take PHYS 452 in their junior year.

The three-course calculus sequence (MATH 135, 136, 205) should be completed as soon as possible. Since physics students make extensive use of computers, potential majors are advised to enroll in CS 140 during the sophomore year. Majors considering the possibility of graduate study in physics are strongly encouraged to take PHYS 401. Also recommended for the major are MATH 217 and 230 and CHEM 103 and 104, or CHEM 105.

Honors

To qualify for honors, students must fulfill the following requirements:

1. A major in physics that includes at least three units of 400-level work in physics, not including units earned in the seminar series 451-454.
2. Submission for departmental evaluation of a copy of an independent project undertaken in the senior year.
3. A minimum grade point average of 3.5 over all courses in the major. (See Honors in the Curriculum chapter of this *Catalog*.)

Minor Requirements

A minor in physics consists of PHYS 151, 152, 221, 222, plus one unit at the 300 level or above selected from the following courses: 307 or 333 or a combination of any two of 317, 318, and 452.

Basic Engineering Combined Plan

Students in the engineering combined plan who choose physics as a major must complete eight course units in physics, which include two half-unit courses, PHYS 317 and 318. PHYS 151, 152, 221, 222, 307, 308 and 333 make up the remaining seven units. Other requirements for the engineering combined plan are given here: <http://www.stlawu.edu/engineering-combined-programs>.

Certification to Teach Physics

Consult the Education section of this *Catalog*, the Education Department webpage at <http://www.stlawu.edu/education/undergraduate-programs>, and/or speak to the Coordinator of the Teacher Education program in the education department as early as possible.

Courses

102. Introduction to Astronomy. (*with lab*)

People of every time and culture have studied the skies, named the arrangements of stars and used the apparent motions of the sun and moon to mark time. This course, designed for the non-scientist, surveys the known contents of the universe and explores the dynamic natures of celestial objects through study of their motions, interactions and evolutions. To foster appreciation for the methods of science, naked-eye observations are required of each student and attention is given to Western culture's slow path toward understanding the cosmos and our place within it. Physics 102 is taught in studio format; lectures are combined with laboratory experiences, fostering interaction among the students and instructor. Major credit restricted.

103. College Physics. (*with lab* 1.25 units)

This course is the first of a two-semester sequence designed to provide a general survey of physics. It emphasizes the relationship between basic physical principles and observations, both in the laboratory and in everyday events around us. It covers topics in mechanics and wave phenomena. The mathematical level of presentation assumes elementary algebra and basic trigonometry. While it serves as the appropriate physics course for students in the life sciences, it is designed to be accessible to all who have an interest in the subject. There is one laboratory period per week in addition to class work. Offered Fall semester only.

104. College Physics. (*with lab* 1.25 units)

This course is the second of a two-semester sequence designed to provide a general survey of physics. It emphasizes the relationship between basic physical principles and observations, both in the laboratory and in everyday events around us. It covers topics in electricity and magnetism and modern physics. The mathematical level of presentation assumes elementary algebra and basic trigonometry. While it serves as the appropriate physics course for students in the life sciences, it is designed to be accessible to all who have an interest in the subject. There is one laboratory period per week in addition to class work. Prerequisite: PHYS 103 or 151. Offered Spring semester only.

105. Energy.

This course covers the nature of energy, its application in modern society and a variety of issues associated with that use. We will study the physical principles of mechanical, thermal, electrical, optical and nuclear energy in order to better understand the role of energy in society, focusing on fossil fuels, electric power plants, automobiles, global warming, the ozone layer and energy conservation, as well as nuclear, solar and other power sources. This course makes extensive use of elementary algebra and scientific notation. Major credit restricted.. *Also offered as ENVS 105.*

110. The Scientific Revolution.

This course covers the development of scientific thought in the period 1500 to 1725. It examines changing views of nature in the fields of anatomy and physiology, astronomy and physics. Although the primary focus is on specific scientific developments, they are discussed in the context of concurrent social, economic and religious changes. Major credit restricted. *Also offered as HIST 110 and through European Studies.*

112. Global Climate.

Climate is perhaps the single most important and pervasive factor controlling global ecosystems and human well-being. This interdisciplinary course examines global climate from a historical perspective, beginning with the formation of the solar system and continuing through geologic time to the present. Topics include the development of the atmosphere; the workings of the global heat engine of atmosphere, oceans and continents; evidence for past climate change; causes of global climate change; the effects of climate change on human evolution; and the effects of human evolution on the global climate system. This is a studio lab course. Major credit restricted. *Also offered as ENVS 112 and GEOL 112.*

151. University Physics. (*with lab* 1.25 units)

This course is the first of a two-semester sequence organized according to the major unifying principles of physics. It is a general study of conservation laws, Newtonian dynamics, and special relativity. The material is presented at the level of elementary calculus. There is one laboratory period per week in addition to class work. These courses are recommended

for all students majoring in the physical sciences or completing the 3+2 engineering program. Co-requisite: MATH 135. Offered Fall semester only.

152. University Physics. (*with lab* 1.25 units)

This course is the second of a two-semester sequence organized according to the major unifying principles of physics. It is a general study of electricity and magnetism, thermal and statistical physics, and the quantum nature of light and matter. The material is presented at the level of elementary calculus. There is one laboratory period per week in addition to class work. These courses are recommended for all students majoring in the physical sciences or completing the 3+2 engineering program. A grade of 2.0 or higher in this course is required as a prerequisite for enrollment in PHYS 221. Co-requisite: MATH 136. Prerequisite: PHYS 103 or 151. Offered Spring semester only.

221. Modern Physics. (*with lab* 1.25 units)

This course is the first of a two-semester sequence providing a systematic study of the ideas and discoveries that transformed physics in the twentieth century. Topics in this course include special relativity, atomic structure, the wave-particle duality, and basic quantum mechanics. There is one laboratory per week in addition to class work. Prerequisites: MATH 136 and a grade of 2.0 or higher in PHYS 104 or 152. Offered Fall semester only.

222. Modern Physics. (*with lab* 1.25 units)

This course is the second of a two-semester sequence providing a systematic study of the ideas and discoveries that transformed physics in the twentieth century. Topics in this course include the quantum mechanical model of hydrogen, statistical mechanics, and applications such as solid-state physics, nuclear structure and reactions, and elementary particles. There is one laboratory per week in addition to class work. Prerequisites: MATH 205 and a grade of 2.0 or higher in PHYS 221. Offered Spring semester only.

307. Classical Mechanics.

The principles of Newtonian mechanics at the intermediate level; topics include the dynamics of particles and rigid bodies, resonance, rotating reference frames, planetary motion, wave motion and Lagrange's equations. Prerequisites: PHYS 152, MATH 205.

308. Electricity and Magnetism.

This course is study of electricity and magnetism leading to Maxwell's equations and physical optics. Prerequisites: PHYS 152, PHYS/MATH 333 or permission of instructor.

311. Nineteenth- and Twentieth-Century Science.

In this course we examine a few of the major scientific developments of the 19th and 20th centuries in some detail. Topics include evolution, genetics and a synthesis of the two; the wave theory of light; the discovery of the atomic and nuclear structure of matter; and the Manhattan Project. We also examine the various ways historians of science construct the stories they write as well as some of the historiographic issues they face. *Also offered as HIST 311 and through European Studies.*

317. Instrumentation Lab. (0.5 unit)

This course is designed to introduce students to a variety of instrumentation used in the physics lab. Computer techniques for acquiring data and controlling experiments are taught. A primary goal of this lab is to foster a spirit of independence in the student researcher. Each student must complete an independent project. Co-requisite: PHYS 307 or permission of instructor.

318. Electronics Lab. (0.5 unit)

This course is designed to teach basic electronics. Students learn enough in this course to put together simple circuits such as voltage dividers, filters and amplifiers. A primary goal of this lab is to foster a spirit of independence in the student researcher. Each student must complete an independent project. Prerequisites: PHYS 152 and MATH 136.

333. Mathematical Methods of Physics.

Solving important problems in the physical sciences and engineering often require powerful mathematical methods. This course provides an introduction to these methods, and emphasizes their application to problems drawn from diverse areas of classical and modern physics. Some representative topics include the theorems of Gauss and Stokes; Fourier series; and selected techniques from the theory of ordinary and partial differential equations. The course also introduces students to Mathematica as an aid in visualization and problem-solving. Prerequisites: PHYS 152, MATH 205. Also offered as MATH 333.

401, 402. Quantum Mechanics.

Intended for physics majors preparing for graduate study in physics and closely related areas, this course applies methods of advanced analysis to quantum mechanics and other topics. Prerequisite: PHYS 307, 308 or permission of the department.

403, 404. Topics in Advanced Physics.

Seminars, projects or participation in faculty research designed to meet individual needs of advanced students. Offered on demand. Prerequisite: PHYS 307, 308 or permission of the department.

451, 452, 453, 454. Seminar in Contemporary Physics. (0.5 unit each)

A weekly seminar in which students and faculty present reports derived from the physics literature on current research in physics. Representative topics are solar neutrinos, high-temperature superconductivity, the search for gravity waves and quantum chaos. Students are introduced to physics literature and data bases. Students will assemble a comprehensive literature review and research project proposal on a topic of their choice to be presented to the department at the end of the semester. Secondsemester juniors can use this course as an opportunity to select their senior research project. Up to four semesters of enrollment are permitted, at one-half course unit per semester. Prerequisite: PHYS 222 or permission of the instructor.

489, 490, 498, 499. SYE: Advanced Laboratory.

This course for physics majors consists of an individual project selected from an area of common interest between the student and one faculty member. A written report of the project is defended at an oral presentation. PHYS 498 and 499 are the honors versions of this course. Prerequisites or co-requisites: PHYS 308, 317 and 318, or permission of the department.

Psychology

Major and minor offered

See also Environmental Studies-Psychology combined major

Visit the psychology department webpage at www.stlawu.edu/psychology.

Major Requirements

The major in Psychology requires a minimum of 9.75 units of credit: 8.75 units of psychology courses plus STAT 113. Required psychology courses are PSYC 101WL *or* 101NL *and* PSYC 205.

Six additional courses fulfill the minimum requirements for the major and must include at least one course from each of the following distribution themes: Biological/Evolutionary, Social/Cognitive, and Applied. At least one course must be a seminar or one of the independent project options offered. In addition, at least two courses must include a laboratory section after completing the research methods course. One of the laboratory courses must be from the Biological/Evolutionary theme and one must be from either the Social/Cognitive theme or the Applied theme. A single course may count toward both a distribution theme and the laboratory or seminar requirement.

Honors

Honors are awarded on the basis of quality point standing in psychology (see Honors in the Curriculum section of this *Catalog*) and successful completion of PSYC 498 and 499 (SYE: Senior Project) with a grade of at least 3.5 in PSYC 498 and 499; an “X” grade may be given in PSYC 498. Two types of projects are acceptable for the senior project:

1. Independent research involving either pure or applied investigation.
2. Independent study involving integration and critical analysis of research and theory in a given area of psychology.

The following are required for successful completion of the senior project:

1. Enroll in PSYC 498 and 499 (SYE: Senior Project) during the senior year.
2. Give a preliminary presentation of the proposed study to other students and faculty involved in the senior project course.
3. Attend colloquia of other senior project students and guest lectures.
4. Satisfactorily complete PSYC 498 and 499 with a minimum of 3.5 during the final two semesters on campus.
5. Give a formal colloquium or a poster or oral presentation at the Festival of Science on the completed project.
6. Provide the final project paper to the project supervisor.

Minor Requirements

The minor in psychology requires a minimum of 7.5 units of credit: 6.5 units of psychology courses plus STAT 113. Required courses are PSYC 101WL *or* 101NL *and* PSYC 205.

Four additional courses fulfill the minimum requirements for the minor and must include at least one course from each of the distribution themes discussed above. At least one course must be a seminar or one of the independent project options offered by the Psychology Department. In addition, at least one course must include a laboratory section. A single course may count toward both a distribution theme and the laboratory or seminar requirement.

Other Important Information

PSYC 205: Research Methods and courses with laboratory at the 300- and 400-level are worth 1.25 units and must be taken at St. Lawrence. Some courses with a laboratory section can be taken without the laboratory. Currently, students can register for PSYC 326, PSYC 327, and PSYC 402 without the laboratory -section. These courses are worth 1.0 unit and fulfill the same distribution theme as the course with lab.

To receive laboratory credit in a course, other than PSYC 101WL: Introductory Psychology, a student must earn a passing grade for both the laboratory and lecture components of the course. A failing grade for the laboratory component will result in the student being re-registered into a non-laboratory (lecture) section; the student will need to complete another course with laboratory to fulfill the requirement.

Once a student matriculates at St. Lawrence, only 1.0 unit of transfer credit taught by a non-St. Lawrence psychology professor may count toward the minimum number of required units in the major. If a matriculated St. Lawrence student wishes to take a course at another college or university for transfer credit, the student and the department chair should agree in advance on the appropriateness of the course(s) and which of the requirements, if any, will be satisfied.

A transfer student and the student’s advisor should confer with the department chair about the student’s transferred psychology courses and which requirements remain to be filled.

Students earning a 4 or 5 on the advanced placement exam in Psychology may earn credit for PSYC101NL: Introductory Psychology without lab and may enroll in an upper-level Psychology course. A listing of courses currently taught on a regular basis by their distribution theme and seminar, independent project or lab designation can be found on the department website.

Courses

101WL and 101NL. Introductory Psychology. (*with lab and without lab*)

This course surveys the scientific study of behavior and mental processes as natural phenomena. Basic psychological areas such as biopsychology, perception, learning, memory, motivation and emotion are typically addressed. Broader, integrated topics such as development, personality, and social and abnormal psychology are also explored. Students who enroll in 100WL gain additional focus on how psychologists formulate research questions, gather data and interpret findings based on the major conceptual approaches in the field of psychology. PSYC 101WL or 101NL is a prerequisite for all other courses, and is also required for the neuroscience major.

3000-3999. Special Topics for Non-Majors.

These courses are offered occasionally in specific areas of psychology at an intermediate level between Psychology 101 and advanced-level courses. Topics and formats vary depending upon the instructor. The content of each course or section will be announced each semester. Prerequisite: PSYC 101WL or 101NL.

205. Research Methods in Psychology.

This course presents students with conceptual approaches and practical techniques for applying the scientific method to behavioral research. Students learn about observational, correlational and experimental research designs and have the opportunity to apply these designs in the laboratory while investigating relevant psychological phenomena. Appropriate statistical procedures and computer software are used to analyze the data from these labs; therefore, students must take a course in statistics prior to 205. This course also covers research ethics and emphasizes effective communication through scientific writing and oral communication. Counts toward the minor in statistics and the neuroscience major (behavioral track). Prerequisites: PSYC 101WL or 101NL, an additional Psychology course at any level and STAT 113; or permission of the instructor.

207. Developmental Psychology.

This course is intended to describe and explain the changes in behavior that occur with the passage of time from conception until death. While emphasis is placed on the early years of most rapid change, appropriate topics are covered throughout the life span. As the mature individual is a product not only of his or her own life history, but also of the history of our species, there is some discussion of evolutionary theory and developmental data gathered on other species. Prerequisite: PSYC 101WL or 101NL.

215. Cultural Psychology.

This course is designed to introduce students to current theories and research about the ways in which our sociocultural contexts influence human mind and behavior. Topics will highlight cultural similarities and differences in basic psychological processes, including human development, personality, motivation, cognition, emotion, health, morality, and social relationships. Students will also learn how to consider issues of culture in interpretation of personal experience and in application of cultural diversity issues to various settings. Prerequisite: PSYC 101WL or 101NL. *Also offered through Peace Studies.*

232. Laboratory Animals: Ethics, Care and Techniques. (0.5 unit)

This half-unit course introduces students to the techniques, use and care of laboratory animals. Students gain knowledge and hands-on experience in the areas of anesthetics/analgesics, surgical techniques and proper animal handling and husbandry. Topics covering the ethical use of animals in research, appropriate and humane care, and the functions of regulatory agencies are covered. Concurrently, students explore the relationships between humans and animals used in teaching and research. Prerequisite: PSYC 101WL or 101NL or BIOL 101 or permission of instructor.

233. Neuroscience of Fear (*Summerterm study abroad*)

Brain structures that control the fear response are shared across humans, mammals, birds, and reptiles. These structures have been evolutionally preserved because fear helps to protect us from danger, injury, and death. Though the dangers of modern society differ substantially from those of our ancient past, aspects of our primal fear instincts remain. Are such

emotions merely intrusions from another time or do they still have a function in our consciousness today? With a focus on the fear response, we will examine the evolutionary aspects of emotions, how they are displayed in infancy, develop over time, and tie into decision-making in our everyday lives. We will examine this issue from a multidisciplinary perspective, synthesizing recent work from the fields of biology, developmental psychology, neuroscience, and philosophy.

238. Psychology and Law.

This course explores the contributions psychological science can make and has made to legal policy and the legal system through examination of several topics within the field of psychology and law. Students will also learn about legal concepts and the functioning of the legal system. Topics may include eyewitness identification, child witnesses, alternative dispute resolution, the insanity defense, jury behavior and capital punishment. Prerequisite: PSYC 101WL or 101NL.

253. Personality.

Personality theories provide a framework with which to understand a person's development, motivation and behavior. This course examines traditional and contemporary theories of personality, focusing on representative theorists from the psychoanalytic, trait, behavioral, cognitive and phenomenological approaches. Evaluation of theories on logical and empirical grounds is discussed. Prerequisite: PSYC 101WL or 101NL.

255. Sport Psychology.

This course is designed to develop an understanding of human behavior and mental processes in sport and exercise settings. Topics examined include (a) psychosocial aspects (e.g., motivation, psychological responses to injury, aggression) involved in the sport training process and competition among adults, youth and children at all skill levels; (b) psychological skills training for athletic performance (e.g., relaxation, self-talk); (c) social influences (e.g., leadership, cohesion); and (d) major exercise psychology concepts and issues (e.g., exercise adherence, motives for participation, and exercise and psychological well-being). Prerequisite: PSYC 101WL or 101NL.

313. Industrial/Organizational Psychology.

Designed to acquaint the student with major applications of psychological findings and techniques to problems of management and industry, this course includes human factors engineering, personnel procedures and organizational behavior. Prerequisite: PSYC 101WL or 101NL and STAT 113. *Also offered through Peace Studies.*

317. Abnormal Behavior.

This course is designed to study the major psychological disorders, and how stress plays a role in their appearance and severity. The course uses case histories, lecture, movie excerpts, discussion, and extensive use of primary literature to explore the latest thinking in how our biology, psychology, and social environment intertwine to create mental illness and mental health. Prerequisite: PSYC 101WL or 101NL.

318. Environmental Psychology. (*with lab*)

This lecture-laboratory course studies the relationships between humans and physical environments — both natural and built. Topics include environmental assessment, attitudes and behavior toward the environment and the psychological effects of such environmental factors as crowding, architectural design, extreme environments, pollution and natural disasters. The laboratory is required of all students. Prerequisite: PSYC 101WL or 101NL; if taken for psychology credit, PSYC 205. *Also offered as ENVS 318 and through Peace Studies.*

322. Positive Psychology. (*with lab*)

While there is no shortage of lay theories and self-help literature that offer advice on how to achieve “the good life,” this lecture-laboratory course will examine the nature of positive emotions and well-being from the viewpoint of empirical psychology research. Recent empirical research will be reviewed, and students will apply the information in class discussion, written assignments, and hands-on experiences. By examining the relationship between happiness and such topics as life circumstances, character strengths, the conflicted mind, reciprocity, social relationships, trauma, and

spirituality, we will understand and apply empirically-supported ideas for enhancing well-being. Prerequisite: PSYC 101WL or 101NL and PSYC 205. *Also offered through Peace Studies.*

325. Social Psychology. *(with lab)*

This lecture-laboratory course covers the theory and research of how individual humans think, feel, and behave when influenced by their social environment. Topics include the social self, thinking about people and situations, attributions, attitude formation and change, conformity, affiliation and attraction, altruism, aggression, prejudice and group dynamics. The laboratory is required of all students. Prerequisite: PSYC 101WL or 101NL and PSYC 205. *Also offered through Peace Studies.*

326. Hormones and Behavior. *(with lab and without lab)*

This lecture-laboratory course provides an introduction to the field of behavioral endocrinology. The interplay between hormones and behavior is explored by reviewing current knowledge derived from human and animal research in the field. Topics include the influence of hormones on reproductive behavior, parental behavior, aggression, sexual orientation, moods and emotions, psychiatric disorders and perceptual and cognitive abilities. Environmental and experiential influences on endocrine function are also examined. May be taken as an elective toward the neuroscience major (behavioral track) with permission of instructor. Prerequisites: PSYC 101WL or 101NL; if taken for laboratory credit, PSYC 205.

327. Sensation and Perception. *(with lab and without lab)*

This is a lecture-laboratory course that examines from multiple perspectives the ways in which humans and lower animals perceive and react to the world around them. All of the major senses are covered, with particular emphasis on vision and hearing. Topics include perceptual development, color perception, visual illusions, taste and smell perception, brain disorders and perception, perception of music, psychophysics, visual and hearing impairment, and pain perception. Counts toward the neuroscience major (behavioral track). Prerequisite: PSYC 101WL or 101NL; if taken for laboratory credit, PSYC 205.

4000-4999. Special Topics for Majors & Minors

These courses cover special topics not regularly offered in the curriculum. The courses are designed for juniors and seniors and are taught in either a seminar or a regular class format, possibly with laboratory. The content of each course or section will be announced each semester. Prerequisite: PSYC 101WL or 101NL and sometimes PSYC 205; may be restricted to Psychology majors and minors.

401. Fundamentals of Learning. *(with lab)*

A lecture-laboratory course covering the major psychological principles that underlie behavior and its modification through environmental manipulation. An emphasis is placed on the experimental analysis of human and non-human behavior. Topics include the theoretical and historical underpinnings of a science of behavior, classical and operant conditioning, aversive control, choice and preference, conditioned reinforcement, behavior modification, and Applied Behavior Analysis. Counts toward the neuroscience major (behavioral track). Prerequisite: PSYC 101WL or 101NL and PSYC 205.

402. Memory and Cognition. *(with lab and without lab)*

This lecture-laboratory course (can be taken with or without lab) offers a fairly comprehensive study of human cognition. In addition to extensive coverage of human memory, the course includes an analysis of such major areas as object perception, attention, semantic organization, decision-making, problem-solving, and human intelligence. Where possible, students consider evidence that sheds light on the neural correlates of cognition, drawn mainly from the related disciplines of neuropsychology and cognitive neuroscience. In addition to providing an introduction to leading theories and empirical findings, the course also examined several applied domains, such as repressed and recovered memories and eyewitness testimony. Counts toward the neuroscience major (behavioral track). The lab emphasizes the use of classic and contemporary empirical techniques to understand the nature of mental representations that underlie various phenomena

in the domains of basic and applied cognition. Prerequisites: PSYC 101WL or 101NL; if taken for laboratory credit, PSYC 205.

413. Community Psychology.

This seminar-internship course has two objectives: to provide an introduction to some basic issues, concepts and methods in community psychology; and to offer experiential learning through an internship placement in a community setting (approximately 80 hours over the course of the semester). Topics include the ecological perspective, stress and coping, and prevention and evaluation research. Possible internships include Head Start, nursing homes, and mental health-related hospital units and residential centers; a small number of students may participate in a community research project as their internship. Students are required to meet with the professor prior to registration, and generally internships are arranged, with assistance from the instructor, in the semester prior to enrollment. Prerequisites: PSYC 101WL or 101NL, PSYC 205 and permission of instructor.

423. Psychology of Morality

In this seminar, we will explore the causes of good and evil from a social and cultural perspective. More specifically, we will learn about the ways in which social and cultural forces influence the psychological processes involved when individuals try to make decisions about what is right and what is wrong. We will also discuss issues and controversies in the study of morality, as well as the implications of moral decision-making for individuals and societies around the world. Prerequisites: PSYC 101WL or 101NL and PSYC 205.

432. Animal Behavior.

This lecture-laboratory course examines various forms of behavior as they appear throughout the phylogenetic scale. The roles of evolution, genetics and the neural system in the control of diverse behaviors from feeding to territoriality and human aggression are considered. Counts toward the neuroscience major (behavioral track). Prerequisite: PSYC 101WL or 101NL and PSYC 205.

438. Human Neuropsychology.

This seminar course will examine the function of the human nervous system as it relates to cognition and behavior. Topics covered will include: language, attention, memory, motor skills, visual-spatial processing, problem solving, emotion, and consciousness. Special attention will be paid to the modern methodologies used to study brain-behavior interactions in normal and neuropathological populations. Lectures, discussions, and projects will make use of both empirical and clinical case materials. Prerequisites: BIOL/NRSCI 288. *Also offered as NRSCI 438.*

442. Intellectual and Developmental Disabilities.

An examination of the area of intellectual and developmental disabilities (e.g., mental retardation, autism, epilepsy, attention deficit hyperactivity disorder) with primary emphasis on intellectual disability, previously called mental retardation. Among topics considered are the influence of biological and psychological factors in producing disabilities; cognitive and personality characteristics associated with the different levels of intellectual disability; assessment of intelligence and adaptive behavior; and societal intervention through community services, educational placement and treatment programs. On-site visits to residential facilities are generally scheduled. Prerequisites: PSYC 101WL or 101NL, and PSYC 205 or PSYC 207, or permission of the instructor.

443. Introduction to Clinical Psychology.

This course examines the field of contemporary clinical psychology, focusing on the problems and procedures related to psychological diagnosis, the interaction between theory and practice, and important aspects of research in clinical populations. Prerequisites: PSYC 101WL or 101NL and PSYC 317.

456. Health Psychology

Health psychology is an applied field devoted to understanding psychological influences on health and illness in our society. This course examines a variety of social and behavioral factors that affect our physical well-being, including the

impact of life stress on the immune system, the influence of personality factors on specific illnesses and the relationship between doctor-patient interactions and adherence to medical advice. Other topics include obesity, heart disease, stress management and behavioral therapy. Prerequisites: PSYC 101WL or 101NL

461. Psychological Science and Critical Thinking.

Do you know people who believe that: psychics can communicate with the dead, Bigfoot exists, homeopathic medicine is effective, houses can be haunted, people have been abducted by aliens, some folks are literally possessed by the devil, and vaccines are a cause of autism? In this seminar we will examine the evidence behind a variety of claims that generally fall under one or more of the overlapping headings of parapsychology, the paranormal, pseudoscience, or alternative medicine. More importantly, what psychological processes and statistical errors help us to understand the development of such beliefs? Prerequisites: PSYC 101WL or 101NL, PSYC 205, and permission of the instructor. Interested students without the recommended background should see the instructor.

468,469. SYE: Independent Research.

This course offers an opportunity for seniors to engage in empirical research. Prerequisites: Psychology 101WL or 101NL, PSYC 205, senior status and permission of instructor.

471,472. Independent Study in Psychology.

This course offers students the opportunity to engage in in-depth documentary investigation of a particular topic in psychology. Prerequisites: PSYC 101WL or 101NL and permission of instructor.

489, 490. SYE: Independent Study.

This course offers senior students the opportunity to synthesize, integrate and expand their knowledge in the field of psychology by engaging in detailed documentary investigation of a particular topic in psychology. Prerequisites: PSYC 101WL or 101NL, PSYC 205, senior status, and permission of instructor.

496, 497. Independent Research in Psychology.

This course offers students the opportunity to engage in empirical and/or experimental research in psychology. Prerequisites: PSYC 101WL or 101NL, PSYC 205, and permission of instructor.

498, 499. SYE: Senior Project.

In this two-semester capstone course, students integrate acquired research skills and/or subject knowledge. Students are credited with 0.5 units in 498 and 1.0 unit in 499. Requirements include a proposal presented to faculty and other senior project students; a final colloquium on the project and/or a poster or oral presentation at the annual Festival of Science; attendance at colloquia of others doing senior projects; and a final written paper to be bound and filed with the department, the project supervisor, and the library. Prerequisites: PSYC 101WL or 101NL, PSYC 205, senior status, and permission of instructor.

Public Health

Minor offered

Students are strongly encouraged to meet with a public health advisor or the program coordinator when declaring the minor to select courses and discuss personal goals for the minor.

To earn the interdisciplinary minor students must complete the following requirements (with details provided below):

Five Units of Coursework in three areas

1. Fundamentals of Public Health (1 unit)

2. Research Skills and Methods. (1 unit)
3. Electives (3 units)

One Experiential Learning Component (ELC)

Two Reflection Statements

Restrictions

1. Only one course may count toward both your major(s) and minor.
2. Courses must come from at least three departments or programs.
3. A maximum of two courses at the 100-level can be counted toward the minor.
4. No more than two approved courses from other institutions or University-approved study abroad/off-campus programs may transfer into your minor. Permission from the Public Health Program Coordinator is required for transfer.

Courses for Public Health Minor

1. Fundamentals of Public Health (1 unit)
 - BIOL 3057. Introduction to Public Health.
 - GS 102 HLTH. Global Public Health. Critical Approaches.
 - SOC 275. Medical Sociology.
2. Research Skills and Methods (1 unit)
 - GEOL/GS 233. Geographic Info Systems w/Lab.
 - GS 290. Research Methods in Global Studies.
 - MATH 230. Differential Equations.
 - STAT 213. Applied Regression Analysis.
 - SOC 300. Qualitative Research Methods.
 - SOC 301. Quantitative Research Methods.
3. Electives (3 units)
 - GS 101 Political Economy.
 - GS 102: Race, Culture and Identity.
 - ANTH 3020: Plagues and Peoples.
 - ANTH 242: Dealing with the Dead.
 - BIOL 231: Microbiology with Lab.
 - BIOL 245/246: Genetics.
 - BIOL 258: Ethnobotany w/ Lab.
 - BIOL 288: Introduction to Neuroscience with Lab.
 - ENVS 231: Health Effects of Pollution.
 - ENVS 3033: Environmental Epidemiology.
 - GS 265: Global Population Issues.

GS 268: Global Health and Justice.

PSYC 256: Health Psychology.

SPAN 3012: Intensive Spanish in Nicaragua w/ Medical Spanish & Hospital Internship Option.

SOC 225: Women's Health and Aging.

SOC 227: Kenya: Healthcare Delivery in a Developing Country.

SOC 246: What's so Bad about Aging. (w/ CBL)

SOC 253: Race, Class and Environmental Justice.

SOC 268: Sustainable Development.

SOC 269: Population and Natural Resources.

SSES 248: Principles of Health and Wellness.

BIOL 315: Human Nutrition.

BIOL 333: Immunology with Lab.

BIOL 350: Cancer Biology.

BIO 388: Drugs & the Brain with Lab.

BIOL 389: Advanced Neuroscience.

CHEM 306: Environmental Chemistry and Toxicology.

ECON 336: Economic Development.

GOVT 327: Politics of Development and Underdevelopment.

GS 324: Solutions to Global Crisis: Global Public Goods.

GS 333: Ethics of Global Citizenship.

GS 365: Rethinking Population, Health and Environment.

PCA 370: Against Health: Rhetoric & the Health Humanities.

PHIL 4007: Bioethics. (w/ CBL)

PSYC 317: Abnormal Psychology.

PSYC 318: Environmental Psychology.

PSYC 322: Positive Psychology.

SSES 366: Obesogenic Society.

BIO/GS/REL 412: Cross-Cultural Healing.

PSYC 413: Community Psychology. (CBL)

PSYC 456: Health Psychology.

Additional courses may be approved by the Public Health Program Coordinator.

Experiential Learning Component (ELC)

The public health minor requires students to carry out an experiential learning component (ELC). The ELC is intended to provide students with an opportunity to gain public health experience that complements their coursework. Minors must complete at least one of the following experiential learning options:

- Take a Community Based Learning (CBL) course with a public health placement approved by the Public Health Program Coordinator
- Carry out independent public health-related research (short-term, summer, or semester; this could include an appropriate SYE project)
- Complete an internship relevant to public health
- Complete an internship, research, or community based component as part of an off-campus program approved by the Public Health Program Coordinator.

Minors should consult with their advisor or the Public Health Program Coordinator about which option(s) will best suit their interests and complement their coursework. To complete and document the ELC, students must give a public presentation in which they describe and reflect on their experience at an approved venue such as the Festival of Scholarship and Creativity, Festival of Science, or a professional conference. This presentation must be completed the semester following completion of the experience or, if completed as a senior, prior to graduation.

Two Reflection Statements

Students are required to submit a one-page statement chronicling their ELC experience and how it meets their personal goals as well as those of the minor. This statement must be completed the semester following completion of the experience or, if completed as a senior, prior to graduation, and be submitted to their public health advisor.

At the completion of the minor, prior to graduation, students are required to submit a one-page statement highlighting connections between the courses they have taken for the minor. This must be submitted to the Public Health Program Coordinator in order to earn the minor.

Religious Studies

Major and minor offered

See also Asian Studies

Visit the religious studies webpage at www.stlawu.edu/religious-studies.

Major Requirements

Ten units are required within the field of religious studies. With the permission of the department chair, certain courses outside the department may also count toward the major.

Required Courses:

1. REL 200, Explaining Religion (ideally taken in the sophomore year).
2. Three 200-level survey courses, no more than two of which may be from the same religious world. A religious world is defined as one where different religious traditions have had longstanding historical contacts, and share or have been extensively influenced by each other's texts, doctrines, religious founders, ritual practices, myths and ethical systems. Students should consult with their advisor about completing this requirement. Courses include the following: 221, 222, 223, 224, 225, 226, 227, 231, 242, and 288.
3. Religious Studies 360: Majors Seminar (ideally taken in the spring semester of the junior year).
4. One course at the 300-level (excluding 360). This class may not be taken off campus. Courses include 331, 333,

334, and 335.

5. Four elective courses. No more than one of the department's 100-level course offerings may be counted to fulfill this requirement. The other courses must be at the 200-level or above.
6. Optional Senior-Year Experience (489/490). This is a one-semester independent research project in which seniors explore a theme or topic of their choice with a faculty member of the department, preferably in the second semester of their senior year. The Senior-Year Experience will count as one of the "four elective courses" in number 5 above.

Honors (498, 499)

To receive honors in religious studies, a student must satisfy the requirements for the major and, in addition, must meet the following two requirements: (1) a 3.5 cumulative GPA in the department, and (2) a departmentally-approved honors project taken as REL 498 and 499. See also Honors in the Curriculum section of this Catalog.

Minor Requirements

A minor consists of five courses in religious studies: REL 100 or REL 200, two surveys of traditions drawn from different religious worlds (see number 2, above), and two other courses of the student's choice, only one of which may be a 100-level course.

Courses

Introductory

100. Mystery and Meaning: An Introduction to the Study of Religion.

What is religion? Why are people religious? What power does religion have for individuals and societies? How does religion function as a way of knowing, acting, and being in the world? How did the study of religion arise in the modern West, and how scholars of religion go about studying it? What ways have they devised to grasp the rich varieties of religious experiences and expressions that they classify as religions? Throughout the course, students will study a wealth of material that may be regarded as religious, from societies past and present, literate and non-literate, and from around the globe. Finally, students will reflect on the place of the religious in contemporary society. Offered each semester.

200. Explaining Religion.

Why are people religious? This seminar explores both classic and modern interpretations of what religion is, does, and means. The course places emphasis on introducing basic methodological and theoretical tools for the study of religions and their intellectual historical background. This entails exploring a selection of readings that have been and are influential in religious studies, drawn from diverse academic disciplines. The course considers basic methodological approaches for understanding religion as a human construction, offers a general picture of the field of religious studies as a whole, and provides basic research skills that will develop students' abilities to do independent research. Offered every fall.

2000-2999. Religion in the World.

These 100-level thematic courses are designed to introduce the fascinating interdisciplinary field of religious studies. Each course examines a particular theme or topic, highlighting a key interpretive approach or approaches for understanding religion. Courses highlight the diverse academic strengths of the department's instructors.

101. Sacred Cinema.

Films often wrestle with profoundly spiritual issues and questions: Is there a god(s)? What is life all about? Who am I? Is there a way that a person (society) ought to live that is existentially real, true and meaningful? This course explores three

types of American popular film dealing with religion: (1) Films that revision traditional religion to make it relevant for a contemporary audience; (2) films that are not explicitly religious (with no obvious symbols, personages, sacred histories in the plot) but nonetheless explore themes and questions that are central to religion; (3) the religious documentary.

103. Religion and Ecology.

How does religion shape human understanding of, and participation in, ecological systems? This course samples widely from a range of religious traditions to come to a better understanding of the diverse ways that people have developed for interacting with animals, plants, water and the land, and how those behaviors work in tandem with systems of knowledge and practice. The class has a substantial focus on environmental ethics, and thinks hard about how different religious systems might contribute to either or both environmental degradation and solutions to environmental problems. Traditions sampled may include Islam, Christianity, Hinduism, Daoism, Judaism, Buddhism, Native American religions and Wicca/Neo-Paganism. *Also offered as ASIA 105 and ENVS 103.*

104. World Religions.

Being a citizen in the 21st century requires that we understand the beliefs and practices of those religious traditions that have passed the test of time and continue to influence the world in which we live. The course will begin with an inquiry into the nature of religion and religious belief, and then survey origins, teachings, practices, and present-day situations of Indigenous Religions, the major Eastern (Hinduism, Buddhism, Daoism and Confucianism) and Western religions (Judaism, Christianity and Islam). Attention will also be given to how these varied traditions influence contemporary issues such as gender, sexuality, ethics, science and ecology. Several field trips will be required. *Also offered through Peace Studies.*

Scripture

205. Introduction to the Hebrew Bible (Old Testament). *(In English)*

This course is designed to enable the student to use the insights of modern biblical scholarship to read the Hebrew Bible (Old Testament) in an informed manner. The student is introduced to the entire array of methods used for understanding biblical texts, although historical, sociological and literary analyses are emphasized. Attention is also given to the ways modern Judaism and Christianity understand specific biblical passages. Offered every fall.

206. Introduction to the New Testament.

The goals of this course are identical to those of REL 205, although that course is not a prerequisite. The same forms of analysis that were used to understand the Hebrew Bible are used to understand the New Testament. The course emphasizes the different ways Christian communities understood the Christian message and how these different understandings came to be embodied in a single collection of documents. Offered every spring. *Also offered through European Studies.*

Surveys of Religious Worlds

221. Religions of South Asia.

In this course we will explore some of the major religions of South Asia through ritual, text, and daily life. We will learn about Hinduism, Buddhism, Jainism, Islam, Sikhism, and others, through the doctrine and practices of each tradition. In each context we will examine the themes of perfection, eroticism, asceticism, class hierarchy, caste, gender, purity, and violence. Throughout the course of the semester we will also consider representations of diversity across South Asian religious traditions. Offered every fall. *Also offered in Asian Studies.*

222. Buddhist Religious Traditions.

This course offers an introduction of Buddhism from its genesis in India to Buddhism important role as a global religion today. Topics include the basic teachings and practices of early Buddhism in India in the sixth to fifth centuries BCE, the

development of sophisticated philosophical teachings, meditational techniques and religious practices, lay and monastic life that arise with the historical spread of Buddhism into Sri Lanka, Southeast Asia, Tibet, China, Japan and, more recently, the West. Offered every other year. *Also offered in Asian Studies.*

223. The Religious Life of China.

This course surveys China's unique religious heritage through a selective survey of major thinkers, texts and cultural expressions. The primary emphasis is on the historical development and mutual influence of the "three teachings"—Confucianism, Daoism and Buddhism—with special attention given to the relationship between philosophy and popular practice, and to the interaction among political and religious institutions. Topics include gods and the sacred, ritual, ethics, human nature, meditation, mysticism and salvation. Offered every other year. *Also offered as ASIA 223.*

224. Islamic Religious Traditions.

An introductory examination of that religious tradition which, originating in seventh-century Arabia under the inspiration of the Prophet Muhammad, has come to include one-fourth of humankind, and predominates throughout the Middle East, North and East Africa, Pakistan, portions of India and Indonesia. The course considers the career of the Prophet and the growth of the central institutions of Islamic civilization and endeavors to identify the varied aspirations and concerns of Muslims in the contemporary world. *Also offered in Asian Studies.*

225. Religious Traditions of Judaism.

An introductory examination of the religious traditions of Judaism from the biblical period through the 21st century. Just as Christianity is no longer the religion of the Hebrew Bible, neither is Judaism. Emphasis is placed on the development of Rabbinic (modern) Judaism and its evolution in the modern world. The course also covers recent movements and events such as the emergence of new forms of Judaism, Zionism, the Holocaust and the birth of Israel.

226. The Religious Life of Japan.

At the Far Eastern end of Asia, Japan has benefitted over the centuries from a complex inter-mingling of indigenous and foreign traditions that gave rise to Japan's unique religious heritage. Students will learn about the different ways of being religious from pre-history to modern times through studying the ways of the kami, religion and the arts (for example, the tea ceremony), Pure Land and Zen Buddhism, State Shinto, new religious movements, and spirituality in contemporary Japanese popular culture. Offered every other year. *Also offered in Asian Studies.*

227. Religion in Ancient Greece and Rome.

This course is an exploration of the development and evolution of religion in the worlds of ancient Greece and Rome. We first study the religious systems of each, and then examine how these systems affected each other and how each coped with systems that infiltrated from other regions. Finally, we examine the effect that the religious assumptions of the Greco-Roman world had on Judaism and Christianity (which were but two options among many) and the benefits that all of these systems offered to potential adherents.

231. Christian Religious Traditions.

A survey of the development of Christian traditions from the first century to the present. This course focuses on the historical development of what came to be called Christianity, the diversity of the traditions, and the eventual establishment of what we now think of orthodox Christian positions on issues like the divinity of Jesus and salvation. This course also focuses on key issues of gender, women's place in Christianity, and church-state relations.. Special attention is given to the diversity of beliefs and practices in what we usually imagine as a monolithic tradition. Offered annually.

242. Norse Mythology

This course is an introduction to the pre-Christian religion of Scandinavia. Beginning with an introduction to pagan sources outside of Scandinavia, the course examines the major sources for Old Norse mythology. We will discuss Christian influence and the ongoing expression of myth in a Christian context. The course ends with some consideration

of the continuing reinterpretations and adaptations of Norse mythology in cultural expressions such as Wagner's Ring cycle and Marvel's Thor.

288. Cults and New Religious Movements.

The rise of new religious and spiritual movements (NRMs) in North America since the 1960s is a response to the rapidly changing religious, social and political conditions of the modern world. The objective of this course is to explore the origins, nature, beliefs and practices of NRMs. Who joins these groups and why? Do NRMs "brainwash" their followers? Are NRMs dangerous and violent? How have NRMs been portrayed in the mass media and in particular, by the news media?

Topical Courses

218. Fantasy Religion.

Animated films or anime in Japan are a fascinating part of pop culture that attracts a huge audience of fans. As part of a global leisure industry, anime can offer an imaginary space not only to entertain, but to explore key questions about spirituality, religion, and the sacred. By viewing films like Anno Hideaki's *Neon Genesis Evangelion*, Shiro Masume's *Ghost in the Shell*, and Miyazaki Hayao's *My Neighbor Totoro*, this class will explore topics as the nature of the gods (kami), Shinto as nature religion, Christianity Japanese style, apocalyptic (end of the world) themes in anime, evil and the demonic, and so on.

238. Global Christianities.

This course provides an introduction to and exploration of Christian traditions of non-Europeans. In the course we will initially explore the complexity and diversity of early Christianities, especially as they emerged in places like Ethiopia, where Christianity took on explicitly different forms of doctrine and practice. We will then look to South Korean churches as they have become one of the dominant missionary presences in Asia today to understand how Christianity is certainly no longer, though it perhaps never was, a purely European affair. We will also look to contemporary Native American Christianities to understand how populations who have experienced violent colonialism as they were being introduced to Christian traditions are speaking as leaders in traditions that have historically seen them as "a perpetual mission field" rather than full participants. Later in the semester we will focus on migrant and refugee populations and the role interpretations of Christian traditions play in the trauma they experience, and how other interpretations of Christian traditions became a means through which some of them might find empowerment and agency to resist the violence perpetrated against them. *Also offered in Global Studies and Caribbean, Latin American, and Latino Studies.*

245. Medieval Christianity.

Approximately half the history of Christianity is medieval Christianity, from the fall of Rome to the Reformation. This course surveys that period of history, with particular attention given to changes in monasticism, heresy, the papacy, and popular Christianity. For popular Christianity, topics will include veneration of saints and their relics, stories of the Grail, and the sacraments. Also included are major shifts in devotion to Christ and Mary, which are important for both church history and the history of popular Christianity.

267. The Holocaust.

This course focuses on the development of the Holocaust from 1933 to 1945, within the contexts of Christian anti-Semitism, Nazi ideas of race and empire, and World War II. We also address the relationship between the Nazi genocide against the Jews and Nazi persecution of other groups such as Slavs, Roma and the disabled. Finally, we consider the

Holocaust's implications for Jewish and German identity, Christian and Jewish theology, international law, and understanding genocide broadly. *Also offered as HIST 267 and through European Studies and Peace Studies.*

272. The Crusades.

The medieval phrase “taking the cross” described a variety of military actions, often characterized as God’s will. They were influenced by and generated new ideological expressions of legitimate religious violence. This course looks at crusades to the area known as the “Holy Land,” and the expanded ideology of crusading that underpinned attacks against heretics, Iberian Muslims, Jews, pagans, and others. Issues engaged include: crusaders’ motivations; ideas of Christian holy war and just war; Islamic perceptions of the crusades; pogroms against Jews; the Military Orders such as the Knights Templar; and cultural interaction and non-interaction among western Christians, eastern Christians, and Muslims in the “Latin East.”

273. Religion and Visual Culture.

This course considers the interaction between visuality and religion: the role that seeing might play in religious practice and the role that religion might play in visual practice. It explores not just the ways that images and objects can embody and communicate meaning, but also how they can elicit powerful responses (e.g. fascination, excitement, faith, desire, or fear) in those who view them, and how they help humans to constitute the worlds that they inhabit. The course draws upon case studies from multiple religious traditions. *Also offered in Asian Studies.*

282. Indian Epics.

Epic myths are some of the earliest – and most exciting – forms of religious literature. In this course we will study two of South Asia’s most popular epics, and consider how they have changed over time to remain relevant across several communities. We will read, see, and hear several versions of the Mahabharata and the Ramayana, and consider how the stories change in oral, performed, artistic, and film versions. The themes of violence, history, and law will be considered. *Also offered in Asian Studies.*

3000-3999. Special Topics.

These 200-level courses deal with significant topics in religious studies. Offered occasionally. The content of each course or section will vary and will be announced each semester.

331. Pilgrimage as a Spiritual Journey.

This course explores the experiences, rituals, stories, beliefs, temples/shrines, images and traveling communities associated with the religious phenomenon of pilgrimage. What kind of travel is pilgrimage? Does it have a particular structure? Are there different kinds of pilgrimages? What kind of religious experience does pilgrimage provide? These and other questions are examined through a close study of selected pilgrimages in Christianity, Hinduism and Buddhism.

333. Goddesses.

How are goddesses portrayed in different communities and traditions? This course examines the phenomenon of goddess worship from a cross-cultural perspective, drawing upon materials from ancient and contemporary India and China, pre-Christian Ireland, classical Greece, contemporary Haiti, and present-day America. It analyzes the ways in which gender is used religiously, and the ways in which religion operates within gendered social relations, in order to consider the question of the relationship between female divinities and the roles and status of human women. *Also offered as ASIA 333.*

334. The Ways of the Gods: Shinto in Modern Japan.

Shinto or the “Way of the Gods” has long been viewed as the “archaic indigenous religion” of Japan. This course explores how, in fact, Shinto is an invented religion that changed radically throughout modern Japanese history as it evolved from local cults worshipping kami to state Shinto and new religious movements in the pre-war period to its modern guise today as religious organizations independent of state control. Topics include: Shinto mythology, religious ultra-nationalism, emperor worship and the imperial system (also called State Shinto), the Yasukuni shrine war memorial issue,

Shinto in popular culture, and the role of contemporary shrines and festivals, and kami worship and ecology. Offered every other year. *Also offered in Asian Studies.*

335. Religion and Violence.

This course focuses on the intersection of and assumptions about the relationships between religion and violence. Looking at various instances of the use of force and coercion, as well as verbal and symbolic violence in religious contexts, this course engages the course topic through specific case studies, both historically distant and contemporary, to draw attention to the intersections of political, economic, and demographic concerns that shape instances of “religious violence.” This course also engages with how we may define “religion,” how we may define “violence,” and how they are perceived and discussed together in cases of terrorism, war, and persecution of minority groups. The primary goal of the course is to examine our own as well as the broader society’s assumptions about religion and violence, and to develop better critical approaches to understanding their relationships to one another. *Also offered through Peace Studies.*

4000-4999. Special Topics Seminars.

These 300-level seminars deal with significant topics in religious studies on an advanced level. Offered occasionally. The content of each course or section will vary and will be announced each semester.

412. Cross-Cultural Perspectives of Healing.

This class uses healing traditions as the lens with which to examine culture. During the semester students will have the opportunity to meet healers from around the world. In a typical semester presenters include a Traditional Chinese Medical practitioner, an Ayurvedic physician (from India), a shaman from Peru, an exorcist, a native American Healer an allopathic physician, new age healers, a Christian Scientist and others. *Also offered in Global Studies and Biology.*

Special Courses

360. Majors Seminar.

This is an in-depth examination of theoretical and methodological approaches to the study of religion that will enable students to do sophisticated independent research. Required of all majors in religious studies, ideally in the spring of their junior year.

450, 451. Directed Studies in Religion.

An individual study program for students showing special interest and aptitude in the study of religion, as approved by the department chair and the instructor under whom the work will be completed. A term paper is required as the product of the special study. (A 2.5 average is required.) *Also offered as ASIA 450 and 451 at the discretion of the instructor.*

489, 490. SYE: Senior-Year Experience.

An individual study program for candidates for majors in religious studies that fulfills the requirements for their SYE and may be taken in place of REL 360 with approval of the department chair. (A 2.5 average is required.) An extended term paper is required as the product of the special study.

498, 499. SYE: Honors.

This is a departmentally-approved honors project requiring an extended term paper that is the product of the special study. A cumulative GPA of 3.5 in the department is required to do an honors project.

Hebrew

101-102. Hebrew.

An introduction to Hebrew language, the form of which (biblical, rabbinic, modern) is determined by the interests of the class. No prior knowledge is presupposed. In the first semester, students are introduced to the script and basic grammar

and vocabulary. If modern Hebrew is taught, there is an emphasis on conversational skills; if biblical or rabbinic Hebrew, the emphasis is on ability to read the relevant texts. Offered occasionally by request.

Greek

111-112. Hellenistic Greek.

The first term and much of the second are spent mastering the essentials of Greek grammar and vocabulary of the period necessary to proceed in the second semester to readings in the New Testament. Offered occasionally by request.

Sociology

Major and minor offered

See also Environmental Studies for the Environmental Studies-Sociology Combined major.

Visit the sociology department web page at www.stlawu.edu/sociology.

Sociology Major Requirements

Courses are in the sociology department unless noted otherwise.

1. 9-12 units of credit.
2. **One SOC course at the 100 level.** Majors may take additional courses at the 100 level, but a maximum of two such courses can be counted toward the major.
3. SOC 203. Foundations of Social Theory.
 - a. Prerequisite: any 100-level or 200-level Sociology course.
4. SOC 300, Qualitative Research Methods *or* SOC 301, Quantitative Research Methods.
 - a. Prerequisite: SOC 203, Foundations of Social Theory.
5. **Capstone Seminar:** Any 300- or 400-level topical seminar, including Special Topic seminars. These seminars have significant individual research components and opportunities for collaborative work, critical thinking, synthesis, and practice in a variety of communication skills.
6. **Experiential component**, fulfilled by one of the following:
 - a. An SLU approved off-campus study program (semester or year). To fulfill this requirement, students must also attend a gathering of sociology department faculty and other sociology majors returning from off-campus study to present a sociological reflection on their experiences. Prerequisite: any 100- or 200-level sociology course.
 - b. Any sociology course with a CBL (Community-Based Learning) component.
 - c. SOC 309, Internship. Prerequisites: at least two sociology courses. Enrollment is by permission of instructor.
7. After the completion of the Capstone Seminar, majors who wish to pursue an additional Capstone opportunity through independent research have these options:
 - a. SOC 486. Capstone Independent Study.

(1.0 credit, 1 semester, Fall or Spring) Prerequisites: SOC 203, Foundations of Social Theory; SOC 300 or 301, Research Methods; any 300- or 400-level capstone seminar, and Capstone Project Application submitted to the sociology department for approval *during the semester prior to the project's start.* **or**

- b. SOC 495/496, Capstone Honors Project.

(2.0 credits, 2 semesters, SOC 495 in Fall and SOC 496 in Spring)

Prerequisites: 3.5 major GPA; SOC 203, Foundations of Social Theory; SOC 300 or 301, Research Methods; any 300- or 400-level capstone seminar; and a Capstone Project Application submitted to the sociology department for approval *during the semester prior to the project's start.*

8. **Electives:** requirements noted above *plus* sociology electives must TOTAL 9-12 units.

Sociology/Environmental Studies Combined Major

In association with the department of environmental studies, the department of sociology offers a combined major in sociology–environmental studies.

Environmental Studies Requirements (ENVS)

101. Introduction to Environmental Studies. (1 unit)

Environmental Science and Policy (ESP) courses (3 units)

Nature/Society (N/S) course (1 unit)

Any elective from a dual-listed course in the natural sciences (1 unit)

Any elective listed under ENVS, or from programs abroad if preapproved (1 unit)

Sociology Requirements (SOC)

One course at the 100 level *chosen from the following* (1 unit)

101. Principles of Sociology.

110. Global Problems.

112. Inequality.

161. Social Problems and Policy.

169. Media & Society.

187. Environment and Society.

203. Foundations of Social Theory (1 unit)

Prerequisite: any 100-level or 200-level sociology course.

300. Qualitative Research Methods *or* 301. Quantitative Research Methods. (1 unit)

Prerequisite: 203. Foundations of Social Theory.

Socio-environmental dynamics courses *chosen from the following* (2 units)

233. Consuming Food.

235. Earning a Living.

253. Race, Class and Environmental Justice.

263. Sociology of Disaster.

264. Environmental Movements.

265. Sociology of Climate Change

267. Environment and Society

268. Sustainable Development.

269. Population and Natural Resources.

278. China's Market Transition.

288. Dilemmas of Development.

314. Nomads in World History.

377. Sociology of Consumption.

Other courses, including Special Topics courses, may be considered in consultation with the department chair.

Two Sociology electives (2 units)

Students may take additional courses at the 100 level, but a maximum of two such courses can be counted toward the combined major.

Capstone Seminar (1 unit)

A 300/400 capstone seminar, with a research project on a socio-environmental dynamics topic.

Prerequisites: one sociology course at the 100-level, one at the 200 level, *and* 203. Foundations of Social Theory; 300. Qualitative Research Methods, *or* 301. Quantitative Research Methods, recommended but not required.

Total: 15 units

Courses that are dual-listed with environmental studies should be taken under the sociology -number and count toward the sociology portion of the combined major.

Honors

Honors will be granted to students who complete the major with at least a 3.5 GPA in sociology and who successfully complete and defend a Capstone honors thesis (495/496) before a departmental committee. Prerequisites: 3.5 major GPA; 203. Foundations of Social Theory; 300 or 301. Research Methods; any 300- or 400-level topical seminar; and a Capstone Project Application submitted to the sociology department for approval *during the semester prior to the project's start*.

Sociology Minor Requirements

1. A minimum of six units of credit.
2. Of these courses, no more than two sociology courses at the 100 level can be counted towards the minor.

Certification to Teach Social Studies

Consult the Education section of this *Catalog*, the Education Department webpage at <http://www.stlawu.edu/education/undergraduate-programs>, and/or speak to the Coordinator of the Teacher Education program in the education department as early as possible.

Restrictions

1. Majors and minors may transfer into their major/minor no more than two approved courses from other institutions, St. Lawrence departments and programs outside the sociology department, or University-approved study abroad/off-campus programs. Permission from the department chair is required for transfer.
2. Majors and minors may count no more than one SOC 390, Independent Study, courses toward their major/minor.
3. Majors and minors may count no more than two SOC 290, Independent Study, courses toward their major/minor.
4. Majors and minors may count no more than two SOC 390, Independent Study, courses toward their major/minor.
5. Core courses for the major (theory, research methods, and Capstone seminars/projects) must be taken in the department.

Courses

In addition to the regularly taught courses listed below, Special Topics courses are often offered.

101. IntroSoc: Principles of Sociology.

An introduction to how and why particular groups of people act, think, and feel as they do from a social perspective. The course explores different kinds of sociological explanations as well as a variety of substantive areas within the discipline, including deviance, power, social inequality, the family, collective behavior, formal organizations and others. The substantive areas emphasized vary by instructor.

110. Global Problems.

This course introduces students to the sociological perspective through examination of global actors, processes and problems. The course focuses on the process of the consolidation of the world into a single economy. While some people and some regions have benefited greatly, others have suffered tremendously. We look at how social disparities take shape and figure out the reasons they are justified. *Also offered through Peace Studies.*

112. Inequality.

An introductory course that examines forces behind the unequal distribution of economic, political, social, cultural and psychological rewards in contemporary U.S. society and globally. The course also examines the consequences of this distribution for both individuals and societies. Students are encouraged to take a closer look at social inequality through fieldwork projects and autobiographical reflections. *Also offered through Peace Studies.*

161. Social Problems and Policy.

This course explores the causes of and responses to the phenomena labeled “social problems.” The course examines how social phenomena are defined as problems and developed into issues. We investigate the role of the media, social movements, government and private capital in identifying problems and placing them on the public agenda. We also focus on a variety of policies proposed (and/or implemented) in response to specific social problems and the political conflicts that result from competing policy alternatives. The social impacts of various policy options associated with these issues are explored. *Also offered through Peace Studies.*

169. Media and Society.

This 100-level course is designed to explore the complex and often contradictory relationship between media, culture and society. Like the professor and textbook authors, we will cultivate sociological perspectives to analyze and explain how various forms of media—from traditional to digital—can spread their influence across society. On what terms is media content produced and consumed, and what “effects” are likely to follow? What is the “new media environment,” and what significance does it hold for media professionals and citizens? How do culture, technology, and political economy factor in? Throughout the semester, we will address each of these questions (and many more!) as we embark on an engaging, eye-opening journey through the realities of life in the increasingly mediated world. *Also offered through Peace Studies.*

187. Environment and Society.

This course explores the complex interrelations between human societies and the environment via the sociological perspective, a means of making the familiar aspects of our lives, and our understandings of the world, seem strange and new. In doing so we can better analyze our world and our place in that world especially with regard to human and natural interactions. In this course we will learn about the concepts, theories, and methods that sociologists use to understand critical issues of environmental degradation and ecological crises and how these problems are experienced differently depending on one’s location in global society. By the end of the course students will become familiar with analytical tools that enable an understanding of some underlying drivers of environmental degradation and ideas of what can be done to chart a better future. *Also offered as ENVS 187.*

3000-3999.

The content of each course or section of these 100-level or 200-level special topics courses varies and will be announced each semester.

203. Foundations of Social Theory.

This course brings under scrutiny the false dichotomies crowding the sociological imagination: structure/agency, history/theory, macro/micro, global/local. The broad-based analytical perspective enables students to appreciate theory in the context of historical relations and processes, and to approach history from a coherent theoretical angle of vision. Students are encouraged and expected to reflect on hegemonic rationales and conventional structures of knowledge. Students are assisted in perceiving the absurd fixation of mainstream knowledge on simplification and the axiomatic authority of disjunction, reduction, reification and abstraction. They are encouraged to see the virtue of complexity as an alternative form of knowledge of ecological/historical relations and processes. The objective of the course is to empower students by allowing them to discard simplification, and to embark on complexity as the intellectual path suitable to their reality. Prerequisite: any 100- or 200-level sociology course.

221. Sociology of Sex and Gender.

This introduction to social science ways of thinking about sex and gender provides an overview of contributions from a variety of disciplines and considers both theoretical and historical materials. We examine the social construction of gender and sexuality and the ways gender and sexuality and society interact with and affect each other, and how change takes place. The social developments and history of gender and sexualities are explored, and contemporary issues studied. In particular, how and why gender and sex became politicized, and continue to be so, is explored.

224. Family, Community and Globalization. *(with Community-Based Learning component)*

The process of globalization no longer requires a workforce rooted in place. Rather, the need of this new, “flexible capitalism” is for a workforce that is mobile, unencumbered by connections to family, place and community. These larger structural changes do not operate as abstractions. They affect the lives of people at all levels. This course examines the influence of globalization on families and communities. To facilitate an understanding of these processes and their consequences, integrated into this course is a required experiential component through Community-Based Learning. Students develop reciprocity between their classroom experience and work within the local community. This course fulfills the Experiential Component requirement for majors.

225. Women’s Health and Aging.

This course will examine current issues related to the health and aging experiences of women in the U.S. and around the world. Special emphasis will be placed on the challenges women face as they experience various life transitions. The social, historical, cultural, economic, political factors related to women’s health and aging will be examined. Topics include puberty, menstruation and PMS, childbirth, infertility, menopause, body image and ageism, employment and retirement, caretaking and social support, widowhood, and dying. The implications of changing demographic characteristics of the aging population in the United States and worldwide will be considered especially with regard to the consequences for women.

228. Race and Ethnicity.

This course introduces students to race and ethnicity from a social-historical perspective. It provides a conceptual background for understanding race and ethnicity. We do not treat race or ethnicity as “natural” or “obvious” identities, but study the sociological and historical emergence of race as an idea: as an effective way to categorize people and as a legitimate basis for social and structural hierarchies. We focus on how socio-historical relations and processes led to current conceptions and patterns of race and ethnic categories in the U.S., and consider possibilities challenging the nature of racial/ethnic identities by examining changes in political economy and anti-racist social movements.

233. Consuming Food.

Food is often seen as human beings’ biological needs. However, food is also how we relate to others as social beings. How we eat, cook, and share food and what we consider to be food are bound with social and cultural meanings, as tastes and preferences are socially constructed and often related to class, gender, age, and ethnicity. This course will explore how industrialized agriculture and the food processing industry has changed our relationship to food and the various controversies over alternative food systems like organic food, local food, vegetarian and vegan food, and techno-food. It will also look at how the global capitalist food system has commoditized food and transformed food provision and

consumption in developing countries, creating the concurrent existence of epidemic hunger and obesity in the world today. It will discuss the impacts of such a system on farmers and land use in both developed and developing countries.

235. Earning a Living: Work and Occupations in a Global Economy.

Much of the construction of our self-identity is concerned with preparation for and taking up a place in the occupational structure. Our occupations and the “social value” of the work we do contribute to definitions of our social worth. This course is about the complex of social, economic, political, cultural and psychological processes that contribute to what we want to “be” when we “grow up” and what then becomes possible in a global economy. It examines what happens when there is no place for us.

238. Social Services, Agencies and Advocacy. *(with Community-Based Learning component)*

An examination of the structure, processes and outcomes of human service organizations. We consider their promises and limitations, including the political, economic, legal and cultural climate in which they operate as well as the point where policy is translated into practice. We also explore issues and strategies related to “client” advocacy and empowerment. Integral to this course is participation in a placement with a local human service agency through partnership with Community-Based Learning. Possible placements may include the Department of Social Services, Citizens against Violent Acts, Renewal House, police agencies and courts. This course fulfills the Experiential Component requirement for majors.

239. The Web in Real Life.

In this 200-level course, we ask: what does it mean to live in a networked world, where our offline lives are increasingly and irrevocably tied to digital spaces? Beyond the vast array of cat memes and Bieberisms, the World Wide Web provides seemingly endless opportunities for social interaction and identity maintenance. The popularity of phrases like “in real life” represent a common view of the physical world as something wholly distinct from and superior to the digital realm. Still, the digital realm has proven to have very real consequences, especially in terms of popular culture and everyday life. With these concerns in mind, this course will examine the role digital media and communication technologies play in the organization and maintenance of present-day social life.

240. New Media, Conflict & Control.

The focus of this course is to explore and explain the increasing role of new media tools in conflict and democracy, as well as to take a deeper look at the paradoxical potential for surveillance that these technologies also afford. As seen through the recent examples from the Arab Spring and Occupy movements, social media can serve an integral function in democratic mobilizations. At the same time, digital media have also been effectively employed by governments and cooperating institutions to assert both direct and indirect forms of control. Thus, this course will explore the many ways in which social media afford journalistic, communicative, and controlling functions. How and to what effects new media technologies are leveraged is thus contingent upon many interwoven factors. By applying sociological knowledge about conflict and surveillance to the discussion of emerging media, students will learn new and revealing ways to think about the social and political implications of new media technologies. In addition to learning about emerging forms of media, this course will also require all participants to work with new media in both research and discussion.

246. What’s So Bad about Aging? *(with Community-Based Learning component)*

This course examines the impact of aging on individuals and society, as well as the reactions of individuals and societies to aging. Theories and research on aging will be discussed, as well as the social, demographic, economic, historical, cultural, political, and health factors related to the aging process. Topics include diversity in the aging experience, housing and long term care, health care, social support networks, interpersonal relationships, work and retirement, leisure, and death and dying. A Community-Based Learning component is integrated with the course material to facilitate a thorough understanding of aging in society. This course fulfills the Experiential Component requirement for majors.

253. Race, Class, and Environmental Justice.

This course focuses on the distribution of environmental degradation and environmental protection, both domestically and globally. The social processes that generate synergistic racism and class stratification, affecting the distribution of ecological costs and benefits, are explored. Substantive topics include the siting of hazardous facilities and thermo-nuclear weapons testing, the socio-ecological conditions of migrant farm workers, extraction of resources from Native lands, and the transnational export of toxic waste to the “Global South.” The course examines the origins and impacts of a distinct environmental justice movement that has emerged in the U.S. Written and oral assignments involve individual and collaborative quests for socially equitable solutions to socio-eco-historical injustices. *Also offered as Environmental Studies 253.*

266. Social Justice in the Digital Age. *(with Community-Based Learning component)*

This 200-level course examines the challenges and opportunities inherent in contemporary issues of criminal and social justice. After laying a foundation of sociological perspectives on incarceration as a social problem, we begin envisioning what paths to justice look like for some of the most vulnerable members of our own community. Accordingly, this class integrates a Community Based Learning component with course materials, with a focus on the St. Lawrence County Correctional Facility (SLCCF) in Canton, NY. In addition to more traditional reading and writing assignments, the class will make multiple visits to SLCCF throughout the semester. By placing a specific emphasis on recidivism and community reintegration, we will work in collaboration with incarcerated individuals and staff at SLCCF on the North Country Resource project (<http://northcountryresource.org>), which aims to identify and improve access to resources for those reentering the surrounding community. This course fulfills the Experiential Component requirement for sociology majors.

268. Sustainable Development.

Defined as “development that meets the needs of current generations without diminishing the possibility of future generations to meet their own needs,” sustainable development has become a ubiquitous yet controversial catch phrase employed by the World Bank, the IMF, the United Nations and other international development agencies. Critics claim the term is merely a cover for continued neo-colonialism while its proponents argue that it allows space for a genuine consideration of the environmental and social good. This course develops students’ capacity to understand these competing claims and develop their own definition of what sustainable development might look like. *Also offered through Peace Studies.*

269. Population and Natural Resources.

Noted demographer John Weeks has argued, “Nearly everything is connected to demography.” While he qualifies this statement by saying that it may sound, “presumptuous, even preposterous” it is certainly easy to see his argument when focused on environmental issues and human population growth. Based in a case study of Haiti, this course examines the interplay of human population and natural resource use. The course introduces the tools and insights of demographic science and then places those insights in the historical context of world population change. Following this introduction the course explores the implications of the population growth on various natural resources and closes with a case study of an attempt to curb population growth in Port au Prince in order to better understand the complexities of developing policy initiatives that address human population growth. *Also offered through Peace Studies.*

275. Medical Sociology.

In this course we examine a variety of aspects of health, illness, medical systems and institutions from a sociological perspective. We look at the social causes and consequences of illness, the social construction of disease, and roles played by patients, medical personnel, health institutions and society and the ethical questions they present. Attention is paid to health policy development in the United States and that of other countries. *Also offered through Peace Studies.*

288. Dilemmas of Development.

What does development mean? Is economic development always at the expense of social integration? By whose standard should we measure development? Is there a single best way of development? Are some cultures more likely to develop than others? Is globalization the remedy for underdevelopment? This course covers the basic sociological theories on development and globalization, and answers the above questions by looking at issues such as gender and class inequality, power of multinational corporations and multilateral agencies, consumerism, environment, and the search for alternative models in Asia and other parts of the world. *Also offered as ASIA 288.*

290. Independent Study in Sociology. (0.5 unit)

Open to students who wish to pursue more specialized or advanced sociological study, fieldwork and research with a faculty mentor. Prerequisite: at least one Sociology course. Permission of instructor is required.

300. Qualitative Research Methods.

This writing-intensive course is an introduction to a variety of qualitative social research methods. It includes discussions of the principles of social research, the relationship between theory and method, research design, issues of validity and reliability, and dilemmas and ethical concerns in qualitative research. Students learn qualitative techniques of gathering and interpreting data through a variety of “hands-on” projects in the field and classroom using methods such as participant observation, in-depth interviews, content analysis and other unobtrusive methods. Students engage in an individually designed, ongoing research project throughout the semester. Prerequisite: SOC 203, Foundations of Social Theory.

301. Quantitative Research Methods.

This writing-intensive course is an introduction to quantitative social research methods with an emphasis on survey data. Students engage in questionnaire and table construction, and data management and analysis using SPSS to complete an individually designed, ongoing research project throughout the semester. The course covers topics such as hypothesis and questionnaire construction, conceptualization and operationalization, sampling, data collection, processing, and analysis, reliability and validity, research ethics, and the presentation of research. Students learn using a hands-on, computer-based approach to quantitative methods and data analysis. Prerequisite: SOC 203, Foundations of Social Theory.

302. Capstone Seminar: Visual Sociology.

This seminar is about “looking” and “seeing” and about the power of visual representations. The course examines the use of the visual and visual representations to reveal aspects of society operating on both the macro and micro levels. Substantive questions are explored through individual and group projects. This course fulfills the Capstone requirement for majors. Prerequisites: one Sociology course at the 100 level, one at the 200 level, and SOC 203, Foundations of Social Theory. SOC 300, Qualitative Research Methods or 301, Quantitative Research Methods recommended but not required. Majors only.

308. Capstone Seminar: Death and Dying.

This course explores social, historical, ethical and cultural aspects of death and dying. We will analyze the social meaning of death from a historical and cross-cultural perspective. Additional topics include the historical evaluation of images and attitudes toward death, ways of dying, the medicalization and consequences of high-tech dying, life extension, the role of palliative care and hospice, euthanasia, body disposal and abuse, and the death industry. The course will offer an opportunity to formulate, analyze and deepen our views on a number of issues related to death and dying. This course fulfills the Capstone requirement for majors. Prerequisites: one Sociology course at the 100 level, one at the 200 level, and SOC 203 Foundations of Social Theory. SOC 300 Qualitative Research Methods or 301 Quantitative Research Methods recommended but not required. Majors only.

309. Internships.

Internship opportunities exist in social welfare, gerontology, healthcare, social policy, law, criminal justice, the media and college administration. The department also encourages students to be imaginative and innovative in developing internships to meet their own interests. Internships require a commitment of eight hours a week. Students may not enroll

in more than one semester of internship credit without petitioning the sociology department for approval. Students interested in exploring internship opportunities must contact the instructor prior to course registration during the preceding semester. Not open to first-year students. Prerequisite: at least two Sociology courses. This course fulfills the Experiential Component requirement for majors. Permission of instructor required.

310. Capstone Seminar: Slavery, Race and Culture.

The purpose of this seminar is to familiarize students with the world of slavery and its relation to the wider world of capitalism. Long a part of the global capitalist economy, slaves and slavery have been critical historical agents in shaping various aspects of social relations. The history of slavery has laid the foundation for race formations. Far from being a peculiar institution, slavery is indeed central to the making of the modern age. This course fulfills the Capstone requirement for majors. Prerequisites: one Sociology course at the 100 level, one at the 200 level, and SOC 203 Foundations of Social Theory. SOC 300 Qualitative Research Methods or 301 Quantitative Research Methods recommended but not required. Majors only. *Also offered as African Studies 310.*

314. Capstone Seminar: Nomads in World History.

Throughout history, the terms nomad and barbarian have been used interchangeably, and with negative connotations. Similarly, the terms settled and civilized have been synonymous, with positive associations. This dichotomy arises out of particular class and power interests and has had, as a consequence, an impact on our understanding of world history and the place of nomads in it. It has resulted in the stigmatization of nomads. In this course, we bring the nomadic factor back to focus and establish a more comprehensive picture and interpretation of world history. This course fulfills the Capstone requirement for majors. Prerequisites: one Sociology course at the 100 level, one at the 200 level, and SOC 203 Foundations of Social Theory. SOC 300 Qualitative Research Methods or 301 Quantitative Research Methods recommended but not required. Majors only. *Also offered as ENVS 314.*

317. Capstone Seminar: Twitter and Society.

This course will explore the sociological significance of Twitter as a platform for personal expression, interaction and networked communication. The breadth of meanings various user communities ascribe to the service, as well as the access and usage patterns found among this and other digital tools, pose obvious challenges for how sociological research may approach or explain Twitter users and the data they produce. Nevertheless, the apparent diversity of Twitter use and users also provides an opportunity to reveal significant insights about how users leverage the affordances of the service, and to what effects. Thus, this course will begin with an introduction to Twitter and its significance for various sectors of society. Then, we will learn to ask sociological questions about Twitter usage and to develop theoretically and methodologically grounded approaches to answering those questions. This will allow us to design and conduct exploratory analyses of Twitter data. The coursework will culminate with students creating digital presentations to showcase their work in engaging and innovative formats. Prerequisites: one Sociology course at the 100 level, one at the 200 level, and SOC 203 Foundations of Social Theory. SOC 300 Qualitative Research Methods or 301 Quantitative Research Methods recommended but not required. Majors Only.

377. Capstone Seminar: Sociology of Consumption.

In this seminar, we explore consumption along a wide range of material dimensions. The sociology of consumption is concerned with the relationships of (a) the social to the natural and (b) the social to the social and (c) their consequences, such as social disruption and environmental destruction; “things” are fetishized and humans are commodified. The sociology of consumption helps us to understand this in the context of both the capitalist world economy and cultural expressions from early modernity to postmodernity. This course fulfills the Capstone requirement for majors. Prerequisites: one Sociology course at the 100 level, one at the 200 level, and SOC 203 Foundations of Social Theory. SOC 300 Qualitative Research Methods or 301 Quantitative Research Methods recommended but not required. Majors only. *Also offered as ENVS 377.*

390. Independent Study in Sociology. (1 unit)

Open to students who wish to pursue more specialized or advanced sociological study and research with a faculty mentor. Prerequisite: at least two sociology courses. Permission of instructor required.

4000-4999.

The content of each course or section of these 300- or 400-level special topics courses varies and will be announced each semester.

465. Environmental Sociology.

How can we understand ideas like “nature” and “natural” in a world thoroughly interwoven with human intentions? After all, genetically modified corn is still grown using sun and water. Hurricanes still gather strength according to rules of physics even if the storm is strengthened by human warmed waters and air. In this world, where does the human start and the non-human begin? What are the limits to the sociological insight of the social construction of reality? These are the sorts of questions that environmental sociology has been asking since Dunlap’s New Ecological Paradigm challenged sociology (and society) to “bring nature back in” to our understanding of ourselves and our work as sociologists. This course will explore efforts by sociology to incorporate nature in sociology and how those efforts can inform our understanding of complex systems. Prerequisites: one Sociology course at the 100 level, one at the 200 level, and SOC 203 Foundations of Social Theory. SOC 300 Qualitative Research Methods or 301 Quantitative Research Methods recommended but not required. Majors only.

486. Capstone: Independent Study.

This requires completion of an individual research project mentored by one of the sociology faculty. Before registering, students should work with a faculty mentor to prepare a research proposal outlining the intended thesis, theoretical framework, methodology and ethical considerations including the application for human subjects review approval where necessary. This is a one-semester project (Fall or Spring). Prerequisites: SOC 203 Foundations of Social Theory, SOC 300 Qualitative Research Methods or 301 Quantitative Research Methods, any 300 or 400-level capstone seminar, and a Capstone Project Application submitted to the Sociology Department for approval prior to preregistration the semester before the start of the project. Permission of instructor required.

495/496. Honors in Sociology.

This requires completion of an individual research project mentored by one of the sociology faculty. The project is undertaken over two semesters. Students need to register for both 495 (fall) and 496 (spring). Honors will be granted to students who have completed and defended a thesis before a departmental committee. Prerequisites: 3.5 major GPA, SOC 203 Foundations of Social Theory, SOC 300 Qualitative Research Methods or 301 Quantitative Research Methods, any 300 or 400 level capstone seminar, and a Capstone Project Application submitted to the Sociology Department for approval prior to preregistration the semester before the start of the project. Permission of instructor required.

Sports Studies and Exercise Science

Minor offered

Visit the sports studies and exercise science webpage at www.stlawu.edu/sport-studies-and-exercise-science.

Requirements for Minors

Students who are interested in the sports studies and exercise science minor must complete a five-course sequence from among any course listed below except SSES 100, SSES 100S, or SSES 100W. Students will be advised by the department's coordinator of academic programs.

The following courses may also receive credit toward the minor:

Biology

240. Human Anatomy.

Psychology

255. Sport Psychology.

Coaching Certification

Students completing the following courses in sequence will earn a certificate to coach in the public schools of New York State. Students pursuing teacher certification in other disciplines are strongly encouraged to explore this option. The required three-course sequence includes Introduction to Kinesiology (SSES 115) **or** Philosophical Perspectives on Sport (SSES 216), Sport Medicine (SSES 319) and Coaching Theory (SSES 320).

Courses

100A-F. Fitness (.5 unit)

This course is intended to expand the student's awareness of the potential of physical activity to establish and sustain physical fitness and to enrich one's quality of life. The course is designed to provide each student with conceptual and practical exposure to principles of fitness and wellness that will be useful throughout the adult years. It does not count toward the SSES minor.

100S. (Lifeguarding) & 100W (Water Safety Instruction). (.5 unit)

These courses are intended to provide students with the knowledge and skills for lifeguarding and water safety. To be admitted to either course, students are required to pass a pre-course test of swimming skills. At the conclusion of the course, students will have the opportunity to complete an American Red Cross Lifeguarding Certificate. These courses do not count toward the SSES minor.

115. Introduction to Kinesiology.

This is the introductory course for the minor in sports studies and exercise science. It focuses on the study of physical activity from theoretical/conceptual, experiential and professional practice frameworks. Socio-cultural, behavioral and biophysical perspectives of physical activity are explored. Emphasis is on the role of physical activity in human development throughout the lifespan. The relationship of physical activity to the structures of school, community, workplace and the natural environment is studied.

212. Sociological Perspectives on Sport.

This course is a study of the structural dimensions of the social phenomenon of sport. Attention is directed toward examining the relationship between sport as a social institution and other dominant patterns of social interaction. While sports in the United States are the primary focus, other societies are examined as well.

216. Philosophical Perspectives on Sport.

The study of ethics and moral reasoning is introduced through the lens of sport. Topics such as moral skepticism, ethical relativism, utilitarianism vs. Kantianism, competing concepts of impartiality, the care vs. justice perspective, positive vs. negative duties and the doctrine of double effect are explored. Students will be asked to evaluate their own opinions, beliefs and attitudes that govern their judgment and/or actions within the realm of sport. *Also offered through Philosophy department.*

230. Principles of Health and Wellness.

This course addresses health and wellness issues that society currently encounters. Topics include nutrition, fitness, obesity, stress management and adherence. Physical inactivity is studied as a disease risk factor. The health impact of lifestyle and behavioral choices is studied.

234. Human Exercise Physiology. *(with lab)*

This course addresses the structure and function of the organs and systems of the human body and their physiological changes resulting from exercise. Beginning with the study of the health benefits of physical activity, emphasis is on the study of the human capacity for exercise and the use of physiological principles to improve physical fitness and performance in sport and physical activity. Laboratory sessions supplement the course.

319. Sport Medicine. *(with lab)*

This course provides background in the care and prevention of injuries to athletes. Class topics include nutrition, physical fitness and modern techniques of sports medicine. Lab sessions include basic skills in first aid and evaluation and rehabilitation of athletic injuries. Prerequisites: SSES 115 or 216 and/or permission of instructor.

320. Coaching Theory.

This course provides an overview of the philosophies and practices of coaching. Professional responsibilities, management styles and coach/athlete interaction styles are examined as they pertain to all aspects of the coaching challenge. Prerequisites: SSES 115 or 216, and 319.

366. Obesogenic Society.

This course explores societal patterns of food consumption, marketing, and nutritional information. In addition, environmental facilitators and barriers to physical activity are explored. This course focuses on community and policy implications impacting individual choices regarding levels of consumption and physical activity.

390. Independent Study.

An opportunity to pursue specialized study or research under faculty supervision. Proposals must be presented to the department chair (or designee) for approval. Students may not earn more than one semester of credit for this course.

391. Internship.

Internships are available in such areas as sport medicine, fitness and sport management. Each is designed as a student-arranged study that is comprised of a structured experience with an organization or institution and involves intensive work on a particular project. Proposals must be presented to the department chair for approval.

415. SYE: Senior Seminar.

Advanced study on topics and issues evident in contemporary sport and exercise science. Permission required. Available to SSES minors only.

490. SYE: Independent Study.

The course offers seniors who minor in sports studies and exercise science the opportunity to pursue advanced study or research under the guidance of a faculty sponsor. Permission required. Available to SSES minors only

Statistics

Major and minor offered under the auspices of the mathematics, computer science and statistics department

Visit the mathematics, computer science and statistics department web page at www.stlawu.edu/math.

Major Requirements

The requirements for a major in statistics are 11.5 units, including four required core mathematics courses, four required core statistics courses, either a 0.5 unit course in statistical computing or comparable introductory computer science course, two electives, and a senior-year experience.

Core Mathematics Courses

(all required)

MATH 135. Calculus I.

MATH 136. Calculus II.

MATH 205. Multivariate Calculus.

MATH 217. Linear Algebra.

Core Statistics Courses

(all required)

STAT 113. Applied Statistics.

STAT 213. Applied Regression Analysis.

STAT 201. Statistical Computing. (0.5 units)

STAT 325. Probability.

STAT 326. Mathematical Statistics.

Electives

(any three units*)

Statistics

STAT 226. Statistical Methods for Data Collection.

STAT 240. Statistical Learning. (0.5 units)

STAT 250. Special Topics in Statistics.

STAT 342. Econometrics. (also offered in economics)

STAT 343. Time Series Analysis.

STAT 350. Special Topics in Statistics.

STAT 450. SYE: Seminar.

STAT 489. SYE: Independent Project.

STAT 498. SYE: Honors Project.

Mathematics

MATH 280. Bridge to Higher Mathematics.

MATH 305. Real Analysis.

MATH 350. Mathematical Modeling.

Computer Science

CS 219. Techniques in Computer Science.

Senior-Year Experience

Students must fulfill a Senior-Year Experience (SYE) requirement either in statistics as one of the 11.5 units in the major or by completing an SYE outside the major.

**At least two of the elective courses must be at the 300 level or above. A Statistics SYE could count toward this total. Further, MATH 280 can also count toward this total. At least two of the elective courses must be listed with the prefix STAT.*

Honors

Honors work in statistics provides the student with an opportunity for more independent and creative work in pure or applied statistics. A minimum GPA of 3.5 in the major is required to receive honors in statistics. In addition, each student applying for honors must complete a departmentally approved honors project. This work is completed as a senior year experience project. Interested students should consult the department chair.

Minor Requirements

Five units are required for this minor of which at least three must be in Statistics (i.e, have a STAT prefix). The remaining two units can be either from Statistics or from among the options listed below. Additionally, one of the two non-STAT units may be an independent study/honors project without a STAT prefix that involves substantial statistical analysis.

Economics

ECON 200. Quantitative Methods in Economics.

Psychology

PYSC 205. Research Methods in Psychology.

Sociology

SOC 301. Quantitative Research Methods.

Major/Minor with Mathematics

By their very nature, the disciplines of Mathematics and Statistics are closely connected, and several of the courses offered within the Mathematics, Computer Science, and Statistics department can be used towards a major or minor in both. However, to ensure that the students that wish to double major (or major and minor) in the two fields have sufficient depth of knowledge within each field, there are some limitations on the number of courses that can count towards both.

Details can be found at the Mathematics, Computer Science, and Statistics department webpage:

www.stlawu.edu/math.

Advanced Placement

Students who enter St. Lawrence with a 4 or 5 on the Advanced Placement Statistics test will receive credit for STAT 113 and are encouraged to start with STAT 213 or STAT 226.

Courses

113. Applied Statistics.

An introduction to statistics with emphasis on applications. Topics include the description of data with numerical summaries and graphs, the production of data through sampling and experimental design, techniques of making inferences from data such as confidence intervals, and hypothesis tests for both categorical and quantitative data. The course includes an introduction to computer analysis of data with a statistical computing package.

201. Statistical Computing.

This 0.5 unit, half semester class, provides an introduction to the core ideas of programming and modern statistical computing through the use of the statistical programming language and software, R. Assumes no prior knowledge of programming but a familiarity with basic statistics is required. The course focuses on building essential programming skills as well as introduce students to basic data science skills such as data wrangling and visualization. Prerequisite: STAT 113 or permission of instructor. Offered in the fall semester.

213. Applied Regression Analysis.

A continuation of Statistics 113 intended for students in the physical, social or behavioral sciences. Topics include simple and multiple linear regression, model diagnostics and testing, residual analysis, transformations, indicator variables, variable selection techniques, logistic regression, and analysis of variance. Most methods assume use of a statistical computing package. Prerequisite: STAT 113 or ECON 200 or permission of instructor.

226. Statistical Methods for Data Collection.

An introduction to statistical methods for data collection. Topics include methods for survey sampling and design of experiments. Survey sampling topics such as simple random sampling, survey sampling, cluster sampling, and capture/recapture sampling are covered. Design of experiment topics such as randomization, blocking, completely randomized design, randomized complete block design, Latin square, and factorial designs are covered. Statistical methods for analyzing data collected via the aforementioned methods are extensively discussed. Thorough use of a statistical software package is incorporated. Prerequisite: STAT 113 or ECON 200 or permission of instructor.

240. Topics in Statistical Learning.

This 0.5 unit, half semester class, is intended to introduce students to a variety of tools and methods in statistical and machine learning. Topics may include unsupervised learning (i.e., cluster analysis), dimensionality reduction, and supervised learning (via classification algorithms). The emphasis will be on applying procedures to data and interpreting both numerical and graphical results. Prerequisite: STAT 201 and one of STAT 213, 226 or 342, or permission of instructor. Offered in the fall semester when feasible.

325. Probability.

This course covers the theory of probability and random variables, counting methods, discrete and continuous distributions, mathematical expectation, multivariate random variables, functions of random variables and limit theorems. Prerequisite: MATH 205. Offered in the fall semester. *Also offered through Mathematics.*

326. Mathematical Statistics.

Following STAT 325, this course deals with the theory of parameter estimation, properties of estimators and topics of statistical inference, including confidence intervals, tests of hypotheses, simple and multiple linear regression, and analysis of variance. Prerequisite: STAT 325. Offered in the spring semester.

342. Econometrics.

A study of statistical techniques economists have found useful in analyzing economic data, estimating relationships among economic variables and testing economic theories. Topics include multiple regression, probit and logit analysis, heteroscedasticity, autocorrelation and simultaneous equations models. Prerequisites: ECON 200, 251 and 252 and MATH 135. *Also offered as ECON 342.*

343. Time Series Analysis.

Statistical methods for analyzing data that vary over time are investigated. Topics may include forecasting systems, regression methods, moving averages, exponential smoothing, seasonal data, analysis of residuals, prediction intervals and Box-Jenkins models. Application to real data, particularly economic data, is emphasized along with the mathematical theory underlying the various models and techniques. Prerequisite: MATH 136 or permission of the instructor. Offered every other year.

389, 390. Independent Projects.

Permission required.

450. SYE: Senior Seminar.

Permission required.

489. SYE: Senior Independent Project.

Permission required.

498. SYE: Senior Honors Project.

Permission required.