2016-2017 Catalog Corrections

The following corrections have been made to the Course Catalog after the electronic version was posted.

- **Page 393 – *Museum studies***
  Corrected October 12, 2016

  Changed:
  Requirements for interdisciplinary area in museum studies from:
  1. Two core courses:
  a. ANTH 222: *Historic Preservation Theory and Practice*
  b. ARHI 315: *Introduction to the Art Museum*

  2. Three additional six-unit courses with significant museum studies content, selected in consultation with museum studies faculty. See the following list for suggested courses that would fulfill this requirement. Students are strongly encouraged to take at least one course that emphasizes visual analysis.
  a. At least one from:
  i. Six units of ANTH 422: *Archaeological Collections Management*
  ii. Six units of independent study working in the Wriston Art Gallery or the University Archives
  iii. A six-unit internship at a museum, historic site, or similar institution, from an appropriate academic department

  to:

  1. Two core courses:
  a. ANTH 222: *Historic Preservation Theory and Practice*
  b. ARHI 315: *Introduction to the Art Museum*

  2. Three additional six-unit courses with significant museum studies content, selected in consultation with museum studies faculty. See the following list for suggested courses that would fulfill this requirement. Students are strongly encouraged to take at least one course that emphasizes visual analysis.

  3. At least one from:
  a. Six units of ANTH 422: *Archaeological Collections Management*
  b. Six units of independent study working in the Wriston Art Gallery or the University Archives
  c. A six-unit internship at a museum, historic site, or similar institution, from an appropriate academic department

- **Page 675 – *Academic procedures and regulations***
  Corrected October 12, 2016

  Changed:
  Under "Coursework or examinations in languages not taught at Lawrence" and "Additional options for native speakers of languages other than English," students were advised to contact the chair of the language coalition (Peter John Thomas, Russian department) for assistance rather than the Center for Academic Success.
- **Page 43 – *Art***
  Corrected Jan. 4, 2017

  Changed:

Separated art and art history faculty lists

- **Page 56 – *Art history***
  Corrected Jan. 4, 2017

  Changed:
  Separated art and art history faculty lists
- **Page 91 – *Biomedical ethics***
  Corrected Jan. 4, 2017

  Changed:
  Department chair to Ansfield
- **Page 77, 162, 296, 314, 329, 381, 440, 491**
  Corrected Jan. 4, 2017

  Changed:
  Leave terms for various faculty members
- **Pages 695–717—*Faculty directory***
  Corrected Jan. 4, 2017

  Changed:
  Updated faculty information

Course Catalog 2016–17

LAWRENCE UNIVERSITY

APPLETON, WISCONSIN

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Lawrence University does not discriminate on the basis of sex, race, color, national or ethnic origin, religion, sexual orientation, parental or marital status, age or disability in its programs and activities. Inquiries regarding the non-discrimination policy may be directed to the provost and dean of the faculty at 920-832-6528.

This catalog represents the most accurate information on Lawrence University at the time of its posting. The university reserves the right to make such alterations in its programs, regulations, fees and other policies as warranted.

Lawrence is accredited as a degree-granting institution by the Higher Learning Commission, and the Conservatory of Music is an accredited institutional member of the National Association of Schools of Music. Lawrence also is a member of the Midwest Conference and National Collegiate Athletic Association, Division III (NCAA III).

Mission statement

Lawrence University of Wisconsin, through its undergraduate residential college and Conservatory of Music, educates students in the liberal arts and sciences. The university is devoted to excellence and integrity in all of its activities and committed to the development of intellect and talent, the pursuit of knowledge and understanding, the cultivation of sound judgment and respect for the perspectives of others. Lawrence prepares students for lives of achievement, responsible and meaningful citizenship, lifelong learning and personal fulfillment. As a diverse learning community of scholars and artists, we actively foster a transformative process that emphasizes engaged learning, supported by an environment of rich educational opportunities in a residential campus setting.

Educational philosophy

Students enter Lawrence at a time when they are actively forging their identities and seeking their places in the world. A Lawrence education is therefore transformative: We strive to help each student develop as a liberally educated person who can think deeply and creatively about ideas, gather and analyze evidence, communicate effectively, and articulate a personal identity that leads to thoughtful life choices. This transformation is supported by a learning community that immerses students in the breadth of human experience, engages ideas in a spirit of open discourse, values the uniqueness of the individual and celebrates accomplishment. The foundation for this learning community is a vibrant, safe and healthful residential campus that contains talented and diverse groups of students, faculty, administrators and staff. Our residential experience is enhanced by opportunities to study abroad and to become involved in the wider community. The university values effective teaching combined with distinguished scholarship and creative activity.

We see in each student the potential to become an informed, independent thinker and concerned, responsible citizen. Lawrence students can personalize their learning through interactions with peers, professors and staff in a wide variety of settings, both formal and informal. The process begins with our *Freshman Studies* program, continues through the sophomore and junior years and ends with our *Senior Experience* programs.

Liberal learning

Liberal education is transformative education. It transforms individuals with intellectual and creative potential into persons ready for lives of accomplishment and fulfillment. Through liberal learning, students develop their intellect, capacity for creativity, and self-direction. Liberal learning is based on principles of open and free inquiry, a devotion to excellence, and engagement with exciting and interesting fields of knowledge. Liberal learning aims to develop analytical thinking abilities, communication skills, quantitative reasoning and creativity. It is creativity—the capacity to create what did not exist before—that helps set us free and makes liberal education a *liberating education*.

Liberal learning frees us from the restraints of time and place, enabling us to grow, to change and to respond to the new, the unforeseen, the unexpected. To be liberally educated is to live imaginatively in worlds not our own and to examine values not of our making.

A liberal education tests our ability to investigate and understand the nature of an organism, the applications of a theorem, the behavior of a crowd, the principles of a political system, the meaning of a poem, the causes of an event, the consequences of an argument or the composition of a symphony.

Liberal education promotes diversity, skepticism and debate. It views the world as changing, not fixed. It asks not only what, but why. It insists that we make judgments rather than have opinions; that we treat ideas seriously, not casually; that we be committed instead of indifferent.

Above all, however, a liberal education enables us to be self-directed—to choose for ourselves what we want to be and what we want to create. Lawrence students use their education for many careers—law, public service, health professions, business, teaching, science creative writing, theatre, the social sciences and art. The liberal education that Lawrence provides is a solid foundation for all of these careers—and many more. We help you learn how to learn things you have not experienced before and create what is new, and these abilities will help you in anything you choose to do in life.

A residential community

Lawrence is by design a residential college. All students live on campus because we believe that a small residential community with abundant opportunities for personal interaction outside the classroom provides the proper environment for a liberal arts education. Juniors can learn from freshmen, science majors from art majors and student athletes from student musicians. Located near downtown Appleton on the banks of the Fox River, the Lawrence campus has become the cultural and intellectual heart of a vibrant, modern, Midwestern city.

At the core of everything we do is a deep commitment to our mission to educate men and women in the liberal arts and sciences: developing intellect, talent, knowledge, and understanding; cultivating judgment and values; and preparing students for lives of service, achievement, leadership, personal fulfillment and lifelong learning.

The curriculum of the university is structured in three parts. For the Bachelor of Arts degree, students take about one-third of their coursework in general education, another third in their major course of study, and a final third in elective areas of study. Bachelor of Music students take about one-third of their courses in general education and the remaining two-thirds in music-related study. All courses of study begin with *Freshman Studies* and culminate in a *Senior Experience*.

Freshman Studies

Entering students are enrolled in *Freshman Studies,* a two-course sequence specifically designed to acquaint students with the modes of inquiry characteristic of intellectual discourse at Lawrence and to improve their reading, writing and speaking skills. The program does more than develop these basic academic skills, however. While studying distinctive works suggested by all academic divisions, students engage in critical analysis and discussion of important ideas that are timelessly relevant. *Freshman Studies* is both an introduction to and an important part of a Lawrence education.

Transfer students may have one or both terms of *Freshman Studies* waived based on the amount and nature of the credit accepted from other colleges and universities towards Lawrence degrees.

General education requirements

General education ensures that Lawrence students gain familiarity with different academic disciplines and the modes of thought and expression appropriate to each, that they develop an understanding of international and domestic diversity and their impact on contemporary life, and that they develop competencies in writing/speaking, quantitative reasoning, and world languages.

Distribution

The purpose of the distribution requirement is to ensure that students graduating from Lawrence experience the breadth of study central to a liberal arts education. For that reason, students are required to take at least one course in each of the following divisions:

Humanities: Chinese, Classics, English, French and Francophone Studies, German, History, Japanese, Philosophy, Religious Studies, Russian and Spanish.

Natural sciences: Biochemistry, Biology, Chemistry, Geology, Mathematics and Computer Science, and Physics.

Social sciences: Anthropology, Economics, Education Studies, Government, and Psychology.

Fine arts: Art and Art History, Music and Theatre Arts.

Interdisciplinary programs, such as film studies, innovation and entrepreneurship, and global studies, are usually non-divisional. However, such non-divisional courses, as well as education and university courses, may be assigned divisional affiliations when appropriate.

Diversity

The purpose of the diversity requirements is to prepare students for positions of leadership within an increasingly diverse American society and an increasingly interconnected world. Diversity requirements call for at least one course with a global perspective focusing on an area outside Europe and the United States (courses listed with a “G” designation in the class schedule) and one course exploring dimensions of diversity in contemporary American society (courses listed with a “D” designation in the class schedule).

Competency

Competency requirements improve fundamental skills central to a liberal arts education and include courses designated as writing intensive (W), speaking intensive (S), emphasizing quantitative reasoning (Q), and leading toward proficiency in a language other than English (at the 200 level or above). Alternative ways to satisfy the language proficiency requirement are described under Academic Procedures and Regulations.

Majors

Liberal learning calls for depth as well as breadth of knowledge. The academic major gives students the opportunity to master a subject while providing the challenge and pleasure of learning something thoroughly. Students can choose to major in the academic area that best suits their interests or design their own major (see Individualized Learning). Students pursuing a Bachelor of Music degree also select an area of emphasis for the major in performance, music education, or theory/composition (see Conservatory of Music). All major programs share a commitment to increasing knowledge and methodological sophistication in a specific area of study, and every major includes a *Senior Experience* (see below) as a capstone requirement.

Elective areas of study

Many students supplement their majors with focused study in a second major, minor or interdisciplinary area; with certification to teach in pre-kindergarten through 12th grade education; or with preparation for professional study in business, law, or health careers (described under “postgraduate options” in Planning an Academic Program). Students may also take university courses on topics of interest, pursue various options for individualized learning, and gain firsthand experience in an off-campus program in the U.S. or abroad.

Minors and interdisciplinary areas

Minors provide an opportunity for students to do focused work in a field outside the major. Some students will combine majors and minors in closely related fields—biology and chemistry, for instance, or English and history—while others will use minors to explore subjects very different from their major areas of study. Minors are offered by almost all curricular departments of the university.

Interdisciplinary areas allow students to cross departmental or disciplinary boundaries and address issues from several perspectives. Those students who satisfy the requirements of an interdisciplinary area may have the area listed on their transcripts along with their declared majors.

Majors, minors, and interdisciplinary areas are listed alphabetically under Areas of Study.

Teacher certification

Lawrence offers certification at the elementary level (with any major), at the secondary level in most subjects (with a major in the subject area, and a major or minor for an additional area) and at the elementary and secondary level in music, art, world languages, and English as a second language. Students may student-teach during the senior year or in a 13th term (without normal tuition charges) in the fall after graduation. Those interested in teacher certification should consult with the education department faculty at their earliest opportunity.

University courses

University courses (listed with the prefix UNIC) deal with subjects of interest and importance that are outside the purview of any given department. These include courses in additional languages, academic skills, or personal development, as well as interdisciplinary courses on contemporary concerns that cross traditional academic boundaries. Students from all disciplines may enroll in university courses.

Individualized learning

Student-initiated options for study are a long-standing feature of the Lawrence curriculum. Most often, students elect tutorials or independent study in order to pursue topics of special interest in depth. Additional opportunities for individualized learning include directed study, academic internships, and writing for credit. Non-music majors may request private music lessons by audition or interview and with an additional fee.

Off-campus programs

Lawrence University encourages students to extend their programs of study by participating in the challenging educational and cultural experiences offered through our portfolio of off-campus programs. Lawrence operates programs of its own, including the London Centre and the Francophone Seminar in Senegal, and also offers programs operated by other organizations, such as the Associated Colleges of the Midwest (ACM) and the Institute for the International Education of Students (IES). These programs have been evaluated by the faculty and approved for Lawrence affiliation.

It is best to plan ahead for off-campus study when considering options for majors and minors. Interested students should make an appointment with the director of off-campus programs as early as the freshman year to explore the range of possibilities for including off-campus study in their degree program.

Senior Experience

Senior Experience engages all Lawrence seniors in an academic project demonstrating proficiency in their major field of study, the integration of knowledge and skills gained during their years at Lawrence, and the development of scholarly or artistic independence. Students discuss *Senior Experience* plans with faculty advisors during the junior year. Then every graduating senior produces something significant—an independent or collaborative research or creative project, major seminar paper, portfolio, performance, or exhibition—to satisfy criteria for the major set by faculty of that department or program. Every major listed under Areas of Study in the catalog includes a description of how students can satisfy the *Senior Experience* requirement for that department or program.

Students pursuing studies in more than one area can propose a *Senior Experience* that integrates two majors or incorporates student teaching, but the proposal must be approved by both departments or programs as satisfying the requirement.

Students must plan ahead if they are to meet the goals of a liberal arts education. The first step toward planning is to become aware of the range of Lawrence's curricular offerings and programs. The Course Catalog contains this information, and students should become thoroughly familiar with it. Students should discuss their academic plans regularly with their faculty advisors and, as needed, with advisors of other programs in which they have an interest.

Faculty advisors

Upon entering Lawrence, each student is assigned a faculty advisor to give advice and perspective on developing an educational program. Students who build strong relationships with their advisors will benefit most from a Lawrence education. If necessary, students may change or add advisors as they develop a close working relationship with another faculty member.

Students should have an advisor in their major field of study by the spring term of their sophomore year when they register for their junior courses. The major advisor will help them plan their coursework to satisfy requirements for the major, select courses in other areas to complement the major or satisfy personal interests, and prepare for their *Senior Experience*. The major advisor will also certify completion of major requirements when the student applies for graduation.

Students must have an advisor for every major. Students do not need an official advisor for a minor, interdisciplinary area, or teacher certification but are encouraged to consult with the chair or faculty in those departments or programs for advice on course selection and how to satisfy requirements.

Planning a course of study

In the first year of study, freshmen typically enroll in seven courses (two in fall, two in winter, and three in spring) in addition to the two-term *Freshman Studies* sequence. Freshmen should take courses that will help them plan their next three years of study: exploring possible majors and areas of interest while also trying new subjects. Students interested in math, computer science, or natural sciences should take a math sequence the first year, while students interested in the humanities, social sciences, or arts should consider a foreign language sequence. Students should also balance different types of courses each term, with no more than one lab course or intensive reading/writing course at a time. Bachelor of Music students have fewer choices in the first year since they must also take music theory and private lessons. Some majors and pre-professional programs require that specific course sequences be started in the freshman year. And students may want to look ahead to off-campus programs and learn when these programs are offered and what, if any, coursework is required to participate in them.

In the second year of study, sophomores continue to sample a variety of disciplines and satisfy general education requirements as they work toward declaring a major and finding an advisor in their major department who can help them plan their final two years of study. At this point, students might begin to pursue a second major, a minor or interdisciplinary area, or teacher certification.

Finally, the sophomore year is an excellent time to plan for off-campus study (often undertaken in the junior year), to explore possible internships or summer research that places learning in context, and to begin considering postgraduate options such as graduate study, professional study, or the start of a career.

In the third and fourth years of study, juniors and seniors complete coursework for the major and any minors, interdisciplinary areas, or teacher certification. They may pursue experiential learning through off-campus study, internships, or summer research. All students plan and carry out a *Senior Experience* to integrate what they have learned in their Lawrence education.

While planning is essential, it need not be rigid. Interests that students express on arrival at Lawrence often change as a result of exposure to new and different areas of study. This is why students are encouraged to explore the curriculum during the first year of study and need not declare a major until later in the sophomore year.

Course numbering

Lawrence courses are numbered at four different levels: introductory (100-199), foundation/gateway (200-399), advanced (400-599), and capstone (600-699). Freshmen select courses mostly at the introductory level, though some foundation/gateway courses can be taken without prerequisites or with advanced placement credit.

Introductory courses (100–199): Introductory courses generally do not require prior study unless they are part of a sequence, such as introductory language or mathematics courses. This level includes courses introducing students to the discipline as well as any topical courses aimed at non-majors.

Foundation/gateway courses (200–399): Foundation/gateway courses represent the second tier of work in each discipline and might include methods courses and introductions to sub-disciplines. Typically these courses are not appropriate for entering freshmen, but in some departments they might be appropriate for continuing students with no prior experience in the subject.

Advanced courses (400–599): Advanced courses include seminar series, special-topics courses and advanced work in sub-disciplines. Students enrolling in advanced courses are expected to understand the basic methodology of the discipline.

Capstone courses (600–699): Capstone courses include the culminating work in a discipline that is typically part of a *Senior Experience*. They are not appropriate for students who are neither majors nor minors in the discipline.

It is the responsibility of the student to satisfy any prerequisites listed for specific courses. Faculty members may refuse to admit any student who has not satisfied listed prerequisites.

Course credit

A standard course at Lawrence is valued at 6 units. A normal course load for a term is three standard courses (18 units), and a total of 36 standard courses (216 units) is required for a Lawrence degree. Music ensembles are valued at 1 unit per term, and there are some other courses that carry fewer than 6 units. For more information about course loads and how to translate Lawrence units into semester or quarter hours, please see Academic Procedures and Regulations.

Postgraduate considerations

Career planning

Career Services offers a wide range of services to all Lawrentians—undergraduates and graduates alike. These include individual career counseling to assist in identifying career interests and skills, as well as assistance in developing internships and summer employment. Career Services participates in job and internship fairs and on-campus and off-campus recruiting opportunities. The department offers workshops and seminars to increase career awareness and to improve job-search skills. It also collects and publicizes information on specific job and internship opportunities. Students are urged to attend Career Services events as early as the freshman year to begin developing career plans and internship opportunities.

Graduate study

Students can discuss options for postgraduate study with any faculty member. In addition, students interested in graduate and professional schools will find a variety of valuable resources in Career Services. Students can research information on specific schools and programs, on graduate and professional school entrance examinations and on financial aid.

Professional study

Lawrence strongly believes that liberal education—with its emphasis on skills of analysis and communication, on breadth of knowledge, and on the ability to pursue knowledge of one area in depth—affords the best preparation for rigorous professional study. Since these attributes of liberal education can be developed and nurtured regardless of a student's area of concentration, in most cases Lawrence does not prescribe fixed courses of study for students with pre-professional interests.

At the same time, we recognize that some professional programs and schools require specific preparation at the undergraduate level. Students should consult with the Coordinator for Pre-Professional Advising and Major Fellowships, who will arrange for them to meet with a faculty advisor and guide them through the process of preparing for and applying for professional study.

PRE-BUSINESS
Advisor: A. Galambos

Students who plan to undertake postgraduate study in business—in most cases a program leading to a master's degree in business administration—normally are advised to supplement the major of their choice and the university's General Education Requirements with coursework in mathematics, as well as statistics, economics and computer science. In addition, they should pay particular attention to the development of writing skills.

PRE-LAW
Advisor: S. Wulf

Legal studies require strong analytic skills, a knowledge of society and the ability to communicate effectively. Students planning to attend law school normally are advised to supplement the major of their choice and the university's General Education Requirements with some coursework in philosophy and the theoretical and analytic aspects of their field of concentration, as well as coursework in the social sciences.

HEALTH CAREERS
Advisory Committee: D. Martin (chair), M. Ansfield, S. Debbert, E. De Stasio, N. Wall

The Health Careers Advisory Committee works closely with students as they apply to medical schools and other programs to prepare for health science and allied health careers. It provides guidance in the selection of schools, in developing applications, in the preparation for interviews and in planning for medical school admissions testing.

Students who plan to attend medical school may concentrate in the field or fields of their greatest interest. Medical schools do, however, require considerable work in the natural sciences, including biology, chemistry and physics, as well as English. Members of the Health Careers Advisory Committee are available to help students select courses that will meet the requirements of medical schools and at the same time provide a broad liberal education.

Lawrence offers a number of programs designed to familiarize students with the nature of medical education and practice. These programs include workshops, discussions with local physicians and opportunities to observe, under the supervision of local practitioners, various aspects of the medical profession. The college also sponsors Mielke and Kasel Summer Internship Grants. The former provides opportunities to study medical problems in the Fox Valley, and the latter offers internships in biomedical ethics, health economics and medical humanities.

Divisions within the university

Lawrence University organizes its curricular programs and offerings into divisions that are further described in the degree requirements. The divisions are as follows:

- **Humanities:** Chinese, classics, English, French and Francophone studies, German, history, Japanese, philosophy, religious studies, Russian and Spanish.

- **Natural sciences:** biochemistry, biology, chemistry, geology, mathematics and computer science and physics.

- **Social sciences:** anthropology, economics, education studies, government and psychology.

- **Fine arts:** art and art history, music and theatre arts.

Interdisciplinary programs, such as biomedical ethics, East Asian studies, environmental studies, ethnic studies, gender studies and linguistics are usually non-divisional. However, such non-divisional courses, as well as education and university courses may be assigned divisional affiliations when appropriate.

Residence Requirements

To qualify for a Lawrence University B.A. or B.Mus. degree, students are required to have a minimum of six terms in residence and earn 108 units (Lawrence foreign study programs, Associated Colleges of the Midwest programs and other special arrangements under Lawrence sponsorship included). Nine terms in residence and 162 units are required for the five-year B.A. and B.Mus. double-degree program.

Students must be in residence on the Appleton campus until they have completed the *Freshman Studies* requirement.

The last three terms of work and a minimum of 54 units submitted for the graduation requirements must be done in residence unless a department (or departments or advisory committee, where appropriate) previously has certified completion of the requirements for a major. This requirement, or one of its parts, may be waived by the admissions office in the case of incoming transfer students or by the Faculty Subcommittee on Administration in any other cases.

December Term is not counted as part of the residence requirement for a Lawrence degree.

Bachelor of Arts degree

Students seeking the Bachelor of Arts degree will complete approximately one-third of their work in each of three areas: *Freshman Studies* and general education, a major and elective study. The *Freshman Studies* and general education requirements are designed to promote the breadth of study central to a liberal arts education, perspective on issues critical to a diverse America and an interconnected world, and the development of skills essential for success in any discipline or profession. The completion of a major provides focused, in-depth work in a single discipline. Elective study affords students opportunities to develop secondary interests, work in areas complementary to their primary discipline or explore new fields of study.

Requirements for the Bachelor of Arts degree

1. Completion of 216 units. Of the 216 units required for the degree, a student must present:
    a. a minimum of 72 units from courses numbered 200 or above
    b. no more than 162 units from a single division
    c. no more than 90 units from a single department, except that in the art department a student may present no more than 126 units, no more than 90 of which may be in studio art and no more than 90 of which may be in art history.
    d. no more than 42 units in education
    e. no more than 18 units in ESL courses
    f. no more than 12 units from academic internships
2. In the freshman year, 12 units of *Freshman Studies*
3. Completion of the general education requirements:
    a. Distribution, in order to gain exposure to a range of disciplines, subjects, and perspectives within the liberal arts:
        i. 6 units selected from departments and courses listed within the division of humanities. All courses in the humanities taught in English will count toward this requirement. Humanities courses taught in a language other than English and numbered 300 and above will count toward this requirement, except as noted in the course catalog.
        ii. 6 units selected from departments and courses listed within the division of fine arts
        iii. 6 units selected from departments and courses listed within the division of social sciences
        iv. 6 units selected from laboratory courses in biology, chemistry, geology or physics in the division of natural sciences

See the “University divisions” section of the course catalog.

    b. Diversity, in order to prepare students for a more global world and a more diverse America:

        i. 6 units selected from courses designated as either emphasizing global and comparative perspectives on the world or focusing on areas outside Europe and the United States
        ii. 6 units selected from courses designated as focusing on dimensions of diversity, such as race, ethnicity and gender, that are of particular importance in understanding contemporary society in the United States
    c. Competency, in order to improve and reinforce those fundamental abilities central to a liberal arts education:
        i. 6 units selected from courses designated as writing intensive or 6 units selected from courses designated as speaking intensive
        ii. 6 units selected from courses designated as emphasizing mathematical reasoning or quantitative analysis
        iii. 6 units in a language other than English taken from courses numbered 200 or above and taught primarily in that language. The language competency requirement may be satisfied in other ways described under "Academic procedures and regulations."
4. Completion of a major—departmental, interdisciplinary or student-designed—including all course and non-course requirements, such as departmental examinations, research projects and presentations, portfolios, etc. Students are required to declare a major by the beginning of the junior year.
5. Completion of the designated *Senior Experience* course or activity within the chosen major.
6. An academic record that meets the following standards:
    a. A 2.000 grade-point average in all Lawrence courses
    b. A 2.000 grade-point average in the college major (all courses taken in the major department and any required courses outside the major department)
7. Completion of the required terms and units in residence as specified by the university residence requirements.

STIPULATIONS PERTAINING TO THE GENERAL EDUCATION REQUIREMENTS
Qualified courses may count toward the requirements in any two of the categories above (distribution, diversity, and competency). Some courses may meet two requirements within a category. No single course can be used to fulfill more than two requirements.

Credits granted pursuant to university policy for examinations (Lawrence Advanced Placement (AP), International Baccalaureate (IB), or A-levels) may be used as appropriate to fulfill diversity or competency requirements only (see also "Evaluation of credit for transfer students" in the "Academic procedures and regulations" section).

Bachelor of Music degree

The Bachelor of Music is a professional degree. Courses in music represent approximately two-thirds of the curriculum, while one-third is devoted to *Freshman Studies* and general education requirements.

In addition to academic policies and regulations, students in the Conservatory are subject to policies and procedures detailed in Conservatory department guidelines and the Conservatory Student Handbook.

Admission to the degree

An entrance audition is required of all applicants for admission to the Bachelor of Music degree. Bachelor of Arts students who wish to become Bachelor of Music students must petition the Conservatory Committee on Administration for admission. Bachelor of Music students who wish to become Bachelor of Arts students must petition the University Faculty Subcommittee on Administration for acceptance into the Bachelor of Arts degree program. Such changes are not normally allowed before the end of the freshman year nor later than the beginning of the junior year.

Degree requirements

1. Completion of a minimum of 216 units. The following music courses are used in the computation of the degree grade-point average but are excluded from the total of 216 units required for the degree: MURP 201, 202, 203, 301, 302 and MUTH 161, 162, 171, 172.
2. Of the 216 units required to complete the degree, a student must present:
    a. a minimum of 144 units in music
    b. a minimum of 60 units in courses other than music
    c. no more than 18 units in ESL courses
    d. no more than 12 units from academic internships

The additional 12 units may be selected from any department.

3. In the freshman year, 12 units of *Freshman Studies*
4. Completion of the general education requirements:
    a. 6 units selected from courses designated as writing intensive
    b. International diversity. One of the following:
        i. 6 units selected from courses designated as either emphasizing global and comparative perspectives on the world or focusing on areas outside Europe and the United States
        ii. 12 units selected from courses numbered below 200 in a single language other than English. The language competency requirement may be satisfied in other ways described under “Academic procedures and regulations.”
        iii. Participation for one term in a Lawrence or affiliated off-campus study program held outside the United States

Note: While some music courses may satisfy general education requirements, a minimum of 60 units in courses other than music is required for the degree.

5. Completion of music core requirements:
    a. Music theory
        i. MUTH 151, 161, 171 or MUTH 201, 211, 221
        ii. MUTH 152, 162, 172 or MUTH 202, 212, 222
        iii. MUTH 251, 261, and 271
        iv. MUTH 252, 262, and 272
        v. MUTH 301, 311, and 321
    b. Musicology
        i. MUCO 201 and 202
        ii. 12 units selected from courses in musicology numbered 400 or above
    c. Keyboard skills: MURP 201, 202, 203 or MURP 301, 302
    d. Applied music individual instruction as specified under requirements for the major and areas of emphasis
    e. Ensemble study: a minimum of 12 units. Students are required to participate in an ensemble every term in which they are attending classes on the Appleton campus. Requirements for specific types of ensemble study (MUEN) are specified under requirements for majors and areas of emphasis.
6. Completion of a major in music—performance, music education, theory/composition or student-designed—including all course and non-course requirements, such as recitals, qualifying examinations, etc.
7. An academic record that meets the following standards:
    a. A 2.000 grade-point average in all Lawrence courses
    b. A 2.000 grade-point average in the music major (all music courses and non-music courses required for the major) unless otherwise specified under the major requirements
8. Completion of required terms and units in residence as specified by the residence requirements.

STIPULATIONS PERTAINING TO THE GENERAL EDUCATION REQUIREMENTS
A single course may be used to satisfy both requirement a. (writing intensive) and b. (international diversity) above. Credits granted pursuant to university policy for advanced placement or for transfer work may be used to fulfill general education requirement (see also “Evaluation of credit for transfer students” in the “Academic procedures and regulations” section).

Bachelor of Arts/Bachelor of Music double-degree program

Professional study in music and study in the liberal arts may be combined in a five-year program leading to both Bachelor of Music and Bachelor of Arts degrees, the latter with a major other than music. Both degrees are awarded at the conclusion of the five-year program. Interested students should discuss this possibility with their advisors as early as possible.

Approximately half of the curriculum is devoted to the study of music—completion of the music core and requirements for a major in performance, music education or theory/composition. The other half of the curriculum mirrors that of the Bachelor of Arts program, emphasizing breadth of study central to a liberal arts education, focused study in the college major and elective study to complement other work or explore other fields of interest.

Certain majors in the Bachelor of Arts degree program (for example, some laboratory sciences) may be difficult to combine with the Bachelor of Music degree program into a five-year double-degree program, especially if the student's objective is to maintain serious options for graduate or professional work in both areas after graduation. Such combinations may require that course overloads be taken to complete minimum requirements in each major in a timely and satisfactory manner. Early and regular consultation with advisors in both the college and the conservatory is imperative. Further, students who seek certification for purposes of teaching a subject other than music are urged to see the associate dean of the Conservatory.

In addition to academic policies and regulations, students in the conservatory are subject to policies and procedures detailed in Conservatory department guidelines and the Conservatory Student Handbook.

Requirements for the five-year Bachelor of Arts/Bachelor of Music Degrees

1. Completion of a minimum of 15 terms of study and 270 units. Of the 270 units required, a student must present:
    a. a minimum of 144 units in music, exclusive of MURP 201, 202, 203, 301, 302 and MUTH 161, 162, 171, 172
    b. a minimum of 114 units selected from courses other than music
    c. no more than 42 units from courses in education
    d. no more than 18 units in ESL courses
    e. a minimum of 72 units from courses numbered 200 and above
    f. no more than 90 units from a single department outside of music, except that in the art department a student may present no more than 126 units, no more than 90 of which may be in art and no more than 90 of which may be in art history
    g. no more than 12 units from academic internships
2. In the freshman year, 12 units of *Freshman Studies*.
3. Completion of the general education requirements:
    a. Distribution, in order to gain exposure to a range of disciplines, subjects, and perspectives within the liberal arts:

i. 6 units selected from departments and courses listed within the division of humanities. All courses in the humanities taught in English will count toward this requirement. Humanities courses taught in a language other than English and numbered 300 and above also will count toward this requirement, except as noted in the course catalog.
ii. 6 units selected from departments and courses listed within the division of fine arts
iii. 6 units selected from departments and courses listed within the division of social sciences
iv. 6 units selected from laboratory courses in biology, chemistry, geology or physics in the division of natural sciences

b. Diversity, in order to prepare students for a more global world and a more diverse America:
   i. 6 units selected from courses designated as either emphasizing global and comparative perspectives on the world or focusing on areas outside Europe and the United States
   ii. 6 units selected from courses designated as focusing on dimensions of diversity, such as race, ethnicity and gender, that are of particular importance in understanding contemporary society in the United States
c. Competency, in order to improve and reinforce those fundamental abilities central to a liberal arts education:
   i. 6 units selected from courses designated as writing intensive or 6 units selected from courses designated as speaking intensive
   ii. 6 units selected from courses designated as emphasizing mathematical reasoning or quantitative analysis
   iii. 6 units in a language other than English taken from courses numbered 200 or above and taught primarily in a language other than English. The language competency requirement may be satisfied in other ways described under “Academic procedures and regulations.”

4. Completion of a college major—departmental, interdisciplinary or student-designed—exclusive of music, including all course and non-course requirements, such as departmental examinations, research projects and presentations, portfolios, etc. Students are required to declare a major by the beginning of the junior year.
5. Completion of music core requirements:
   a. Music Theory
      i. MUTH 151, 161, 171 or MUTH 201, 211, 221
      ii. MUTH 152, 162, 172 or MUTH 202, 212, 222
      iii. MUTH 251, 261, and 271
      iv. MUTH 252, 262, and 272
      v. MUTH 301, 311, and 321
   b. Musicology
      i. MUCO 201 and 202
      ii. 12 units selected from courses in musicology numbered 400 or above

c. Keyboard skills: MURP 201, 202, 203 or MURP 301, 302
d. Applied music individual instruction as specified under requirements for the major and areas of emphasis
e. Ensemble study: a minimum of 12 units. Students are required to participate in an ensemble every term in which they are attending classes on the Appleton campus. Requirements for specific types of ensemble study (MUEN) are specified under requirements for majors and areas of emphasis.
f. Completion of a major in music—performance, music education, theory/composition, or student-designed—including all course and non-course requirements, such as recitals, qualifying examinations, etc.
g. Completion of a designated *Senior Experience* course or activity within the chosen majors for each degree.
h. An academic record that meets the following standards:
    i. A 2.000 grade-point average in all Lawrence courses
    ii. A 2.000 grade-point average in the music major (all music courses and non-music courses required for the major) unless otherwise specified under the major requirements
i. Completion of required terms and units in residence as specified by the university residence requirements.

STIPULATIONS PERTAINING TO THE GENERAL EDUCATION REQUIREMENTS
Qualified courses may count toward the requirements in any two of the categories above (distribution, diversity and competency). Some courses may meet two requirements within a category. No single course can be used to fulfill more than two requirements. Credits granted pursuant to university policy for examinations (Lawrence Advanced Placement (AP), International Baccalaureate (IB) or A-levels) may be used as appropriate to fulfill diversity or competency requirements only.

A liberal arts education provides excellent preparation for careers in a variety of professions. For this reason, several professional schools have contracted with Lawrence for cooperative programs that enable students to build a foundation in the liberal arts and then acquire specific professional skills. These programs lead, in most cases, to the awarding of two degrees.

The Lawrence cooperative programs listed below generally provide for students to study at Lawrence for three years and then transfer to a professional school for two more years. To qualify for a Lawrence degree in these programs, students must earn 162 units and fulfill all other degree requirements that cannot be met in the professional school. Students must undertake careful planning with the professional advisors and with their own faculty advisors to make sure all requirements will be completed satisfactorily.

Engineering

Program advisor: J. Collett

Students wishing to combine a liberal arts program with professional training in engineering or computer science may want to choose the 3-2 program in engineering, which involves three years of study at Lawrence University and two years of study at an engineering school. Lawrence has formal affiliations with Columbia University (New York, New York), Rensselaer Polytechnic Institute (Troy, New York) and Washington University (St. Louis, Missouri), but students may transfer to any accredited engineering school with the agreement of the chosen institution. Upon satisfactory completion of the five-year program, these students will receive the Bachelor of Arts degree from Lawrence as well as a Bachelor of Engineering degree from the professional school they have attended. To prepare for the transfer to an engineering school, students must include among their courses basic mathematics (normally MATH 140, 150, 160 and 210), computer science (CMSC 110 or 150), introductory chemistry (CHEM 115 and 116), introductory physics with calculus (PHYS 141 & 151, or 151 & 160) and six courses (36 units) in humanities and social sciences. Many of these courses also will figure in the student's major at Lawrence. Because specific requirements vary slightly among the engineering schools, students contemplating the 3-2 program should consult early with the program advisor.

Forestry and environmental studies

Program advisor: B. De Stasio

The college offers a cooperative program with Duke University in the areas of environmental science and forestry. Upon satisfactory completion of this five-year program, spending three years at Lawrence and two at Duke's School of the Environment, the student will receive the B.A. degree from Lawrence and the professional degree Master of Forestry or Master of Environmental Management from Duke.

The major emphases at Duke are in forest resource production, resource ecology, resource policy and economics, water and air resources, and ecotoxicology.

An undergraduate major in natural sciences, social sciences or pre-engineering is good preparation for the programs at Duke, but a student with any undergraduate concentration will be considered for admission. The student must complete a total of 48 units at Duke, which generally takes four semesters. The student must complete 162 units at Lawrence and fulfill all other requirements that cannot be completed at Duke. All students contemplating this cooperative program should plan to take work in ecology, economics and statistics at Lawrence before matriculating at Duke.

Some students may prefer to complete the bachelor's degree before undertaking graduate study at Duke. The master's degree requirements for these students are the same as those for students entering after the junior year, but the 48-unit requirements may be reduced for relevant, already completed undergraduate work of satisfactory quality. All credit reductions are determined individually and consider both the student's educational background and objectives.

Occupational therapy

Program advisor: G. Metalsky

Lawrence offers a 3-2 program in occupational therapy in conjunction with the School of Medicine of Washington University, St. Louis. Students spend three years of study at Lawrence and then continue for five semesters and two summers in the occupational therapy program at Washington University. After two semesters of successful study at Washington University, Lawrence awards the Bachelor of Arts degree. The student then continues for three more semesters and two summers at Washington University to earn the Master of Science in Occupational Therapy degree. Students who complete this program are prepared to address the prevention and treatment of physical or mental dysfunctions that impair people's abilities to perform activities of daily life. Occupational therapists focus on the methods that permit individuals to engage in meaningful life activities. They also assist in modifying environments that make it possible for individuals to function at home, at work and in the community.

Lawrence students apply to the occupational therapy program of the School of Medicine, Washington University during the fall of the junior year and must meet the entrance requirements established by the occupational therapy program. The Washington University School of Medicine is one of the finest in the country, and the occupational therapy program is competitive. A 3.25 Lawrence grade-point average is a minimum requirement but does not guarantee admission. Students who are admitted may apply for financial aid provided by Washington University.

To complete the occupational therapy program, students must complete 162 units at Lawrence, meet general education requirements and fulfill all requirements for a Lawrence major.

Students also must fulfill the prerequisite course requirements for occupational therapy, as follows: BIOL 110, 140 and 242; one additional biology course (6 units) numbered 200 or above; one additional science course (6 units) chosen from physics, chemistry, biology or neuroscience; PSYC 250 and 260; one course (6 units) chosen from among PHIL 100, PHIL 120, PHIL 320, PHIL 440, ECON 290 or GOV 495; two additional courses (12 units) chosen from the social sciences; and MATH 107. Completing Lawrence requirements and the prerequisite requirements will require careful planning, which must begin early in the Lawrence career. Students interested in this program should talk with their faculty advisors no later than the beginning of the sophomore year. Students should coordinate their plans with the program advisor as well.

More detailed information about the program, requirements for admission and how to apply can be found at ot.wustl.edu/education/masters-msot/application-process-and-requirements-138.

Professor: Peregrine

Visiting professor: Mason

Associate professors: Daughtry, B. Jenike (chair), M. Jenike* (Pieper Family Professor of Servant Leadership)

Assistant professor: L. Proctor

Visiting assistant professors: D. Proctor, Wickens (Classics)

*On leave Term III

Introduction

Anthropology is the study of humanity in all its cultural, biological, linguistic, and historical diversity. A synthesis of scientific and humanistic concerns and methods, it attempts to distinguish universal human characteristics from those unique to individual social groups, and to understand the reasons for differences between individuals and groups.

The insights of anthropology are essential for a critical understanding of the problems of the contemporary world. Anthropology informs a public confronted with choices to be made with respect to changing value systems; competing social goals; ethnic, religious, class, gender, and race relations; new and emerging technologies; environmental and cultural resources management; changing paradigms of health, wellness, and disease; linguistic diversity; and international relations.

Anthropology offers both unique theoretical perspectives and a particular set of methodological approaches. The faculty considers it essential that we educate our students in both. Students should take away from their studies a substantive knowledge of the commonalities and differences in human experiences and also an understanding of how that knowledge is obtained and evaluated.

The anthropology major thus prepares students for successful entry into any number of professional and graduate programs, as well as careers that require a multicultural approach and perspective. Our mission is to represent anthropology appropriately at Lawrence and in the wider communities within which we live and work, and to educate others wherever and whenever possible with the insights that anthropology has to offer.

The anthropology department at Lawrence includes a range of courses and opportunities for guided independent study from the complementary perspectives of archaeology, biological anthropology, linguistic anthropology, and ethnology. Faculty members provide expertise in a number of ethnographic areas, including North and West Africa, India, East Asia, the Middle East, and North America. Topical interests include archaeological methods, refugee communities, medical anthropology, linguistic anthropology, biological anthropology, and museum studies.

The department maintains two well-equipped laboratories, as well as collections of archaeological and ethnographic materials from many culture areas. The department holds a full suite of geophysical equipment for non-invasive archaeology and also provides equipment for audio and video data collection and transcription to support research in the cultural and linguistic anthropology subfields.

Required for the anthropology major

1. The following introductory courses:
    a. ANTH 110: *Cultural Anthropology*
    b. ANTH 120: *World Prehistory*
    c. ANTH 140: *Biological Anthropology*
2. Students are expected to complete the following courses during their sophomore year and no later than the end of their junior year:
    a. ANTH 200: *History of Anthropological Ideas*
    b. ANTH 207: *Quantitative Analysis in Anthropology*
    c. ANTH 210: *Research Methods in Cultural Anthropology*
3. ANTH 501: *Research Questions in Anthropology*
4. ANTH 601: *Research Design in Anthropology*
5. Four six-unit elective courses in anthropology, including at least one upper-division seminar (courses numbered in the 500s). (Anthropology majors are urged to take several of these seminars in their junior and senior years.)

Required for the anthropology major: archaeology track

1. The following introductory courses:
    a. ANTH 110: *Cultural Anthropology*
    b. ANTH 120: *World Prehistory*
    c. ANTH 140: *Biological Anthropology*
2. ANTH 200: *History of Anthropological Ideas*
3. ANTH 207: *Quantitative Analysis in Anthropology*
4. ANTH 220: *Research Methods in Archaeology* or another approved field experience.
5. ANTH 222: *Historic Preservation Theory and Practice*
6. Six units of ANTH 422: *Archaeological Collections Management*
7. ANTH 501: *Research Questions in Anthropology*
8. ANTH 601: *Research Design in Anthropology*
9. Three six-unit elective courses in anthropology, including ANTH 520: *Topics in Archaeology.*

Required for the anthropology major: biological anthropology track

1. The following introductory courses:
    a. ANTH 110: *Cultural Anthropology*
    b. ANTH 120: *World Prehistory*
    c. ANTH 140: *Biological Anthropology*
2. BIOL 130: *Integrative Biology: Cells to Organisms*
3. BIOL 150: *Integrative Biology: Organisms to Ecosystems*
4. ANTH 200: *History of Anthropological Ideas*
5. ANTH 207: *Quantitative Analysis in Anthropology* or BIOL 170: *Integrative Biology: Experimental Design and Analysis* ANTH 210 is recommended for students pursuing an interest in biocultural anthropology via the biological anthropology track. Students are expected to complete these courses during their sophomore year and no later than the end of their junior year.
6. ANTH 501: *Research Questions in Anthropology*
7. ANTH 601: *Research Design in Anthropology*
8. Three six-unit elective courses in anthropology, including ANTH 540: *Topics in Biological Anthropology.*
9. Three six-unit courses in biology, chemistry, geology, mathematics, or physics, at least two of which must be biology courses numbered 200 or above and at least one of which must be a laboratory course.

Required for the anthropology minor

1. Two of the following courses:
    - ANTH 110: *Cultural Anthropology*
    - ANTH 120: *World Prehistory*
    - ANTH 140: *Biological Anthropology*
2. Three six-unit electives in anthropology, selected from courses numbered 200 and above, except ANTH 501 or 601
3. One six-unit upper-division seminar (courses numbered in the 500s)
4. C average in the minor

Senior Experience in anthropology

The Department of Anthropology's *Senior Experience* is a two course sequence which marks the culmination of a four-year series of core courses designed to develop the student's abilities to reason and practice as an anthropologist. Students begin their study of anthropology with a three-course introductory sequence, and move on in their sophomore year to a three-course theory and methods sequence. After further exploration of their specific interests within anthropology through elective courses and off-campus study, students continue their development with ANTH 501, which introduces them to the process of formulating research questions. In their senior year students take ANTH 601, which provides students the opportunity to reflect upon and synthesize what they have learned in the anthropology program by designing a focused research project. These projects are presented to the anthropology faculty and student majors during a formal symposium at the end of the Winter Term.

COURSES

ANTH 110: *Cultural Anthropology*
An introduction to the nature of culture, the organization of social relations, and the relationships between values and behavior. Attention to the human use of culture in adapting to environments and to language, technology, kinship, and religion as cultural systems. Case studies of Western and non-Western peoples. Units: 6.

Prerequisite: Freshman or sophomore standing; consent of instructor required for juniors and seniors

ANTH 120: *World Prehistory*
An introduction to the peoples and cultures of the world from 40,000 years ago to 2,000 years ago. Major events in world prehistory, such as the origins of agriculture, the rise of cities, and the spread of states, are examined and discussed. General trends in cultural evolution are proposed and evaluated. This course may not be taken on a Satisfactory/Unsatisfactory basis. Units: 6.

Prerequisite: Freshman or sophomore standing; consent of instructor required for juniors and seniors

ANTH 140: *Biological Anthropology*
The study of humans as biological organisms. Topics addressed include processes of evolutionary change and stasis; primate diversity, ecology, and behavior; morphological, ecological, and genetic perspectives on human evolution; and contemporary human biological variation, including racial variation. Units: 6.

Prerequisite: Freshman or sophomore standing; consent of instructor required for juniors and seniors

ANTH 191: *Directed Study in Anthropology*
Directed study follows a syllabus set primarily by the instructor to meet the needs or interests of an individual student or small group of students. The main goal of directed study is knowledge or skill acquisition, not research or creative work. Units: Variable.

Prerequisite: Counter Registration Required.

ANTH 195: *Internship in Anthropology*
Applied work in anthropology arranged and carried out under the direction of an instructor. The academic component of the internship includes readings related to the substance of the internship, discussions with the faculty supervisor, and a written report appropriate to the discipline. Course grades are based on this academic work. Units: Variable.

Prerequisite: Counter Registration Required.

ANTH 200: *History of Anthropological Ideas*
A study of the development of anthropology as a scholarly discipline and a method of inquiry. Consideration of theoretical perspectives such as evolutionism, historical particularism, functionalism, cultural materialism, structuralism, interpretive and postmodernist approaches, and also the significance of participant-observation and other field research strategies in shaping anthropological knowledge. Units: 6.

Prerequisite: ANTH 110, 120, or 140, preferably all three. Recommended for anthropology majors in the sophomore year; must be completed by the end of the junior year.

ANTH 207: *Quantitative Analysis in Anthropology*
An introduction to the collection and manipulation of quantitative data in anthropological research. Topics include sampling, measurement, and basic nominal and ordinal statistics. Units: 6.

Prerequisite: ANTH 110, 120, or 140, preferably all three. Recommended for anthropology majors in the sophomore year; must be completed by the end of the junior year.

ANTH 210: *Research Methods in Cultural Anthropology*
An introduction to basic assumptions and methods of research in sociocultural anthropology, including participant observation, ethnographic interview, focus groups, cognitive methods, survey, and census. Students gain hands-on experience in research. Units: 6.

Prerequisite: ANTH 110, 120, or 140, preferably all three. Recommended for anthropology majors in the sophomore year; must be completed by the end of the junior year.

ANTH 220: *Research Methods in Archaeology*
Presents the research process in archaeology and offers an overview of essential data-collection and analysis techniques, including site survey and excavation, settlement pattern analysis, lithic analysis, and ceramic analysis. Students will take part in field research. Units: 6.

Also listed as Environmental Studies 260

Prerequisite: ANTH 120

ANTH 222: *Historic Preservation Theory and Practice*
Historic preservation endeavors to identify and conserve historic objects, properties, and landscapes. It has become a focal task for many anthropologists today. This course introduces students to the basic theory of historic preservation, the laws guiding practice, and the techniques used by historic preservation professionals. Units: 6.

ANTH 306: ***Anthropology of Gender***
An anthropological approach to the study of gender and a/sexuality, and how they intersect with other dimensions of social difference such as race, class, and ethnicity. Topical, ethnographic approach to examining these intersections. Focus on issues such as sexual behavior, reproduction, parenting, trans* identity, work, communication, and violence. Units: 6.

Also listed as Gender Studies 350

Prerequisite: ANTH 110 or GEST 100

ANTH 310: ***Ecological Anthropology***
A study of relationships between human communities and their natural environments (*i.e.,* humans studied as members of ecosystems). Topics include the interactions between environment, human biology, and social organization and anthropological perspectives on global environmental problems. Units: 6.

Also listed as Environmental Studies 365

Prerequisite: One anthropology course or consent of instructor

ANTH 312: ***Economic Anthroplogy***
An introduction to the theories, concepts and methods of economic anthropology, focusing on the relationship between socioeconomic lives and the social power structures. Explores how people engage with economic choices, decisions, and risk from an anthropological perspective. Topics include morality, rationality, value, exchange, debt, work, globalization, poverty and wealth, power. Units: 6.

Prerequisite: ANTH 110

ANTH 320: ***Archaeology of Gender***
An examination of the relationship between gender and material culture. Focus on how gender and gender roles are reflected in the archaeological record and on the problems in identifying and determining gender roles in prehistory. Readings include studies from both the Old and New Worlds and modern theoretical approaches. Units: 6.

Also listed as Gender Studies 351

Prerequisite: One anthropology course or consent of instructor

ANTH 322: ***Archaeology of North America***
An introduction to the ancient peoples of North America from the initial colonists to the peoples who encountered European colonists some 13,000 years later. Special emphasis is given to the ancient inhabitants of the Great Lakes region. Units: 6.

Prerequisite: ANTH 120

ANTH 324: *Archaeology of Prehistoric Greece*
A study of archaeological investigations in the Aegean region — Greece, Crete, the Cycladic Islands, and western Turkey. Emphasis on the evidence of cultural development from Palaeolithic hunter-gatherers and Neolithic farmers and herders through the development of the Bronze Age "palace" civilizations of the Minoans and Mycenaeans. Units: 6.

Also listed as Classics 365

Prerequisite: ANTH 120 or consent of instructor

ANTH 326: *Bizarrchaeology*
Much of the public's interest in archaeology focuses on "mysteries" of the past or allegedly "unexplainable" phenomena. Since the past is largely impossible to know, it is easy to uncritically fill it with products of the imagination rather than products of ancient peoples. This course examines some of these "imaginary" pasts and the practice of creating them. Units: 6.

Prerequisite: ANTH 120

ANTH 328: *Ethics in Archaeology: Who owns the past?*
An exploration of ethical and legal concerns surrounding archaeology: the ownership and treatment of archaeological remains and relations between archaeologists and descendent communities. Topics include the ethics and legality of collecting looting, and the antiquities market; archaeology and nationalism; repatriation of skeletons and artifacts; and professional responsibilities of archaeologists. Units: 6.

Also listed as Art History 325, Classics 368

Prerequisite: Sophomore standing and ANTH 120, an ARHI course (preferably ancient to Renaissance), or consent of instructor

ANTH 330: *Language and Culture*
An introduction to the core concepts of linguistic anthropology, definitions of language, basic methods of linguistic anthropology (observation, transcription, analysis, ethnography), power and language, language discrimination, and language ideology theory. Lectures, discussions, and labs. Units: 6.

Also listed as Linguistics 330

Prerequisite: ANTH 110 or LING 150

ANTH 340: *Human Biology, Evolution, and Health*
Students will develop an understanding of modern human biology as the outcome of interactions between evolved genomes and the myriad environments in which we are born, develop and live out our lives. Topics of study will include evolutionary approaches to reproduction, growth and development, health, behavior, adaptation, and life history. Units: 6.

Prerequisite: ANTH 140, BIOL 150, or consent of instructor

ANTH 341: *Human Variation*
A survey of human biological variation and adaptation. Topics include the geographic distribution of human variation; evolutionary approaches to understanding human diversity; historic and modern concepts of race and ethnicity; human biological adaptations to disease, climate, poverty, and other stressors; and the genetics of simple and complex traits. Units: 6.

Also listed as Ethnic Studies 341

Prerequisite: ANTH 140, BIOL 110, or consent of instructor

ANTH 342: *Medical Anthropology*
A cross-cultural study of health, healing, and beliefs about the body and illness. Particular attention is paid to the cultural construction of medical beliefs and practices (our biomedical model is only one of many possible world views). Units: 6.

Prerequisite: Sophomore standing, and ANTH 110 or 140

ANTH 344: *Nutritional Anthropology*
This course provides a basic introduction to human nutrition. It then considers the evolution of human nutrition through the study of primate nutrition and the putative diets of human ancestors. Finally, it considers anthropological approaches to understanding cross-cultural, intracultural, and life-cycle variation in modern human nutrition. Units: 6.

Prerequisite: ANTH 140 or consent of instructor

ANTH 347: *Introduction to Forensic Anthropology*
This course is an introduction to forensic anthropology and human osteology, including a comprehensive study of the human skeleton and sections on determining ancestry, sex, and age of a skeleton. Further topics include how to approach a crime scene, determining forensic significance, and the postmortem processes of the human body. Units: 6.

Prerequisite: Sophomore standing required; ANTH 140 recommended

ANTH 348: *Primate Behavior and Ecology*
This course provides an introduction to the Order *Primates*. In addition to exploring the behavior and ecology of prosimians, monkeys, and apes, the course will cover techniques in primate behavioral observation. Further, biological and social adaptations will be examined in an evolutionary context. Units: 6.

Also listed as Biology 451

Prerequisite: Sophomore standing and one of the following: ANTH 140, BIOL 140, BIOL 150, consent of instructor

ANTH 350: *Indians of North America*
A cultural study of the Indians of North America, including examination of the impact of European ideas and technology on Indian societies. Emphasis on environmental adaptations, levels of social and cultural complexity, problems of historical interpretation, and the methods and theories of ethnology and their applications to North American cultures. Units: 6.

Also listed as Ethnic Studies 330

Prerequisite: ANTH 110

ANTH 358: *Ethnography of the Middle East and North Africa*
Introduction to the peoples and cultures of the Middle East and North Africa, an area of tremendous cultural, religious, linguistic, and economic diversity. Focus on the nature of ethnography as a research method and key areas of inquiry that have concerned anthropologists working in Arab and Muslim societies. Topics include social organization, tribalism, colonialism, gender, religion, nationalism, ethnic and religious minorities, and the politics of identity. Units: 6.

Also listed as Ethnic Studies 332

Prerequisite: ANTH 110 or consent of instructor

ANTH 360: *Anthropology of South Asia*
Introduces the complexity of South Asian society and culture through the study of ethnographies of gender, religious life, kinship, social organization, and economy in the colonial and post-colonial periods. Units: 6.

Also listed as Ethnic Studies 335

Prerequisite: ANTH 110 or consent of instructor

ANTH 364: *Ethnography of East Asia*
A critical and comparative examination of key areas of sociocultural change in present-day East Asia. Focusing on China, we address new areas of research in East Asian anthropology such as demographic change, modernization, urbanization and stratification, gender and the body politic, sexuality, pop culture, consumption, ethnic minorities and national cultural identities. Units: 6.

Also listed as East Asian Studies 364

Prerequisite: ANTH 110 or sophomore standing

ANTH 366: *Ethnography of Japan*
Critical examination of social and cultural (re)presentations of Japan from the postwar to the postmodern. Exploration of diversities of lived reality and social change in contemporary Japan. Topics include: nationalism and historical consciousness, family and gender ideologies, invisible and visible others, sexuality, pop culture, and the Heisei recession. Units: 6.

Also listed as East Asian Studies 366

Prerequisite: ANTH 110 or sophomore standing

ANTH 372: *Urban Anthropology of London*
This seminar combines a variety of methods to explore contemporary British culture. In addition to the readings and field trips, students conduct ethnographic fieldwork in London on a topic of their own interest. This may be based in a particular place or, more broadly, focus on a certain group of people. The course provides an introduction to field research methods. Throughout the term, students participate in shorter exercises designed to develop their confidence in the skills of observation, interviewing, description, and analysis. Readings on topics such as neighborhoods, social use of language, class, education, and migration experience provide a framework for understanding the detail of the individual projects. Students are expected to make presentations and participate in discussions. *Offered at the London Centre.* Units: 6.

Prerequisite: Must be attending the Lawrence London Centre.

ANTH 374: *Identity and Place: Diaspora Experience in Comparative Perspective*
An exploration of similarities and differences in refugee/diaspora communities. Issues explored include relationships between place and identity, memory and identity, notions of home and homeland, gender and class, assimilation versus resistance, social and cultural changes induced by migration and the impact of transnationalism. Units: 6.

Prerequisite: Sophomore standing and one course in anthropology or consent of instructor

ANTH 377: *Culture and Aging*
This course uses ethnographic studies from non-Western and Western societies to understand how the experience of aging throughout the life course not only differs cross-culturally, but also within the same society over time in response to increased longevity and biomedical advances. Of particular concern will be cultural constructions of health, well-being, disability, and dependency, including in-depth analysis of aging in Asia. Units: 6.

Prerequisite: ANTH 110 or sophomore standing

ANTH 378: *Anthropology of Food*
All humans must consume food in order to live, but how "food" is defined, produced, procured, and interacted with is subject to endless variation. This class examines how food becomes more than just sustenance: how food acts as a means of building identities, making meaning, organizing society, and exerting power. Units: 6.

Prerequisite: ANTH 110 or consent of instructor

ANTH 390: *Tutorial Studies in Anthropology*
Advanced study of selected topics. Units: Variable.

Prerequisite: Counter Registration Required.

ANTH 391: *Directed Study in Anthropology*
Directed study follows a syllabus set primarily by the instructor to meet the needs or interests of an individual student or small group of students. The main goal of directed study is knowledge or skill acquisition, not research or creative work. Units: Variable.

Prerequisite: Counter Registration Required.

ANTH 395: *Internship in Anthropology*
Applied work in anthropology arranged and carried out under the direction of an instructor. The academic component of the internship includes readings related to the substance of the internship, discussions with the faculty supervisor, and a written report appropriate to the discipline. Course grades are based on this academic work. Units: Variable.

Prerequisite: Counter Registration Required.

ANTH 399: *Independent Study in Anthropology*
Advanced research. Students considering an honors project should register for this course, for one or more terms. Units: Variable.

Prerequisite: Counter Registration Required.

ANTH 422: *Practicum in Archaeological Collections Management*
Applied work in all aspects of archaeological collections management from cleaning and conservation to cataloguing and storage. Students will work with Lawrence's existing archaeological collections and materials generated from ongoing field and laboratory research. Collection projects vary from term to term. Course may be repeated in subsequent terms for no more than a total of 6 units. Units: 2.

Prerequisite: ANTH 222

ANTH 430: *Methods in Linguistic Anthropology*
A hands-on introduction to advanced linguistic anthropology and sociolinguistics methods and relevant theories. Will cover transcription, discourse analysis, conversation analysis, and narrative analysis. Classes will be a combination of labs, workshops, and seminars. Prerequisites are non-negotiable. Units: 6.

Also listed as Linguistics 430

Prerequisite: Junior standing, and ANTH 210 or ANTH 330

ANTH 441: *Anthropology of Medical Humanitarianism*
This course draws upon global case studies of humanitarian intervention in order to encourage students to engage critically with the complexity of what seems like an unequivocal good: humanitarian aid. Through a variety of audiovisual materials, texts, and oral and written assignments, students will develop a strong critical appreciation of the global political economy of aid and of the ethical dilemmas that accompany lifesaving. Units: 6.

Prerequisite: ANTH 110

ANTH 450: *Senegalese Culture*
This course is part of the Lawrence Francophone Seminar in which students study in French-speaking West Africa for ten weeks. Offered in alternate years. Units: 6.

Also listed as French 400

Prerequisite: Must be attending the LU Francophone Seminar

ANTH 500: *Topics in Anthropology*
An examination of a particular topic in contemporary anthropology. The specific topic investigated changes each year. Students are expected to carry out independent research on the topic, either through a review of relevant literature or through field or laboratory work.: *Topic for Fall 2016: Anthropology of Migrants and Refugees:* This course focuses on social groups of migrants and refugees who voluntarily or involuntarily leave their country and cultures of origin, while considering the global processes of displacement. It examines how migrants and refugees experience displacement and its impact on core concepts of culture such as enculturation, assimilation, adaptation, acculturation, and notions of cultural identity and citizenship. It also examines the phenomenon of displacement as a demographic dimension of globalization—high levels of movement of peoples across national boundaries, an increase in the number of countries affected by migrants and refugees, and the increase in number of multiethnic and multicultural societies.

Topic for Winter 2017: Disability and Culture: Disability is a social and lived category fundamental to human experience. This advanced seminar draws from experiential, reflexive, phenomenological, and critical approaches in cultural and medical anthropology to cross-culturally explore the subjectivities of perceived physical and mental disabilities in both local and global worlds. Topics will include: autism, learning disabilities, bipolar disorder, schizophrenia, chronic pain, d/Deaf culture, and other categories of social impairment.

Topic for Spring 2017: Natives and Newcomers in Northeast Wisconsin: This course examines the American Indian cultures of Northeast Wisconsin during the late prehistoric and early historic periods, focusing on the time of first contact between Indians and Europeans. After a survey of American Indian cultures in the region, the course explores the impacts of European contact on both the natives and the newcomers, and considers how those impacts continue to resonate today. The fields of archaeology, ethnohistory, ethnography, and museum studies will all be engaged.

Units: 6.

Prerequisite: Junior standing and at least two courses in anthropology or consent of instructor

ANTH 501: *Research Questions in Anthropology*
An introduction to formulating a research question in anthropology. Students will explore the research literature in an area of interest within anthropology and develop a researchable question grounded in a review of existing theory and empirical research. Graduate training and careers in anthropology will also be discussed. Units: 6.

Prerequisite: ANTH 200, 207, 210, and junior or senior standing

ANTH 512: *Fictions of Africa*
An exploration of African culture and history through literature and film by African authors/directors. Issues to be explored include African debates on colonialism, post-colonialism, gender, class, and ethnic stratification, religion, modernization and development. Fictional works will be discussed in tandem with ethnographic monographs and critical essays. Units: 6.

Also listed as Ethnic Studies 512

Prerequisite: Junior or senior standing and at least two other courses in the social sciences

ANTH 520: *Topics in Archaeology*
An examination of a particular topic in contemporary archaeological research. The specific topic investigated changes each year. Students are expected to carry out independent research on the topic, either through a review of relevant literature or through field or laboratory work.: *Topic for Spring 2017: The Neolithic Revolution:* Neolithization, the shift from hunting and gathering or foraging to agriculture and animal husbandry, which began ca. 10,000 years ago, was the last major change in humankind's subsistence economy. The shift had significant ramifications in all areas of culture (economic, social, political, religious, and linguistic). It also was caused by and led to great changes in the environment, and perhaps even in our DNA. The seminar will investigate these changes and the different mechanisms and models of Neolithization in different parts of the world.

Units: 6.

Prerequisite: ANTH 120 and junior standing or consent of instructor

ANTH 531: *Semiotics*
Semiotics is the study of signs, symbols, and signification in social life. This course will cover semiotic theory, including theorists such as Saussure, Peirce, Jakobson, Lévi-Strauss, Barthes, and Bakhtin, and the application of semiotics to the study of language and social life, conducted through lectures and seminar-style discussions. Units: 6.

Also listed as Linguistics 531

Prerequisite: ANTH 330/LING 330

ANTH 540: *Topics in Biological Anthropology*
An examination of a particular topic in contemporary biological anthropological research. The specific topic investigated changes each year. Students are expected to carry out independent research on the topic, either through a review of relevant literature or through field or laboratory work. May be repeated when topic is different.: *Topic for Fall 2016: Fossil Humans:* This advanced seminar studies the current evidence about human evolutionary history. Students will critically read and workshop scientific literature of hominin evolution while examining fossil casts. This course covers all widely recognized fossil species starting from the earliest dated controversial hominin finds. Other topics include paleoanthropological methods, models for the evolution of bipedalism, paradigms in paleoanthropology, and professional politics that inform research and analyses.

Units: 6.

Prerequisite: ANTH 140 and one other course in anthropology; or BIOL 150 and instructor's consent; and junior or senior standing

ANTH 580: *Topics in Neuroscience*
A study of the nervous system from the perspectives of psychology, biology, and/or biological anthropology. Topics vary year to year and may include glial cells, neural development, and the evolution of nervous systems, and neurotransmitter systems. Lecture only. May be repeated with consent of instructor.: Units: 6.

Prerequisite: CHEM 116 and either BIOL 140 and one course in psychology, or PSYC 360 and one course in biology; or consent of instructor

ANTH 590: *Tutorial Studies in Anthropology*
Advanced study of selected topics. Units: Variable.

Prerequisite: Counter Registration Required.

ANTH 591: *Directed Study in Anthropology*
Directed study follows a syllabus set primarily by the instructor to meet the needs or interests of an individual student or small group of students. The main goal of directed study is knowledge or skill acquisition, not research or creative work. Units: Variable.

Prerequisite: Counter Registration Required.

ANTH 595: *Internship in Anthropology*
Applied work in anthropology arranged and carried out under the direction of an instructor. The academic component of the internship includes readings related to the substance of the internship, discussions with the faculty supervisor, and a written report appropriate to the discipline. Course grades are based on this academic work. Units: Variable.

Prerequisite: Counter Registration Required.

ANTH 599: ***Independent Study in Anthropology***
Advanced research. Students considering an honors project should register for this course, for one or more terms. Units: Variable.

Prerequisite: Counter Registration Required.

ANTH 601: ***Research Design in Anthropology***
An introduction to designing a research project in anthropology. Students will build a conceptual model and design both data collection protocols and analysis strategies that will address the research question they developed in ANTH 501. Seminar meetings will be spent discussing problems and issues raised by individual students' projects. Units: 6.

Prerequisite: ANTH 501 and senior standing or consent of instructor.

ANTH 690: ***Tutorial Studies in Anthropology***
Advanced study of selected topics. Units: Variable.

Prerequisite: Counter Registration Required.

ANTH 691: ***Directed Study in Anthropology***
Directed study follows a syllabus set primarily by the instructor to meet the needs or interests of an individual student or small group of students. The main goal of directed study is knowledge or skill acquisition, not research or creative work. Units: Variable.

Prerequisite: Counter Registration Required.

ANTH 695: ***Internship in Anthropology***
Applied work in anthropology arranged and carried out under the direction of an instructor. The academic component of the internship includes readings related to the substance of the internship, discussions with the faculty supervisor, and a written report appropriate to the discipline. Course grades are based on this academic work. Units: Variable.

Prerequisite: Counter Registration Required.

ANTH 699: ***Independent Study in Anthropology***
Advanced research. Students considering an honors project should register for this course, for one or more terms. Units: Variable.

Prerequisite: Counter Registration Required.

Associate professors: Neilson** (chair Terms I and II), Rinehart, Shimon* (chair Term III)

Instructor: Conrad

Post-doctoral fellows: Sullivan (Uihlein Fellow of Studio Art)

*On leave Term I; **On leave Term III

Introduction

An integral part of a liberal arts curriculum, the courses of the art and art history department encourage aesthetic awareness and appreciation by emphasizing the interdependence of art-making, art history, and other creative and intellectual fields. A major is offered in either studio art or art history, and certification for teaching K-12 is available in conjunction with the studio art major. A student may complete a double major in studio art and art history by fulfilling the requirements for each major. Students planning to major in studio art and/ or art history should take the introductory 100-level courses required for the major in their freshman and sophomore years. Students may take a maximum of 126 units in the art and art history department, provided that no more than 90 are in either studio art or art history.

Required for the studio art major

1. A minimum of nine studio art courses (54 units) to include:
    a. ART 100 and 110
    b. One two-dimensional and one three-dimensional course (6 units each) at the 200 level
    c. At least four courses (24 units) numbered 300 or above, of which at least one (6 units) must be numbered 500 or above
    d. ART 600: *Senior Seminar*
2. A grouping of works in the senior exhibition
3. Two Art History courses (12 units) to include:
    a. ARHI 100 or 102
    b. One ARHI course (6 units) with an emphasis on 20th century or contemporary art

Required for the studio art minor

1. A minimum of six studio art courses (36 units) to include:
    a. ART 100 and 110
    b. One course (6 units) numbered 500 or above
    c. Three additional courses (18 units)
2. A grouping of works in the senior exhibition
3. C average in the minor

Certification for teaching K-12

Studio art majors may enroll in a program for certification to teach art in grades K-12. Studio art course requirements for certification must be taken in conjunction with or in addition to the studio art major requirements. The required art courses for certification include ART 200, 240, 250, and 585 and ARHI 100 and 102.

It is highly recommended that studio majors planning for certification consider additional courses that expand their knowledge base of media and process. Recommended courses: ART 220, 230, and 270.

Education requirements: EDST 180, 350, 440, and EDUC 430, 650, and 660.

Student teaching is usually done in a 13th term. For other general regulations governing students seeking certification to teach, see the Department of Education.

Students intending to complete the program in art certification should declare their intention to their advisor and the director of teacher education as early as possible, preferably before the end of the sophomore year.

Senior Experience in studio art

The studio art *Senior Experience* consists of two separate yet complementary components: ART 600: *Senior Seminar* (usually offered Term II) and participation in the Senior Exhibition, held annually in the Wriston Galleries near the end of Term III.

Both aspects of the studio art *Senior Experience* are intended to be a culmination of the practical and conceptual art-making skills developed through the studio art program. Designed to inform one another, both serve to encourage a more refined awareness and understanding of current issues pertinent to contemporary art along with the applied skills and critical thinking processes necessary for success either in graduate school or as a professional visual artist.

COURSES

ART 100: ***Introduction to Studio Art***
An introduction to studio art and the fundamental principles of design. Projects, lectures, readings, class discussions, and critiques examine elements of two-dimensional, three-dimensional and time-based design. Historic and contemporary approaches are considered as well as the evolution of technology and the continuum of visual expression. Emphasis is placed on developing the practical and critical thinking skills required in art-making. When scheduled on Tuesday-Thursday, class will dismiss early for University Convocations. Units: 6.

ART 110: ***Introduction to Drawing***
An introduction to drawing, emphasizing the development of the observational and critical thinking skills important to art-making. Class work is based on exercises that strengthen visual research capabilities, drawing abilities, and mark-making techniques with a variety of tools. Assigned projects address fundamental technical and conceptual problems suggested by historical and contemporary artistic practice. Lectures, readings, discussions, and critiques explore elements of concept and design pertinent to drawing as a medium. When scheduled on Tuesday-Thursday, class will dismiss early for University Convocations. Units: 6.

ART 191: ***Directed Study in Studio Art***
Directed study follows a syllabus set primarily by the instructor to meet the needs or interests of an individual student or small group of students. The main goal of directed study is knowledge or skill acquisition, not research or creative work. Units: Variable.

Prerequisite: Counter Registration Required.

ART 195: ***Internship in Studio Art***
The internship will provide an experience-based learning opportunity to enrich the student's artistic process and growth. It will encourage innovation and resourcefulness while facilitating an entrepreneurial and informed approach to future creative pursuits. Students should expect to gain "real world" experience and professional connections as well as skills and insights they can apply directly to their creative projects in the classroom and beyond. Students will work on an individual basis with a faculty supervisor, internship site supervisor, and the Career Center to design, implement and evaluate their academic experience. The academic component of the internship includes readings related to the substance of the internship, discussions with the faculty supervisor, and a written report appropriate to the discipline. Course grades are based on this academic work. Units: Variable.

Prerequisite: Counter Registration Required.

ART 200: *Painting*
An introduction to painting as a means of visual expression. Topics include technical and formal principles of painting with an emphasis on individual conceptual development. Water-based mediums are used to explore color theory, color mixing, brushwork and styling, image surface, composition, and visual communication. Mixed media and experimentation of materials is encouraged to expand beyond traditional painting practices. When scheduled on Tuesday-Thursday, class will dismiss early for University Convocations. Units: 6.

Prerequisite: ART 100 or 110

ART 212: *Drawing*
An exploration of drawing as a contemporary art medium with an emphasis on observational self-expression. Students will examine various modes of representation centered on the technical and creative aspects of mark-making. Mixed media and experimental elements are encouraged for those students wishing to expand the boundaries of traditional drawing media. When scheduled on Tuesday-Thursday, class will dismiss early for University Convocations. Units: 6.

Prerequisite: ART 100 or ART 110

ART 220: *Printmaking*
An introduction to printmaking including three or more of the following processes: monoprint, pressure print, stencil, linocut, woodcut, silk screen, and digital printmaking. There is a strong emphasis on conceptual development with practical application of both traditional and contemporary practices in printmaking. Single and multiple color printing techniques, formal issues, as well as printmaking as a form of visual expression are explored in detail. When scheduled on Tuesday-Thursday, class will dismiss early for University Convocations. Units: 6.

Prerequisite: ART 100 or ART 110

ART 225: *Special Topics in Printmaking*
This course provides an introduction to specific peripheral processes of printmaking like papermaking, book arts, letterpress printing, and digital printmaking processes and applications. The focus is on research and studio practice in regards to printmaking as an art form with special emphasis on craft and conceptual development. Traditional and contemporary practices in each medium are explored in detail. When scheduled on Tuesday-Thursday, class will dismiss early for University Convocations.

Topic for Fall 2016: Artist Books
Artist books are explored in a variety of forms including accordions, exposed and non-adhesive bindings, altered books, box making, and alternative structure. Letterpress along with other forms of printmaking and surface treatments will be used for each structure. Techniques of cutting, folding, sewing, gluing techniques, printing, and working in dimension are examined in detail. Unique content is expected for each project.

Units: 6.

Prerequisite: ART 100 or ART 110

ART 230: *Photography*
An introduction to traditional black-and-white darkroom photography within a fine art context. Medium-format and 35mm SLR camera operations are covered along with darkroom instruction on processing film and making gelatin silver prints. Historic and contemporary ideas about photography as a medium are examined through projects, readings, lectures, demonstrations, discussions, critiques, and visiting artist presentations. When scheduled on Tuesday-Thursday, class will dismiss early for University Convocations. Units: 6.

Prerequisite: ART 100 or 110

ART 240: *New Media in Art*
An introduction to new media within a fine art context. Digital photography, experimental video, sound, photo book design, and blogging are covered as students use the Internet as a venue for presenting projects. The evolution of technology, new media theory, contemporary art discourse, and visual culture are examined through projects, readings, lectures, demonstrations, discussions, critiques, and visiting artist presentations. Mac-based. When scheduled on Tuesday-Thursday, class will dismiss early for University Convocations. Units: 6.

Also listed as Film Studies 240

Prerequisite: ART 100 or ART 110

ART 245: *InterArts: New Media Projects*
Digital media are used to explore the relationship between art and knowledge. Lectures, discussions, readings, and critiques will investigate contemporary art practices and interdisciplinarity. Conceptual-development, planning and production will be covered as students work individually or collaboratively on video, performance, installation, and web projects. Mac-based. When scheduled on Tuesday-Thursday, class will dismiss early for University Convocations. Units: 6.

Also listed as Film Studies 245

Prerequisite: ART 100 or ART 110, or consent of instructor

ART 250: *Ceramics*
An introduction to the basic working methods of ceramics through hand-building techniques. Emphasis will be placed on conceptual development, sensitivity to three-dimensional form, and technical skills of surface and glazing. Lectures, readings, and individual research treat historical and contemporary approaches to expressive work in the ceramic medium. When scheduled on Tuesday-Thursday, class will dismiss early for University Convocations. Units: 6.

Prerequisite: ART 100 or 110

ART 256: *Special Topics in Ceramics*
This course is a combination of research and studio practice. Through lectures, readings and discussions the class will survey the history of ceramics with the goal of informing the studio work for the course. Students will engage in independent research to develop ideas and critical thinking as well as building on a variety of ceramic skills to create a personal body of work. When scheduled on Tuesday-Thursday, class will dismiss early for University Convocations.

Topic for Spring 2017: Sculpting the Human Form
The purpose of this course is to explore sculpting the human form in clay using hand building techniques. Topics will include the narrative potential of the figure, the implications of part vs. whole in figurative sculpture, the study of self and identity through portraiture, and use of live models. A variety of surface techniques will be covered including fired and room temperature glazing.

Units: 6.

Prerequisite: ART 100 or ART 110, or consent of instructor

ART 270: *Sculpture*
An introduction to the concepts and processes of sculpture, including work in casting, carving, woodworking, assemblage, and mold-making. Discussions will focus on contemporary sculpture and technical/conceptual development. When scheduled on Tuesday-Thursday, class will dismiss early for University Convocations. Units: 6.

Prerequisite: ART 100 or 110

ART 300: *Intermediate Painting*
A continuation of ART 200, exploring more complex principles of visual expression. Emphasis on oil-based painting techniques, historic and contemporary practices, pictorial structure, formal and theoretical interactions with a strong focus on conceptual development. When scheduled on Tuesday-Thursday, class will dismiss early for University Convocations. Units: 6.

Prerequisite: ART 200

ART 312: *Intermediate Drawing*
An emphasis on a more refined exploration of various models of the formal, conceptual, and personal modes of expression including issues of stylization, abstraction, and mixed media. Students will develop a cohesive body of work informed by an awareness of historical art movements and contemporary uses of the medium. When scheduled on Tuesday-Thursday, class will dismiss early for University Convocations. Units: 6.

Prerequisite: ART 210 or ART 212

ART 320: *Intermediate Printmaking*
A continuation of ART 220, exploring traditional and contemporary techniques in printmaking, with an emphasis on color and combination printing specific to the aesthetic characteristics of each process. Three or more of the following processes are used to enhance the conceptual and visual narrative inherent to this graphic medium, including intaglio, lithography, and letterpress. When scheduled on Tuesday-Thursday, class will dismiss early for University Convocations. Units: 6.

Prerequisite: ART 220 or ART 225

ART 330: *Intermediate Photography*
A continuation of ART 230 with an introduction to pinhole and 4x5 view cameras along with expanded darkroom instruction on sheet film processing and the cyanotype print. The history of photography and contemporary art issues related to the medium are examined through projects, readings, lectures, demonstrations, discussions, critiques, and visiting artist presentations. When scheduled on Tuesday-Thursday, class will dismiss early for University Convocations. Units: 6.

Prerequisite: ART 230

ART 340: *Intermediate New Media in Art*
A continuation of Art 240 or 245 using new media within a contemporary art context. Digital photography, experimental video, social media, performance, and installation are covered while using the Internet and campus spaces as venues for projects. Contemporary art discourse is examined through projects, readings, lectures, demonstrations, discussions, critiques, and visiting artist presentations. Mac-based. When scheduled on Tuesday-Thursday, class will dismiss early for University Convocations. Units: 6.

Also listed as Film Studies 340

Prerequisite: ART 240 or ART 245

ART 350: *Intermediate Ceramics*
A continuation of hand-building techniques, wheel-throwing, and mold-making with additional research into clay and glaze formulation firing methods. Emphasis will be placed on development of content and a personal vocabulary. An expanded survey, artist research, and critical readings will examine ceramics as a form of contemporary visual expression. When scheduled on Tuesday-Thursday, class will dismiss early for University Convocations. Units: 6.

Prerequisite: ART 250 or ART 255

ART 365: *Intermediate Topics in Studio Art*
A course designed to provide students an opportunity to study important issues in contemporary art not covered in other regularly offered classes. Topics will vary bsed on the faculty member's areas of expertise and interests. May be repeated for credit when topic is different. When scheduled on Tuesday-Thursday, class will dismiss early for University Convocations. Units: 6.

Prerequisite: Any 200-level studio art course

ART 370: *Intermediate Sculpture*
A continuation of the concepts and techniques introduced in ART 270, with emphasis on students' development of a personal visual language. Materials and processes covered include: mold-making, casting, metal fabrication, plastics, woodworking, and mixed media. Areas of examination include site-specific art, public sculpture, multiples and installation. When scheduled on Tuesday-Thursday, class will dismiss early for University Convocations. Units: 6.

Prerequisite: ART 270

ART 390: *Tutorial in Studio Art*
Offered for intermediate and advanced study in studio art. Apply to the instructor at least one term in advance with written proposal and a preliminary bibliography. Units: Variable.

Prerequisite: Counter Registration Required.

ART 391: *Directed Study in Studio Art*
Directed study follows a syllabus set primarily by the instructor to meet the needs or interests of an individual student or small group of students. The main goal of directed study is knowledge or skill acquisition, not research or creative work. Units: Variable.

Prerequisite: Counter Registration Required.

ART 395: *Internship in Studio Art*
The internship will provide an experience-based learning opportunity to enrich the student's artistic process and growth. It will encourage innovation and resourcefulness while facilitating an entrepreneurial and informed approach to future creative pursuits. Students should expect to gain "real world" experience and professional connections as well as skills and insights they can apply directly to their creative projects in the classroom and beyond. Students will work on an individual basis with a faculty supervisor, internship site supervisor, and the Career Center to design, implement and evaluate their academic experience. The academic component of the internship includes readings related to the substance of the internship, discussions with the faculty supervisor, and a written report appropriate to the discipline. Course grades are based on this academic work. Units: Variable.

Prerequisite: Counter Registration Required.

ART 399: *Independent Study in Studio Art*
Advanced creative research for students preparing for the senior exhibition or doing honors projects. Units: Variable.

Prerequisite: Counter Registration Required.

ART 500: *Advanced Painting*
A continuation of ART 300. Advanced research into the technical, formal, conceptual, and theoretical approach to painting as an expressive art form. The emphasis is for each student to produce a self-designed project that focuses on creating a cohesive body of work. When scheduled on Tuesday-Thursday, class will dismiss early for University Convocations. Units: 6.

Prerequisite: ART 300 and consent of instructor

ART 501: *Junior Studio Art Practicum*
The primary purpose of this course is to assist in the research, planning, design, and preparatory development of junior level studio art majors as they begin the process of conceptualizing and creating a mature body of work for the senior exhibition and/or honors projects. This course will be taught as a seminar with a studio component. When scheduled on Tuesday-Thursday, class will dismiss early for University Convocations. Units: 6.

Prerequisite: Any 500-level studio art course or consent of instructor

ART 512: *Advanced Drawing*
An advanced exploration of drawing as a contemporary art medium with an emphasis on more complex self-expression and conceptual development. Current themes in contemporary visual culture will be examined as a place for students to contemplate his or her own voice in the continuum of the drawing discipline. When scheduled on Tuesday-Thursday, class will dismiss early for University Convocations. Units: 6.

Prerequisite: ART 312 or consent of instructor

ART 520: *Advanced Printmaking*
A continuation of ART 320, exploring advanced research into combination printmaking techniques, with exploration of formal, theoretical, and technical issues related to printmaking as an expressive art form. Alternative and experimental processes are used to further develop the conceptual and visual narrative. The emphasis is for each student to produce a self-designed project that focuses on creating a cohesive body of work. When scheduled on Tuesday-Thursday, class will dismiss early for University Convocations. Units: 6.

Prerequisite: ART 320 and consent of instructor

ART 530: *Advanced Photography*
A continuation of Art 330 with instruction in advanced analog photography practice within a contemporary art context. Project planning and implementation are emphasized as students work toward producing a self-designed project with a developed artist statement. The history of photography and contemporary art issues related to the medium are examined through readings, lectures, demonstrations, discussions, critiques, and visiting artist presentations. When scheduled on Tuesday-Thursday, class will dismiss early for University Convocations. Units: 6.

Prerequisite: ART 330 and consent of instructor

ART 540: *Advanced New Media in Art*
A continuation of Art 340 using new media at an advanced level. Digital photography, experimental video, social media, performance, and installation are covered while using the Internet and campus spaces as venues for projects. Contemporary art discourse is examined through projects, readings, lectures, demonstrations, discussions, critiques, and visiting artist presentations. Mac-based. When scheduled on Tuesday-Thursday, class will dismiss early for University Convocations. Units: 6.

Also listed as Film Studies 540

Prerequisite: ART 340 and consent of instructor

ART 550: *Advanced Ceramics*
A continuation of Art 350. Students conduct individual work on a topic related to contemporary ceramic practice, while expanding technical skills and addressing issues in current ceramic criticism. Project planning and implementation are emphasized to develop a cohesive body of work. When scheduled on Tuesday-Thursday, class will dismiss early for University Convocations. Units: 6.

Prerequisite: ART 350 and consent of instructor

ART 565: *Advanced Topics in Studio Art*
A more advanced and in-depth opportunity to study important issues in contemporary art not covered in other regularly offered classes. Current themes in contemporary visual culture will be examined as a place for students to contemplate the role and purpose of art in its larger societal context. May be repeated for credit when the topic is different. When scheduled on Tuesday-Thursday, class will dismiss early for University Convocations. Units: 6.

Prerequisite: Any 300-level studio art course

ART 570: *Advanced Sculpture*
A more refined continuation of the ideas, issues and skills addressed in ART 370. Individualized project planning and implementation are emphasized as students develop a unique and consistent body of work. When scheduled on Tuesday-Thursday, class will dismiss early for University Convocations. Units: 6.

Prerequisite: ART 370 and consent of instructor

ART 585: *Art in the Elementary and Secondary Schools*
Art class observations, studio practice in both two- and three-dimensional disciplines, studio demonstrations/lectures, and selected readings and discussions relative to the visual expression of the elementary, junior, and senior high school student. Units: 6.

Also listed as Education 585

Prerequisite: Four studio art courses, EDUC 180 and 340, and two art history courses

ART 590: *Tutorial in Studio Art*
Offered for intermediate and advanced study in studio art. Apply to the instructor at least one term in advance with written proposal and a preliminary bibliography. Units: Variable.

Prerequisite: Counter Registration Required.

ART 591: ***Directed Study in Studio Art***
Directed study follows a syllabus set primarily by the instructor to meet the needs or interests of an individual student or small group of students. The main goal of directed study is knowledge or skill acquisition, not research or creative work. Units: Variable.

Prerequisite: Counter Registration Required.

ART 595: ***Internship in Studio Art***
The internship will provide an experience-based learning opportunity to enrich the student's artistic process and growth. It will encourage innovation and resourcefulness while facilitating an entrepreneurial and informed approach to future creative pursuits. Students should expect to gain "real world" experience and professional connections as well as skills and insights they can apply directly to their creative projects in the classroom and beyond. Students will work on an individual basis with a faculty supervisor, internship site supervisor, and the Career Center to design, implement and evaluate their academic experience. The academic component of the internship includes readings related to the substance of the internship, discussions with the faculty supervisor, and a written report appropriate to the discipline. Course grades are based on this academic work. Units: Variable.

Prerequisite: Counter Registration Required.

ART 599: ***Independent Study in Studio Art***
Advanced creative research for students preparing for the senior exhibition or doing honors projects. Units: Variable.

Prerequisite: Counter Registration Required.

ART 600: ***Studio Art Senior Seminar***
Intended to serve as a capstone experience for students in studio art, this course is designed to complement and work in conjunction with the student’s preparations for the Senior Exhibition. It will cover the practical concerns relevant to working as a professional artist along with current issues pertinent to the contemporary art world. When scheduled on Tuesday-Thursday, class will dismiss early for University Convocations. Units: 6.

Prerequisite: Senior standing and declared major in Studio Art or consent of the instructor

ART 601: ***Senior Studio Art Practicum***
The primary purpose of this course is to galvanize and standardize the studio art majors' preparations for the senior exhibition departmental requirement. By immersing the student in creating and exhibiting an advanced body of work with greater faculty oversight coupled with more formalized peer input, we expect to strengthen students' synthesizing of information, ideas, and conceptual concerns accumulated over the course of their studio art education. Secondary concerns are reflection, assessment and documentation of work produced. This course will be taught as a seminar with a studio component. When scheduled on Tuesday-Thursday, class will dismiss early for University Convocations. Units: 6.

Prerequisite: ART 600

ART 690: ***Tutorial in Studio Art***
Offered for intermediate and advanced study in studio art. Apply to the instructor at least one term in advance with written proposal and a preliminary bibliography. Units: Variable.

Prerequisite: Counter Registration Required.

ART 691: ***Directed Study in Studio Art***
Directed study follows a syllabus set primarily by the instructor to meet the needs or interests of an individual student or small group of students. The main goal of directed study is knowledge or skill acquisition, not research or creative work. Units: Variable.

Prerequisite: Counter Registration Required.

ART 695: ***Internship in Studio Art***
The internship will provide an experience-based learning opportunity to enrich the student's artistic process and growth. It will encourage innovation and resourcefulness while facilitating an entrepreneurial and informed approach to future creative pursuits. Students should expect to gain "real world" experience and professional connections as well as skills and insights they can apply directly to their creative projects in the classroom and beyond. Students will work on an individual basis with a faculty supervisor, internship site supervisor, and the Career Center to design, implement and evaluate their academic experience. The academic component of the internship includes readings related to the substance of the internship, discussions with the faculty supervisor, and a written report appropriate to the discipline. Course grades are based on this academic work. Units: Variable.

Prerequisite: Counter Registration Required.

ART 699: ***Independent Study in Studio Art***
Advanced creative research for students preparing for the senior exhibition or doing honors projects. Units: Variable.

Prerequisite: Counter Registration Required.

Professor: Lawton (Ottilia Buerger Professor of Classical Studies)

Associate professors: Carlson (chair)

Assistant professors: Lin, Tilghman*, Zinsli (director and curator of the Wriston Art Center Galleries)

Post-doctoral fellows: Barragan

*On leave Term III

Introduction

An integral part of a liberal arts curriculum, the courses of the art and art history department encourage aesthetic awareness and appreciation by emphasizing the interdependence of art-making, art history, and other creative and intellectual fields. A major is offered in either studio art or art history, and certification for teaching K-12 is available in conjunction with the studio art major. A student may complete a double major in studio art and art history by fulfilling the requirements for each major. Students planning to major in studio art and/ or art history should take the introductory 100-level courses required for the major in their freshman and sophomore years. Students may take a maximum of 126 units in the art and art history department, provided that no more than 90 are in either studio art or art history.

Required for the art history major

1. A minimum of 9 art history courses (54 units) to include:
    a. ARHI 100 and 102
    b. One 200- or 300-level course (6 units each) in each of the following periods:
        - Ancient
        - Medieval and Renaissance
        - Modern and Contemporary
    c. One 400 level course (6 units)
    d. ARHI 680: *Senior Seminar*
    e. Two additional art history courses (12 units)
2. One course in studio art (6 units)

Required for the art history minor

1. A minimum of six art history courses (36 units) to include:
    a. ARHI 100 and 102
    b. Three courses at the 200 or 300 level (6 units each) to be taken from at least two of the following periods:
        - Ancient
        - Medieval and Renaissance
        - Modern and Contemporary
    c. One 400-level course (6 units)
2. C average in the minor

Recommendations

Art history majors are urged to coordinate with their studies participation in one of Lawrence's international off-campus programs or the program at the Newberry Library in Chicago.

Art history majors, particularly those considering graduate studies, are strongly encouraged to begin the study of German and/or French in the freshman or sophomore year.

Senior Experience in art history

The art history *Senior Experience* consists of ARHI 680: *Senior Seminar*, taken during the senior year. Students pursuing double majors and double degrees are encouraged to consult in advance with the art history faculty if they are interested in pursuing a research topic in ARHI 680 that integrates their interests in both majors.

COURSES

ARHI 100: *Survey of Western Art I: Ancient to Medieval*

An introductory survey of the art and architecture of the ancient Near East and of Europe from the Prehistoric through the Gothic periods and an introduction to methods of viewing art in its historical and cultural context. Units: 6.

ARHI 102: *Survey of Western Art II: Renaissance to Modern*

An introductory survey of the art and architecture of Europe and North America from the Renaissance to the Modern era. Particular emphasis on viewing works of art and architecture within their historical and cultural context. Units: 6.

ARHI 130: *Art of the Islamic World*

An introduction to rich artistic traditions of the Islamic world from the 7th century to the present, looking at architecture, illuminated manuscripts, metalwork, film, and more. Topics include the role of art in Islam, the relationship between art and power, and the importance of cross-cultural exchange. Units: 6.

ARHI 191: *Directed Study in Art History*

Directed study follows a syllabus set primarily by the instructor to meet the needs or interests of an individual student or small group of students. The main goal of directed study is knowledge or skill acquisition, not research or creative work. Units: Variable.

Prerequisite: Counter Registration Required.

ARHI 195: ***Internship in Art History***
Applied work in art history arranged and carried out under the direction of a faculty member. Students might work for a gallery, museum, archive, auction house, a publication, or visual resource database. The academic internship is supplemented with readings, discussions, and assignments. The course grade will be based on submitted work evaluated by the supervising faculty member. Units: Variable.

Prerequisite: Sophomore standing

ARHI 200: ***Archaic and Classical Greek Art***
A study of Greek art and architecture to the end of the fourth century B.C. Topics include the great sanctuaries at Olympia, Delphi, and Athens; the development of mythological narrative in sculpture and vase painting; the political and propagandistic function of Greek art; and the beginning of portraiture. Units: 6.

Also listed as Classics 340

Prerequisite: ARHI 100 or sophomore standing

ARHI 202: ***From Alexander to Kleopatra: Art of the Hellenistic Age***
A study of Greek and Greek-influenced art from the time of Alexander the Great to the Roman conquest of Egypt in 31 B.C. Topics include portraiture and the royal iconography of the Hellenistic rulers, the development of regional styles in sculpture, and the influence of the Romans as patrons. Units: 6.

Also listed as Classics 345

Prerequisite: ARHI 100 or sophomore standing

ARHI 204: ***Roman Art***
A study of the art and architecture of the Etruscans and the Romans to the end of the Roman empire. Topics include the funerary arts of the Etruscans, the art and archaeology of Pompeii and Herculaneum, developments in imperial portraiture and historical relief, technological innovations in architecture, and the beginnings of Christian art. Units: 6.

Also listed as Classics 350

Prerequisite: ARHI 100 or sophomore standing

ARHI 210: ***Early Medieval Art and Architecture***
A survey of art and architecture in Europe and the eastern Mediterranean between the fourth and ninth centuries. Topics include Imperial-sponsored Christian art, the development of Byzantine art and architecture, the Celtic artistic tradition of northern Europe, and the flowering of art under the Carolingian emperors. Units: 6.

Prerequisite: ARHI 100 or sophomore standing

ARHI 211: ***Splendor & Power: Byzantine Art***
Surveys the art and architecture of the Byzantine Empire, including mosaics, metalwork, icons, manuscripts, textiles, and other arts. Emphasizes the transition from classical Roman society, the patronage of Byzantine political figures, the profound importance of religion for the arts, and international contacts, especially with western Europe and the Islamic world. Units: 6.

Prerequisite: ARHI 100 or sophomore standing

ARHI 213: ***Gothic and Northern Renaissance Art***
The arts of this period are famous for their beauty and grandeur, from soaring cathedrals to delicate paintings. We will consider these beautiful works alongside historical changes within the cultural, economic, and ideological fabric of society, as well as contemporary theories about social construction and the nature of objects. Units: 6.

Prerequisite: ARHI 100 or sophomore standing

ARHI 220: ***Art of the Italian Renaissance***
A study of the art and architecture of Italy from the late 13th century until the early 16th century. Topics include patronage and the art market, the revival and influence of the antique, theories of perspective and design, and changes in the status of the artist. Units: 6.

Prerequisite: ARHI 102 or sophomore standing

ARHI 240: ***19th Century Art: From Romanticism to Post-Impressionism***
A study of the development of 19th-century European art that traces the emergence of movements such as Romanticism, Realism, and Impressionism. Readings and class discussion consider how political instability, industrialization, imperialism, and the growth of popular culture influenced production, style, and presentation of painting and sculpture. Units: 6.

Prerequisite: ARHI 102 or sophomore standing

ARHI 242: ***Modern Art: 1900-1960***
A study of 20th-century European and American art that traces the emergence of movements such as Cubism, Surrealism, and Abstract Expressionism. The shifting meanings of art, artistic production, and the definition of the term “artist” are considered against the massive political and social changes of the time period. Units: 6.

Prerequisite: ARHI 102 or sophomore standing

ARHI 244: ***American Art***
An examination of American art, 1776-1940. This course considers the growth of landscape, genre, and history painting, as well as portraiture, in the context of changing ideas about nationalism, class, race, and gender. Architecture and sculpture are also discussed in terms of how visual culture shaped early ideas about nationhood. Units: 6.

Prerequisite: ARHI 102 or sophomore standing

ARHI 246: *19th-Century Art, Design, and Society in Britain*
In the 19th century, Britain was at the height of her imperial and industrial powers, with a burgeoning middle class with increased spending power. Against this background, this course examines the painting (including Turner, Constable, the Pre-Raphaelites, the High Victorians), architecture, furniture, and interiors of the period, utilizing the wealth of examples in London's museums, galleries, and buildings. *Offered at the London Centre.* Units: 6.

Prerequisite: Must be attending the Lawrence London Centre.

ARHI 250: *History of Photography*
Introduction to photography's histories, from early attempts to fix light and shadows to the diverse digital practices of the present. Topics will include: social, scientific, and artistic uses of photography; theoretical and critical writings on photography and its place in our visual culture; and major figures, movements, and images. Units: 6.

Prerequisite: ARHI 102 or sophomore standing

ARHI 270: *Latin American Visual Art (in English)*
The course introduces the cultures of Latin America through a survey of its major movements and artists from the early 19th century to the present. Image-based lectures will be accompanied by discussion of visual and thematically related texts (*i.e.,* biographies, letters, scholarly articles) and carefully selected fragments of videos. Taught in English. Units: 6.

Also listed as Spanish 426

ARHI 272: *African-American Art*
Beginning with the late eighteenth century and concluding with art today, this course examines African-American history through visual culture. We will examine how race relations in the United States were and are constructed through an examination of painting, sculpture, public monuments, photography, advertising, and performance. Units: 6.

Also listed as Ethnic Studies 290

Prerequisite: Sophomore standing

ARHI 275: *Latin American Visual Art*
The course introduces the cultures of Latin America through a survey of its major movements and artists from the early 19th century to the present. Image-based lectures will be accompanied by discussion of visual and thematically related texts (i.e., biographies, letters, scholarly articles) and carefully selected fragments of videos. Units: 6.

Also listed as Spanish 425

Prerequisite: One 300-level course in Spanish or consent of instructor

ARHI 284: *The Spectacle of Edo Japan*
This lecture-discussion course will focus on the diverse artistic production and consumption within Edo-period Japan (1603-1868). Topics include the revival of classical imagery, the rise of an urban bourgeois culture, the prints and paintings depicting theater and the pleasure quarters, the reification of the tea ceremony and encounters with the West through trade. Coursework will include exams and written work, including a mock exhibition proposal. Units: 6.

Also listed as East Asian Studies 284

ARHI 285: *The Transformation of the East Asian Metropole: Tokyo, Seoul and Shanghai (1860–1945)*
This lecture-discussion course explores the transformation of the cityscape in Tokyo, Seoul and Shanghai. Topics include the emergence of the modern artist, the search for an “avant-garde” of the East, the modernization of public and private spaces, the introduction of film and photography and the rise of the “modern girl.” Coursework will include exams, an annotated bibliography and a paper. Units: 6.

Also listed as East Asian Studies 285

Prerequisite: Sophomore standing or consent of instructor

ARHI 315: *Introduction to the Art Museum: History, Issues, and Practices*
Introduction to art museums and exhibitions as objects of critical inquiry, and to issues and practices in the art museum field. Topics will include: history and evolution of collecting and display; museum exhibitions and knowledge formation; collection practices and ethics; exhibition theory and design; controversies, institutional critique, and the artist-as-curator. Units: 6.

Also listed as Ethnic Studies 315

Prerequisite: Sophomore standing

ARHI 320: *Contemporary Art*
A study of art since 1960. Students will examine art works and the theories and strategies that have informed their production. Topics include: gender and ethnicity, new materials and processes, site-specific and time-based works, and alternative venues and approaches toward exhibition. Units: 6.

Prerequisite: ARHI 102, ARHI 242, or consent of instructor

ARHI 325: ***Ethics in Archaeology: Who owns the past?***
An exploration of ethical and legal concerns surrounding archaeology: the ownership and treatment of archaeological remains and relations between archaeologists and descendent communities. Topics include the ethics and legality of collecting looting, and the antiquities market; archaeology and nationalism; repatriation of skeletons and artifacts; and professional responsibilities of archaeologists. Units: 6.

Also listed as Anthropology 328, Classics 368

Prerequisite: Sophomore standing and ANTH 120, an ARHI course (preferably ancient to Renaissance), or consent of instructor

ARHI 330: ***Seminar: Portraiture***
This course explores definitions of portraiture and surveys the history of portraiture from antiquity to the present. Topics will include the ruler portrait, the self-portrait, the group portrait, photography and portraiture, and portraiture and modernism. Units: 6.

Prerequisite: ARHI 100 or ARHI 102

ARHI 335: ***Faith and Power in Mediterranean Cities***
This course examines the complex histories of buildings and urban landscapes around the Mediterranean, emphasizing how religious and political structures transformed them from the Classical world, through Christian and Islamic empires, and down to modern nation states. The city of Istanbul will be a central focus, though case studies from other cities will be introduced. Units: 6.

Also listed as Religious Studies 365

Prerequisite: Sophomore standing

ARHI 345: ***Theorizing the Female Body in East Asian Art***
This discussion-based course will examine how tomb murals, paintings, prints, photography, and film have addressed the female body throughout East Asian history. We will explore how social and political issues were defined and negotiated through the gendered images of bodies in Japan, Korea and China in the context of national identity formation, historical reconstruction, subjectivity and sexuality. Coursework will include exams and a research paper. Units: 6.

Also listed as East Asian Studies 345, Gender Studies 345

Prerequisite: Sophomore standing

ARHI 390: ***Tutorial Studies in Art History***
Tutorials for advanced students in art history. Apply to the instructor at least one term in advance with a written proposal and a preliminary bibliography. Units: Variable.

Prerequisite: Counter Registration Required.

ARHI 391: ***Directed Study in Art History***
Directed study follows a syllabus set primarily by the instructor to meet the needs or interests of an individual student or small group of students. The main goal of directed study is knowledge or skill acquisition, not research or creative work. Units: Variable.

Prerequisite: Counter Registration Required.

ARHI 395: ***Internship in Art History***
Applied work in art history arranged and carried out under the direction of a faculty member. Students might work for a gallery, museum, archive, auction house, a publication, or visual resource database. The academic internship is supplemented with readings, discussions, and assignments. The course grade will be based on submitted work evaluated by the supervising faculty member. Units: Variable.

Prerequisite: Sophomore standing

ARHI 399: ***Independent Study in Art History***
Advanced study for students doing honors projects in art history. Units: Variable.

Prerequisite: Counter Registration Required.

ARHI 400: ***Topics in Ancient Art***
An examination of a particular topic in ancient art history. Students are expected to carry out independent research. The topic will change periodically. Course may be repeated with the consent of the instructor. Units: 6.

Also listed as Classics 540

Prerequisite: One 200- or 300-level course in art history, one course in classics, or consent of the instructor.

ARHI 420: ***Topics in Medieval and Renaissance Art***
An examination of a particular topic in medieval or Renaissance art history. The topic will change periodically. Course may be repeated when the topic is different. Students are expected to carry out an independent research project that will serve as preparation for ARHI 680. Units: 6.

Prerequisite: One 200- or 300-level course in art history, or consent of the instructor

ARHI 430: ***Topics in Asian Art***
An examination of a particular topic in the history of art in Asia. Students are expected to carry out an independent research project that will serve as preparation for ARHI 680. Course may be repeated when topic is different. Units: 6.

Prerequisite: One course in art history numbered 200-399, or consent of instructor

ARHI 440: *Topics in Modern and Contemporary Art*
An examination of a particular topic in modern or contemporary art history. The topic will change periodically. Course may be repeated when topic is different. Students are expected to carry out an independent research project that will serve as preparation for ARHI 680.

Topic for Winter 2017: The Artist's City
Cities are dynamic centers of artistic, political, and social action. This seminar explores architectural design, depictions of cities, and art activism from the nineteenth century to today to consider how artists have experienced and acted within the metropolis and what it might mean to belong to a community.

Units: 6.

Prerequisite: One 200- or 300-level course in art history, or consent of instructor

ARHI 480: *Topics in Art History*
An examination of a particular topic in art history that does not fit the chronological format of the other 400-level topics seminars in art history. Course may be repeated when topic is different. Students are expected to carry out an independent research project that will serve as preparation for ARHI 680. Units: 6.

Prerequisite: One 200- or 300-level course in art history or consent of instructor

ARHI 590: *Tutorial Studies in Art History*
Tutorials for advanced students in art history. Apply to the instructor at least one term in advance with a written proposal and a preliminary bibliography. Units: Variable.

Prerequisite: Counter Registration Required.

ARHI 591: *Directed Study In Art History*
Directed study follows a syllabus set primarily by the instructor to meet the needs or interests of an individual student or small group of students. The main goal of directed study is knowledge or skill acquisition, not research or creative work. Units: Variable.

Prerequisite: Counter Registration Required.

ARHI 595: *Internship in Art History*
Applied work in art history arranged and carried out under the direction of a faculty member. Students might work for a gallery, museum, archive, auction house, a publication, or visual resource database. The academic internship is supplemented with readings, discussions, and assignments. The course grade will be based on submitted work evaluated by the supervising faculty member. Units: Variable.

Prerequisite: Sophomore standing

ARHI 599: ***Independent Study in Art History***
Advanced study for students doing honors projects in art history. Units: Variable.

Prerequisite: Counter Registration Required.

ARHI 660: ***Methods of Art History***
This course will examine the theories and methods practiced in art history. It will concentrate on key texts, from antiquity to the present, relating to the history and criticism of art and visual culture. Readings will include authors and texts that have come to define the discipline, and more recent authors who have begun to challenge those defining texts. Units: 6.

Prerequisite: Junior standing and three courses in ARHI numbered 200 or above, or consent of instructor

ARHI 680: ***Senior Research Seminar***
A senior seminar in which students will conduct research on a topic of their choice and produce a substantive original paper in which they demonstrate their ability to comprehend the scholarly literature on the topic, to subject it to appropriate methods of analysis, and to present the results in well-written and professionally documented form. Open to students who, having completed a 400-level art history course, have previously investigated a research topic that will serve as the foundation for their work in this course. Units: 6.

Prerequisite: Senior standing, ARHI 660, and one 400-level art history course or consent of the instructor

ARHI 690: ***Tutorial Studies in Art History***
Tutorials for advanced students in art history. Apply to the instructor at least one term in advance with a written proposal and a preliminary bibliography. Units: Variable.

Prerequisite: Counter Registration Required.

ARHI 691: ***Directed Study in Art History***
Directed study follows a syllabus set primarily by the instructor to meet the needs or interests of an individual student or small group of students. The main goal of directed study is knowledge or skill acquisition, not research or creative work. Units: Variable.

Prerequisite: Counter Registration Required.

ARHI 695: ***Internship in Art History***
Applied work in art history arranged and carried out under the direction of a faculty member. Students might work for a gallery, museum, archive, auction house, a publication, or visual resource database. The academic internship is supplemented with readings, discussions, and assignments. The course grade will be based on submitted work evaluated by the supervising faculty member. Units: Variable.

Prerequisite: Sophomore standing

ARHI 699: ***Independent Study in Art History***
Advanced study for students doing honors projects in art history. Units: Variable.

Prerequisite: Counter Registration Required.

Professor: E. De Stasio* (Biology, The Raymond H. Herzog Professorship in Science)

Associate professors: Debbert (Chemistry), Dickson (Biology), Hall (Chemistry), Martin (Physics)

*On leave Terms I, II, III

Introduction

Biochemistry is the study of biological phenomena at the molecular level. Specifically, the scientific principles explored in chemistry and physics are related to the biology of organisms or communities of organisms. Although scientists have been fascinated with the molecules that compose living organisms for more than 200 years, biochemistry was finally recognized as a discipline at the beginning of the 20th century, as scientists strove to understand nutrition and metabolism in the context of human disease. Modern biochemistry is a vast subject that has applications to medicine, dentistry, agriculture, forensics, toxicology, pharmacy, anthropology, environmental science, and other fields.

Biochemistry is a dynamic and highly technical field. A degree in biochemistry presents students with many options for careers or advanced study. The biochemistry major will prepare students for graduate study in biochemistry (or related biomedical fields such as bacteriology, molecular biology, or immunology) as well as for many pre-professional programs of study, such as forensic science or bioinformatics.

The biochemistry curriculum includes a strong foundation in the basic sciences, core courses central to the field, and electives that enable students to explore aspects of biochemistry in sub-fields of their choice. Most courses include an intensive laboratory experience, supported by equipment in biology, chemistry, and physics. Experimental work becomes progressively more sophisticated and creative in advanced courses as students gain insight to the primary literature and cutting-edge laboratory techniques. Students are strongly encouraged to engage in summer research, either in an academic setting—at Lawrence or another institution—or in industry.

The vision of a biochemistry *Senior Experience* is best described by a report by the Association of American Colleges and Universities (AAC&U), Greater Expectations: A New Vision for Learning as a Nation Goes to College. A biochemistry major at graduation should be an "intentional learner who can adapt to new environments, integrate knowledge from different sources, and continue learning throughout their life. They should also become empowered learners through the mastery of intellectual and practical skills by learning to effectively communicate orally, and in writing; understand and employ quantitative and qualitative analysis to solve problems; interpret and evaluate information from a variety of sources; understand and work within complex systems; demonstrate intellectual agility and the ability to manage change; transform information into knowledge and knowledge into judgment and action." Biochemistry majors can attain these skills in either the Biology or Chemistry Senior Experience course sequences.

Required for the biochemistry major

REQUIRED FOUNDATION COURSES

1. CHEM 116: *Principles of Chemistry*
2. CHEM 250: *Organic Chemistry I*
3. BIOL 130: *Integrative Biology: Cells to Organisms*
4. Either:
    - MATH 140: *Calculus I*, or
    - MATH 120 and 130: *Applied Calculus I* and *II*
5. One of the following:
    - BIOL 170: *Experimental Design and Analysis*
    - CHEM 210: *Analytic Chemistry*
    - Statistics in the math department over the 200 level
6. PHYS 141: *Principles of Classical, Relativistic and Quantum Mechanics*
7. PHYS 151: *Principles of Classical Physics*
8. *Senior Experience* courses: Please see description in the respective departmental portions of the course catalog

    Either:
    - CHEM 380 (1 unit S/U)
    - CHEM 480 (2 units S/U)
    - CHEM 680 (3 units S/U)

    Or:
    - BIOL 650 (5 units and 1 unit)
    - Fall Term BIOL 600 or equivalent (1 unit S/U)

REQUIRED CORE COURSES

1. BIOL 354: *Molecular Biology*
2. CHEM 340: *Biochemistry I* (cross-listed as BIOL 444)
3. CHEM 440: *Biochemistry II* or BIOL 465: *Advanced Biotechnology*
4. Elective Courses: Students must choose three courses from the list below, including at least one CHEM and one BIOL. One of the three must be a laboratory class.
    - Biology courses:
        - BIOL 226: *Microbiology*
        - BIOL 235: *Evolutionary Biology*
        - BIOL 325: *Cell Biology*
        - BIOL 340: *Topics in Neuroscience* (also PSYC 580)
        - BIOL 360: *Introduction to Bioinformatics*
        - BIOL 430: *Immunology* or BIOL 431: *Immunology (lecture only)*
        - BIOL 450: *Special Topics* with advisor permission
        - BIOL 453: *Developmental Biology*
        - BIOL 510: *Modern Concepts of Embryogenesis*
        - BIOL 520: *Cancer Biology*

- Chemistry courses:
  - CHEM 210: *Analytical Chemistry*
  - CHEM 252: *Organic Chemistry II*
  - CHEM 320: *Inorganic Chemistry*
  - CHEM 350: *Bioorganic and Medicinal Chemistry*
  - CHEM 370: *Chemical Dynamics*
  - CHEM 410: *Instrumental Analysis*
  - CHEM 450: *Topics in Advanced Organic Chemistry*
- Other:
  - PSYC 350: *Psychopharmacology and Behavior*
  - PHYS 570: *Biological Physics*
  - CMSC 205: *Data-Scientific Programming*

Online coursework cannot be transferred to fulfill these requirements.

Students interested in chemistry-focused graduate programs or careers are encouraged to take *Analytical Chemistry* and *Chemical Dynamics*. Students interested in molecular biology focused careers or graduate programs are encouraged to take *Genetics* and *Cell Biology*.

COURSES

BIOL 130: *Integrative Biology: Cells to Organisms*
An exploration of fundamental cellular processes in an evolutionary context including homeostasis, cell cycle, gene expression, energy transformation, inheritance, and multi-cellular development. Experimental approaches will be emphasized. Lecture and laboratory. Units: 6.

BIOL 170: *Integrative Biology: Experimental Design and Statistics*
An introduction to experimental and sampling design in the fields of biology and biochemistry, as well as methods of data analysis and interpretation. The connection between statistical analysis and experimental design will be emphasized. Topics include descriptive, exploratory, and confirmatory statistical analyses. Lecture and computer laboratory. Units: 6.

Prerequisite: BIOL 150 or consent of instructor

BIOL 226: *Microbiology*
A study of microbial life with an emphasis on prokaryotes. Microbial physiology is examined in the context of how unique characteristics allow microbes to exploit a vast diversity of environments, including the human body. Laboratory exercises introduce students to techniques used to safely study microorganisms. Units: 6.

Prerequisite: BIOL 130, and CHEM 115 or CHEM 116

BIOL 235: *Evolutionary Biology*
A study of biological evolution, including natural selection, adaptation, the evolution of sex, speciation, extinction, and constraints on evolutionary change. Reading primary literature is emphasized. Two lectures and one discussion per week. Units: 6.

Also listed as Environmental Studies 213

Prerequisite: BIOL 130 or ANTH 140

BIOL 325: *Cell Biology*
Survey of the structure and function of eukaryotic cells, the basic functional unit of life. Correlation of cellular structures including organelles, proteins, and membranes with functions such as cellular communication, division, transport, movement, and secretory pathways will be analyzed. Lecture and laboratory. Units: 6.

Prerequisite: One of BIOL 260, BIOL 354, BIOL 444, or concurrent enrollment or consent of instructor

BIOL 340: *Topics in Neuroscience*
A study of the nervous system from the perspectives of psychology and biology. Topics vary year to year and may include glial cells, neural development, and the evolution of nervous systems and neurotransmitter systems. Lecture only. May be repeated when topic is different.

Topic for Spring 2017: The Mindful Brain
Mindfulness meditation involves paying attention, on purpose and without judgment. With roots in Eastern philosophy, it has been applied to the treatment of various physical and mental conditions in contemporary Western medicine and psychotherapy. This course will explore research on how mindfulness meditation changes the brain.

Units: 6.

Also listed as Psychology 580

Prerequisite: CHEM 116, BIOL 150, and one course in psychology; or PSYC 360 and one course in biology; or consent of instructor

BIOL 354: *Molecular Biology*
An interdisciplinary examination of regulatory mechanisms leading to differential gene expression. Main topics include transcription, translation, gene and protein structure, and modern genomics. The application of current molecular techniques is emphasized throughout the course. Laboratory work is experimental in approach. Lecture and laboratory. Units: 6.

Prerequisite: BIOL 130 and CHEM 115

BIOL 430: *Immunology*
This course will cover the basic concepts of immunology, including differentiation of immune cells, antibody structure and function, antigen-antibody reactions, the major-histocompatibility complex, the complement system, immune responses to pathogens, allergies and auto-immune diseases, and comparative immunology. The course will also examine recent advances in the field through current peer-reviewed publications. The weekly laboratory will examine the basic questions, experimental subjects, and procedures of the field. Units: 6.

Prerequisite: Junior standing or consent of instructor

BIOL 444: *Biochemistry I*
An introduction to the study of biological processes at the molecular level with emphases on protein structure and function, enzyme mechanism and kinetics, fundamentals of physical biochemistry, and the chemistry of biological molecules, including carbohydrates, lipids, and nucleic acids. Units: 6.

Also listed as Chemistry 340

Prerequisite: CHEM 250 or concurrent enrollment, or consent of instructor

BIOL 453: *Developmental Biology*
An experimental approach to animal development with laboratory and lecture emphasis on molecular and cellular processes of embryogenesis. Includes discussions of pattern formation, differentiation, cell interactions, gametogenesis and fertilization. Lecture and laboratory. Units: 6.

Prerequisite: BIOL 150; and one of the following (or concurrent enrollment): BIOL 354, BIOL 444/CHEM 340, BIOL 260, or BIOL 325

BIOL 650: *Biology Senior Capstone*
Senior capstone in which students will benefit from direct input and feedback on their scientific writing and oral presentation skills as they complete senior experience projects and papers. Successful completion of BIOL 650 includes participation in BioFest, a symposium of biology senior experience projects during spring term. Units: 1 OR 5.

Prerequisite: Major in biology or biochemistry, or in neuroscience with departmental approval; and senior class standing or departmental approval

CHEM 116: ***Principles of Chemistry: Energetics and Dynamics***
Introduction to the study of chemistry, for students who have taken high school chemistry or CHEM 115, emphasizing structural and quantitative models of chemical behavior. Topics include bonding, thermochemistry, equilibrium, kinetics, and related applications. Three lectures and one laboratory per week. Enrollment is determined by placement examination for students who have not completed CHEM 115. See the chemistry department's web page for placement examination information. Units: 6.

Prerequisite: CHEM 115 or placement examination

CHEM 210: ***Analytical Chemistry***
A course in the quantitative description of chemical equilibria in solution (acid-base, complexation, redox, solubility) using classical, separation, electrochemical, and spectrochemical methods of analysis. This course covers methods of quantification, statistics, and data analysis as applied to modern chemistry. Students will have the opportunity to individually design projects. Three lectures and two laboratory periods per week. Units: 6.

Also listed as Environmental Studies 250

Prerequisite: CHEM 116, placement exam, or consent of instructor

CHEM 250: ***Organic Chemistry I***
A study of the relationship between structure and function in organic compounds. Basic topics such as molecular orbital theory, conformational equilibria, stereochemistry, and nucleophilic substitution are covered. Students also learn to use instrumental analysis (NMR, IR, GC-MS) to identify and characterize compounds. One four-hour laboratory per week. Units: 6.

Prerequisite: CHEM 116 or 119 or consent of instructor

CHEM 252: ***Organic Chemistry II***
A study of organic reactions and their mechanisms. The focus of the class is synthesis, both in the concrete sense of building molecules and in the abstract sense of pulling together disparate concepts to solve problems. Case studies from the polymer and pharmaceutical industries underline the relevance of the discipline to everyday life. One four-hour laboratory per week. Units: 6.

Prerequisite: CHEM 250

CHEM 320: ***Inorganic Chemistry***
A survey of structures, properties, reactivities, and interrelationships of chemical elements and their compounds. Topics include unifying principles and concepts that enable the interpretation of experimental data associated with materials. Emphasis on multidisciplinary aspects of inorganic chemistry. Lectures and weekly laboratory. Laboratory projects involve synthesis and studies of compounds using a variety of experimental methods. Units: 6.

Prerequisite: CHEM 116 or 119 or consent of instructor

CHEM 340: *Biochemistry I*
An introduction to the study of biological processes at the molecular level with emphases on protein structure and function, enzyme mechanism and kinetics, fundamentals of physical biochemistry, and the chemistry of biological molecules, including carbohydrates, lipids, and nucleic acids. Units: 6.

Also listed as Biology 444

Prerequisite: CHEM 250 or concurrent enrollment, or consent of instructor

CHEM 370: *Physical Chemistry I*
Develops and explores theoretical descriptions of chemical systems: physical states, the laws of thermodynamics as applied to chemical and physical equilibria, chemical reaction kinetics, and catalysis. No laboratory. Units: 6.

Prerequisite: MATH 150, PHYS 150, CHEM 116; or consent of instructor

CHEM 380: *Seminar: Perspectives on Chemistry*
A series of presentations by visiting chemists and Lawrence students, faculty, and staff, featuring current issues in chemistry, important applications of chemistry, and professional development topics appropriate to chemistry majors or minors. Approximately one meeting per week. Two or more short “reaction papers” (a short seminar critique or summary) required of each student. Offered annually in the Fall Term. May be repeated for credit. Units: 1.

Prerequisite: Sophomore standing; offered annually in the Fall Term

CHEM 410: *Instrumental Analysis*
An advanced course in instrumental methods of quantification and identification in modern chemistry. Emphasis on instrument design, operating principles, interpretation of instrumental data, and discrimination between techniques. This course focuses on spectroscopic, chromatographic, and electrochemical techniques and their application in fundamental and applied research. Students will have the opportunity to individually design projects. Three lectures and one laboratory per week. Units: 6.

Prerequisite: CHEM 210 or consent of instructor

CHEM 440: *Biochemistry II*
A continuation of Biochemistry I. A study of biological processes at the molecular level with an emphasis on metabolic pathways, recent advances in biochemical medicine, and biochemical aspects of gene replication, protein synthesis, molecular motors, and sensing. The course is divided between lecture and discussion and will rely heavily on current biochemical literature. Units: 6.

Also listed as Biology 455

Prerequisite: CHEM 340 or consent of instructor

CHEM 450: *Topics in Advanced Organic Chemistry*
A study of modern topics in organic chemistry, emphasizing current literature. Topics may vary from year to year, but the class typically covers organic synthesis in depth. Students will often use the literature and their own expanding understanding of chemical reactivity to design synthetic routes to complex drugs and natural products. No formal laboratory; lab exercises may occasionally substitute for lectures.

Topic for Winter 2017: Modern Organic Synthesis
This course will study modern methods and topics in organic synthesis, including organometallic catalysis, stereoselectivity, pericyclic reactions, carbenes, and more. Students will learn to search and read the modern literature of organic synthesis, and will design syntheses toward complex products. Lecture only.

Units: 6.

Prerequisite: CHEM 252 or consent of instructor

CHEM 480: *Seminar: Chemical Literature*
A seminar course intended primarily for junior majors and minors in chemistry. Students learn the character and organization of the chemical literature and become familiar with search strategies, as each selects a topic and, guided by the instructor, conducts a literature search for key papers on that topic, constructs an annotated bibliography, reads several of the most important of the papers, and prepares an end-of-term presentation highlighting key research findings related to their chosen topic. Units: 2.

Prerequisite: Junior standing, or consent of instructor

CHEM 680: *Seminar: Senior Seminar*
A seminar course for senior majors, culminating in an individual seminar presentation by each student. Units: 3.

MATH 107: *Elementary Statistics*
For students in all disciplines. Provides the background needed to evaluate statistical arguments found in newspapers, magazines, reports, and journals and the logic and techniques necessary to perform responsible elementary statistical analysis. Topics include basic data analysis, one-variable regression, experimental and sampling design, random variables, sampling distributions, and inference (confidence intervals and significance testing). This course may not be taken on a Satisfactory/Unsatisfactory basis. Units: 6.

Prerequisite: Sophomore standing.

MATH 120: ***Applied Calculus I***
A course in the applications of mathematics to a wide variety of areas, stressing economics and the biological sciences. Topics may include recursive sequences and their equilibria, the derivative of a function, optimization, fitting abstract models to observed data. Emphasis placed on algebraic and numerical techniques and on understanding the role of mathematical thinking. Mathematics 120 and 130 do not prepare students for more advanced courses in mathematics. Units: 6.

Prerequisite: Three years of high school mathematics;

MATH 130: ***Applied Calculus II***
A continuation of math 120. Topics may include the indefinite and definite integral, elementary linear algebra including matrix arithmetic and solving linear equations, vectors, partial derivatives, Lagrange multipliers. Both algebraic and numerical computations. Units: 6.

Prerequisite: MATH 120 or the equivalent

MATH 140: ***Calculus I***
Functions, limits, derivatives, the Mean Value Theorem, definition and properties of integrals, the Fundamental Theorem of Calculus, and applications to related rates, curve sketching, and optimization problems. Placement exam not required. Units: 6.

Prerequisite: Four years of high school mathematics

PHYS 141: ***Principles of Classical, Relativistic, and Quantum Mechanics***
A calculus-based introduction to fundamental concepts in mechanics, from Galileo and Newton through relativity and quantum mechanics. Weekly laboratories emphasize the acquisition, reduction and interpretation of experimental data and the keeping of complete records. Explicit instruction in calculus will be provided. Units: 6.

Prerequisite: None, but calculus is recommended.

PHYS 151: ***Principles of Classical Physics***
A continuation of Physics 141. Physics 151 offers a brief review of mechanics, and covers electricity, magnetism, circuits, waves, optics and thermal physics. Weekly laboratories emphasize the acquisition, reduction, and interpretation of experimental data and the keeping of complete records. Units: 6.

Prerequisite: PHYS 141, or one year of high school physics and MATH 140.

PHYS 500: *Special Topics in Physics*
Treats selected topics, such as relativity, fundamental particles, fluid mechanics, and surface physics that vary according to the interests of students and staff.

Topic for Spring 2017: General Relativity
General relativity is one of the greatest triumphs of the human mind. This course treats topics such as black holes, gravitational waves, and the evolution of the universe. Units: 6.

Prerequisite: MATH 210 and PHYS 230; or MATH 210, MATH 310, and PHYS 151

PHYS 570: *Biological Physics*
Develops and explores the physical principles underlying biological systems, with a particular emphasis on building quantitative models. Applies fundamental topics including thermodynamics, fluid dynamics, elasticity, and electrostatics to model molecular and cellular phenomena such as gene expression, virus assembly, DNA bending and stretching, and nerve impulses. Units: 6.

Also listed as Biology 570

Prerequisite: PHYS 151, and one of PHYS 230, CHEM 252, CHEM 340, or BIOL 354

PSYC 350: *Psychopharmacology and Behavior*
An interdisciplinary examination of the ways in which behaviorally active drugs exert their effects, drawing on research in pharmacology, psychology, biochemistry, anatomy, and neurophysiology. Provides an understanding and appreciation of the role of behaviorally active drugs in people's lives, today and in the past. Units: 6.

Prerequisite: Sophomore standing; at least one prior biology course recommended

Professors: B. De Stasio* (Dennis and Charlot Nelson Singleton Professor of Biological Sciences), E. De Stasio* (The Raymond H. Herzog Professorship in Science)

Associate professors: Dickson, Humphries, Sedlock (chair), Wall

Assistant professors: Del Toro, Hakes, Piasecki**

Visiting assistant professor: Lewellyn

Lecturer: Duckert

*On leave Terms I, II, III; **On leave Term I

Introduction

Students come to Lawrence with varied interests in the life sciences, thus course offerings in biology span the breadth of this exciting discipline and the biology major is flexible. Though each student may create a unique path to completing a major in biology, we encourage students to sample courses across the breadth of the field, including courses in ecology, organismal biology, and molecular genetics. The flexibility of the major allows students to include off-campus study into the undergraduate experience, whether that be the Lawrence marine term or an experience that does not include the study of biology.

The department encourages an open-ended, original, experimental approach to life science. The research-rich approach begins in BIOL 130: *Integrative Biology: Cells to Organisms*, in which all department faculty members participate. Students design, conduct, and interpret their own research projects and present their results at a professional-style symposium at the end of the term. The second course, BIOL 150, includes three open-ended research modules in the laboratory portion of the course while the third course has students focused on experimental design and statistical analysis of data.

Experimental work becomes progressively more sophisticated and creative in advanced courses. All courses are designed to develop students' insights and capacity to synthesize information, and they include discussions, readings, field trips, lab work, and interactive class work in those areas most closely related to the competence of the faculty. Most courses feature intensive laboratory or field instruction in which students use advanced research equipment to explore modern biological concepts.

All biology faculty members conduct active research programs and employ students during the summer as research assistants as well as supervise students undertaking independent study research for credit during the academic year. Motivated students may approach faculty about laboratory or field research after their first or second year of study. Many students culminate their work in biology with significant original research. In recent years, several papers with students and faculty as co-authors have been published in professional journals. Topics have included aquatic food chain energetics, host-parasite and plant/animal interactions, gene expression, and molecular mechanisms of vertebrate development.

Recent advances in biological research are presented in a series of talks by faculty and by scientists from other universities. All students complete a project (research, curriculum development, outreach, or a creative project) of their own design as part of our *Senior Experience* program and they present their work at our annual BioFest celebration of *Senior Experience* (see below for more details).

Students who have strong secondary interests in chemistry, geology, or physics may construct majors involving biology and one of the other three natural sciences, using the interdisciplinary major in the natural sciences or the biochemistry major.

Required for the biology major

1. BIOL 130, 150, and 170
2. CHEM 116
3. At least seven six-unit courses in biology numbered 200 or above (excluding *Senior Experience* courses), of which at least five must be laboratory courses
4. Completion of biology *Senior Experience* (A student-directed project, 6 units of BIOL 650, 2 units of BIOL 600)

Note: Only two six-unit courses designated as tutorial, directed study, or independent study can be counted toward the major or minor requirements and only one of those can be counted toward the upper-level laboratory requirement. On-line coursework cannot be transferred to earn biology credit.

Required for the biology minor

1. BIOL 130, 150, and 170. Students majoring in disciplines requiring a research methods and statistics course may request exemption from the BIOL 170 requirement.
2. At least four six-unit courses in biology numbered 200 or above, of which at least two must be laboratory courses.
3. C average in the minor

Note: Only two six-unit courses designated as tutorial, directed study, or independent study can be counted toward the major or minor requirements and only one of these can be counted toward the upper-level laboratory requirement. On-line coursework cannot be transferred to earn biology credit.

Required for the interdisciplinary major in the natural sciences in biology and physics or geology

1. BIOL 130, 150, and 170
2. PHYS 141 and 151 or 151 and 160
3. GEOL 110 and GEOL 210, if geology is the secondary discipline.
4. At least 10 six-unit courses in the natural sciences (biology, chemistry, geology, and physics) numbered 200 or above, with at least five in biology (of which at least three must be laboratory courses), and at least three in the secondary discipline in other departments
5. Completion of the biology *Senior Experience*

Note: The interdisciplinary combinations of biology and chemistry have been replaced by the biochemistry major.

Wisconsin teacher certification

Students who major in biology and who wish to gain certification to teach biology in Wisconsin public schools should choose a broad range of biology courses that includes ecology, plant and animal organismal biology, as well as molecular and cellular biology. Students should gain experience in both field and laboratory research. Beyond the coursework required for the biology major, students will need to take the following additional courses:

1. One 6-unit geology course
2. One 6-unit physics course
3. EDST 180: *Psychology of Learning*
4. EDST 350: *Ethnicity, Cultural Diversity, and Education*
5. EDST 440: *Sociology of Education*
6. EDUC 560: *Methods in Middle and Secondary Teaching*
7. EDUC 430: *Educating All Learners*
8. EDUC 650: *Student Teaching*
9. EDUC 660: *Student Teaching Seminar*

For more detailed information about the certification program refer to the course of study for the Department of Education.

Senior Experience in biology

Required: A student-designed project, 6 units of BIOL 650, 2 units of BIOL 600.

Purposeful advising in the spring of the sophomore year and attendance at the spring BioFest is meant to inspire sophomore students to think about what they might want to undertake as their culminating project in biology. During the fall of the junior year, students will hear from department faculty, the internship coordinator, and others about opportunities available for *Senior Experience* projects at a weekend retreat. Breakout groups allow students to brainstorm project ideas. Project work (research, internship, creation of a curricular module, draft of a grant proposal, draft of a children's book on biology, production of art about biology, or other creative project) generally will be undertaken prior to Term II of the senior year and may be based on an internship, summer or academic year research, a tutorial, course work, independent study, or other student activities.

Usually in the senior year, students will take two terms of BIOL 600: *Recent Advances in Biology Lecture Series* (1 unit each), one term of BIOL 650 (5 units) in Winter Term and one additional unit of BIOL 650 in Spring Term for BioFest. The purpose of the BIOL 650 course is to bring to culmination each student’s individual *Senior Experience* project and to place that project in an academic context. Each student prepares a paper that places her or his project into a biological context, compares it to our past and current understanding of the topic using primary literature, and summarizes the student’s project or results. Students will begin gathering and organizing academic resources for this paper in the Term I BIOL 600 course. In BIOL 650, students preparing a thesis for honors will prepare a significant portion of their thesis, while a student creating a visual product or curriculum will describe the biological underpinnings of the work and reflect on the production of the work itself, for example. The *Senior Experience* will culminate with a symposium, BioFest, during Spring Term, at which all students will present the results of their projects (or the project itself) as a poster, demonstration or other visual display.

COURSES

BIOL 100: ***The Biology of Human Reproduction***
An introductory course focusing on human reproduction to demonstrate some basic biological principles. The course includes discussion of cellular and organismal processes related to the development of human biological complexity. Current research in reproductive biology and its impact on the individual and society is considered. Lecture and laboratory. Primarily for non-science majors; credit not applicable to the biology major. Units: 6.

Also listed as Gender Studies 180

BIOL 103: ***Biotechnology and Society***
An examination of basic biological principles underlying current biotechnology in the fields of human genetics and genetic engineering. Discussion of methods of basic scientific research, the impact of technology on society, and ethical problems in human and agricultural genetics. Credit not applicable to biology major. Weekly laboratories will introduce basic experimental methodology and procedures. Units: 6.

BIOL 130: ***Integrative Biology: Cells to Organisms***
An exploration of fundamental cellular processes in an evolutionary context including homeostasis, cell cycle, gene expression, energy transformation, inheritance, and multi-cellular development. Experimental approaches will be emphasized. Lecture and laboratory. Units: 6.

BIOL 150: ***Integrative Biology: Organisms to Ecosystems***
Development, morphology, physiology, and ecology of plants, animals, fungi and unicellular organisms will be compared in evolutionary context. Phylogenic relationships, ecological interactions, and ecosystem processes will be explored. Lecture and laboratory. Units: 6.

Prerequisite: BIOL 130 or departmental examination

BIOL 170: ***Integrative Biology: Experimental Design and Statistics***
An introduction to experimental and sampling design in the fields of biology and biochemistry, as well as methods of data analysis and interpretation. The connection between statistical analysis and experimental design will be emphasized. Topics include descriptive, exploratory, and confirmatory statistical analyses. Lecture and computer laboratory. Units: 6.

Prerequisite: BIOL 150 or consent of instructor

BIOL 191: ***Directed Study in Biology***
Directed study follows a syllabus set primarily by the instructor to meet the needs or interests of an individual student or small group of students. The main goal of directed study is knowledge or skill acquisition, not research or creative work. Units: Variable.

Prerequisite: Counter Registration Required.

BIOL 200: *Animal Behavior*
A lecture and field-study course examining the principles and problems of animal behavior. Subjects include orientation, feeding, locomotion, communication, escape in time and space, biological rhythms, mate choice, and aspects of social behavior, examined from evolutionary, ontogenetic, physiological, ecological, and ethological perspectives. Lecture and laboratory. Units: 6.

Also listed as Environmental Studies 210

Prerequisite: BIOL 150

BIOL 221: *Entomology*
Topics covered will include a survey of all of the clades of insects with information on the systematics, diversity, ecology, life history, behavior and unique characteristics of each lineage. Lecture material will be augmented with required field trips to collect local species (terrestrial and aquatic) and the creation of a personal collection of species following the format as is customary for museum collections. Units: 6.

Prerequisite: BIOL 150

BIOL 222: *Parasitology*
Students will examine and compare the complex life cycles of a variety of parasites, including those of medical and veterinary importance. Specific topics covered within the course will include: parasite biochemistry, ecology, parasite evasion of the host immune system, host immune responses, and host behavior. The laboratory component of the course will include both live and preserved specimens. Units: 6.

Prerequisite: BIOL 150

BIOL 226: *Microbiology*
A study of microbial life with an emphasis on prokaryotes. Microbial physiology is examined in the context of how unique characteristics allow microbes to exploit a vast diversity of environments, including the human body. Laboratory exercises introduce students to techniques used to safely study microorganisms. Units: 6.

Prerequisite: BIOL 130, and CHEM 115 or CHEM 116

BIOL 230: *General Ecology*
An introduction to the interactions between organisms and the environment, exploring the role of physical, chemical, and biotic processes, including human activities, in determining the structure and function of populations, communities, and ecosystems. Topics include resource availability, competition, predation, symbiosis, and natural and anthropogenic disturbances such as disease, biological invasions, pollution, and climate change. Lecture and laboratory. Units: 6.

Also listed as Environmental Studies 220

BIOL 235: *Evolutionary Biology*
A study of biological evolution, including natural selection, adaptation, the evolution of sex, speciation, extinction, and constraints on evolutionary change. Reading primary literature is emphasized. Two lectures and one discussion per week. Units: 6.

Also listed as Environmental Studies 213

Prerequisite: BIOL 130 or ANTH 140

BIOL 240: *Morphogenesis of the Vertebrates*
An integrated lecture and laboratory course that undertakes the study of the structure and function of vertebrate organ systems through examination of morphology. Vertebrate ontogeny, phylogeny, and anatomy are addressed. Units: 6.

Prerequisite: BIOL 150

BIOL 242: *Comparative Physiology*
A comparative study of the variety of solutions and adaptations diverse animals can make to similar problems — obtaining and transporting oxygen, maintaining water and salt balance, utilizing food, movement, and nervous and hormonal integration. Lecture and laboratory. Units: 6.

Prerequisite: BIOL 150

BIOL 245: *Conservation Biology*
This course explores scientific concepts related to the conservation and restoration of Earth's biological diversity. Topics include patterns of species and ecosystem diversity, the relationship between biodiversity and ecosystem functioning, causes of extinction, assessing extinction risk, behavioral indicators, *in-situ* and *ex-situ* management strategies for endangered species, and ecosystem restoration. Lecture only. Units: 6.

Also listed as Environmental Studies 245

Prerequisite: BIOL 150 and sophomore standing

BIOL 260: *Genetics*
A lecture and laboratory study of the principles of inheritance, gene expression, introductory genomics, sex determination, and the concepts of historical and modern eugenics and genetic engineering. Units: 6.

Prerequisite: Sophomore standing and BIOL 130 and BIOL 170 (or concurrent enrollment) or ANTH 140

BIOL 310: *Human Anatomy*
A course in human anatomy only intended for students entering the allied health professions (e.g. nursing, PA, PT, athletic training) or forensic anthropology. Students learn detailed anatomy using full-size human models. Students are expected to learn structures of the skeletal, muscular, nervous (sensory included), circulatory, digestive, respiratory, urogenital, and endocrine systems. Emphasis is on the anatomy, particularly in the laboratory component of the course, but basic physiology is also covered. Units: 6.

Prerequisite: BIOL 150 or ANTH 140

BIOL 325: *Cell Biology*
Survey of the structure and function of eukaryotic cells, the basic functional unit of life. Correlation of cellular structures including organelles, proteins, and membranes with functions such as cellular communication, division, transport, movement, and secretory pathways will be analyzed. Lecture and laboratory. Units: 6.

Prerequisite: One of BIOL 260, BIOL 354, BIOL 444, or concurrent enrollment or consent of instructor

BIOL 330: *Aquatic Ecology*
The principles of the ecology of fresh waters, developed through discussions, laboratory, and field investigations of the functional relationships and productivity of biotic communities as they are affected by the dynamics of physical, chemical, and biotic parameters. Lecture and laboratory. Units: 6.

Also listed as Environmental Studies 310

Prerequisite: BIOL 150 or BIOL 170 (or concurrent enrollment) or BIOL 230

BIOL 335: *Plant Ecology*
This course emphasizes core concepts in ecology and evolution from the unique perspective of plants. Students will explore the interactions between plants and their environment over a range of scales; from individuals to populations and communities. Lecture and laboratory. Units: 6.

Also listed as Environmental Studies 340

Prerequisite: BIOL 170

BIOL 340: *Topics in Neuroscience*
A study of the nervous system from the perspectives of psychology and biology. Topics vary year to year and may include glial cells, neural development, and the evolution of nervous systems and neurotransmitter systems. Lecture only. May be repeated when topic is different.

Topic for Spring 2017: The Mindful Brain
Mindfulness meditation involves paying attention, on purpose and without judgment. With roots in Eastern philosophy, it has been applied to the treatment of various physical and mental conditions in contemporary Western medicine and psychotherapy. This course will explore research on how mindfulness meditation changes the brain.

Units: 6.

Also listed as Psychology 580

Prerequisite: CHEM 116, BIOL 150, and one course in psychology; or PSYC 360 and one course in biology; or consent of instructor

BIOL 345: *Terrestrial Field Ecology*
A hands-on course intended to demonstrate basic ecological principles using local terrestrial ecosystems. Field research projects will introduce students to methods in hypothesis development, experimental design, data collection, statistical analysis, and scientific writing and presentation. Research topics will include estimating population size, community structure, plant-animal interactions, and foraging behavior. Lecture and laboratory. Units: 6.

Also listed as Environmental Studies 345

Prerequisite: BIOL 150 or BIOL 170, and sophomore standing

BIOL 354: *Molecular Biology*
An interdisciplinary examination of regulatory mechanisms leading to differential gene expression. Main topics include transcription, translation, gene and protein structure, and modern genomics. The application of current molecular techniques is emphasized throughout the course. Laboratory work is experimental in approach. Lecture and laboratory. Units: 6.

Prerequisite: BIOL 130 and CHEM 115

BIOL 360: *Introduction to Bioinformatics*
An introduction to the methods and software used to analyze biological data. Through lecture and guided tutorials, students will learn the structure and organization of biological databases, explore methods for examining genomic and proteomic data sets, and examine specific case studies relating to evolution, drug discovery and human variation. Units: 6.

Prerequisite: BIOL 170

BIOL 370: *Human Physiology*
An examination of how the body maintains homeostasis. The various physiological systems (*e.g.*, respiratory and cardiovascular) will be studied at multiple levels of organization, from molecular and cellular to the macroscopic. This course is primarily aimed at students entering the health sciences. The course will have both lectures and a laboratory component. Units: 6.

Prerequisite: BIOL 150

BIOL 390: *Tutorial Studies in Biology*
Individual investigations of problems in biology. Units: Variable.

Prerequisite: Counter Registration Required

BIOL 391: *Directed Study in Biology*
Directed study follows a syllabus set primarily by the instructor to meet the needs or interests of an individual student or small group of students. The main goal of directed study is knowledge or skill acquisition, not research or creative work. Units: Variable.

Prerequisite: Counter Registration Required.

BIOL 399: *Independent Study in Biology*
Individual, in-depth investigation of a specific biological problem. Students contemplating an honors project should register for this course. Units: Variable.

Prerequisite: Counter Registration Required

BIOL 420: *The Geography of Life: Biodiversity in a Changing Planet*
Earth is a dynamic and changing planet, comprised of tightly linked ecosystems and organisms. In this course we explore relationships between the biotic and abiotic drivers that influence the distribution of global diversity. We use large-scale datasets to develop practical skills for monitoring the responses of biodiversity to environmental change. Units: 6.

Also listed as Environmental Studies 420

Prerequisite: BIOL 150 and BIOL 170; preferred but not required: BIOL 230 and BIOL 235

BIOL 430: *Immunology*
This course will cover the basic concepts of immunology, including differentiation of immune cells, antibody structure and function, antigen-antibody reactions, the major-histocompatibility complex, the complement system, immune responses to pathogens, allergies and auto-immune diseases, and comparative immunology. The course will also examine recent advances in the field through current peer-reviewed publications. The weekly laboratory will examine the basic questions, experimental subjects, and procedures of the field. Units: 6.

Prerequisite: Junior standing or consent of instructor

BIOL 431: *Immunology (lecture only)*
This course will cover the basic concepts of immunology, including differentiation of immune cells, antibody structure and function, antigen-antibody reactions, the major-histocompatibility complex, the complement system, immune responses to pathogens, allergies and auto-immune diseases and comparative immunology. The course will also examine recent advances in the field through current peer-reviewed publications. Lecture only. Units: 6.

Prerequisite: Junior standing or consent of instructor

BIOL 434: *Ecological Energetics*
Field and laboratory experimental investigations of the transfer and transformation of energy or energy-containing materials between and within organisms and populations of aquatic ecosystems. Part of the Marine Biology Term. Lecture and laboratory. Units: 6.

Also listed as Environmental Studies 410

Prerequisite: BIOL 330, concurrent enrollment in BIOL 505 and 226 and consent of instructor

BIOL 435: *Environmental Microbiology*
An investigation of how microbial organisms use and influence their environment. Experiments in the field and laboratory will explore the roles of microbes in ecosystems with a particular focus on the transfer of energy within and between organisms. Part of the Marine Biology Term. Units: 6.

Also listed as Environmental Studies 440

Prerequisite: BIOL 330, concurrent enrollment in BIOL 505 and BIOL 200, and consent of instructor

BIOL 444: *Biochemistry I*
An introduction to the study of biological processes at the molecular level with emphases on protein structure and function, enzyme mechanism and kinetics, fundamentals of physical biochemistry, and the chemistry of biological molecules, including carbohydrates, lipids, and nucleic acids. Units: 6.

Also listed as Chemistry 340

Prerequisite: CHEM 250 or concurrent enrollment, or consent of instructor

BIOL 450: *Special Topics in Biology*
A course designed to offer students an opportunity to study important issues in biology not covered in other regularly offered classes. Activities may include reading and analysis of material from primary literature, consideration of interdisciplinary connections, and field and laboratory activities. Units: 6.

Prerequisite: BIOL 130 and BIOL 150, or consent of instructor

BIOL 450: *Special Topics in Biology*
A course designed to offer students an opportunity to study important issues in biology not covered in other regularly offered classes. Activities may include reading and analysis of material from primary literature, consideration of interdisciplinary connections, and field and laboratory activities. Units: 6.

Prerequisite: BIOL 130 and BIOL 150, or consent of instructor

BIOL 453: *Developmental Biology*
An experimental approach to animal development with laboratory and lecture emphasis on molecular and cellular processes of embryogenesis. Includes discussions of pattern formation, differentiation, cell interactions, gametogenesis and fertilization. Lecture and laboratory. Units: 6.

Prerequisite: BIOL 150; and one of the following (or concurrent enrollment): BIOL 354, BIOL 444/CHEM 340, BIOL 260, or BIOL 325

BIOL 455: *Biochemistry II*
A continuation of Biochemistry I. A study of biological processes at the molecular level with an emphasis on metabolic pathways, recent advances in biochemical medicine, and biochemical aspects of gene replication, protein synthesis, molecular motors, and sensing. The course is divided between lecture and discussion and will rely heavily on current biochemical literature. Units: 6.

Also listed as Chemistry 440

Prerequisite: CHEM 340 or consent of instructor

BIOL 465: *Advanced Biotechnology*
An advanced course that examines the ways in which fundamental principles of biochemistry and molecular biology are transformed into technologies that revolutionize basic science, industrial processes, medicine, and agriculture. Lectures, discussions and laboratory work will focus on current primary literature and novel research questions. Units: 6.

Prerequisite: CHEM 340, BIOL 354, or consent of instructor

BIOL 505: *Coral Reef Environments*
Examines the ecology of coral reef environments. Lecture, laboratory, and field components. Part of the Marine Biology Term. Lecture and laboratory. Units: 6.

Also listed as Environmental Studies 505

Prerequisite: BIOL 330 and concurrent enrollment in BIOL 226 and BIOL 434

BIOL 570: *Biological Physics*
Develops and explores the physical principles underlying biological systems, with a particular emphasis on building quantitative models. Applies fundamental topics including thermodynamics, fluid dynamics, elasticity, and electrostatics to model molecular and cellular phenomena such as gene expression, virus assembly, DNA bending and stretching, and nerve impulses. Units: 6.

Also listed as Physics 570

Prerequisite: PHYS 151, and one of PHYS 230, CHEM 252, CHEM 340, or BIOL 354

BIOL 590: *Tutorial Studies in Biology*
Individual investigations of problems in biology. Units: Variable.

Prerequisite: Counter Registration Required

BIOL 591: *Directed Study in Biology*
Directed study follows a syllabus set primarily by the instructor to meet the needs or interests of an individual student or small group of students. The main goal of directed study is knowledge or skill acquisition, not research or creative work. Units: Variable.

Prerequisite: Counter Registration Required.

BIOL 599: *Independent Study in Biology*
Individual, in-depth investigation of a specific biological problem. Students contemplating an honors project should register for this course. Units: Variable.

Prerequisite: Counter Registration Required

BIOL 600: *Recent Advances in Biology Seminar*
A multidisciplinary lecture series on modern biological theory and research. Students attend seminars and prepare short summaries or “reaction papers” on topics covered. Biology faculty members and visiting scientists in biological and allied fields present seminars relating their research to the broader aspects of their disciplines. Topics discussed within any academic year provide a comprehensive exposure to the current frontiers of biological research. May be repeated for a maximum of three units. Units: 1.

Prerequisite: Senior standing and declared major in biology, or consent of instructor

BIOL 650: *Biology Senior Capstone*
Senior capstone in which students will benefit from direct input and feedback on their scientific writing and oral presentation skills as they complete senior experience projects and papers. Successful completion of BIOL 650 includes participation in BioFest, a symposium of biology senior experience projects during spring term. Units: 1 OR 5.

Prerequisite: Major in biology or biochemistry, or in neuroscience with departmental approval; and senior class standing or departmental approval

BIOL 690: ***Tutorial Studies in Biology***
Individual investigations of problems in biology. Units: Variable.

Prerequisite: Counter Registration Required

BIOL 691: ***Directed Study in Biology***
Directed study follows a syllabus set primarily by the instructor to meet the needs or interests of an individual student or small group of students. The main goal of directed study is knowledge or skill acquisition, not research or creative work. Units: Variable.

Prerequisite: Counter Registration Required.

BIOL 699: ***Independent Study in Biology***
Individual, in-depth investigation of a specific biological problem. Students contemplating an honors project should register for this course. Units: Variable.

Prerequisite: Counter Registration Required

Professor: E. De Stasio* (Biology, The Raymond H. Herzog Professorship in Science)

Associate professors: Ansfield (Psychology, chair), B. Jenike (Anthropology), M. Jenike** (Anthropology, Pieper Family Professor of Servant Leadership)

*On leave Terms I, II, III; **On leave Term III

Introduction

The minor in biomedical ethics is designed to coordinate a student's background and interests in biomedical ethics, health care public policy, and the biological sciences with a variety of more specialized approaches to the study and application of relevant principles, insights, and understandings gleaned from those backgrounds and interests. This minor has been designed to appeal to Lawrence students planning further work in medicine, nursing, genetic counseling, public health, and other areas of study in or related to health care as well as students wishing to undertake graduate work in applied ethics.

Required for the minor in biomedical ethics

1. Completion of the following core courses:
    a. BIET 120/PHIL 120: *Applied Ethics: Introduction to Biomedical Ethics*
    b. BIOL 130: *Integrative Biology: Cells to Organisms*, BIOL 103: *Biotechnology and Society*, or ANTH 140: *Biological Anthropology*
    c. BIET 290/ECON 290: *The Economics of Medical Care* or BIET 495/GOV 495: *Health Policy*
    d. PSYC 245: *Health Psychology* or ANTH 342: *Medical Anthropology*
    e. BIET 370/PHIL 370: *Advanced Studies in Bioethics*, BIET 380/PHIL 380: *Ethics of Technology* or an approved independent study project on some aspect of biomedical ethics or health policy.
2. Two additional 6-unit courses from the list below, or other relevant courses with approval of the program chair. Independent study projects must be approved by the advisory committee. Possible contexts for projects include a Mielke, Kasel, or Hughes internship, a tutorial, an independent study course, or a health care-related project in conjunction with an off-campus program.

Courses that fulfill requirement number two

- ANTH 340: *Human Biology, Evolution, and Health*
- ANTH 342: *Medical Anthropology*
- ANTH 377: *Culture and Aging*
- BIOL 260: *Genetics*
- BIOL 354: *Molecular Biology*
- BIOL 465: *Advanced Biotechnology*
- BIOL 453: *Developmental Biology*
- ECON 271: *Public Sector Economics*
- ECON 290: *The Economics of Medical Care*
- ECON 400: *Industrial Organization*

- ECON 440: *Public Expenditure*
- GEOL 213: *Geology and Health*
- GOVT 380: *Introduction to Public Policy*
- GOVT 465: *Environmental Politics*
- GOVT 495: *Health Policy*
- PHIL 320: *Ethics*
- PHIL 350: *Political Philosophy*
- PHIL 360: *Environmental Ethics*
- PHIL 370: *Advanced Studies in Bioethics*
- PHIL 380: *Ethics of Technology*
- PHIL 430: *Philosophy of Law*
- PSYC 245: *Health Psychology*
- PSYC 250: *Psychopathology*

COURSES

BIET 120: Applied Ethics: *Introduction to Biomedical Ethics*
The course will examine moral dilemmas created or intensified by recent advances in medical technology and study ways of analyzing those dilemmas to make them more tractable. We will focus on examples such as euthanasia and the right to die, abortion, behavior modification, allocation of scarce medical resources, *in vitro* fertilization, genetic screening and engineering, and human experimentation. Units: 6.

Also listed as Philosophy 120

Prerequisite: Recommended for freshmen and sophomores

BIET 191: *Directed Study in Biomedical Ethics*
Directed study follows a syllabus set primarily by the instructor to meet the needs or interests of an individual student or small group of students. The main goal of directed study is knowledge or skill acquisition, not research or creative work. Units: Variable.

Prerequisite: Counter Registration Required.

BIET 245: *Health Psychology*
This course explores the link between mind and body from various psychological perspectives such as social, clinical, and psychobiological. We will survey the role of stress, emotion, self-regulation, and individual differences as predictors of health and illness. We also will examine assessment, diagnostic, treatment, and ethical issues in psychophysiological disorders. Units: 6.

Also listed as Psychology 245

Prerequisite: PSYC 100 or sophomore standing

BIET 290: *The Economics of Medical Care*
An analysis of how the economic organization of medical care affects the health and well-being of the population. Topics include who is treated, how much the treatment costs, and who pays the bill. Particular emphasis given to the roles of insurance and various national health policies and reform proposals. Units: 6.

Also listed as Economics 290

Prerequisite: ECON 100 or ECON 120

BIET 291: *Health Policy: U.S.& U.K.*
This course compares U.K. and U.S. health systems, markets, and public health policies. In particular, the course will analyze trade-offs made in each country among access to care, the cost of care and the quality of care as well as how resources are generated and allocated for each system. Units: 6.

Also listed as Economics 291

Prerequisite: Only open to students attending the London Centre.

BIET 370: *Advanced Studies in Bioethics*
A seminar examining one particular issue or set of issues in bioethics. Units: 6.

Also listed as Philosophy 370

Prerequisite: PHIL 120 or two courses in philosophy

BIET 380: *Ethics of Technology*
This course focuses on ethical issues that arise from the development of new technology. Specific topics may include artificial intelligence, information technologies, human enhancement, transhumanism, transgenesis, ectogenesis, nanoethics, and neuroethics. Units: 6.

Also listed as Philosophy 380

Prerequisite: One course in philosophy, junior standing, or consent of the instructor

BIET 390: *Tutorial Studies in Biomedical Ethics*
Units: Variable.

Prerequisite: Counter Registration Required.

BIET 391: *Directed Study in Biomedical Ethics*
Directed study follows a syllabus set primarily by the instructor to meet the needs or interests of an individual student or small group of students. The main goal of directed study is knowledge or skill acquisition, not research or creative work. Units: Variable.

Prerequisite: Counter Registration Required.

BIET 399: ***Independent Study in Biomedical Ethics***
Units: Variable.

Prerequisite: Counter Registration Required.

BIET 590: ***Tutorial Studies in Biomedical Ethics***
Units: Variable.

Prerequisite: Counter Registration Required.

BIET 591: ***Directed Study in Biomedical Ethics***
Directed study follows a syllabus set primarily by the instructor to meet the needs or interests of an individual student or small group of students. The main goal of directed study is knowledge or skill acquisition, not research or creative work. Units: Variable.

Prerequisite: Counter Registration Required.

BIET 599: ***Independent Study in Biomedical Ethics***
Units: Variable.

Prerequisite: Counter Registration Required.

BIET 690: ***Tutorial Studies in Biomedical Ethics***
Units: Variable.

Prerequisite: Counter Registration Required.

BIET 691: ***Directed Study in Biomedical Ethics***
Directed study follows a syllabus set primarily by the instructor to meet the needs or interests of an individual student or small group of students. The main goal of directed study is knowledge or skill acquisition, not research or creative work. Units: Variable.

Prerequisite: Counter Registration Required.

BIET 699: ***Independent Study in Biomedical Ethics***
Units: Variable.

Prerequisite: Counter Registration Required.

Associate professors: Debbert (chair), Hall

Assistant professors: Donohoue, Fleshman, Sazama

Introduction

Chemists, biochemists, and chemical engineers contribute to the development and utilization of the materials, medicines, foods, and fuels that are the hallmarks of modern life. They also contribute to the understanding and protection of the natural environment. Working in concert with biologists, geologists, physicists, psychologists, and others, chemists work toward the solution of many of society's most pressing problems—challenges to physical and mental health, pollution and its effects, resource recovery, and energy production and conservation among them.

The American Chemical Society certified chemistry major at Lawrence prepares students for a broad range of opportunities and careers, including academic or industrial research, engineering, secondary or college teaching, medical or veterinary practice, law, business, or public service.

The Lawrence chemistry department is large enough to ensure that all the major areas of chemistry are well represented, yet small enough that students can build close working relationships with all the faculty members. Our faculty are all actively engaged in their own research programs, primarily using Lawrence's own wide array of instrumentation; these programs create ample independent research opportunities for students, either during the school year or the summer months. We see these research experiences as a critical part of our curriculum, as they provide students with the analytical techniques, problem-solving strategies, and critical thinking skills necessary for success in the physical, medical or life sciences. Our goals are to engage students from diverse backgrounds with the excitement of chemistry; foster in them the habit of informed and critical thinking; involve them in independent learning and research; and prepare them for the successful pursuit of a wide variety of post-baccalaureate and professional opportunities.

Advanced placement

Students who have had the equivalent of a college general chemistry course are encouraged to take the Advanced Placement (AP) Examination in Chemistry administered by the Educational Testing Service. Students with sufficiently high AP exam scores will receive six units of college credit for CHEM 115, and will typically be advised to enroll in CHEM 116.

Students that have not taken or passed the AP Chemistry exam may also be placed in CHEM 116, depending on their score on our online placement test; in this case, no course credit for CHEM 115 would be awarded. In any case, instructor approval is required for our general chemistry courses, and students are encouraged to reach out to a chemistry faculty member with any questions about the courses.

Required for the chemistry major

1. Introductory principles
    a. CHEM 115 and 116 or the equivalent
    b. MATH 140 and 150, or the equivalent
    c. PHYS 141 and 151
2. Core competencies
    a. CHEM 210: *Analytical chemistry*
    b. CHEM 250: *Organic chemistry I*
    c. CHEM 252: *Organic chemistry II*
    d. CHEM 320: *Inorganic chemistry*
    e. CHEM 340: *Biochemistry*
    f. CHEM 370: *Physical chemistry I*
    g. Four additional classes. At least three must be chemistry classes at or above the 400 level, and at least one of those three must be a class in physical chemistry. One class in another natural science department, if it has significant chemistry content (such as a course in molecular biology), may be counted as one of the four electives with departmental approval.
3. Six units of credit earned in chemistry *Senior Experience* courses numbered 380, 480, and 680
4. C average in the major

Required for the chemistry minor

1. Introductory principles
    a. CHEM 115 and 116 or the equivalent
2. Core competencies
    a. CHEM 210: *Analytical chemistry*
    b. CHEM 250: *Organic chemistry I*
    c. CHEM 320: *Inorganic chemistry*
    d. CHEM 370: *Physical Chemistry I*
    e. Two additional chemistry classes, one of which must be at or above the 400 level.
3. At least three units of credit earned in chemistry seminar courses numbered 380, 480, and 680
4. C average in the minor

Required for the interdisciplinary major in the natural sciences in chemistry and physics or geology

Chemistry students who have strong secondary interests in physics or geology may construct a major involving chemistry and geology or physics, using the interdisciplinary major in the natural sciences. Previous interdisciplinary combinations of biology and chemistry have been replaced by the biochemistry major.

The requirements for the interdisciplinary major with chemistry as the primary discipline are:

1. Introductory course sequences in chemistry, physics, and geology, chosen to include the discipline of secondary interest. The introductory sequences are:
    a. CHEM 115 and 116 or the equivalent
    b. GEOL 110 and 210
    c. PHYS 141 and 151
2. Intermediate/Advanced Requirement: At least 10 six-unit courses in the sciences (biology, chemistry, geology, physics) numbered 200 or above, with at least five in chemistry and at least three in the secondary discipline.
3. Six units of credit earned in chemistry seminar courses numbered 380, 480, and 680

Senior Experience in chemistry

The chemistry department's capstone sequence consists of a series of 3 seminars:

1. CHEM 380: *Seminar: Perspectives on Chemistry* (Fall Term, 1 unit) Taken optimally by sophomores or juniors, this is a series of presentations by visiting chemists and Lawrence students, faculty, and staff, featuring current issues in chemistry, important applications of chemistry, and professional development topics appropriate to chemistry majors or minors, intended to introduce students to "life after Lawrence" early enough in college to affect their trajectories through the college curriculum. This course covers the major career destinations for chemistry students, of graduate school, health professions, chemical engineering, K-12 teaching, and the chemical industry.

2. CHEM 480: *Seminar: Chemical Literature* (Winter Term, 2 units) A seminar course for chemistry majors and minors, taken optimally during the junior year, in which students learn how to educate themselves about the chemical literature in a field of interest to them. In this seminar, they learn the character and organization of the chemical literature and become familiar with search strategies, as each selects a topic and, guided by the instructor, conducts a literature search for key papers on that topic, constructs a bibliography, reads several of the most important of the papers, and prepares an end-of-term presentation highlighting key research findings related to their chosen topic. Students are encouraged to correlate their activities in this seminar with research projects that they undertake at Lawrence or elsewhere, which form the basis of the senior seminar.

3. CHEM 680: *Senior Seminar* (Spring Term, 3 units): The culminating course in our capstone sequence asks each major to present an individual seminar presentation based on research they have done at Lawrence or elsewhere. 3 units.

Students are strongly encouraged to consult with their advisors and relevant department chairs to plan and negotiate their overall capstone experience as early as possible.

COURSES

CHEM 108: *The Chemistry of Art*
A study of the chemistry underlying topics of interest to artists and art historians. Topics may include: papermaking; pigments, dyes, and binders; photography; glass and ceramics; metals; and printmaking. The course is designed for all students. Combined lecture and laboratory. Units: 6.

CHEM 109: *Weird Science*
A study of the chemistry underlying famous curious chemical phenomena such as Fitzroy's Storm Glass, glowing slime, sparklers, and the Mentos effect. Two three-hour laboratory sessions per week. The course is designed for all students, and satisfies the college's laboratory science general education requirement. Students should consult instructor if their background in high school chemistry is weak. Units: 6.

CHEM 115: *Principles of Chemistry: Structure and Reactivity*
Introduction to the basic principles of chemistry, emphasizing structures of chemical species (atoms, ions, and molecules), stoichiometry, the relationships between structure and reactivity, basic chemical models (gas laws, *e. g.*) and laboratory skills. This course will serve primarily to prepare students who have not had any previous (high school) coursework in chemistry for CHEM 116. Three lectures and one laboratory session each week. Students with high school chemistry should normally take 116 instead of this course. See the chemistry department's web page for placement examination information. Units: 6.

Prerequisite: Placement examination

CHEM 116: *Principles of Chemistry: Energetics and Dynamics*
Introduction to the study of chemistry, for students who have taken high school chemistry or CHEM 115, emphasizing structural and quantitative models of chemical behavior. Topics include bonding, thermochemistry, equilibrium, kinetics, and related applications. Three lectures and one laboratory per week. Enrollment is determined by placement examination for students who have not completed CHEM 115. See the chemistry department's web page for placement examination information. Units: 6.

Prerequisite: CHEM 115 or placement examination

CHEM 191: *Directed Study in Chemistry*
Directed study follows a syllabus set primarily by the instructor to meet the needs or interests of an individual student or small group of students. The main goal of directed study is knowledge or skill acquisition, not research or creative work. Units: Variable.

Prerequisite: Counter Registration Required.

CHEM 195: *Internship in Chemistry*
An opportunity to connect work experiences in industry, government, or the non-profit sector to the academic program in chemistry. Internships, either summer activities or full- or part-time work experiences during the academic year, are arranged by students in consultation with a Lawrence instructor. In each case, the academic credit (and grading) is based on related readings, discussion with the instructor, and a summary report, plus a presentation on campus, usually in the chemistry seminar series. Advance consultation and application is required, normally by the fifth week of the previous term. Units: Variable.

Prerequisite: Sophomore standing; Counter Registration Required

CHEM 210: *Analytical Chemistry*
A course in the quantitative description of chemical equilibria in solution (acid-base, complexation, redox, solubility) using classical, separation, electrochemical, and spectrochemical methods of analysis. This course covers methods of quantification, statistics, and data analysis as applied to modern chemistry. Students will have the opportunity to individually design projects. Three lectures and two laboratory periods per week. Units: 6.

Also listed as Environmental Studies 250

Prerequisite: CHEM 116, placement exam, or consent of instructor

CHEM 212: *Atmospheric & Environmental Chemistry*
This course focuses on the fundamental chemical processes that control Earth's atmosphere, ocean, soil, and climate. The course emphasizes the mechanisms that regulate the flow of energy in different ecosystems, the environmental role of particulate matter and solar radiation, chemistry-climate relationships, and the anthropogenic impact on the environment. Units: 6.

Also listed as Environmental Studies 222

Prerequisite: CHEM 116

CHEM 250: *Organic Chemistry I*
A study of the relationship between structure and function in organic compounds. Basic topics such as molecular orbital theory, conformational equilibria, stereochemistry, and nucleophilic substitution are covered. Students also learn to use instrumental analysis (NMR, IR, GC-MS) to identify and characterize compounds. One four-hour laboratory per week. Units: 6.

Prerequisite: CHEM 116 or 119 or consent of instructor

CHEM 252: *Organic Chemistry II*
A study of organic reactions and their mechanisms. The focus of the class is synthesis, both in the concrete sense of building molecules and in the abstract sense of pulling together disparate concepts to solve problems. Case studies from the polymer and pharmaceutical industries underline the relevance of the discipline to everyday life. One four-hour laboratory per week. Units: 6.

Prerequisite: CHEM 250

CHEM 320: *Inorganic Chemistry*
A survey of structures, properties, reactivities, and interrelationships of chemical elements and their compounds. Topics include unifying principles and concepts that enable the interpretation of experimental data associated with materials. Emphasis on multidisciplinary aspects of inorganic chemistry. Lectures and weekly laboratory. Laboratory projects involve synthesis and studies of compounds using a variety of experimental methods. Units: 6.

Prerequisite: CHEM 116 or 119 or consent of instructor

CHEM 340: *Biochemistry I*
An introduction to the study of biological processes at the molecular level with emphases on protein structure and function, enzyme mechanism and kinetics, fundamentals of physical biochemistry, and the chemistry of biological molecules, including carbohydrates, lipids, and nucleic acids. Units: 6.

Also listed as Biology 444

Prerequisite: CHEM 250 or concurrent enrollment, or consent of instructor

CHEM 350: *Bioorganic and Medicinal Chemistry*
Bioorganic chemistry is the study of the organic chemistry underlying biological processes; topics such as the organic chemistry of metabolic processes and the laboratory synthesis of biomolecules will be covered. We will also study the organic chemistry of drug discovery and development, guided by both pharmaceutical case studies and modern medicinal chemistry literature. Units: 6.

Prerequisite: CHEM 252 or consent of instructor

CHEM 370: *Physical Chemistry I*
Develops and explores theoretical descriptions of chemical systems: physical states, the laws of thermodynamics as applied to chemical and physical equilibria, chemical reaction kinetics, and catalysis. No laboratory. Units: 6.

Prerequisite: MATH 150, PHYS 150, CHEM 116; or consent of instructor

CHEM 380: ***Seminar: Perspectives on Chemistry***
A series of presentations by visiting chemists and Lawrence students, faculty, and staff, featuring current issues in chemistry, important applications of chemistry, and professional development topics appropriate to chemistry majors or minors. Approximately one meeting per week. Two or more short “reaction papers” (a short seminar critique or summary) required of each student. Offered annually in the Fall Term. May be repeated for credit. Units: 1.

Prerequisite: Sophomore standing; offered annually in the Fall Term

CHEM 390: ***Tutorial Studies in Chemistry***
Advanced reading and/or laboratory work in chemistry on topics not covered in regular offerings. Available to both majors and non-majors. Units: Variable.

Prerequisite: Counter Registration Required.

CHEM 391: ***Directed Study in Chemistry***
Directed study follows a syllabus set primarily by the instructor to meet the needs or interests of an individual student or small group of students. The main goal of directed study is knowledge or skill acquisition, not research or creative work. Units: Variable.

Prerequisite: Counter Registration Required.

CHEM 395: ***Internship in Chemistry***
An opportunity to connect work experiences in industry, government, or the non-profit sector to the academic program in chemistry. Internships, either summer activities or full- or part-time work experiences during the academic year, are arranged by students in consultation with a Lawrence instructor. In each case, the academic credit (and grading) is based on related readings, discussion with the instructor, and a summary report, plus a presentation on campus, usually in the chemistry seminar series. Advance consultation and application is required, normally by the fifth week of the previous term. Units: Variable.

Prerequisite: Sophomore standing; Counter Registration Required

CHEM 399: ***Independent Study in Chemistry***
Original experimental or theoretical research in cooperation with a faculty member. Seniors considering an honors project should register for this course for one or more terms. Available to both majors and non-majors. Units: Variable.

Prerequisite: Counter Registration Required.

CHEM 400: *Advanced Topics in Chemistry*
An examination of a particular, cross-disciplinary topic in chemistry.

Topic for Spring Term 2011:The Energy Conundrum
An advanced course in inorganic chemistry focusing on emerging energy technologies. Topics may include solar, wind, geothermal, and nuclear energies, fuel cell technology, and biofuels, among others. Classroom experiences may include biodiesel synthesis, construction of fuel cells and dye-sensitized solar cells, and catalytic water splitting.

Units: 6.

Prerequisite: Junior standing with at least one chemistry course beyond general chemistry, or instructor approval.

CHEM 410: *Instrumental Analysis*
An advanced course in instrumental methods of quantification and identification in modern chemistry. Emphasis on instrument design, operating principles, interpretation of instrumental data, and discrimination between techniques. This course focuses on spectroscopic, chromatographic, and electrochemical techniques and their application in fundamental and applied research. Students will have the opportunity to individually design projects. Three lectures and one laboratory per week. Units: 6.

Prerequisite: CHEM 210 or consent of instructor

CHEM 420: *Advanced Inorganic Chemistry*
A continuation of inorganic chemistry addressing cross-disciplinary topics such as organometallic chemistry, bioinorganic chemistry, nanosciences, inorganic spectroscopy, and main group chemistry, with examples drawn from the primary literature. The course is especially recommended for majors who plan to continue studies in graduate or professional school. Units: 6.

Prerequisite: CHEM 250, CHEM 320, and CHEM 370; or consent of instructor

CHEM 440: *Biochemistry II*
A continuation of Biochemistry I. A study of biological processes at the molecular level with an emphasis on metabolic pathways, recent advances in biochemical medicine, and biochemical aspects of gene replication, protein synthesis, molecular motors, and sensing. The course is divided between lecture and discussion and will rely heavily on current biochemical literature. Units: 6.

Also listed as Biology 455

Prerequisite: CHEM 340 or consent of instructor

CHEM 450: *Topics in Advanced Organic Chemistry*
A study of modern topics in organic chemistry, emphasizing current literature. Topics may vary from year to year, but the class typically covers organic synthesis in depth. Students will often use the literature and their own expanding understanding of chemical reactivity to design synthetic routes to complex drugs and natural products. No formal laboratory; lab exercises may occasionally substitute for lectures.

Topic for Winter 2017: Modern Organic Synthesis
This course will study modern methods and topics in organic synthesis, including organometallic catalysis, stereoselectivity, pericyclic reactions, carbenes, and more. Students will learn to search and read the modern literature of organic synthesis, and will design syntheses toward complex products. Lecture only.

Units: 6.

Prerequisite: CHEM 252 or consent of instructor

CHEM 470: *Physical Chemistry II*
Develops and explores theoretical methods and models for the quantum description of atoms and molecules as chemical systems; statistical methods that link the macroscopic and molecular levels of these descriptions are also explored, along with the treatment of deviations from equilibrium. No laboratory. Units: 6.

Prerequisite: MATH 150 and CHEM 370; or consent of instructor

CHEM 475: *Spectroscopy*
A study of the theory and practice of spectroscopy. Theoretical topics may include energy quantization, selection rules, and group theory. Experimental topics may include infrared, Raman, ultraviolet/visible, electron spin resonance, or nuclear magnetic resonance spectroscopies and their applications. Two lectures and two laboratories per week. Units: 6.

Prerequisite: CHEM 370 or CHEM 470; or consent of instructor

CHEM 476: *Physical Chemistry Laboratory*
Students will use the laboratory setting to connect quantitative models with observed chemical phenomena using physical chemistry concepts. Lectures will guide students in analyzing their data, and developing the tools needed to communicate their results via research articles and presentations. Experimental topics include thermodynamics, chemical kinetics, quantum mechanics, and spectroscopy. Units: 6.

Prerequisite: MATH 150 and CHEM 370 (CHEM 470 preferred), or consent of instructor

CHEM 480: ***Seminar: Chemical Literature***
A seminar course intended primarily for junior majors and minors in chemistry. Students learn the character and organization of the chemical literature and become familiar with search strategies, as each selects a topic and, guided by the instructor, conducts a literature search for key papers on that topic, constructs an annotated bibliography, reads several of the most important of the papers, and prepares an end-of-term presentation highlighting key research findings related to their chosen topic. Units: 2.

Prerequisite: Junior standing, or consent of instructor

CHEM 570: ***Topics in Advanced Physical Chemistry***
A study of advanced physical chemistry topics that are not covered in CHEM 370, 470, and 476. Course will emphasize the physical theories that govern chemical phenomena. Topics may include spectroscopy, electrochemistry, computational chemistry, and polymer/materials chemistry. No formal laboratory, but lab exercises will occasionally substitute lectures. May be repeated for credit when topic is different. Units: 6.

Prerequisite: MATH 150 and CHEM 370 (CHEM 470 preferred), or consent of instructor

CHEM 590: ***Tutorial Studies in Chemistry***
Advanced reading and/or laboratory work in chemistry on topics not covered in regular offerings. Available to both majors and non-majors. Units: Variable.

Prerequisite: Counter Registration Required.

CHEM 591: ***Directed Study in Chemistry***
Directed study follows a syllabus set primarily by the instructor to meet the needs or interests of an individual student or small group of students. The main goal of directed study is knowledge or skill acquisition, not research or creative work. Units: Variable.

Prerequisite: Counter Registration Required.

CHEM 595: ***Internship in Chemistry***
An opportunity to connect work experiences in industry, government, or the non-profit sector to the academic program in chemistry. Internships, either summer activities or full- or part-time work experiences during the academic year, are arranged by students in consultation with a Lawrence instructor. In each case, the academic credit (and grading) is based on related readings, discussion with the instructor, and a summary report, plus a presentation on campus, usually in the chemistry seminar series. Advance consultation and application is required, normally by the fifth week of the previous term. Units: Variable.

Prerequisite: Sophomore standing; Counter Registration Required

CHEM 599: ***Independent Study in Chemistry***
Original experimental or theoretical research in cooperation with a faculty member. Seniors considering an honors project should register for this course for one or more terms. Available to both majors and non-majors. Units: Variable.

Prerequisite: Counter Registration Required.

CHEM 680: ***Seminar: Senior Seminar***
A seminar course for senior majors, culminating in an individual seminar presentation by each student. Units: 3.

CHEM 690: ***Tutorial Studies in Chemistry***
Advanced reading and/or laboratory work in chemistry on topics not covered in regular offerings. Available to both majors and non-majors. Units: Variable.

Prerequisite: Counter Registration Required.

CHEM 691: ***Directed Study in Chemistry***
Directed study follows a syllabus set primarily by the instructor to meet the needs or interests of an individual student or small group of students. The main goal of directed study is knowledge or skill acquisition, not research or creative work. Units: Variable.

Prerequisite: Counter Registration Required.

CHEM 695: ***Internship in Chemistry***
An opportunity to connect work experiences in industry, government, or the non-profit sector to the academic program in chemistry. Internships, either summer activities or full- or part-time work experiences during the academic year, are arranged by students in consultation with a Lawrence instructor. In each case, the academic credit (and grading) is based on related readings, discussion with the instructor, and a summary report, plus a presentation on campus, usually in the chemistry seminar series. Advance consultation and application is required, normally by the fifth week of the previous term. Units: Variable.

Prerequisite: Sophomore standing; Counter Registration Required

CHEM 699: ***Independent Study in Chemistry***
Original experimental or theoretical research in cooperation with a faculty member. Seniors considering an honors project should register for this course for one or more terms. Available to both majors and non-majors. Units: Variable.

Prerequisite: Counter Registration Required.

Associate professor: Sung (chair)

Instructors: Adler (Instructor of Japanese), Chiu (Schmidt Fellow and Instructor of Chinese), Makita

Introduction

The Department of Chinese and Japanese provides students with a coherent study of a cultural region. This region primarily encompasses China, Japan, and Korea—countries that spring from a common historical experience and share many common values and traditions. Though language forms an important part of this study, the focus of the curriculum remains as much cultural as linguistic. Courses are thus taught in English as well as in East Asian languages.

Required for the Chinese language and literature major

1. Completion of beginning and intermediate Chinese language courses: CHJA 101, 102, 201, 202, 203, 301
2. Two six-unit courses in Chinese literature, taught in translation, selected from the following:
    - CHJA 260:: *East Asian Classics in Translation*
    - CHJA 350:: *Modern Chinese Literature and Cinema in Translation*
    - CHJA 520:: *Seminar in Chinese Literature*
3. Three six-unit courses in advanced Chinese, taught in Chinese:
    - CHJA 401:: *Advanced Communicative Chinese*
    - CHJA 402:: *Advanced Readings in Chinese*
    - CHJA 590:: *Tutorial Studies in Chinese*: or CHJA 598:: *Internship in Chinese*
4. One senior-level independent study, CHJA 699 (6 units)

Required for the Chinese language minor

1. Completion of beginning and intermediate Chinese language courses: CHJA 101, 102, 201, 202, 203, and 301 or the equivalent
2. One advanced language course
3. An exit proficiency interview
4. C average in the minor

Required for the Japanese language minor

1. Completion of beginning and intermediate Japanese language courses: CHJA 111, 112, 211, 212, 213, and 311
2. One advanced language course
3. An exit proficiency interview
4. C average in the minor

Advanced placement

Students who have studied Chinese or Japanese in high school and who wish to study Chinese and Japanese beyond the beginning level are required to take a placement examination. They also are advised to consult with the department chair in order to ensure their proper placement in language classes.

International study

Opportunities exist to study in both Chinese- and Japanese-speaking areas through an ACM program in Tokyo and the Associated Colleges in China Program in Beijing (see Off-Campus Programs).

Senior Experience in Chinese or Chinese and Japanese

CHJA 699: A senior level one-term independent study (6 units) culminating in the completion of a substantial paper or project derived from previous coursework in the discipline or related fields or field experience in consultation with department faculty. Students with sufficiently advanced Chinese language skills are encouraged to use some Chinese language sources in carrying out their research. Students must share the results of their work in a public forum prior to graduation.

COURSES

CHJA 101: *Beginning Chinese I*

An introduction to elementary Mandarin Chinese. Emphasis on the acquisition of basic language skills of listening, speaking, reading, and writing, with discussions to practice pronunciation, grammar, and vocabulary. Five class meetings per week. Units: 6.

CHJA 102: *Beginning Chinese II*

A continuation of CHJA 101 with further practice in basic language skills. Five class meetings per week. Units: 6.

Prerequisite: CHJA 101

CHJA 111: *Beginning Japanese I*

An introduction to beginning Japanese. Emphasis on the acquisition of basic language skills of listening, speaking, reading, and writing, with discussions to practice pronunciation, grammar, and vocabulary. Five class meetings per week. Units: 6.

CHJA 112: *Beginning Japanese II*

A continuation of CHJA 111 with further practice in basic language skills. Five class meetings per week. Units: 6.

Prerequisite: CHJA 111 or equivalent

CHJA 191: ***Directed Study in Chinese or Japanese***
Directed study follows a syllabus set primarily by the instructor to meet the needs or interests of an individual student or small group of students. The main goal of directed study is knowledge or skill acquisition, not research or creative work. Units: Variable.

Prerequisite: Counter Registration Required.

CHJA 195: ***Internship in Chinese or Japanese***
An opportunity for students to apply their Chinese or Japanese language skills in business, government, and the non-profit sector on the regional, national, and international levels. Arranged in collaboration with and supervised by a member of the department. Includes discussion, report, and/or portfolio. Advance consultation and application required. Units: 3.

Prerequisite: Study abroad at the third-year level or CHJA 401 and 402 or CHJA 411; Counter Registration Required

CHJA 201: ***Beginning Intermediate Chinese***
A course to help students attain minimal proficiency in conversational Chinese and begin to read and write beyond the elementary level. Five class meetings per week. Units: 6.

Prerequisite: CHJA 102

CHJA 202: ***Intermediate Chinese I***
Intermediate-level Chinese with further practice in conversational fluency and exposure to more difficult levels of reading and writing. Five class meetings per week. Units: 6.

Prerequisite: CHJA 201

CHJA 203: ***Intermediate Chinese II***
Continued intermediate-level work in Chinese. Focus on developing more sustained use of Mandarin Chinese in conversation, reading, and writing. Five class meetings per week. Units: 6.

Prerequisite: CHJA 202

CHJA 204: ***Topics in Chinese for Special Purposes***
Rotating topics course, with two alternating topics: (1) Material Culture and (2) The Environment, designed to supplement the intermediate Chinese course if taken concurrently, and to prepare students for internships and field experiences in China. Repeatable when topic is different. Units: 3.

Prerequisite: CHJA 201 and consent of instructor

CHJA 211: *Beginning Intermediate Japanese*
A course to help students attain minimal proficiency in conversational Japanese and begin to read and write beyond the elementary level. Five class meetings per week. Units: 6.

Prerequisite: CHJA 112

CHJA 212: *Intermediate Japanese I*
Intermediate-level Japanese with further practice in conversational fluency and exposure to more difficult levels of reading and writing. Five class meetings per week. Units: 6.

Prerequisite: CHJA 211 or consent of instructor

CHJA 213: *Intermediate Japanese II*
Intermediate-level Japanese with further practice in all four skills. A continuation of CHJA 212. Five class meetings per week. Units: 6.

Prerequisite: CHJA 212 or consent of instructor

CHJA 255: *Introduction to Chinese Language and Culture*
A survey of the Chinese language family, its linguistic structure, dialectal variations, writing system, speech registers, interaction with other languages and the internet world, and its role in reflecting cultural and societal aspects such as social class, familial hierarchy, age and gender, and Confucianism. Taught in English. Units: 6.

Also listed as Linguistics 255

Prerequisite: CHJA 101 or consent of instructor

CHJA 265: *Introduction to Japanese Language and Culture*
A survey introducing major characteristics of Japanese language with reference to the structure of Japanese society. Topics include honorifics, use of pronouns, loan words, age and gender differences in the language. The course will also familiarize students with various aspects of traditional and contemporary Japanese culture. Units: 6.

Also listed as East Asian Studies 265, Linguistics 265

Prerequisite: Sophomore standing; CHJA 112 recommended

CHJA 301: *Advanced Intermediate Chinese*
An advanced Chinese course for students who want to develop their language skills. Extensive use of contemporary print and media materials to emphasize written as well as oral proficiency while providing students with a basic cultural understanding of today's China. Course does not count toward the humanities general education requirement for B.A. and B.A./B.Mus students. Units: 6.

Prerequisite: CHJA 203 or consent of instructor

CHJA 310: *Introduction to East Asian Linguistics*
Survey of genetic, regional, and typological classification of East Asian languages; writing systems for Chinese, Japanese, Korean, and Tibetan languages; descriptive and comparative analyses of phonological, morphological, and syntactic structures of East Asian languages. More than one language may be investigated in detail. Units: 6.

Also listed as East Asian Studies 310, Linguistics 310

Prerequisite: LING 150 and sophomore standing

CHJA 311: *Advanced Intermediate Japanese*
This advanced course is designed for students who wish to develop their language skills in Japanese beyond the intermediate level. It provides students with a basic cultural understanding of today's Japan. Contemporary print and media materials will be used to enhance written as well as oral proficiency. Course does not count towards the humanities general education requirement for B.A. and B.A./B.Mus students. Units: 6.

Prerequisite: CHJA 213 or consent of instructor

CHJA 325: *Destination China*
A required course for students who plan to study in China on the Associated Colleges in China (ACC) Program or an equivalent program. Students will be asked to participate in weekly meetings on various topics related to contemporary China. Units: 2.

Prerequisite: Acceptance into study abroad program in China

CHJA 330: *Survey of Premodern Japanese Literature and Culture (in English)*
This course introduces students to seminal works of Japanese culture before 1868, and modern representations of premodern culture. Although the course will primarily focus on literature in translation, it will also look at works of art, film, and material culture. Taught in English. Units: 6.

Also listed as East Asian Studies 330

CHJA 332: *Survey of Modern Japanese Literature and Film (in English*)
This course introduces students to seminal works of Japanese literature and film from 1868 to the present, as a way to think about the transformation of Japan from a traditional society to a modern nation state. Units: 6.

Also listed as East Asian Studies 332

CHJA 350: *Modern Chinese Literature and Cinema in Translation*
A survey of 20th-century Chinese fiction and cinema. Iconoclastic works of modern Chinese vernacular fiction from 1919 through the post-Cultural Revolution (1966-1976) will be juxtaposed alongside films dealing with the same period, such as: *Red Sorghum*: (1987) and: *Farewell, My Concubine*: (1992) made by the so-called Fifth Generation of film directors (born after 1949, when the People's Republic was founded). Class conducted in English. No knowledge of Chinese required. Units: 6.

Also listed as East Asian Studies 350, Film Studies 350

Prerequisite: Sophomore standing; EAST 150 recommended

CHJA 360: *Chinese Contemporary Film in English*
Using feature films and documentaries from the so-called Fifth [1982-] and Sixth Generations [beginning in the 1990s] of film directors in China, this course provides a visual record of the immense political, economic, and social changes in China since the Reform and Opening up period at the end of the Cultural Revolution. Taught in English. Units: 6.

Also listed as East Asian Studies 360, Film Studies 360

Prerequisite: Sophomore standing; EAST 150 or EAST 420 recommended

CHJA 390: *Tutorial Studies in Chinese or Japanese*
Individualized advanced study under regular staff direction on topics not covered in lower-level courses. Units: Variable.

Prerequisite: Counter Registration Required

CHJA 391: *Directed Study in Chinese or Japanese*
Directed study follows a syllabus set primarily by the instructor to meet the needs or interests of an individual student or small group of students. The main goal of directed study is knowledge or skill acquisition, not research or creative work. Units: Variable.

Prerequisite: Counter Registration Required.

CHJA 395: *Internship in Chinese or Japanese*
An opportunity for students to apply their Chinese or Japanese language skills in business, government, and the non-profit sector on the regional, national, and international levels. Arranged in collaboration with and supervised by a member of the department. Includes discussion, report, and/or portfolio. Advance consultation and application required. Units: 3.

Prerequisite: Study abroad at the third-year level or CHJA 401 and 402 or CHJA 411; Counter Registration Required

CHJA 399: *Independent Study in Chinese or Japanese*
Individualized advanced research under staff guidance to prepare a substantial paper, usually for submission for honors. Units: Variable.

Prerequisite: Counter Registration Required

CHJA 401: *Advanced Communicative Chinese*
An advanced course, taught in Chinese, designed to strengthen the language proficiency of upper-level students, especially those returning from studying abroad in the Associated Colleges in China program. Students gain intensive practice in all communicative skills through extensive oral discussion, preparation of written reports on various social topics, and exposure to current academic essays, short stories, and films. Course does not count towards the humanities general education requirement for B.A. and B.A./B.Mus students. Units: 6.

Prerequisite: CHJA 301 or consent of instructor

CHJA 402: *Advanced Readings in Chinese*
An advanced course in Chinese that introduces students to texts in classical and documentary style. During the first half of the course, students review the basic grammar and vocabulary of classical Chinese through short readings in traditional classical texts. The second half builds upon this base to introduce students to contemporary readings in literature and documents, which draw heavily upon classical elements. Course does not count towards the humanities general education requirement for B.A. and B.A./B.Mus students. Units: 6.

Prerequisite: CHJA 301 or consent of instructor

CHJA 411: *Advanced Communicative Japanese*
An advanced course, taught in Japanese, designed to strengthen the language proficiency of upper-level students, especially those returning from studying in Japan. Course does not count towards the humanities general education requirement for B.A. and B.A./B.Mus students. Units: 6.

Prerequisite: CHJA 311 or consent of instructor

CHJA 520: *Seminar in Chinese Literature*
An introduction to some of China's greatest literary texts of a single genre, period, author, or theme. Issues addressed include gender relations, responses to traditional roles, and the development of fiction in China. Knowledge of Chinese not required. Advanced students of Chinese language may take concurrently CHJA 391 or CHJA 591, for three units, and work with the instructor to read excerpts in the original Chinese. Units: 6.

Topic for Fall 2011: Dream of the Red Chamber

Also listed as East Asian Studies 520

Prerequisite: Sophomore standing; EAST 140 recommended

CHJA 590: ***Tutorial Studies in Chinese or Japanese***
Individualized advanced study under regular staff direction on topics not covered in lower-level courses. Units: Variable.

Prerequisite: Counter Registration Required

CHJA 591: ***Directed Study in Chinese or Japanese***
Directed study follows a syllabus set primarily by the instructor to meet the needs or interests of an individual student or small group of students. The main goal of directed study is knowledge or skill acquisition, not research or creative work. Units: Variable.

Prerequisite: Counter Registration Required.

CHJA 595: ***Internship in Chinese or Japanese***
An opportunity for students to apply their Chinese or Japanese language skills in business, government, and the non-profit sector on the regional, national, and international levels. Arranged in collaboration with and supervised by a member of the department. Includes discussion, report, and/or portfolio. Advance consultation and application required. Units: 3.

Prerequisite: Study abroad at the third-year level or CHJA 401 and 402 or CHJA 411; Counter Registration Required

CHJA 599: ***Independent Study in Chinese or Japanese***
Individualized advanced research under staff guidance to prepare a substantial paper, usually for submission for honors. Units: Variable.

Prerequisite: Counter Registration Required

CHJA 690: ***Tutorial Studies in Chinese or Japanese***
Individualized advanced study under regular staff direction on topics not covered in lower-level courses. Units: Variable.

Prerequisite: Counter Registration Required

CHJA 691: ***Directed Study in Chinese or Japanese***
Directed study follows a syllabus set primarily by the instructor to meet the needs or interests of an individual student or small group of students. The main goal of directed study is knowledge or skill acquisition, not research or creative work. Units: Variable.

Prerequisite: Counter Registration Required.

CHJA 695: ***Internship in Chinese or Japanese***
An opportunity for students to apply their Chinese or Japanese language skills in business, government, and the non-profit sector on the regional, national, and international levels. Arranged in collaboration with and supervised by a member of the department. Includes discussion, report, and/or portfolio. Advance consultation and application required. Units: 3.

Prerequisite: Study abroad at the third-year level or CHJA 401 and 402 or CHJA 411; Counter Registration Required

CHJA 699: ***Independent Study in Chinese or Japanese***
Individualized advanced research under staff guidance to prepare a substantial paper, usually for submission for honors. Units: Variable.

Prerequisite: Counter Registration Required

Professors: Dreher (Philosophy, Lee Claflin-Robert S. Ingraham Professorship in Philosophy), Lawton (Art and Art History, Ottilia Buerger Professor of Classical Studies)

Associate professors: McNeill* (chair terms I and II), Smith (Religious Studies)

Assistant professor: Brook (chair term III)

Visiting assistant professor: Wickens

*On leave Term III

Introduction

The field of classics is dedicated to the study of the languages, literatures, history, art, ideas, myths, societies, and cultures of ancient Greece and Rome. As such, it is an inherently interdisciplinary field of study, grounded in the critical reading of Greek and Latin texts but involving the examination of all aspects of Greek and Roman civilization and the ancient Mediterranean world. The program of the Classics Department at Lawrence emphasizes formal training in Greek and Latin, plus interdisciplinary engagement with topics in classical civilization, as a basis for the study of Greek and Roman literature, history, art, mythology, culture, and thought.

Accordingly, the department offers two related but distinct concentrations within the major. The concentration in *Classical Languages and Literatures* focuses on the study of Latin and Greek literature in the original languages, and is especially recommended for those students who are planning to go on to graduate study in classics. The concentration in *Classical Civilization* combines the study of Greek or Latin with coursework in ancient history, society, and culture, and is intended for students who wish to engage with the Greco-Roman world from multiple disciplinary perspectives.

Required for the classics major

Students may elect to fulfill the requirements of the classics major by concentrating in (I) classical languages and literatures or (II) classical civilization, depending on their intellectual interests and postgraduate plans.

1. Classical Languages and Literatures
    a. The introductory/intermediate sequences in both Latin and Greek (CLAS 120-220 and CLAS 125-225), or their equivalents.
    b. Six courses (36 units) at the 300-, 400-, or 500-level in Latin and Greek literature. At least four of these courses (24 units) must be taken at the 400- or 500-level. The following courses fulfill this requirement:
        - In Latin: CLAS 301/401, 302/402, 303/403, 304/404, 306/406, 307/407, 308/408
        - In Greek: CLAS 321/421, 322/422, 323/423, 324/424, 326/426, 327/427, 328/428
        - In Latin and Greek: CLAS 545

   c. Two courses (12 units) in classical civilization or Greek and Roman history. The following courses fulfill this requirement:
      - In classical civilization: CLAS 101, 250, 260, 305, 363, 370
      - In Greek and Roman history: CLAS 150, 160, 280, 300, 310.
   d. *Senior Experience*
2. Classical Civilization
   a. The introductory/intermediate sequence in either Latin or Greek (CLAS 120-220 or CLAS 125-225), or its equivalent.
   b. Two courses (12 units) at the 300- or 400-level in the literature of the target language. The following courses fulfill this requirement:
      - In Latin: CLAS 301/401, 302/402, 303/403, 304/404, 306/406, 307/407, 308/408
      - In Greek: CLAS 321/421, 322/422, 323/423, 324/424, 326/426, 327/427, 328/428
   c. Two courses (12 units) in classical civilization. The following courses fulfill this requirement: CLAS 101, 250, 260, 305, 363, 370.
   d. Two courses (12 units) in Greek and Roman history. The following courses fulfill this requirement: CLAS 150, 160, 280, 300, 310.
   e. Four additional courses (24 units) in classics or related fields. Up to two of these courses (12 units) may be chosen from the following list of courses originating in other departments:
      - ANTH 324 (CLAS 365)
      - ANTH 328 (CLAS 368)
      - ARHI 200 (CLAS 340)
      - ARHI 202 (CLAS 345)
      - ARHI 204 (CLAS 350)
      - ARHI 400 (CLAS 540)
      - ENG 285
      - ENG 527
      - HIST 105
      - PHIL 200
      - RLST 150
      - RLST 290
      - RLST 316 (CLAS 315)
   f. *Senior Experience*

Required for the Greek and Latin minors

1. CLAS 120 and 220 or CLAS 125 and 225 (or their equivalents), as appropriate to the target language.
2. At least four courses (24 units) at the 300- or 400-level in the target language and literature. At least two of these courses (12 units) must be taken at the 400-level.
3. C average in the minor.

Required for the classical civilization minor

1. Two courses (12 units) in classical civilization. The following courses fulfill this requirement: CLAS 101, 250, 260, 305, 363, 370.
2. Two courses (12 units) in Greek and Roman history. The following courses fulfill this requirement: CLAS 150, 160, 280, 300, 310.
3. Two additional courses (12 units) selected from courses taught within the Classics Department.

International Study

The undergraduate classics programs at the Intercollegiate Center for Classical Studies in Rome (ICCS-Rome), the American University of Rome (ISA Rome), and the College Year in Athens (CYA) are affiliated and approved options for study abroad in classics. Consult the department chair for more details.

Language requirement

Students may fulfill the university's humanities requirement by taking any course in classical civilization or ancient history taught in English, or any 300-, 400-, or 500-level course in Latin or Greek literature.

Senior Experience in Classics

For students in both concentrations, the major culminates in the *Senior Experience* in classics, a self-designed project that enables each student to explore a topic of individual interest within the field. The *Senior Experience* in classics may be fulfilled in a variety of ways, in consultation with the department faculty. Scholarly, pedagogical, creative, and experiential projects are all viable options. Past *Senior Experience* projects have included: research papers on topics ranging from the interaction of speech and identity in Homer's *Iliad* to Hannibal's military strategy in Italy during the Second Punic War; choreographing and staging a mixed-media performance that combined dance with the recitation of passages of Greek and Roman lyric poetry; developing a complete syllabus and lesson plans for an introductory course in Latin at the high school level; designing a stage set and lighting for a production of Euripides' *Medea*; and using computer rendering software to create an explorable three-dimensional model of the Temple of Apollo Epikourios at Bassai in Greece. Other possible experiences might include delivering a scholarly paper at a conference or as part of Classics Week, or working at relevant archaeological sites in Europe and the Mediterranean Sea region. For projects that take place off-campus, an on-campus oral presentation is also required.

Classics majors are required to declare a topic and choose an advisor for their senior experience project no later than the Midterm Reading Period of the Spring Term before their senior year. The due date for the final version of the project will be determined in consultation with the advisor but should normally be no later than the Midterm Reading Period of the Winter Term of the student's senior year.

Students pursuing double majors, double degrees, and/or education certification are strongly encouraged to consult with their advisors and department chairs to plan and negotiate their overall senior experience as early as possible, especially if they are interested in pursuing an interdisciplinary capstone that integrates their interests in both majors, or combines their student teaching with a project in their major.

COURSES

CLAS 101: *Introduction to Classics*
An introduction to Greek and Roman civilization. Through lecture and discussion students will engage with ancient textual sources (in translation) on such topics as ancient politics, philosophy, military history, poetry, theatre, social history, oratory, and art history. Students will learn about the variety of methodologies and sources of evidence used by Classicists to understand the ancient world. Units: 6.

CLAS 120: *Intensive Beginning Latin*
An accelerated introductory course emphasizing the forms and basic syntax of Latin. Taken together, CLAS 120 and 220 provide students with the ability to read both classical and medieval Latin prose and poetry. Units: 6.

CLAS 125: *Intensive Beginning Greek*
An accelerated introductory course emphasizing the basic systematic structure of Greek. Taken together, CLAS 125 and 225 provide students with the ability to read both classical and Koine Greek. Units: 6.

CLAS 150: *Survey of Greek History*
A study of ancient Greek history from the Bronze Age to 146 B.C.E. Emphasis on the rise and fall of the Greek city-state as a political, societal, and cultural model. Readings include the historians Herodotus and Thucydides. All texts in English. Units: 6.

Also listed as History 180

CLAS 160: *Survey of Roman History*
A study of the history of Rome from its origins through the Republic and Empire to the reign of Constantine. Emphasis on political and cultural developments and the acquisition and maintenance of empire. Readings may include Livy, Tacitus, Suetonius, and the *Historia Augusta*. All texts in English. Units: 6.

Also listed as History 185

CLAS 191: *Directed Study in Classics*
Directed study follows a syllabus set primarily by the instructor to meet the needs or interests of an individual student or small group of students. The main goal of directed study is knowledge or skill acquisition, not research or creative work. Units: Variable.

Prerequisite: Counter Registration Required.

CLAS 220: *Intensive Intermediate Latin*
A continuation of CLAS 120 with an emphasis on developing experience with reading connected passages of literary discourse, including selections from classical Latin prose and poetry. Successful completion fulfills the language general education requirement for the B.A. Units: 6.

Prerequisite: CLAS 120 or two years of high school Latin

CLAS 225: *Intensive Intermediate Greek*
A continuation of CLAS 125 with emphasis on developing experience with reading connected passages of literary discourse, including sections from a variety of texts and authors. Successful completion fulfills the language general education requirement for the B.A. Units: 6.

Prerequisite: CLAS 125 or its equivalent

CLAS 250: *Classical Mythology*
A study of classical mythology through examination of the literary mythical narratives of Greece and Rome. We will consider the form, content, and themes of these stories in order to explore the cultural significance of myth and the various ways in which myths can be interpreted. All texts in English. Units: 6.

CLAS 260: *Classical Literature in Translation*
A study of specific texts selected from the corpus of Greek and Latin prose and poetry, read in English translation. Each iteration of the course will focus on a particular genre or theme in classical literature. Possible topics include: the ancient novel, death and the underworld, and Greek and Roman love poetry. Units: 6.

CLAS 280: *Warfare in Classical Antiquity*
A study of the practice of warfare in classical antiquity from Homeric Greece to the Roman Empire. Topics to be considered include: Homer's *Iliad* and the warrior ideal, the political implications of hoplite and trireme warfare, the Persian Wars, the Peloponnesian War, the campaigns of Alexander, Hannibal, and Caesar, the organization and tactics of the Roman legion, and Roman frontier policy. Emphasis on the close interaction of military, political, and cultural developments in Greek and Roman history. All texts in English. Units: 6.

CLAS 300: *Periclean Athens*
A study of the history of Athens from the end of the Persian Wars to the execution of Socrates (479 to 399 B.C.). A wide range of material and topics will be considered: social and political developments, warfare, empire, diplomacy, intellectual and cultural life. Emphasis on the revolution in ideas and visions of humanity that defined the golden age of classical Greece. All texts in English. Units: 6.

Also listed as History 235

Prerequisite: Sophomore standing or consent of instructor

CLAS 301: *Topics in Latin Literature*
Close reading and study of texts selected from the corpus of Latin literature. The course will focus on a different genre, author, or theme in Latin poetry or prose each year it is offered. Possible topics include Roman satire, Roman comedy and tragedy, love elegy, and epistolary writing. Meets concurrently with CLAS 401. Not open to students who have received credit for the current topic under CLAS 401 or who need to receive credit for CLAS 401. May be repeated when the topic is different. Units: 6.

Prerequisite: CLAS 220 or three years of high school Latin

CLAS 302: *Ovid*
Close reading and study of Ovid's poetry in Latin, as represented by a book of the *Metamorphoses* or selections from the *Amores* and *Ars Amatoria*. Discussion will be supplemented with additional primary readings in English translation and secondary scholarship. Meets concurrently with CLAS 402. Not open to students who have received credit for CLAS 402 or CLAS 410, or who need to receive credit for CLAS 402. Units: 6.

Prerequisite: CLAS 220 or three years of high school Latin.

CLAS 303: *Catullus and Horace*
Careful reading and concentrated study of selected poems by Catullus and Horace in Latin. Discussion will be supplemented with additional readings in English translation and secondary scholarship. Meets concurrently with CLAS 403. Not open to students who have received credit for CLAS 403 or CLAS 425, or who need to receive credit for CLAS 403. Units: 6.

Prerequisite: CLAS 220 or three years of high school Latin

CLAS 304: *Virgil*
Close reading of extended selections from Virgil in Latin, primarily drawn from the *Aeneid*, supplemented with additional readings in English translation and secondary scholarship. Emphasis on Virgil's poetic technique as well as the political and cultural significance of his poetry. Meets concurrently with CLAS 404. Not open to students who have received credit for CLAS 404 or CLAS 440, or who need to receive credit for CLAS 404. Units: 6.

Prerequisite: CLAS 220 or three years of high school Latin

CLAS 305: *The Fall of the Roman Republic*
A study of the final decades of the Roman Republic from the sixth consulship of Marius to the assassination of Caesar (100 to 44 B.C.E.), focusing on political, social, and cultural changes during this tumultuous period. Topics include: Roman politics, social class and identity, and Republican art, literature, and thought. All texts in English. Units: 6.

Prerequisite: Sophomore standing or consent of instructor

CLAS 306: *The Roman Novel*
Close reading and study of selected passages in Latin from the *Satyricon* of Petronius and the *Metamorphoses*(also known as *The Golden Ass*) of Apuleius, the two surviving examples of the ancient Roman novel. Meets concurrently with CLAS 406. Not open to students who have received credit for CLAS 406 or who need to receive credit for CLAS 406. Units: 6.

Prerequisite: CLAS 220 or three years of high school Latin

CLAS 307: *Cicero*
Close reading of a selection from the works of Cicero in Latin, supplemented with additional readings in English translation and secondary scholarship. Texts may include the *Pro Caelio*, the *Pro Archia*, and the Catilinarian Orations. Meets concurrently with CLAS 407. Not open to students who have received credit for CLAS 407 or CLAS 435, or who need to receive credit for CLAS 407. Units: 6.

Prerequisite: Prerequisite: CLAS 220 or three years of high school Latin

CLAS 308: *Roman Historians*
A study of selections from several Roman historians in Latin, chosen to emphasize specific historical events and persons depicted on Roman coins from the university's Ottilia Buerger Collection. Meets concurrently with CLAS 408. Not open to students who have received credit for CLAS 408 or CLAS 415, or who need to receive credit for CLAS 408. Units: 6.

Prerequisite: CLAS 220 or three years of high school Latin

CLAS 310: *Augustan Rome*
An introduction to ancient Rome and Roman civilization, focusing on the Age of Augustus in all its aspects: art, literature, politics, empire, law, entertainment, and society. Emphasis on the political and cultural changes that took place during this revolutionary period. All texts in English. Units: 6.

Also listed as History 240

Prerequisite: Sophomore standing or consent of instructor

CLAS 315: *Greek-Islamic Philosophical Tradition*
After covering relevant fundamentals in Greek philosophy (Aristotle and Plato), we will proceed to later philosophers, both Greek (the Neoplatonists) and Islamic (Ibn Sina, Suhrawardi), whose work inherits the same methods and questions, Our special focus will be questions about philosophical method, the soul, and mystical experience. Units: 6.

Also listed as Religious Studies 316

Prerequisite: Sophomore standing

CLAS 321: *Topics in Greek Literature*
In this course we will read excerpts from one or more authors in ancient Greek. Our discussion will be supplemented with additional primary readings in English translation and secondary scholarship. Possible topics include: the ancient novel, Greek lyric poetry, and the Homeric hymns. Meets concurrently with CLAS 421. Not open to students who have received credit for the current topic under CLAS 421 or who need to receive credit for CLAS 421. May be repeated when the topic is different.

Topic for Winter 2017: Longus' "Daphnis and Chloe"

In addition to careful study of large excerpts of this ancient pastoral love story, we will use "Daphnis and Chloe" as a springboard to discuss the ancient novel as genre, the literary climate of the Second Sophistic, and the many textual echoes of the greatest authors of Classical Athens that are to be found in this charming story of boy meets girl. Units: 6.

Prerequisite: CLAS 225 or three years of high school Greek

CLAS 322: *Homer*
In this course we will read excerpts from the *Iliad* and/or the *Odyssey* in Greek. Our discussion will be supplemented with additional readings in English translation and secondary scholarship. Meets concurrently with CLAS 422. Not open to students who have received credit for CLAS 455 or CLAS 422, or who need to receive credit for CLAS 422. Units: 6.

Prerequisite: CLAS 225 or three years of high school Greek.

CLAS 323: *Greek Tragedy*
In this course we will read excerpts from one tragedian (e.g. Aeschylus, Sophocles, Euripides) in ancient Greek. Our discussion will be supplemented with additional tragic material in English translation and secondary scholarship. Meets concurrently with CLAS 423. Not open to students who have received credit for CLAS 423 or who need to receive credit for CLAS 423. Units: 6.

Prerequisite: CLAS 225 or three years of high school Greek

CLAS 324: *Greek Comedy*
In this course we will read excerpts from one comedian (e.g. Aristophanes, Menander) in ancient Greek. Our discussion will be supplemented with additional comic material in English translation and secondary scholarship. Meets concurrently with CLAS 424. Not open to students who have received credit for CLAS 424 or who need to receive credit for CLAS 424. Units: 6.

Prerequisite: CLAS 225 or three years of high school Greek

CLAS 326: *Plato*
In this course we will read one Platonic dialogue (e.g., *Symposium*, *Apology*) in Greek. Our discussion will be supplemented with additional Platonic material in English translation and secondary scholarship. Meets concurrently with CLAS 426. Not open to students who have received credit for CLAS 460 or CLAS 426, or who need to receive credit for CLAS 326. Units: 6.

Prerequisite: CLAS 225 or three years of high school Greek

CLAS 327: *The Attic Orators*
In this course we will read excerpts from one of the fourth-century Athenian orators (e.g., Lysias, Aeschines, Demosthenes) in Greek. Our discussion will be supplemented with additional material in English translation and secondary scholarship. Meets concurrently with CLAS 427. Not open to students who have received credit for CLAS 485 or CLAS 427, or who need to receive credit for CLAS 427. Units: 6.

Prerequisite: CLAS 225 or three years of high school Greek

CLAS 328: *Greek Historians*
In this course we will read excerpts from one of the Greek historians (e.g., Herodotus, Thucydides, Xenophon) in Greek. Our discussion will be supplemented with additional primary readings in English translation and secondary scholarship. Meets concurrently with CLAS 428. Not open to students who have received credit for CLAS 480 or CLAS 428, or who need to receive credit for CLAS 428. Units: 6.

Prerequisite: CLAS 225 or three years of high school Greek

CLAS 340: *Archaic and Classical Greek Art*
A study of Greek art and architecture to the end of the fourth century B.C. Topics include the great sanctuaries at Olympia, Delphi, and Athens; the development of mythological narrative in sculpture and vase painting; the political and propagandistic function of Greek art; and the beginning of portraiture. Units: 6.

Also listed as Art History 200

Prerequisite: ARHI 100 or sophomore standing

CLAS 345: *From Alexander to Kleopatra: Art of the Hellenistic Age*
A study of Greek and Greek-influenced art from the time of Alexander the Great to the Roman conquest of Egypt in 31 B.C. Topics include portraiture and the royal iconography of the Hellenistic rulers, the development of regional styles in sculpture, and the influence of the Romans as patrons. Units: 6.

Also listed as Art History 202

Prerequisite: ARHI 100 or sophomore standing

CLAS 350: *Roman Art*
A study of the art and architecture of the Etruscans and the Romans to the end of the Roman empire. Topics include the funerary arts of the Etruscans, the art and archaeology of Pompeii and Herculaneum, developments in imperial portraiture and historical relief, technological innovations in architecture, and the beginnings of Christian art. Units: 6.

Also listed as Art History 204

Prerequisite: ARHI 100 or sophomore standing

CLAS 363: *Greek and Roman Drama in Translation*
In this course we analyze ancient plays both as great works of literature and as artifacts of a particular artistic, cultural, and political context. Students will read excerpts and complete plays in English from a variety of ancient authors, including (from Classical Athens) Aeschylus, Sophocles, Euripides, Aristophanes, and Menander, and (from late Republican and early Imperial Rome) Plautus, Terence, and Seneca. Units: 6.

Also listed as English 263

Prerequisite: Sophomore standing or consent of instructor

CLAS 365: *Archaeology of the Prehistoric Aegean*
A study of archaeological investigations in the Aegean region — Greece, Crete, the Cycladic Islands, and western Turkey. Emphasis on the evidence of cultural development from Palaeolithic hunter-gatherers and Neolithic farmers and herders through the development of the Bronze Age “palace” civilizations of the Minoans and Mycenaeans. Units: 6.

Also listed as Anthropology 324

Prerequisite: ANTH 120 or consent of instructor

CLAS 368: *Ethics in Archaeology: Who owns the past?*
An exploration of ethical and legal concerns surrounding archaeology: the ownership and treatment of archaeological remains and relations between archaeologists and descendent communities. Topics include the ethics and legality of collecting looting, and the antiquities market; archaeology and nationalism; repatriation of skeletons and artifacts; and professional responsibilities of archaeologists. Units: 6.

Also listed as Anthropology 328, Art History 325

Prerequisite: Sophomore standing and ANTH 120, an ARHI course (preferably ancient to Renaissance), or consent of instructor

CLAS 370: *Greek and Roman Epic in Translation*
An examination of ancient epic literature through the study of Homer's *Iliad* and *Odyssey* and Virgil's *Aeneid*, all read in English translation. Emphasis on the important features and themes of the epic genre, ancient conceptions of the hero, and the literary, cultural, and political resonance of these texts in classical antiquity. Units: 6.

Also listed as English 265

Prerequisite: Sophomore standing or consent of instructor

CLAS 390: *Tutorial Studies in Classics*
Study of topics in Greek and Latin literature, ancient history, ancient philosophy, classical civilization, and/or linguistics, arranged and carried out in cooperation with an instructor. Units: Variable.

Prerequisite: Counter Registration Required.

CLAS 391: *Directed Study in Classics*
Directed study follows a syllabus set primarily by the instructor to meet the needs or interests of an individual student or small group of students. The main goal of directed study is knowledge or skill acquisition, not research or creative work. Units: Variable.

Prerequisite: Counter Registration Required.

CLAS 399: *Independent Study in Classics*
Independent research on topics in Greek and Latin literature, ancient history, ancient philosophy, classical civilization, and/or linguistics, arranged in consultation with the department. Units: Variable.

Prerequisite: Counter Registration Required.

CLAS 401: *Topics in Latin Literature*
Close reading and study of texts selected from the corpus of Latin literature. Meets concurrently with CLAS 301. Students taking this course at the 400-level will be held to a higher standard of reading, translation, and performance in class and on exams, and will be assigned an additional research paper. Not open to students who have received credit for the current topic under CLAS 301 or who need to receive credit for CLAS 301. May be repeated when the topic is different. Units: 6.

Prerequisite: One 300-level course in Latin or four years of high school Latin

CLAS 402: *Ovid*
A study of Ovid's poetry, as represented by selections from the *Metamorphoses* or the *Amores* and *Ars Amatoria*(in Latin). Meets concurrently with CLAS 302. Students taking this course at the 400-level will be held to a higher standard of reading, translation, and performance in class and on exams, and will be assigned an additional research paper. Not open to students who have received credit for CLAS 302 or CLAS 410, or who need to receive credit for CLAS 302. Units: 6.

Prerequisite: One 300-level course in Latin or four years of high school Latin

CLAS 403: *Catullus and Horace*
Careful reading and concentrated study of selected poems by Catullus and Horace (in Latin). Meets concurrently with CLAS 403. Students taking this course at the 400-level will be held to a higher standard of reading, translation, and performance in class and on exams, and will be assigned an additional research paper. Not open to students who have received credit for CLAS 303 or CLAS 425, or who need to receive credit for CLAS 303. Units: 6.

Prerequisite: One 300-level course in Latin or four years of high school Latin

CLAS 404: *Virgil*
Close reading and study of extended selections from Virgil (in Latin), primarily drawn from the *Aeneid*. Meets concurrently with CLAS 304. Students taking this course at the 400-level will be held to a higher standard of reading, translation, and performance in class and on exams, and will be assigned an additional research paper. Not open to students who have received credit for CLAS 304 or CLAS 440, or who need to receive credit for CLAS 304. Units: 6.

Prerequisite: One 300-level course in Latin or four years of high school Latin

CLAS 406: *The Roman Novel*
Close reading and study of selected passages in Latin from the *Satyricon* of Petronius and the *Metamorphoses* of Apuleius. Meets concurrently with CLAS 306. Students taking this course at the 400-level will be held to a higher standard of reading, translation, and performance in class and on exams, and will be assigned an additional research paper. Not open to students who have received credit for CLAS 306 or who need to receive credit for CLAS 306. Units: 6.

Prerequisite: One 300-level course in Latin or four years of high school Latin

CLAS 407: *Cicero*
Close reading and study of a selection from the works of Cicero (in Latin). Meets concurrently with CLAS 307. Students taking this course at the 400-level will be held to a higher standard of reading, translation, and performance in class and on exams, and will be assigned an additional research paper. Not open to students who have received credit for CLAS 307 or CLAS 435, or who need to receive credit for CLAS 307. Units: 6.

Prerequisite: One 300-level course in Latin or four years of high school Latin

CLAS 408: *Roman Historians*
A study of selections from several Roman historians (in Latin). Meets concurrently with CLAS 308. Students taking this course at the 400-level will be held to a higher standard of reading, translation, and performance in class and on exams, and will be assigned an additional research paper. Not open to students who have received credit for CLAS 308 or CLAS 415, or who need to receive credit for CLAS 308. Units: 6.

Prerequisite: One 300-level course in Latin or four years of high school Latin.

CLAS 421: *Topics in Greek Literature*
Close reading and study of excerpts from one or more authors in ancient Greek. Meets concurrently with CLAS 321. Students taking this course at the 400-level will be assigned a research paper and will be held to a higher standard in the assessment of their contributions to class translation and discussion and their performance on exams. Not open to students who have received credit for the current topic under CLAS 321 or who need to receive credit for CLAS 321. May be repeated when the topic is different.

Topic for Winter 2017: Longus' "Daphnis and Chloe"

In addition to careful study of large excerpts of this ancient pastoral love story, we will use "Daphnis and Chloe" as a springboard to discuss the ancient novel as genre, the literary climate of the Second Sophistic, and the many textual echoes of the greatest authors of Classical Athens that are to be found in this charming story of boy meets girl. Units: 6.

Prerequisite: One 300-level course in Greek or four years of high school Greek.

CLAS 422: *Homer*
Close reading and study of excerpts from the *Iliad* and/or the *Odyssey* in Greek. Meets concurrently with CLAS 322. Students taking this course at the 400-level will be assigned a research paper and will be held to a higher standard in the assessment of their contributions to class translation and discussion and their performance on exams. Not open to students who have received credit for CLAS 455 or CLAS 322, or who need to receive credit for CLAS 322. Units: 6.

Prerequisite: One 300-level course in Greek or four years of high school Greek.

CLAS 423: *Greek Tragedy*
In this course we will read excerpts from one tragedian in ancient Greek. Meets concurrently with CLAS 323. Students taking this course at the 400-level will be assigned a research paper and will be held to a higher standard in the assessment of their contributions to class translation and discussion and their performance on exams. Not open to students who have received credit for CLAS 323 or who need to receive credit for CLAS 323. Units: 6.

Prerequisite: One 300-level course in Greek or four years of high school Greek

CLAS 424: *Greek Comedy*
In this course we will read excerpts from one comedian in ancient Greek. Meets concurrently with CLAS 324. Students taking this course at the 400-level will be assigned a research paper and will be held to a higher standard in the assessment of their contributions to class translation and discussion and their performance on exams. Not open to students who have received credit for CLAS 324 or who need to receive credit for CLAS 324. Units: 6.

Prerequisite: One 300-level course in Greek or four years of high school Greek

CLAS 426: *Plato*
Close reading and study of one Platonic dialogue (e.g., *Symposium*, *Apology*) in Greek. Meets concurrently with CLAS 326. Students taking this course at the 400-level will be assigned a research paper and will be held to a higher standard in the assessment of their contributions to class translation and discussion and their performance on exams. Not open to students who have received credit for CLAS 460 or CLAS 326, or who need to receive credit for CLAS 326. Units: 6.

Prerequisite: One 300-level course in Greek or four years of high school Greek.

CLAS 427: *The Attic Orators*
In this course we will read excerpts from one of the fourth-century Athenian orators (e.g., Lysias, Aeschines, Demosthenes) in Greek. Meets concurrently with CLAS 327. Students taking this course at the 400-level will be assigned a research paper and will be held to a higher standard in the assessment of their contributions to class translation and discussion and their performance on exams. Not open to students who have received credit for CLAS 485 or CLAS 327, or who need to receive credit for CLAS 327. Units: 6.

Prerequisite: One 300-level course in Greek or four years of high school Greek

CLAS 428: *Greek Historians*
Close reading and study of one of the Greek historians (e.g., Herodotus, Thucydides, Xenophon). Meets concurrently with CLAS 328. Students taking this course at the 400-level will be assigned a research paper and will be held to a higher standard in the assessment of their contributions to class translation and discussion and their performance on exams. Not open to students who have received credit for CLAS 480 or CLAS 328, or who need to receive credit for CLAS 328. Units: 6.

Prerequisite: One 300-level course in Greek or four years of high school Greek

CLAS 540: *Topics in Ancient Art*
An examination of a particular topic in ancient art history. Students are expected to carry out independent research. The topic will change periodically. Course may be repeated with the consent of the instructor. Units: 6.

Also listed as Art History 400

Prerequisite: One 200- or 300-level course in art history, one course in classics, or consent of the instructor.

CLAS 545: *Advanced Topics in Classics*
This course examines specific issues in classical scholarship, ranging from longstanding questions of analysis and interpretation to contemporary topics of research and debate. Students will develop their familiarity with the methods of classical scholarship as they undertake independent work culminating in a research paper or book review. Recommended for majors and students considering graduate study in classics.

Topic for Spring 2017: Individual and Community in the Ancient World

This multi-disciplinary course will consider six moments in Greco-Roman literary history in order to explore the relationship between individual and collective and its evolution over time. We will read primary sources in English translation and in Greek or Latin, as well as scholarly secondary sources. Issues to be considered include: leadership, political and social community, the role of the individual in society, and the complexities involved in using ancient authors as sources for understanding the past.

Units: 6.

Prerequisite: CLAS 220 and 225 or consent of instructor.

CLAS 590: *Tutorial Studies in Classics*
Advanced study of topics in Greek and Latin literature, ancient history, ancient philosophy, classical civilization, and/or linguistics, arranged and carried out in cooperation with an instructor. Units: Variable.

Prerequisite: Counter Registration Required.

CLAS 591: *Directed Study in Classics*
Directed study follows a syllabus set primarily by the instructor to meet the needs or interests of an individual student or small group of students. The main goal of directed study is knowledge or skill acquisition, not research or creative work. Units: Variable.

Prerequisite: Counter Registration Required.

CLAS 599: *Independent Study in Classics*
Advanced independent research on topics in Greek and Latin literature, ancient history, ancient philosophy, classical civilization, and/or linguistics, arranged in consultation with the department. Units: Variable.

Prerequisite: Counter Registration Required.

CLAS 690: *Tutorial Studies in Classics*
Advanced study of topics in Greek and Latin literature, ancient history, ancient philosophy, classical civilization, and/or linguistics, arranged and carried out in cooperation with an instructor. Units: Variable.

Prerequisite: Counter Registration Required.

CLAS 691: *Directed Study in Classics*
Directed study follows a syllabus set primarily by the instructor to meet the needs or interests of an individual student or small group of students. The main goal of directed study is knowledge or skill acquisition, not research or creative work. Units: Variable.

Prerequisite: Counter Registration Required.

CLAS 699: *Independent Study in Classics*
Advanced independent research on topics in Greek and Latin literature, ancient history, ancient philosophy, classical civilization, and/or linguistics, arranged in consultation with the department. Units: Variable.

Prerequisite: Counter Registration Required.

Professors: Gottfried (Psychology), Ryckman (Philosophy)

Associate professors: Krebsbach (Mathematics), Williams (Education, chair)

Assistant professor: Phelan (Philosophy)

Introduction

Cognitive science is an area of interdisciplinary study that investigates the nature and representation of knowledge, the structure and function of intelligence (natural and artificial), and the relation of mind to brain and machine. In studying cognitive science, students are encouraged to acquaint themselves with insights and methods from a variety of disciplines, including psychology, computer science, linguistics, philosophy, anthropology, and neuroscience.

The interdisciplinary minor in cognitive science is particularly relevant for students interested in experimental psychology, computer science, linguistics, or philosophy. Students interested in other disciplines, such as anthropology, economics, political science, neuroscience, or music theory, may also find cognitive science an important perspective from which to consider their work.

Requirements for the minor in cognitive science

1. PHIL 105: *Introduction to Cognitive Science*
2. Six additional courses, five of which must be in departments other than the student's major.
3. Courses must be from at least three of the following groups:
    a. Philosophical Foundations
        - PHIL 150: *Symbolic Logic*
        - PHIL 300: *Epistemology*
        - PHIL 305: *Experimental Philosophy*
        - PHIL 310: *Philosophy of Science*
        - PHIL 347: *Valuing Art: The Philosophy and Psychology of Aesthetic Appreciation*
        - PHIL 410: *Philosophy of Mind*
        - PHIL 420/LING 420: *Topics in Logic*
    b. Computation
        - CMSC 100: *Exploring Computer Science*
        - CMSC 105: *WWII Codebreaking*
        - CMSC 205: *Data-Scientific Programming*
        - CMSC 210: *Introduction to Scientific Programming*
        - CMSC 470: *Artificial Intelligence*
        - CMSC 515: *Theory of Computation*

c. Neuroscience
    - PSYC 350: *Psychopharmacology and Behavior*
    - PSYC 360: *Brain and Behavior I*
    - PSYC 420: *Clinical and Affective Neuroscience*
    - PSYC 525 or 530: *Brain and Behavior II*
    - BIOL 340/PSYC 580: *Topics in Neuroscience*

d. Cognitive Processes
    - ECON 225: *Decision Theory*
    - ECON 410: *Advanced Game Theory and Applications*
    - EDST 180/PSYC 180: *Psychology of Learning*
    - EDST 345/ANTH 345/PSYC 345: *Distributed Cognition*
    - PSYC 260 or 265: *Developmental Psychology*
    - PSYC 290: *Developmental Psychopathology*
    - PSYC 340: *Cognitive Psychology*
    - PSYC 370: *Perception*

e. Language
    - ANTH 330/LING 330: *Language and Culture*
    - ANTH 531/LING 531: *Semiotics*
    - LING 150: *Introduction to Linguistics*
    - LING 335: *Words, Words, Words: Introduction to Lexical Semantics*
    - LING 340: *Introduction to Syntax*
    - LING 350: *Introduction to Phonology*
    - LING 355: *Child Language Acquisition*
    - LING 370/PSYC 375: *Phonetics*
    - LING 450: *Topics in the Psychology of Language*
    - LING 470: *Cognitive Linguistics*
    - LING 545/EDST 545/PSYC 545: *Gesture Studies*
    - PHIL 400/LING 400: *Philosophy of Language*
    - PHIL 405/LING 405: *How to Do Things With Words*

COURSES

ANTH 330: *Language and Culture*
An introduction to the core concepts of linguistic anthropology, definitions of language, basic methods of linguistic anthropology (observation, transcription, analysis, ethnography), power and language, language discrimination, and language ideology theory. Lectures, discussions, and labs. Units: 6.

Also listed as Linguistics 330

Prerequisite: ANTH 110 or LING 150

ANTH 531: *Semiotics*
Semiotics is the study of signs, symbols, and signification in social life. This course will cover semiotic theory, including theorists such as Saussure, Peirce, Jakobson, Lévi-Strauss, Barthes, and Bakhtin, and the application of semiotics to the study of language and social life, conducted through lectures and seminar-style discussions. Units: 6.

Also listed as Linguistics 531

Prerequisite: ANTH 330/LING 330

BIOL 340: *Topics in Neuroscience*
A study of the nervous system from the perspectives of psychology and biology. Topics vary year to year and may include glial cells, neural development, and the evolution of nervous systems and neurotransmitter systems. Lecture only. May be repeated when topic is different.

Topic for Spring 2017: The Mindful Brain

Mindfulness meditation involves paying attention, on purpose and without judgment. With roots in Eastern philosophy, it has been applied to the treatment of various physical and mental conditions in contemporary Western medicine and psychotherapy. This course will explore research on how mindfulness meditation changes the brain.

Units: 6.

Also listed as Psychology 580

Prerequisite: CHEM 116, BIOL 150, and one course in psychology; or PSYC 360 and one course in biology; or consent of instructor

CMSC 100: *Exploring Computer Science*
An introduction to the ideas, problems, methods, and solutions of computer science. We will emphasize algorithmic thinking and treat computer science *as a science*—investigating issues, at a beginning level, of interest to actual computer scientists. Not intended as preparation for CMSC 250 or 270. Units: 6.

CMSC 105: *WWII Codebreaking*
An introduction to general principles of computer science alongside specific encryption algorithms developed throughout history, culminating in a fascinating analysis of the remarkable accomplishments of Alan Turing and the Allied codebreakers of World War II. Students will break classical ciphers and will also experiment with modern techniques that facilitate secure internet transactions. Units: 6.

CMSC 205: *Data-Scientific Programming*
An introduction to programming with emphasis on learning from data in order to gain useful insights. Topics focus on elementary programming concepts in the R language and the necessary tools to handle, analyze and interpret data. This course will be taught in a workshop format, and students will complete regular assignments and a final project that provide hands-on programming/analysis experiences. Units: 6.

Prerequisite: One course in mathematics or computer science, or consent of instructor

CMSC 210: *Introduction to Scientific Programming*
An introduction to computer programming with an emphasis on numerical applications in mathematics and the sciences. Topics include elementary programming concepts in the C language, design and implementation of numerical algorithms, and an introduction to symbolic computation. Units: 6.

Prerequisite: One term of calculus (either MATH 140 or MATH 120), or consent of instructor

CMSC 470: *Artificial Intelligence*
A detailed investigation into foundational concepts of artificial intelligence: search, knowledge representation, and automated planning. Specific topics include uninformed and heuristic search techniques, logic-based knowledge representations, automated theorem-proving, logic programming (Prolog), action representations, means-ends analysis, regression and partial-order planning, and reachability analysis using graphs. Units: 6.

Prerequisite: CMSC 270

CMSC 515: *Theory of Computation*
A study of programming in the abstract, leading to an understanding of the precise nature and limitations of computing machines. Topics include universal computing machines such as Turing machines, decidable and undecidable predicates, regular and pushdown automata, and regular and context-free grammars. Units: 6.

Prerequisite: MATH 300 and CMSC 150

ECON 225: ***Decision Theory***
This course will present a thorough introduction to decision theory, the study of how people should or do make decisions. Building on that foundation, game theory, the science of strategy, will be introduced, with economic applications. Units: 6.

Prerequisite: ECON 100 or ECON 120

ECON 410: ***Advanced Game Theory and Applications***
This course develops game theory, the science of strategic interaction, *i.e.*, interdependent individuals seeking to promote their self interest, with applications in economics, biology, and philosophy. The mathematical nature of game theoretic models will be reflected in a focus on problem solving. Sufficient mathematical maturity required. Units: 6.

Prerequisite: Junior standing or consent of instructor

EDST 180: ***Psychology of Learning***
An investigation of how people learn. This course examines learning theories (*e.g.,* behavioral, humanistic, cognitive, constructivist) and their implications for the educational process in schools. Other topics include learning and the brain, the nature of expertise, the design of learning environments, and approaches to instruction that promote meaningful learning. Practicum of 20 hours required. Units: 6.

Also listed as Psychology 180

EDST 545: ***Gesture Studies***
Gesture studies is an interdisciplinary field that examines the use of the hands and other parts of the body in communication and cognition. In this seminar we discuss studies of gesture types, universals, and variations; gesture development; gesture production and perception; relations of gesture to thought and language (spoken and signed); and functions of gesture in human interaction, problem-solving, and learning. Units: 6.

Also listed as Linguistics 545, Psychology 545

Prerequisite: One course in linguistics or psychology, or consent of the instructor

LING 150: ***Introduction to Linguistics***
Introduction to theory and methods of linguistics: universal properties of human language; phonetic, phonological, morphological, syntactic, and semantic structures and analysis; nature and form of grammar. Units: 6.

LING 330: *Language and Culture*
An introduction to the core concepts of linguistic anthropology, definitions of language, basic methods of linguistic anthropology (observation, transcription, analysis, ethnography), power and language, language discrimination, and language ideology theory. Lectures, discussions, and labs. Units: 6.

Also listed as Anthropology 330

Prerequisite: ANTH 110 or LING 150

LING 335: *Words, Words, Words: Introduction to Lexical Semantics*
This course introduces fundamental concepts and research issues in the linguistic study of word meaning. Topics include: representation of word meaning; relation between lexical, truth-conditional and context-dependent meanings; semantic relations; meaning variation; semantic properties of nouns and verbs (e.g. mass-count distinction, verb classes, aspect, semantic roles); interaction between content and function words. Units: 6.

Prerequisite: LING 150

LING 340: *Introduction to Syntax*
An introduction to descriptive analysis of morphological and syntactic structures in natural languages with an emphasis on gaining insight into the nature of such structures, rather than on linguistic formalization. Topics include levels of representation, X-bar theory, case theory, thematic roles, the lexicon, grammatical function-changing rules, and head-complement relations. Units: 6.

Prerequisite: LING 150 or consent of instructor

LING 350: *Introduction to Phonology*
An introduction to the formal study of phonetics, phonemics, and phonological analysis and theory. Topics include stress, syllable structure, tones, metrics, phonotactics, and links between phonology and morphology/syntax; exercises on familiar and unfamiliar languages. Units: 6.

Prerequisite: LING 150 or consent of instructor

LING 355: *Child Language Acquisition*
Every normally developing human acquires language in early childhood. This course explores how this feat is accomplished. We will examine data on children's linguistic knowledge at difference developmental stages and what types of theories might explain these data. Students will also have the opportunity to analyze real child language data. Units: 6.

Prerequisite: LING 150, or PSYC 260 or PSYC 265

LING 370: *Phonetics*
An introduction to the science of speech sounds, focusing on descriptive and experimental studies of articulation and speech acoustics. Laboratory demonstrations of speech production, acoustical analysis, and speech synthesis are combined with lecture/demonstrations to relate phonetics research to theories of phonology and language acquisition. Units: 6.

Also listed as Psychology 375

Prerequisite: LING 150, PSYC 340, or consent of instructor

LING 400: *Philosophy of Language*
An examination of major theories of meaning, reference, and cognitive content and an attempt to understand how language functions to relate “internal” psychological states to things in the “external” world. Contemporary philosophers are emphasized. Units: 6.

Also listed as Philosophy 400

Prerequisite: One course in philosophy, junior standing, or consent of instructor; PHIL 150 recommended

LING 405: *How to Do Things With Words*
An examination of major and cutting edge topics in the philosophy of language and linguistics. Where do word meanings come from? How can one word mean different things in different contexts? How do we promise or make commitments? Why do slurs hurt and jokes amuse? What is the nature of metaphor? Where does the border between what words mean and what speakers mean with words lie? These and other questions will be considered. Appropriate for students with an interest in philosophy, linguistics, or cognitive science. Units: 6.

Also listed as Philosophy 405

Prerequisite: One course in philosophy, junior standing, or consent of the instructor

LING 420: *Topics in Logic*
An investigation of topics selected from among the following: consistency and completeness theorems for both sentential and predicate logic, Gödel’s Incompleteness Theorem, logical paradoxes (Russell’s Paradox, the Liar Paradox, and Newcomb’s Paradox), and modal-tense logic and its formal semantics. Units: 6.

Also listed as Philosophy 420

Prerequisite: PHIL 150 or consent of instructor

LING 450: *Topics in the Psychology of Language*
An examination of the nature and structure of language, integrating knowledge from linguistics, psychology, neurophysiology, and sociology. Focus on the psychological theories and experimental evidence about language production and perception. Units: 6.

Also listed as Psychology 540

Prerequisite: PSYC 340, LING 150, or consent of instructor

LING 470: *Cognitive Linguistics*
Cognitive linguistics is a subfield of linguistics and cognitive science that studies conceptual structure, language, and meaning in relation to general cognitive mechanisms. Topics include cognitive and construction grammars, categorization, construal, image schemas, mental spaces, conceptual metaphors, and conceptual blending. Units: 6.

Prerequisite: LING 150 or consent of instructor

LING 531: *Semiotics*
Semiotics is the study of signs, symbols, and signification in social life. This course will cover semiotic theory, including theorists such as Saussure, Peirce, Jakobson, Lévi-Strauss, Barthes, and Bakhtin, and the application of semiotics to the study of language and social life, conducted through lectures and seminar-style discussions. Units: 6.

Also listed as Anthropology 531

Prerequisite: ANTH 330/LING 330

LING 545: *Gesture Studies*
Gesture studies is an interdisciplinary field that examines the use of the hands and other parts of the body in communication and cognition. In this seminar we discuss studies of gesture types, universals, and variations; gesture development; gesture production and perception; relations of gesture to thought and language (spoken and signed); and functions of gesture in human interaction, problem-solving, and learning. Units: 6.

Also listed as Education Studies 545, Psychology 545

Prerequisite: One course in linguistics or psychology, or consent of the instructor

PHIL 105: *Introduction to Cognitive Science*
An introduction to the interdisciplinary study of how the mind works. Topics include: the nature of perception; what human language reveals about the mind; the basis of morality and altruism; how sexual selection has shaped human psychology; and the cognitive science of religious and spiritual belief. We will discuss tools, theories, and assumptions from philosophy, psychology, computer science, linguistics, anthropology, behavioral economics, and neuroscience. Units: 6.

PHIL 150: *Symbolic Logic*
Formal study of the notions of validity, consistency, and equivalence in the languages of sentential logic and predicate logic, plus an introduction to semantics for these languages. Units: 6.

Prerequisite: Recommended for freshmen and sophomores

PHIL 300: *Epistemology*
An examination of some basic questions concerning the nature and extent of human knowledge, focusing on the topics of skepticism, justification, certainty, the *a priori* and the *a posteriori,* and analyses of knowledge. Units: 6.

Prerequisite: One course in philosophy, junior standing, or consent of instructor

PHIL 305: *Experimental Philosophy*
An introduction to experimental philosophy. The course will examine the ways in which experimental techniques can be applied to problems in epistemology, metaphysics, philosophy of language, ethics, and other subfields of philosophy. Special attention will be paid to the question of whether experimental research is a legitimate methodology for philosophy. Units: 6.

Prerequisite: One course in philosophy, junior standing, or consent of instructor

PHIL 310: *Metaphysics*
An examination of some central philosophical questions about reality, such as: What basic kinds of things are there? Is truth always and only relative to a conceptual scheme? What is the nature of necessity and possibility? What is the nature of change over time? Units: 6.

Prerequisite: One course in philosophy, junior standing, or consent of instructor

PHIL 347: *Valuing Art: The Philosophy and Psychology of Aesthetic Appreciation*
How and why do we value art? Is there an objective standard of taste or is taste relative? How does and aesthetic property--such as beauty--differ from other properties of art--such as being made of stone? What are the roles of emotion and evolution in aesthetic response? These and other questions will be considered in this discussion-oriented class. Appropriate for those interested in philosophy, art history or cognitive science. Units: 6.

Prerequisite: One course in philosophy or sophomore standing, or consent of instructor

PHIL 400: *Philosophy of Language*
An examination of major theories of meaning, reference, and cognitive content and an attempt to understand how language functions to relate “internal” psychological states to things in the “external” world. Contemporary philosophers are emphasized. Units: 6.

Also listed as Linguistics 400

Prerequisite: One course in philosophy, junior standing, or consent of instructor; PHIL 150 recommended

PHIL 405: *How to Do Things With Words*
An examination of major and cutting edge topics in the philosophy of language and linguistics. Where do word meanings come from? How can one word mean different things in different contexts? How do we promise or make commitments? Why do slurs hurt and jokes amuse? What is the nature of metaphor? Where does the border between what words mean and what speakers mean with words lie? These and other questions will be considered. Appropriate for students with an interest in philosophy, linguistics, or cognitive science. Units: 6.

Also listed as Linguistics 405

Prerequisite: One course in philosophy, junior standing, or consent of the instructor

PHIL 410: *Philosophy of Mind*
What is the relationship between the mind and the body? What is the nature of conscious experience? How do mental states represent states of the world? Is our common sense conception of mental states and processes compatible with the methods and assumptions of cognitive science? These and other questions in the philosophy of mind will be considered. Units: 6.

Prerequisite: One course in philosophy, PSYC 340, junior standing, or consent of instructor

PHIL 420: *Topics in Logic*
An investigation of topics selected from among the following: consistency and completeness theorems for both sentential and predicate logic, Gödel’s Incompleteness Theorem, logical paradoxes (Russell’s Paradox, the Liar Paradox, and Newcomb’s Paradox), and modal-tense logic and its formal semantics. Units: 6.

Also listed as Linguistics 420

Prerequisite: PHIL 150 or consent of instructor

PSYC 180: *Psychology of Learning*
An investigation of how people learn. This course examines learning theories (*e.g.,* behavioral, humanistic, cognitive, constructivist) and their implications for the educational process in schools. Other topics include learning and the brain, the nature of expertise, the design of learning environments, and approaches to instruction that promote meaningful learning. Practicum of 20 hours required. Units: 6.

Also listed as Education Studies 180

PSYC 260: *Developmental Psychology*
A study of the development of behavior and mental processes from conception through middle childhood. Topics include prenatal development, attachment, children's language skills, social and cognitive development. A variety of theoretical perspectives are covered. Units: 6.

Prerequisite: PSYC 100 or sophomore standing

PSYC 265: *Developmental Psychology* (with laboratory)
Identical in content to Psychology 260, but requiring a weekly three-hour laboratory that involves systematic work with infants and children to learn assessment techniques and experimental methodologies for the study of development. Units: 6.

Prerequisite: PSYC 100 or sophomore standing

PSYC 340: *Cognitive Psychology*
An investigation of the mental processes involved in the acquisition, organization, and use of knowledge. Information-processing and other approaches are used to study pattern recognition, attention, memory, imagery, problem-solving, and related topics. One laboratory per week involving class demonstrations and experiments. Units: 6.

Prerequisite: PSYC 100 or sophomore standing

PSYC 350: *Psychopharmacology and Behavior*
An interdisciplinary examination of the ways in which behaviorally active drugs exert their effects, drawing on research in pharmacology, psychology, biochemistry, anatomy, and neurophysiology. Provides an understanding and appreciation of the role of behaviorally active drugs in people's lives, today and in the past. Units: 6.

Prerequisite: Sophomore standing; at least one prior biology course recommended

PSYC 360: *Brain and Behavior I*
An introduction to the structure and function of the nervous system and its relationship to behavior. Topics include cellular physiology, neuroanatomy, sensory processes, motor control, and neuropharmacology. No laboratory. Units: 6.

Prerequisite: Sophomore standing; at least one biology course recommended

PSYC 370: *Perception*
An introduction to the physiological and psychological processes by which we receive, transform, and use the information from the world acquired through our senses. Special emphasis on visual and auditory perception to allow a more in-depth study of two perceptual systems and to provide information useful to those interested in the visual arts and music. Units: 6.

Prerequisite: PSYC 100 or sophomore standing

PSYC 375: *Introduction to Phonetics*
An introduction to the science of speech sounds, focusing on descriptive and experimental studies of articulation and speech acoustics. Laboratory demonstrations of speech production, acoustical analysis, and speech synthesis are combined with lecture/demonstrations to relate phonetics research to theories of phonology and language acquisition. Units: 6.

Also listed as Linguistics 370

Prerequisite: LING 150, PSYC 340, or consent of instructor

PSYC 420: *Clinical and Affective Neuroscience*
This course focuses on advanced topics in neuroscience involving emotion. We will explore emerging knowledge of the brain's involvement in emotional behaviors, including physiological and psychological states. Course topics include: neural plasticity, human neuroscience methods, emotions, and pathophysiology of affective disorders. Units: 6.

Prerequisite: PSYC 350 or PSYC 360

PSYC 525: *Brain and Behavior II (no lab)*
This course is identical in content to PSYC 530, but it has no laboratory. An examination of the interrelationships between the brain and behavior. Topics include sleep, language, motivation, emotions, learning, and mental disorders. Units: 6.

Prerequisite: PSYC 360

PSYC 540: *Topics in the Psychology of Language*
An examination of the nature and structure of language, integrating knowledge from linguistics, psychology, neurophysiology, and sociology. Focus on the psychological theories and experimental evidence about language production and perception. Units: 6.

Also listed as Linguistics 450

Prerequisite: PSYC 340, LING 150, or consent of instructor

PSYC 545: *Gesture Studies*
Gesture studies is an interdisciplinary field that examines the use of the hands and other parts of the body in communication and cognition. In this seminar we discuss studies of gesture types, universals, and variations; gesture development; gesture production and perception; relations of gesture to thought and language (spoken and signed); and functions of gesture in human interaction, problem-solving, and learning. Units: 6.

Also listed as Education Studies 545, Linguistics 545

Prerequisite: One course in linguistics or psychology, or consent of the instructor

PSYC 580: *Topics in Neuroscience*
A study of the nervous system from the perspectives of psychology and biology. Topics vary year to year and may include glial cells, neural development, and the evolution of nervous systems and neurotransmitter systems. Lecture only. May be repeated when topic is different.

Topic for Spring 2017: The Mindful Brain

Mindfulness meditation involves paying attention, on purpose and without judgment. With roots in Eastern philosophy, it has been applied to the treatment of various physical and mental conditions in contemporary Western medicine and psychotherapy. This course will explore research on how mindfulness meditation changes the brain.

Units: 6.

Also listed as Biology 340

Prerequisite: CHEM 116, BIOL 150 and one course in psychology; or PSYC 360 and one course in biology; or consent of instructor

Associate professors: Gregg*, Krebsbach

Assistant professor: Loy

*On leave Term III

Introduction

The mathematics department, with other members of the faculty, coordinates computer science. The interdisciplinary mathematics-computer science major offers students an opportunity to combine these two disciplines, enriching both.

Computer science combines an empirical aspect—which involves implementing specific algorithms—with a theoretical aspect—which involves analysis of abstract processes using methods of applied mathematics. Both aspects of the discipline contribute to understanding what problems are amenable to computer solution and what methods are optimal.

Today, computing importantly serves academic research no less than commercial enterprise. Moreover, a disciplined exposure to computer science within the context of studies in liberal arts and sciences fosters in the student the development of clarity and precision in analysis, logic, and expression.

Computing facilities on campus are abundant, offering students the opportunity to work with all major operating systems and programming languages.

Required for the interdisciplinary mathematics-computer science major

1. The core sequence: MATH 140, 150, 160 and CMSC 150, 250, 270
2. MATH 220 and 300
3. CMSC 460, 510, 515
4. 6 additional units in mathematics courses selected from:
    - MATH 310
    - MATH 420
    - MATH 525
    - MATH 540
5. 6 additional units in a computer science course numbered 400 or above
6. 6 additional units in a computer science course numbered 400 or above or selected from among MATH 310, 420, 525, and 540
7. Completion of an independent study project prior to the Spring Term of the senior year
8. CMSC 600 in the senior year

Required for the computer science minor

1. MATH 140, 150, and 160
2. MATH 210 or 220
3. CMSC 150 and 270
4. 18 additional units in computer science courses numbered 250 or above, one of which must be numbered 400 or above
5. C average in the minor

Tutorials

No tutorials are given for courses routinely offered, and the department does not normally permit a tutorial to satisfy a major or minor requirement for graduation

Placement

Advanced placement and six units of Lawrence credit (for CMSC 150) may be obtained by scoring 4 or 5 on the A or AB computer science exam administered by the College Board. Consult the department for details and proper placement.

Senior Experience in mathematics-computer science

Interdisciplinary mathematics-computer science majors must complete their independent study project in two parts: an independent study in the Fall or Winter Term of the senior year (usually 3 units), followed by a presentation of their results in the *Computer Science Senior Seminar* (3 units) during Winter Term.

The project must be approved and supervised by a faculty member in the mathematics department. Students should consult with departmental members in the spring before their senior year, in order to plan appropriately for their *Senior Experience*.

COURSES

CMSC 100: *Exploring Computer Science*
An introduction to the ideas, problems, methods, and solutions of computer science. We will emphasize algorithmic thinking and treat computer science *as a science*—investigating issues, at a beginning level, of interest to actual computer scientists. Not intended as preparation for CMSC 250 or 270. Units: 6.

CMSC 105: *WWII Codebreaking*
An introduction to general principles of computer science alongside specific encryption algorithms developed throughout history, culminating in a fascinating analysis of the remarkable accomplishments of Alan Turing and the Allied codebreakers of World War II. Students will break classical ciphers and will also experiment with modern techniques that facilitate secure internet transactions. Units: 6.

CMSC 106: *Web Client Programming*
An introduction to some of the technologies underlying the world wide web, with emphasis on client-side programming. Topics covered include introductions to HTML, CSS, and JavaScript. This course is suitable for students with no prior experience in programming. Units: 6.

CMSC 150: *Introduction to Computer Science*
An introduction to computer programming for potential mathematics/computer science majors and other students with a strong interest in computing. Topics include elementary programming constructs, design and implementation of algorithms, and object-oriented programming. Introductory instruction in the Java language. Units: 6.

CMSC 191: *Directed Study in Computer Science*
Directed study follows a syllabus set primarily by the instructor to meet the needs or interests of an individual student or small group of students. The main goal of directed study is knowledge or skill acquisition, not research or creative work. Units: Variable.

Prerequisite: Counter Registration Required.

CMSC 195
The academic component of the internship includes readings related to the substance of the internship, discussions with the faculty supervisor, and a written report appropriate to the discipline. Course grades are based on this academic work. Units: Variable.

Prerequisite: Counter Registration Required

CMSC 205: ***Data-Scientific Programming***
An introduction to programming with emphasis on learning from data in order to gain useful insights. Topics focus on elementary programming concepts in the R language and the necessary tools to handle, analyze and interpret data. This course will be taught in a workshop format, and students will complete regular assignments and a final project that provide hands-on programming/analysis experiences. Units: 6.

Prerequisite: One course in mathematics or computer science, or consent of instructor

CMSC 210: ***Introduction to Scientific Programming***
An introduction to computer programming with an emphasis on numerical applications in mathematics and the sciences. Topics include elementary programming concepts in the C language, design and implementation of numerical algorithms, and an introduction to symbolic computation. Units: 6.

Prerequisite: One term of calculus (either MATH 140 or MATH 120), or consent of instructor

CMSC 250: ***Intermediate Programming Concepts***
A study of more advanced programming techniques in the Java language. Topics include graphical user interfaces, exception-handling, multithreading, networking, databases, and web applications. Units: 6.

Prerequisite: CMSC 150

CMSC 270: ***Introduction to Data Structures***
A study of advanced programming and an introduction to data structures. Topics focus on programming skills needed for the design and implementation of standard data structures such as lists, trees, and graphs and their associated algorithms. Additional topics include recursion, analysis of algorithms, and advanced aspects of object-oriented programming in the C++ language. Units: 6.

Prerequisite: CMSC 150

CMSC 390: ***Tutorial Studies in Computer Science***
Units: Variable.

Prerequisite: Counter Registration Required.

CMSC 391: ***Directed Study in Computer Science***
Directed study follows a syllabus set primarily by the instructor to meet the needs or interests of an individual student or small group of students. The main goal of directed study is knowledge or skill acquisition, not research or creative work. Units: Variable.

Prerequisite: Counter Registration Required.

CMSC 395
The academic component of the internship includes readings related to the substance of the internship, discussions with the faculty supervisor, and a written report appropriate to the discipline. Course grades are based on this academic work. Units: Variable.

Prerequisite: Counter Registration Required

CMSC 399: *Independent Study in Computer Science*
Units: Variable.

Prerequisite: Counter Registration Required.

CMSC 410: *Systems Analysis and Design*
An introduction to techniques for analyzing and modeling systems for implementation as computer programs. Topics include a survey of modeling methodologies for structured and object-oriented systems and case studies of system development. Also, applications of analysis and design methods to database design and design of distributed systems. Units: 6.

Prerequisite: CMSC 250

CMSC 420: *Computer Graphics*
The fundamentals of computer graphics and their applications in visualizing a variety of scientific phenomena. Topics include graphics primitives, two- and three-dimensional transformations, three-dimensional viewing techniques, spline curves, surface patches, hidden line algorithms, ray tracing, radiosity, texture-mapping, and fractals. Units: 6.

Prerequisite: MATH 140 and CMSC 270

CMSC 435: *Computer Organization & Architecture*
The structure and function of computers as viewed from the hardware/software interface. Hardware topics include elementary digital logic, data storage devices, dataflow pathways, and central processor organization with special emphasis on parallelism. Corresponding software topics include data representation and manipulation, instruction sets, addressing techniques, and program control mechanisms. Units: 6.

Prerequisite: CMSC 270 or consent of instructor

CMSC 460: *Programming Languages*
An examination of issues in the design and implementation of programming languages. Students will first gain proficiency in the functional programming paradigm (using Scheme), and will then design and implement, in Scheme, an interpreter for a brand-new programming language. Units: 6.

Prerequisite: CMSC 270

CMSC 470: *Artificial Intelligence*
A detailed investigation into foundational concepts of artificial intelligence: search, knowledge representation, and automated planning. Specific topics include uninformed and heuristic search techniques, logic-based knowledge representations, automated theorem-proving, logic programming (Prolog), action representations, means-ends analysis, regression and partial-order planning, and reachability analysis using graphs. Units: 6.

Prerequisite: CMSC 270

CMSC 480: *Systems Programming*
A survey of some fundamental aspects of computer operating systems and their impact on the performance of software. Topics include process and memory management, system level input/output, concurrency, and parallel programming. Units: 6.

Prerequisite: CMSC 270

CMSC 510: *Data Structures and Algorithm Analysis*
Advanced data structures and the time and space efficiency of the algorithms that manipulate such structures. Topics include proof of correctness for algorithms, recursion, dynamic programming, optimized tree structures, union-find problems, graphs, path-finding algorithms, and string search algorithms. Units: 6.

Prerequisite: CMSC 270 and MATH 220

CMSC 515: *Theory of Computation*
A study of programming in the abstract, leading to an understanding of the precise nature and limitations of computing machines. Topics include universal computing machines such as Turing machines, decidable and undecidable predicates, regular and pushdown automata, and regular and context-free grammars. Units: 6.

Prerequisite: MATH 300 and CMSC 150

CMSC 590: *Tutorial Studies in Computer Science*
Units: Variable.

Prerequisite: Counter Registration Required.

CMSC 591: *Directed Study in Computer Science*
Directed study follows a syllabus set primarily by the instructor to meet the needs or interests of an individual student or small group of students. The main goal of directed study is knowledge or skill acquisition, not research or creative work. Units: Variable.

Prerequisite: Counter Registration Required.

CMSC 595
The academic component of the internship includes readings related to the substance of the internship, discussions with the faculty supervisor, and a written report appropriate to the discipline. Course grades are based on this academic work. Units: Variable.

Prerequisite: Counter Registration Required

CMSC 599: *Independent Study in Computer Science*
Units: Variable.

Prerequisite: Counter Registration Required.

CMSC 600: *Computer Science Senior Seminar*
Intended as a capstone experience for math-computer science majors, this course provides a forum for seniors to formally present the results of their required independent study projects. CMSC minors and other students doing senior projects involving computing are also invited to present their work in this seminar. Units: 3.

CMSC 690: *Tutorial Studies in Computer Science*
Units: Variable.

Prerequisite: Counter Registration Required.

CMSC 691: *Directed Study in Computer Science*
Directed study follows a syllabus set primarily by the instructor to meet the needs or interests of an individual student or small group of students. The main goal of directed study is knowledge or skill acquisition, not research or creative work. Units: Variable.

Prerequisite: Counter Registration Required.

CMSC 695
The academic component of the internship includes readings related to the substance of the internship, discussions with the faculty supervisor, and a written report appropriate to the discipline. Course grades are based on this academic work. Units: Variable.

Prerequisite: Counter Registration Required

CMSC 699: *Independent Study in Computer Science*
Units: Variable.

Prerequisite: Counter Registration Required.

Associate professors: Balsekar (Government), Jenike (Anthropology), Sung (Chinese and Japanese, chair), Vorenkamp (Religious Studies)

Assistant professors: Lin (Art and Art History), Vance (History)

Instructor: Wegehaupt (Dean of Faculty Office)

Introduction

The program in East Asian studies is dedicated to the study of the civilizations, cultures, and contemporary importance of East Asia. The rich cultural heritages and the political and economic significance of the region are covered by courses in anthropology, art history, history, government, literature, and religious studies. To achieve in-depth and critical understanding of East Asia, the East Asian studies major combines the study of Chinese or Japanese language to the advanced intermediate level with breadth of coursework on East Asia taught in English. Majors typically further strengthen their Chinese or Japanese language skills by studying in China or Japan through an off-campus program. In addition to improving language skills and filling out the student's program in regionally specific courses, studying abroad in China or Japan enhances the students' academic program through firsthand cultural experience in East Asia.

Beginning with foundational coursework in traditional and modern East Asian history, students gain an understanding of the basic historical development of East Asian political and cultural traditions. Students then draw from this historical knowledge in their subsequent seminars to analyze in depth how these traditions have evolved with modernization, and to examine contemporary areas of social change. Through a disciplinary focus as well as coursework that situates East Asia in a global context, majors also learn how to relate the relevance of the study of China, Japan, or South Korea to a broader international or academic context.

The major in East Asian studies thus seeks to prepare students intellectually, linguistically, and personally for further graduate work or professional careers as East Asian specialists.

Required for the major in East Asian studies

1. At least one language course CHJA 301/311 or higher
2. EAST 140: *Traditional East Asian Civilization*
3. EAST 150: *Modern East Asian Civilization*
4. Three 6-unit elective courses in EAST, one of which must be a mid-level seminar or higher (300-level or higher). One elective course taken on an off-campus program may, upon approval of an EAST faculty advisor, count for one of these three courses.
5. One course that situates East Asian culture in a broader academic or international context, such as:
    - GOVT 245: *Comparative Politics of Less-Developed Countries*
    - GOVT 340: *International Politics*
    - GOVT 480: *International Organizations*
    - HIST 295: *Nationalism in the Modern World*

Students should consult with the EAST chair to select a course appropriate to their interests.

6. EAST 620: *Senior Seminar in East Asian Studies* or, if EAST 620 is not offered, EAST 699: *Independent Study in East Asian Studies* (6 units), resulting in the completion of a substantial research paper or project.
7. At least nine 6-unit courses should be taken at the Lawrence, Appleton campus.

In addition to the requirements listed above, majors are strongly advised to have a disciplinary focus to frame their *Senior Experience*. EAST coursework in a discipline of interest such as anthropology, art history, history, religious studies, government, linguistics, economics, or literature, as well as additional coursework in methods and theory in that same discipline should be completed *prior* to EAST 620.

Majors are also encouraged to further strengthen their Chinese or Japanese language skills by studying in China or Japan (see “Off-campus programs”) and/or in one of several intensive summer language programs offered in the U.S.

Required for the minor in East Asian studies

1. Five courses, as follows:
    a. EAST 140: *Traditional East Asian Civilization*
    b. EAST 150: *Modern East Asian Civilization*
    c. Three 6-unit elective courses in EAST
2. One additional advanced course on East Asia that builds on coursework already taken
3. An independent study in an area of interest
4. C average in the minor

Senior Experience in East Asian studies

EAST 620: *Senior Seminar in East Asian Studies* A senior level workshop culminating in the completion of a substantial paper or project derived from previous coursework in the discipline or related fields or field experience in consultation with department faculty.

Students with sufficiently advanced Chinese or Japanese language skills are encouraged to use some target language sources in carrying out their research. Students must share the results of their work in a public forum prior to graduation.

COURSES

EAST 105: *Cross-Cultural Interactions Along the Silk Road, 200 BCE–1400 CE*
The so-called "Silk Road" was the world's first superhighway, linking East Asia to the Mediterranean. The peoples along the way not only traded luxury goods, but also ideas, technology, and more. This course offers a thematic examination of the dynamic, cross-cultural interactions along the ancient and medieval Silk Road. Units: 6.

Also listed as History 105

EAST 140: *Traditional East Asian Civilization*
An introductory survey of East Asia from the dawn of indigenous civilization to the 16th century. Focus on the growth of a Sinitic center and its interaction with the sedentary and nomadic peoples on its Inner Asian and Pacific rims. Emphasis on the diverse peoples and societies of the area and the historical processes that bound them together through a common tradition. Units: 6.

Also listed as History 160, Ethnic Studies 121

EAST 150: *Modern East Asian Civilization*
An introductory survey of the modern history of East Asia, examining the efforts of traditional states, particularly China and Japan, to respond to Western intrusion into the region after 1600. Focus on social and cultural problems created by attempts to modernize yet defend tradition and on the differing results of Chinese and Japanese approaches. Units: 6.

Also listed as History 165

EAST 191: *Directed Study in East Asian Studies*
Directed study follows a syllabus set primarily by the instructor to meet the needs or interests of an individual student or small group of students. The main goal of directed study is knowledge or skill acquisition, not research or creative work. Units: Variable.

Prerequisite: Counter Registration Required.

EAST 265: *Introduction to Japanese Language and Culture*
A survey introducing major characteristics of Japanese language with reference to the structure of Japanese society. Topics include honorifics, use of pronouns, loan words, age and gender differences in the language. The course will also familiarize students with various aspects of traditional and contemporary Japanese culture. Units: 6.

Also listed as Chinese and Japanese 265, Linguistics 265

Prerequisite: Sophomore standing; CHJA 112 recommended

EAST 284: ***The Spectacle of Edo Japan***
This lecture-discussion course will focus on the diverse artistic production and consumption within Edo-period Japan (1603-1868). Topics include the revival of classical imagery, the rise of an urban bourgeois culture, the prints and paintings depicting theater and the pleasure quarters, the reification of the tea ceremony and encounters with the West through trade. Coursework will include exams and written work, including a mock exhibition proposal. Units: 6.

Also listed as Art History 284

EAST 285: ***The Transformation of the East Asian Metropole: Tokyo, Seoul and Shanghai (1860–1945)***
This lecture-discussion course explores the transformation of the cityscape in Tokyo, Seoul and Shanghai. Topics include the emergence of the modern artist, the search for an “avant-garde” of the East, the modernization of public and private spaces, the introduction of film and photography and the rise of the “modern girl.” Coursework will include exams, an annotated bibliography and a paper. Units: 6.

Also listed as Art History 285

Prerequisite: Sophomore standing or consent of instructor

EAST 308: ***Half the Sky: Chinese Women's History***
This course examines important questions about the lives of women in the last thousand years of Chinese history. Through an exploration of primary sources in translation, classic works of fiction, film, memoirs, and oral histories, we will address theoretical questions fundamental to both women’s studies and Chinese history. Units: 6.

Also listed as History 308

Prerequisite: Sophomore standing or consent of instructor

EAST 310: ***Introduction to East Asian Linguistics***
Survey of genetic, regional, and typological classification of East Asian languages; writing systems for Chinese, Japanese, Korean, and Tibetan languages; descriptive and comparative analyses of phonological, morphological, and syntactic structures of East Asian languages. More than one language may be investigated in detail. Units: 6.

Also listed as Chinese and Japanese 310, Linguistics 310

Prerequisite: LING 150 and sophomore standing

EAST 330: ***Survey of Premodern Japanese Literature and Culture (in English)***
This course introduces students to seminal works of Japanese culture before 1868, and modern representations of premodern culture. Although the course will primarily focus on literature in translation, it will also look at works of art, film, and material culture. Taught in English. Units: 6.

Also listed as Chinese and Japanese 330

EAST 332: ***Survey of Modern Japanese Literature and Film (in English)***
This course introduces students to seminal works of Japanese literature and film from 1868 to the present, as a way to think about the transformation of Japan from a traditional society to a modern nation state. Units: 6.

Also listed as Chinese and Japanese 332

EAST 345: ***Theorizing the Female Body in East Asian Art***
This discussion-based course will examine how tomb murals, paintings, prints, photography, and film have addressed the female body throughout East Asian history. We will explore how social and political issues were defined and negotiated through the gendered images of bodies in Japan, Korea and China in the context of national identity formation, historical reconstruction, subjectivity and sexuality. Coursework will include exams and a research paper. Units: 6.

Also listed as Gender Studies 345, Art History 345

Prerequisite: Sophomore standing

EAST 350: ***Modern Chinese Literature and Cinema in Translation***
A survey of 20th-century Chinese fiction and cinema. Iconoclastic works of modern Chinese vernacular fiction from 1919 through the post-Cultural Revolution (1966-1976) will be juxtaposed alongside films dealing with the same period, such as *Red Sorghum* (1987) and *Farewell, My Concubine* (1992) made by the so-called Fifth Generation of film directors (born after 1949, when the People's Republic was founded). Class conducted in English. No knowledge of Chinese required. Units: 6.

Also listed as Chinese and Japanese 350, Film Studies 350

Prerequisite: Sophomore standing; EAST 150 recommended

EAST 360: ***Chinese Contemporary Film in English***
Using feature films and documentaries from the so-called Fifth [1982-] and Sixth Generations [beginning in the 1990s] of film directors in China, this course provides a visual record of the immense political, economic, and social changes in China since the Reform and Opening up period at the end of the Cultural Revolution. Taught in English. Units: 6.

Also listed as Chinese and Japanese 360, Film Studies 360

Prerequisite: Sophomore standing; EAST 150 or EAST 420 recommended

EAST 361: *Western Encounters with China: Perceptions and Misperceptions*
This course examines Western encounters with China since the thirteenth century, from Marco Polo to contemporary journalists, such as Peter Hessler. Students will analyze and assess Western perceptions and misperceptions of China through a variety of primary sources in translation and relevant secondary studies. Units: 6.

Also listed as History 361

Prerequisite: Sophomore standing

EAST 364: *Ethnography of East Asia*
A critical and comparative examination of key areas of sociocultural change in present-day East Asia. Focusing on China, we address new areas of research in East Asian anthropology such as demographic change, modernization, urbanization and stratification, gender and the body politic, sexuality, pop culture, consumption, ethnic minorities and national cultural identities. Units: 6.

Also listed as Anthropology 364

Prerequisite: ANTH 110 or sophomore standing

EAST 366: *Ethnography of Japan*
Critical examination of social and cultural (re)presentations of Japan from the postwar to the postmodern. Exploration of diversities of lived reality and social change in contemporary Japan. Topics include: nationalism and historical consciousness, family and gender ideologies, invisible and visible others, sexuality, pop culture, and the Heisei recession. Units: 6.

Also listed as Anthropology 366

Prerequisite: ANTH 110 or sophomore standing

EAST 378: *East Asian Environmental History*
This course will explore traditional East Asian ideas about the relationship between humans and their natural environments, as well the premodern and modern history of that interaction. We will also consider the relationship between these philosophies and practice, both for the societies we study and for our own. Units: 6.

Also listed as Environmental Studies 378

Prerequisite: Some background in East Asian Studies or Environmental Studies is recommended.

EAST 380: ***Asian Women and Feminism***
This course will focus on the history of women and feminism in Asia, with an emphasis on Indian and East Asian women's histories. Past and present religious, political, economic, and artistic thought and practices of women will be examined to analyse how they have responded to and resisted patriarchal cultures. This course can be counted as the equivalent of GEST 280. Units: 6.

Prerequisite: GEST 100 or consent of instructor

EAST 388: ***Early Modern Japan***
This discussion course offers an overview of the early modern history of Japan. Through an analysis of literature, woodblock prints, documents, and secondary historical studies we will explore selected issues in the social and cultural history of the Tokugawa and Meiji periods. Units: 6.

Also listed as History 388

Prerequisite: Sophomore standing or consent of instructor

EAST 390: ***Tutorial Studies in East Asian Studies***
Individualized advanced study under regular staff direction on topics not covered in lower-level courses. Units: Variable.

Prerequisite: Counter Registration Required.

EAST 391: ***Directed Study in East Asian Studies***
Directed study follows a syllabus set primarily by the instructor to meet the needs or interests of an individual student or small group of students. The main goal of directed study is knowledge or skill acquisition, not research or creative work. Units: Variable.

Prerequisite: Counter Registration Required

EAST 399: ***Independent Study in East Asian Studies***
Individualized advanced research under staff guidance to prepare a substantial paper. Units: Variable.

Prerequisite: Counter Registration Required.

EAST 418: ***Korean Modern History through Literature and Film***
Using fiction, feature films, and historical texts, this course provides an in-depth introduction to modern Korean history, from the end of the Chŏsun dynasty in 1910 to contemporary North and South Korea. Students will gain an understanding of Korea's colonial experience, civil war, dictatorships, development, democratization, and gender politics. Units: 6.

Also listed as Film Studies 419

Prerequisite: EAST 150 or consent of instructor

EAST 420: ***Contemporary China***
A discussion course on selected issues in the social and cultural history of modern China. Literature, films, documents, and historical studies are examined to explore the intimate side of personal, family, and social life and the nature and impact of social and cultural changes in 20th-century China. Units: 6.

Also listed as History 360

Prerequisite: Sophomore standing or consent of instructor; HIST 165 recommended

EAST 430: ***Topics in Asian Art***
An examination of a particular topic in the history of art in Asia. Students are expected to carry out an independent research project that will serve as preparation for ARHI 680. Course may be repeated when topic is different. Units: 6.

Prerequisite: One course in art history numbered 200-399, or consent of instructor

EAST 491: ***Borderlands in Modern East and Inner Asia: History, Culture, and Identity***
Seminar on Euro-Asian borderlands, with a focus on East Asia during the Modern Period. Adopting a transnational approach, the course examines the fluidity of the concept of the "frontier," along with various understandings of what borderlands are, from the perspective of both indigenous peoples and those from afar. Units: 6.

Also listed as History 491

Prerequisite: Junior standing or consent of instructor

EAST 492: ***The Art of Healing: A History of Chinese Medicine***
This course offers an interdisciplinary exploration of the history of Chinese medicine. Students will study the canonical literature of the discipline, and analyze the ways in which those texts and ideas have been reshaped in modern and contemporary practice. Topics include: forensic medicine, gender, religion, and public health. Units: 6.

Also listed as History 492

Prerequisite: Junior standing

EAST 510: *Seminar on Zen Buddhism*
Zen Buddhism is perhaps the most widely known form of Buddhism in the West and also the most widely misunderstood. This course provides a detailed look at the history and doctrines of Zen Buddhism in China and Japan. Combining the use of original source materials (in translation) with an emphasis on intellectual history, the course covers specific doctrines that have differentiated the major schools of Zen. Units: 6.

Also listed as Religious Studies 510

Prerequisite: RLST 220 or RLST 216

EAST 515: *Sacred Mountains of Asia*
This course explores Asian sacred mountains from a religious and cultural perspective, focusing on the connections between traditions, following these traditions from their earliest sources to the modern period where they begin to interact with nationalism and modern recreation. This course is designed for upper-level East Asian Studies majors, Environmental Studies majors, and Religious Studies majors who are interested in the intersection between geography, religion, culture, and conservation. Units: 6.

Also listed as Religious Studies 515

Prerequisite: Sophomore standing; EAST 140, EAST 150, or RLST 216, or consent of instructor

EAST 520: *Seminar in Chinese Literature*
An introduction to some of China's greatest literary texts of a single genre, period, author, or theme. Issues addressed include gender relations, responses to traditional roles, and the development of fiction in China. Knowledge of Chinese not required. Advanced students of Chinese language may take concurrently CHJA 391 or CHJA 591, for three units, and work with the instructor to read excerpts in the original Chinese.

Topic for Fall 2011: Dream of the Red Chamber

Units: 6.

Also listed as Chinese and Japanese 520

Prerequisite: Sophomore standing; EAST 140 recommended

EAST 590: *Tutorial Studies in East Asian Studies*
Individualized advanced study under regular staff direction on topics not covered in lower-level courses. Units: Variable.

Prerequisite: Counter Registration Required.

EAST 591: ***Directed Study in East Asian Studies***
Directed study follows a syllabus set primarily by the instructor to meet the needs or interests of an individual student or small group of students. The main goal of directed study is knowledge or skill acquisition, not research or creative work. Units: Variable.

Prerequisite: Counter Registration Required.

EAST 599: ***Independent Study in East Asian Studies***
Individualized advanced research under staff guidance to prepare a substantial paper. Units: Variable.

Prerequisite: Counter Registration Required.

EAST 620: ***Senior Seminar in East Asian Studies***
A senior level workshop culminating in the completion of a substantial paper or project derived from previous coursework in the discipline or related fields or field experience in consultation with department faculty. Students with sufficiently advanced Chinese or Japanese language skills are encouraged to use some target language sources in carrying out their research. Students must share the results of their work in a public forum prior to graduation. Units: 6.

Prerequisite: Senior majors with advanced intermediate Chinese or Japanese language or the equivalent.

EAST 690: ***Tutorial Studies in East Asian Studies***
Individualized advanced study under regular staff direction on topics not covered in lower-level courses. Units: Variable.

Prerequisite: Counter Registration Required.

EAST 691: ***Directed Study in East Asian Studies***
Directed study follows a syllabus set primarily by the instructor to meet the needs or interests of an individual student or small group of students. The main goal of directed study is knowledge or skill acquisition, not research or creative work. Units: Variable.

Prerequisite: Counter Registration Required.

EAST 699: ***Independent Study in East Asian Studies***
Individualized senior-level advanced research under staff guidance to prepare a substantial paper for the senior experience, or for submission for honors. Units: Variable.

Prerequisite: Counter Registration Required.

Professor: Finkler (The John R. Kimberly Distinguished Professorship in the American Economic System)

Associate professors: Galambos (Dwight and Marjorie Peterson Professor of Innovation, chair Term I), Gerard* (chair Terms II and III)

Assistant professors: Caruthers, Lhost

Instructor: Vaughan

*On leave Term I

Introduction

The Lawrence economics department emphasizes abstract modeling and quantitative reasoning skills. Students first acquire a basic knowledge of economic theories, principles, and techniques of analysis. They then apply them to a wide range of problems, from poverty and discrimination to macroeconomic stabilization policy and environmental degradation.

Students learn early on that modern economics is an application of mathematical modeling to the study of human behavior. The interdisciplinary mathematics-economics major provides a strong foundation for graduate work in economics, where mathematical aptitude is at a premium. This route also provides outstanding preparation for technical business careers, such as investment banking, management consulting, and finance.

Required for the economics major

1. ECON 100
2. MATH 140 or both MATH 120 and 130; MATH 107 (or equivalent)
3. Intermediate Theory
    a. ECON 300
    b. ECON 320
    c. ECON 380

(Majors must take all three courses prior to completion of the junior year. The economics department must approve any exception.)

4. Two additional six-unit courses numbered 200 or higher,
5. (Six units of tutorial or independent study credit may count as one of these two courses) and three additional six-unit courses numbered 400 or higher. The *Senior Experience* requirement does not count toward these five courses.
6. Complete the *Senior Experience* in economics requirement by taking ECON 601 or ECON 602 as described below.
7. The grade-point average for the major will be computed from economics courses and from required mathematics courses. A C average is required.

Required for the interdisciplinary mathematics-economics major

1. The mathematics component of the major is:
    a) MATH 140, 150, 160, 240, 300, 310
    b) Either MATH 435 or 445
    c) 6 additional units in a mathematics course numbered 400 or above, with 435, 440, 445, or 560 recommended
2. The economics component of the major is:
    a) ECON 100
    b) ECON 300, 320, and 380 (majors must take all three courses prior to completion of the junior year. The Economics department must approve any exception.)
    c) Any three six-unit courses numbered between 400 and 580
3. The interdisciplinary component of the major is:
    a) Completion of an independent study project that has been approved by both departments.
    b) A major must have an advisor in each department.

Required for the economics minor

1. ECON 100 or ECON 300
2. Six additional six-unit courses, at least five of which must be economics courses numbered 200 or above and one that could be a mathematics course.
3. (Only six units of tutorial or independent study credit may count as one of these six courses.)
4. C average in the minor

Recommendations

ECON 100 and ECON 225 are excellent either as stand-alone courses or as gateways into the discipline.

For the economics or mathematics-economics major:

- Speak to a professor in the department about the selection of a coherent set of electives.
- Take MATH 140 or 120 and 130 as soon as possible. MATH 150 and MATH 210 are also recommended.
- Take ECON 100, a 200-level economics course, and then ECON 300.
- If you do not meet pre-requisites for any course, talk with the instructor and explicitly obtain consent.
- Students preparing for graduate work in economics, public policy, or business or those preparing for an M.B.A. in a quantitative field should plan to take a number of mathematics courses and should consult the economics faculty for advice. The mathematics-economics major is particularly well-suited for these students. Furthermore, students should take ECON 500 and ECON 520 as part of their preparation.
- Students preparing for a career in secondary-school teaching should check state certification requirements.

Course structure and numbering

ECON 100 is a survey course and is an excellent introduction to the discipline, even for those with high school courses.

The 200-level courses apply basic theory to particular fields of inquiry and should be accessible to students with a sound introductory course.

The 300-level courses are intermediate theory courses geared toward economics majors, while the 400-level courses are advanced applications classes. The 500-level courses are graduate-school preparatory courses.

Senior Experience in economics

The economics curriculum culminates with a one-term three-unit *Senior Experience* course required for all majors. Each year, two sections of the course will be offered. In one section (ECON 601), in which the students read a monograph by a formidable economist or a piece of central interest to economists and engage in active discussion, each student produces a term paper in reaction to the reading. In the paper, each student must relate the reading to theories and applications he or she studied in economics courses. The monograph will be selected by the faculty member teaching the course. This *Senior Experience* option is designed to mirror the *Freshman Studies* experience at the end of the student's career at Lawrence.

In the other section (ECON 602), each student is expected to produce a well-researched paper that stands up to the standards of the profession. To register for this section, students must already have a paper prepared in a 400-level course. Students must submit to the instructor a one-page proposal on how the previous paper will be improved, refined and polished in content and in form so that it stands up to the standards of the profession. The instructor's approval of this proposal is a prerequisite for registration.

Interdisciplinary mathematics-economics (economics-mathematics) majors may choose to meet their *Senior Experience* requirement by taking one of the above workshop senior experience courses or by satisfying the requirement of the Department of Mathematics for interdisciplinary mathematics-economics majors' requirement. In either case, they will need to demonstrate the ability to combine topics in both disciplines—bringing appropriate techniques of mathematics or statistics to bear on the study of economics, or learning mathematics or statistics suggested by models in economics. Students who plan to complete this interdisciplinary major must have their *Senior Experience* proposal approved by one advisor in the Department of Mathematics and one in the Department of Economics prior to the term in which they plan to complete the experience.

COURSES

ECON 100: ***Introductory Microeconomics***
A first course in economics focusing on the basic analytical framework used by contemporary economists. The central topics typically include supply and demand, market competition, market power, incomplete markets (e.g., externalities and public goods), trade, and taxation. Classroom experiments are frequently employed to develop economic intuition. Units: 6.

ECON 120: ***Introductory Macroeconomics***
A study of the principles, concepts, and methods of economic analysis, with a theoretical focus on the determination of national income. Special attention given to governmental expenditure and taxation, monetary policy, inflation, and unemployment. Units: 6.

ECON 151: ***Introduction to Environmental Policy***
This course applies principles of economics and political science to environmental issues, including pollution, resource limitation, and environmental degradation. It is designed to foster an understanding of the environmental policy-making and regulatory process in the United States and globally. Units: 6.

Also listed as Environmental Studies 151, Government 151

ECON 170: ***Financial Accounting and Entrepreneurial Ventures***
A study of accounting principles and procedures, leading to a review of financial statements and to an understanding of how accounting data are used to analyze business and economic activities. Units: 6.

Prerequisite: Sophomore standing

ECON 191: ***Directed Study in Economics***
Directed study follows a syllabus set primarily by the instructor to meet the needs or interests of an individual student or small group of students. The main goal of directed study is knowledge or skill acquisition, not research or creative work. Units: Variable.

Prerequisite: Counter Registration Required.

ECON 195: ***Internship in Economics***
Applied work with a private firm or public-sector agency in economics, arranged under the direction of an instructor in the department. In each case, the academic credit is based on related readings, reports, and presentations. Units: Variable.

Prerequisite: ECON 300, 320, or 380; Counter Registration Required

ECON 200: *Economic Development*
This course seeks to provide students with a broad based understanding of economic development and the choices countries face. To obtain such an understanding, students will read the works of contemporary economists who provide a variety of approaches to poverty alleviation and the tradeoffs that must be confronted. Emphasis will be placed on close reading, class discussion, and on writing a number of papers that compare and contrast different views of economic development. Units: 6.

Also listed as Government 276

Prerequisite: ECON 100 or 120

ECON 202: *Global Economic Relations*
This course covers the major concepts utilized in the field of international political economy. Major issues covered include globalization, monetary policy, trade policy, and the role of international institutions such as the WTO. Units: 6.

Also listed as Government 275

Prerequisite: ECON 100 or ECON 120

ECON 205: *Introduction to International Economics*
This course aims to develop an understanding of international economic issues and policies in open economies. The course will provide a general body of knowledge on topics such as gains from trade; patterns of trade; effect of trade on welfare; exchange rate policy regimes; international organizations; financial crises; and the effect of government policies on trade and the exchange rate. You will get exposed to economic modeling and learn analytical tools that can be applied to understand the changing world economy and analyze problems in international economic policy. You are encouraged to explore the potential and limitations of international economics in dealing with real-world problems. This course will assist you in improving your economic writing skills as well as your ability to read critically and understand discussions on international economic issues in the press. Units: 6.

Prerequisite: ECON 100 and ECON 120

ECON 206: ***Field Experience in Development***
Students engaged in this course will have the opportunity to do field research in a developing country. Each student will develop and implement a project that concerns economic, political, and/or environmental issues important in Sierra Leone, Jamaica, or another selected country. Students will also have the opportunity to learn from both national and local leaders in political, economic, environmental, and social development issues. Class members will travel to a developing country during a term break. Students must register for this course in the term prior to the planned travel and in the subsequent term, when they will present their research to the wider Lawrence community.

Location for 2016-17: Students will travel to Sierra Leone during spring break. Admission is by application to Prof. Skran. Students should register for both fall and winter terms.

Units: 3.

Also listed as Environmental Studies 311, Government 401

Prerequisite: Completed or concurrent enrollment in ENST 300, ECON 205, or GOVT 500 (Research Methods in Comparative Politics and International Relations); ECON 170 and ECON 211

ECON 208: ***Sustainable China: Environment and Economy***
This course integrates environmental and economic topics relevant for understanding sustainability in the Chinese context, including economic development, natural resource management, urban growth, and environmental policy. It is a prerequisite for a December study trip to China. Units: 6.

Also listed as Environmental Studies 208, Government 208

Prerequisite: Limited to students selected for the Sustainable China study trip

ECON 211: ***In Pursuit of Innovation***
This course acquaints students with various aspects of innovation and entrepreneurship, broadly understood. Topics cover methodologies, theories, and history of innovation. The course focuses largely on projects pursued by teams which conceive and conduct ventures that illuminate innovation and entrepreneurship. Class activities include lectures, discussions, student presentations. Experienced guest experts will offer advice and guidance to student teams. May not be taken on an S/U basis. Units: 6.

Also listed as Innovation & Entrepreneurship 100

Prerequisite: Sophomore standing

ECON 215: *Comparative Economic Systems*
This course introduces students to the different ways societies have organized economic activity in the past and in the present as well as to how economic and social policy questions are addressed under these different arrangements. Students will study the economies of the Western world, the former Soviet bloc countries, and Asian countries at various stages of economic development. Units: 6.

Prerequisite: ECON 100 or ECON 120

ECON 223: *Quantitative Decision-Making*
The students will learn how to develop formal, quantitative approaches to structuring difficult problems, particularly those problems involving probabilistic factors. We will develop and practice the steps of defining a problem, gathering data, formulating a model, performing numerical calculations, evaluating numerical information, refining the model, analyzing the model's alternatives, and communicating the results. Units: 6.

Also listed as Mathematics 223

Prerequisite: Sophomore standing

ECON 225: *Decision Theory*
This course will present a thorough introduction to decision theory, the study of how people should or do make decisions. Building on that foundation, game theory, the science of strategy, will be introduced, with economic applications. Units: 6.

Prerequisite: ECON 100 or ECON 120

ECON 245: *Law and Economics*
Along with an introduction to legal analysis, a study of the political economy of four core areas of the law: property, contracts, torts, and crime and punishment. Applies rational-choice theories to both economic and political decisions involving the law. Units: 6.

Prerequisite: ECON 100 or ECON 120 or consent of instructor

ECON 250: *Urban Economics*
A study of the development of the urban economy focusing on the interaction among business, household, and governmental decisions that affect the allocation of land. Each offering will apply microeconomic economic analysis to one or more public policy topics, such as urban sprawl, urban economic growth, housing, education, transportation, or crime. Units: 6.

Prerequisite: ECON 100

ECON 251: *The Economics of London*
This course provides a significant variation on the Urban Economics course (ECON 250) that is offered on campus. First, it focuses on one city, London UK, as the context for the analysis. Secondly, it addresses the London economy from both economic history and contemporary economic analysis perspectives. London has remained a vibrant city from the late middle ages to the present through a variety of changes to its character, its economy, and the diversity of its population. Units: 6.

Prerequisite: Only open to students attending the London Centre.

ECON 255: *Start-Up Theatre*
Open to students from theatre, economics, and other students interested in entrepreneurship in the performing arts. Topics change each year. May be repeated when topic is different up to 6 total units. Units: Variable.

Also listed as Theatre Arts 255, Innovation & Entrepreneurship 255

Prerequisite: Sophomore standing

ECON 271: *Public Economics*
Public economics covers a range of topics from taxation to social insurance and redistribution to homeland security. The course develops a template for framing and analyzing public policy issues that provides a basis for understanding the rationale for government intervention, the alternative policy instruments that can be used to affect economic outcomes, and the economic tools used to evaluate the effects of intervention. Units: 6.

Also listed as Government 274

Prerequisite: ECON 100 or ECON 120

ECON 280: *Environmental Economics*
The course shows how economists analyze environmental problems and the types of solutions they propose (if any). Topic coverage includes property rights and externalities, cost-benefit analysis, regulatory policy instruments, the interplay between policy and innovation, and basic models of political economy. Units: 6.

Also listed as Environmental Studies 280

Prerequisite: ECON 100 or ENST 151

ECON 290: ***The Economics of Medical Care***
An analysis of how the economic organization of medical care affects the health and well-being of the population. Topics include who is treated, how much the treatment costs, and who pays the bill. Particular emphasis given to the roles of insurance and various national health policies and reform proposals. Units: 6.

Also listed as Biomedical Ethics 290

Prerequisite: ECON 100 or ECON 120

ECON 291: ***Health Policy: A Comparison of U.S. and U.K. Approaches***
This course compares U.K. and U.S. health systems, markets, and public health policies. In particular, the course will analyze trade-offs made in each country among access to care, the cost of care and the quality of care as well as how resources are generated and allocated for each system. Units: 6.

Also listed as Biomedical Ethics 291

Prerequisite: Only open to students attending the London Centre.

ECON 295: ***Topics in Economics***
Each offering will build on modeling and reasoning techniques developed in the introductory-level courses (ECON 100 or 120). Topics depend on the instructor and will vary year-to-year. Topics include, but are not limited to, economics of the arts, financial economics, economics of sports, and economic history. May be repeated for credit if the topic is different. Units: 6.

Prerequisite: ECON 100 or ECON 120

ECON 300: ***Microeconomic Theory***
A study of the microeconomic foundations of economics. The course focuses on equilibrium models for consumers and firms in competitive markets, as well as deviations from perfect competition. Units: 6.

Prerequisite: Sophomore standing and ECON 100 and MATH 140 or MATH 130

ECON 320: ***Macroeconomic Theory***
An exploration of contemporary theories of employment, income, inflation, and stabilization as regards the United States and other industrialized countries. Emphasis on the application of models to foster understanding of macroeconomic policy. Units: 6.

Prerequisite: ECON 300 and ECON 380

ECON 380: *Econometrics*
Statistical techniques and statistical problems applicable to economics, focusing on ordinary least-squares regression, classical inference, and detections of and adjustments for violations of the Classical Assumptions. Units: 6.

Prerequisite: Sophomore standing and MATH 207, and either ECON 300 or ECON 320

ECON 390: *Tutorial Studies in Economics*
Intermediate readings, discussions, and essays in economic problems of special interest to the student. Units: Variable.

Prerequisite: Counter Registration Required.

ECON 391: *Directed Study in Economics*
Directed study follows a syllabus set primarily by the instructor to meet the needs or interests of an individual student or small group of students. The main goal of directed study is knowledge or skill acquisition, not research or creative work. Units: Variable.

Prerequisite: Counter Registration Required.

ECON 395: *Internship in Economics*
Applied work with a private firm or public-sector agency in economics, arranged under the direction of an instructor in the department. In each case, the academic credit is based on related readings, reports, and presentations. Units: Variable.

Prerequisite: ECON 300, 320, or 380; Counter Registration Required

ECON 399: *Independent Study in Economics*
Intermediate research on a topic of the student's choice, organized in consultation with an instructor. Units: Variable.

Prerequisite: Counter Registration Required.

ECON 400: *Industrial Organization*
Industrial organization is the study of how markets are structured and why it matters. The course begins with the standard applied microeconomic treatment of economic regulation (*e.g.*, antitrust, natural monopoly, advertising restrictions) and then explores disequilibrating phenomena, including entrepreneurship and innovation. Units: 6.

Prerequisite: ECON 300, ECON 380 recommended

ECON 405: ***The Economics of Innovation & Entrepreneurship***
This course examines economic theories of innovation and entrepreneurship (I&E), the role of I&E in the economy, and policy questions related to I&E. Theories are discussed in the context of the history and current prevalence of innovation and entrepreneurship in modern economies. Units: 6.

Prerequisite: ECON 300

ECON 410: ***Advanced Game Theory and Applications***
This course develops game theory, the science of strategic interaction, *i.e.*, interdependent individuals seeking to promote their self interest, with applications in economics, biology, and philosophy. The mathematical nature of game theoretic models will be reflected in a focus on problem solving. Sufficient mathematical maturity required. Units: 6.

Prerequisite: Junior standing or consent of instructor

ECON 415: ***Individuality & Community***
This course studies how political theorists responded to the emergence of open societies in the West. It focuses on the scope of personal autonomy, the consequences of commerce and luxury, the best political and economic arrangements, and other topics explored by writers from the Renaissance to the Twentieth Century. Units: 6.

Also listed as Government 405

Prerequisite: Junior standing or consent of instructor

ECON 420: ***Money and Monetary Policy***
An examination of the role of money in market economies and its influence on the performance of such economies. This course emphasizes the role of central banks, financial institutions, and global capital flows. Units: 6.

Prerequisite: ECON 320

ECON 421: ***Investments***
This is an applied course in financial economics. It aims to develop an understanding of the principles of modern finance theory and their application to the study of financial markets, regulations, investment instruments, asset valuation, portfolio management and efficient diversification. Units: 6.

Prerequisite: ECON 300 or ECON 320 or ECON 380

ECON 430: *Capital and Growth*
An examination of the determinants of long-term economic growth and productivity. Particular attention given to the role of capital, international competitiveness, savings, tangible investment, and the role of public policy in all such areas. Units: 6.

Prerequisite: ECON 300 and 320

ECON 444: *Political Economy of Regulation*
This course focuses on the tension between politics and expertise that characterize the administrative regulatory state often called "the fourth branch of government." Several competing models of political economy shape an exploration of the continuing evolution of the U.S. regulatory system, the process by which regulations are proposed, written, implemented, and enforced, and the tools used to evaluate the costs and benefits of regulations. Units: 6.

Also listed as Government 444

Prerequisite: ECON 300 and ECON 380

ECON 450: *Economics of the Firm*
Even in a “market” economy, the preponderance of economic activity is carried out through firms and other organizations. The course examines economic theories of the firm, and explores some of the canonical questions, such as why are there firms, how the separation of ownership and control of a firm shapes decision making, what determines the boundary between organizations and markets (*e.g.*, make-or-buy decisions), what types of firms are most innovative, and how new technologies affect organizational structure. Units: 6.

Prerequisite: ECON 300 or GOVT 271

ECON 460: *International Trade*
An inquiry into the historical and theoretical foundations of international trade, leading to a critical analysis of contemporary problems and policies. Units: 6.

Prerequisite: ECON 300

ECON 465: *International Finance*
The course focuses on macroeconomic issues and policies in open economies such as the United States. The course will provide a general body of knowledge on topics such as exchange rate policy regimes; international financial organizations; the interaction between macroeconomic policies and exchange rate regimes; and financial crises. It presents economic models and analytical tools that can be applied to understand the changing world economy and analyze problems in international economic policy. Units: 6.

Prerequisite: ECON 320

ECON 481: *Advanced Econometrics & Modeling*
The course explores advanced econometric topics in model specification, estimation, and prediction (e.g., two-stage least squares, limited dependent variables and logistic regression, nonparametric regressions, censored regressions, time-series analysis). Techniques are introduced through work related to the instructor's areas of interest and expertise (e.g., labor, development, health, education). Units: 6.

Prerequisite: ECON 380

ECON 495: *Advanced Topics in Economics*
Topics will vary with instructor and year; thus, if the substance of the course changes, students may take *Advanced Topics* more than once. Each offering will employ analytical techniques developed in the intermediate-level courses (Economics 300, 320, and 380.) Substantive topics might include, but would not be limited to, economics of the arts, economics of sports, computational finance, international finance, public sector economics, economics of the environment, and studies of specific industries.

Topic for Winter 2017: New Institutional Economics

The New Institutional Economics (NIE) is a movement in the social sciences that develops and extends neoclassical economic theory to understand the role of institutions in shaping behavior, as well as the factors that spur and prevent institutional change. The course examines a number of topics through the NIE lens, including economic growth, natural resource management, urban environmental history, and public utilities regulation. Prerequisites for this topic: ECON 300 and ECON 380.

Units: 6.

Prerequisite: ECON 300

ECON 500: *Advanced Microeconomics*
Advanced topics in microeconomics that prepare students for a first graduate course in microeconomics. Units: 6.

Prerequisite: ECON 300; MATH 300 or 310 recommended

ECON 590: *Tutorial Studies in Economics*
Advanced readings, discussions, and essays in economic problems of special interest to the student. Units: Variable.

Prerequisite: Counter Registration Required.

ECON 591: ***Directed Study in Economics***
Directed study follows a syllabus set primarily by the instructor to meet the needs or interests of an individual student or small group of students. The main goal of directed study is knowledge or skill acquisition, not research or creative work. Units: Variable.

Prerequisite: Counter Registration Required.

ECON 595: ***Internship in Economics***
Applied work with a private firm or public-sector agency in economics, arranged under the direction of an instructor in the department. In each case, the academic credit is based on related readings, reports, and presentations. Units: Variable.

Prerequisite: ECON 300, 320, or 380; Counter Registration Required

ECON 599: ***Independent Study in Economics***
Advanced research on a topic of the student's choice, organized in consultation with an instructor. Students considering an honors project should register for this course.
Units: Variable.

Prerequisite: Counter Registration Required.

ECON 601: ***Senior Experience: Reading Option***
Students focus on a monograph &/or readings appropriate for advanced undergraduates, engage in active discussion, and produce a paper that expands upon or responds to the readings. Successful completion satisfies the department's Senior Experience requirement. Units: 3.

Prerequisite: Senior standing; at least two advanced economics courses (400- or 500-level)

ECON 602: ***Senior Experience: Research Paper Option***
Students will produce a well-researched paper that meets standards of profession. To register, students must submit to instructor a paper prepared in a 400-level economics course with a one-page proposal on how it will be extended, refined and polished in content and form. Instructor's approval of this proposal is prerequisite for registration. Units: 3.

Prerequisite: Senior standing; at least two advanced economics courses (400- 500-level)

ECON 690: ***Tutorial Studies in Economics***
Advanced readings, discussions, and essays in economic problems of special interest to the student. Units: Variable.

Prerequisite: Counter Registration Required.

ECON 691: ***Directed Study in Economics***
Directed study follows a syllabus set primarily by the instructor to meet the needs or interests of an individual student or small group of students. The main goal of directed study is knowledge or skill acquisition, not research or creative work. Units: Variable.

Prerequisite: Counter Registration Required.

ECON 695: ***Internship in Economics***
Applied work with a private firm or public-sector agency in economics, arranged under the direction of an instructor in the department. In each case, the academic credit is based on related readings, reports, and presentations. Units: Variable.

Prerequisite: ECON 300, 320, or 380; Counter Registration Required

ECON 699: ***Independent Study in Economics***
Advanced research on a topic of the student's choice, organized in consultation with an instructor. Students considering an honors project should register for this course.
Units: Variable.

Prerequisite: Counter Registration Required.

Associate professors: Purkey (Bee Connell Mielke Professorship in Education, chair), Williams

Assistant professor: Burdick-Shepherd

Instructor: Despres-Berry (Center for Academic Success)

Lecturers: Clementi, Engman, Lucas

Post-doctoral fellow: DiFrancesca (Postdoctoral Fellow of Education)

Introduction

While Lawrence does not offer a college major in education, the education department does prepare students to become licensed teachers in public and private schools. In addition, the department introduces students to the study of education as an academic discipline within the liberal arts. An education studies minor is available. Courses in education studies (EDST) are open to all students and may be counted toward fulfilling the General Education Requirement (GER) in social sciences. The department also offers tutorial and independent-study opportunities for students interested in education policy, history of education, educational anthropology and psychology, and the practical application of education methodology.

Teacher certification for undergraduates

Students who seek certification to teach middle or senior high school (early adolescence through adolescence) may choose from nearly all majors, including the social sciences, history, the natural sciences, mathematics, mathematics-computer science, computer science, theatre arts, English, English as a second language, and environmental science. (Students planning to teach instrumental or vocal music must be admitted to the Conservatory. Please see the Conservatory of Music for more information.)

Students who want to teach art or foreign language (Chinese, French, German, Japanese, Latin, Russian and Spanish) and music (choral, general or instrumental) receive special-field certification for teaching early childhood through adolescence (K-12).

Beginning in 2016–17, Lawrence will offer certification for students interested in becoming elementary school teachers (early childhood through early adolescence). Open to all majors, college or conservatory, this innovative program will be a post-baccalaureate, yearlong apprenticeship in an Appleton public elementary school, during which students will learn to teach by working alongside a master veteran teacher. A special, significantly reduced, tuition fee will apply. For further information about required courses and other program requirements as well as costs, please contact Lawrence's Director of Teacher Education.

For certification in social studies and the natural sciences, students elect a single discipline as their major—for example, history or chemistry—and may also pursue an interdisciplinary "broad fields" course of study.

A few academic subjects (e.g., English) permit a “minor” for certification purposes, thereby affording the student both major and minor teaching opportunities in the schools. In all subject areas, certification requires completing a Lawrence major or its equivalent with a minimum GPA of 2.75 in the major and cumulative. Please see “Major subject area requirements” for specific disciplinary requirements.

Students who wish to qualify for a teaching license should plan their schedule with the chair of the education department as early as possible in their Lawrence career. Students who enter Lawrence knowing that they want to become certified to teach can do so within the four-year undergraduate program. Before student teaching, which must occur in the senior year or in a 13th term, students must be admitted to the teacher education program. Graduation must precede certification for licensure.

Generally, all education courses except EDST 175 and EDST 180 require sophomore standing. EDUC 560 or 563 and ART 585, methods of teaching, must be taken during the Term III that immediately precedes student teaching.

Student teaching assignments for 18-week public or private school semesters are contracted with local Fox Valley schools, in Chicago via the Chicago Center’s Urban Teaching Practicum or the ACM Urban Education Program, or in 17 different countries overseas through Lawrence's International Student Teaching Program. A 13th term of student teaching, tuition-reduced ($1,204), is available for Lawrence undergraduates who have completed all graduation requirements except the student teaching cluster of courses and wish to be certified. Ask the department chair for details and for information on additional requirements. This term must take place within one year of graduation.

In some majors, students planning to student teach during the senior year may substitute student teaching for, or incorporate it into, their department’s *Senior Experience*. Interested students should consult with their major advisor as early as possible in the junior year.

Certification for graduates

Students who have graduated from college can be certified for licensure through Lawrence. Typically, the certification program for graduates takes 1 1/2 years, which includes the required 18 weeks of student teaching. (Program length may vary depending on undergraduate major and coursework.) Graduates should consult the department chair for further information about the certification program.

Graduates seeking certification must attain qualifying scores on a standardized academic skills test (Praxis I PPST, Praxis Core, ACT, SAT or GRE) and pass the subject area test (Praxis II or ACTFL) in their certification area before they apply to be admitted to the teacher education program. Other requirements for admittance (e.g., 2.75 GPA) and certification are listed in Lawrence’s Teacher Certification Handbook, which is available from the education department.

Tuition for Lawrence graduates participating in this program is set at 50 percent of the current year's tuition rate, and the student teaching fee is adjusted by 50 percent.

For non-Lawrence graduates, tuition for courses required for certification outside the degree-seeking student program is set at 75 percent of the current year's tuition rate. A separate fee is charged for the student-teaching portion of the program, for which the student earns 18 units of credit.

General requirements, all students and subject areas (except elementary education)

In addition to the required education courses, all students seeking certification must complete a major (or its equivalent) in the subject they plan to teach. To receive a minor endorsement, students must complete a department-approved minor or seven courses in the discipline. Students seeking licensure must also complete the Lawrence University General Education Requirements, including a course in a non-Western history or culture, a course in a physical science, a course in a biological or life science and a mathematics course.

For Wisconsin licensure, social science majors need to take *Cooperatives*, which is an adjunct to Education 560. Natural science and social studies candidates are required to take an environmental studies course.

Students who want to become licensed must be admitted to Lawrence's teacher education program. Please see the department chair or the department's administrative assistant for the application form and list of requirements. Students seeking licensure should also consult Lawrence's Teacher Certification Handbook, which is available from the education department, for further information and requirements.

A cumulative GPA of 2.75 is required for teacher certification. To be admitted to the teacher education program, candidates must attain qualifying scores on a standardized academic skills test (Praxis I PPST, Praxis Core, ACT, SAT or GRE). Before they may student teach, candidates for certification must pass a subject area test (Praxis II Subject Assessment or ACTFL foreign language oral and writing proficiency tests) for each subject in which they intend to be licensed. Beginning September 1, 2015, all candidates must attain passing scores on the edTPA, a teacher performance assessment completed during student teaching, in order to be certified for licensure.

Students should also be aware that certification requirements are subject to revision. It is the student's responsibility to confirm requirements with the chair of the education department.

Required education courses for certification in all academic areas at the middle, junior and senior high school levels

Please consult the education department chair for the elementary course requirements.

Please see “Major subject area requirements” below and “The major in music education” for additional course requirements.

Course	Lawrence course credit, in units	Certification semester hours
EDST 180: *Psychology of Learning*	6	4
EDST 350: *Ethnicity, Cultural Diversity and Education*	6	4
EDUC 430: *Educating All Learners* (College only)	6	3
EDUC 431: *Educating All Learners in Music* (Conservatory only)	3	3
EDST 440: *Sociology of Education*	6	4

The appropriate teaching methods course for your certification area:

Course	Lawrence course credit, in units	Certification semester hours
EDUC 560: *Methods in Middle and Secondary Teaching*	6	4
EDUC 563: *Elementary and Secondary Foreign Language Methods*†	6	4
EDUC 565: *Methods, Materials and Assessment in Teaching English to Speakers of Other Languages*††	6	4
EDUC 585: *Art in the Elementary and Secondary Schools*†††	6	4
EDUC 650 or 655: *Student Teaching*	18	12

Course	Lawrence course credit, in units	Certification semester hours
EDUC 660: *Advanced Methods in Teaching*	3	3

† Required for foreign language certification only

†† Required for ESL certification only

††† Required for art certification only

Major subject area requirements

ART
A major consists of the 11 courses required for a studio art major, plus ART 585. See Certification for Teaching K-12 for further information regarding studio requirements and recommendations for art education certification. ART 585 should be taken in the Term III immediately prior to student teaching (EDUC 650).

ENGLISH
A major consists of a minimum of 10 courses. In addition to demonstrating a familiarity with contemporary literature of world scope, students must submit evidence of coursework in composition, linguistics or history of the English language, literature for adolescents and literature of minority groups in America. Adolescent literature may be fulfilled by taking three units of tutorial study in education (EDUC 390 or 590) devoted to literature for adolescents. A minor is available.

ENGLISH AS A SECOND LANGUAGE (ESL/ELL)
A major endorsement is available in ESL/ELL and requires completion of the following: the education certification sequence (e.g., EDST 180, EDST 440, EDUC 650, etc.); the four course ESL/ELL sequence of Linguistics 150, Linguistics 360, Linguistics 530 and EDUC 565; and an academic major in any one of the liberal arts and sciences. Students may also add ESL/ELL certification to certification in another area (e.g., English, music education, biology, history, etc.).

FOREIGN LANGUAGES
A major in Chinese, Classics, French, German, Japanese, Russian or Spanish consists of 10 courses. Seven courses make up the minor option, except in Russian, in which there is no minor. It is required that students spend a term in a country studying its native language. To be certified, students must pass an oral and writing proficiency test.

MATHEMATICS-COMPUTER SCIENCE; COMPUTER SCIENCE
A major consists of 10 courses.

MATHEMATICS
A major consists of 10 courses; a minor is available.

MUSIC
See the major in music education.

NATURAL SCIENCES
Students are licensed in physical science (chemistry and/or physics), earth and space science (geology), or life and environmental science (biology and/or environmental science). Students must complete a Lawrence major in one science (e.g., biology) and take at least one course from each of the other sciences. A course in astronomy or space science or a course that includes either as a topic is also required. Please see the department chair for further information.

BIOLOGY
A major consists of 10 courses, plus courses in other science subjects; a minor is available.

CHEMISTRY
A major consists of 10 courses, plus courses in other science subjects; a minor is available.

GEOLOGY/EARTH SCIENCE
A major consists of 10 courses, including astronomy and oceanography, plus courses in other science subjects; a minor is available.

PHYSICS
A major consists of 10 courses, plus courses in other science subjects; a minor is available.

ENVIRONMENTAL SCIENCE
A major consists of 10 courses, plus courses in the other science subjects; a minor is available. Students must take Education/Environmental Studies 400 and should fulfill the science-track requirements of the environmental studies major. (Students are urged to major in one of the other sciences and minor in environmental studies if they plan to teach at the secondary level.)

BROAD FIELDS SCIENCE
A broad-fields science license is available. To be eligible, students must complete the requirements to be certified in one of the science majors (biology, chemistry, environmental science, geology/earth science and physics), a minimum of two courses in each of two other science disciplines and at least one course in each of the remaining sciences.

SOCIAL STUDIES
Wisconsin licenses in the social sciences and history are grouped within the broad category of social studies. Students must complete a Lawrence major in any social science or history and take one course in each of the remaining social sciences (including history). An environmental studies course is also required. (Non-history majors are strongly urged to take a minimum of two history courses, one in U.S. history and one in global history.)

ANTHROPOLOGY/SOCIOLOGY
A major consists of 10 courses; a minor is available. (*Note:* Wisconsin does not offer separate licensure in anthropology.)

ECONOMICS
A major consists of 10 courses; a minor is available.

HISTORY
A major consists of 10 courses; a minor is available.

POLITICAL SCIENCE
A major consists of 10 courses; a minor is available.

PSYCHOLOGY
A major consists of 10 courses; a minor is available.

BROAD FIELDS SOCIAL STUDIES
A broad-fields social studies license is available. To be eligible, students must complete the requirements to be certified in one of the social sciences or history (anthropology/ sociology, economics, history, political science and psychology), a minimum of two courses each in two of the other social studies and at least one course in each of the remaining social studies. Instruction in consumer cooperatives and conservation is incorporated into the methodology course Education 560.

THEATRE ARTS
A major consists of 10 courses; a minor is available.

COURSES

EDUC 191: *Directed Study in Education*
Directed study follows a syllabus set primarily by the instructor to meet the needs or interests of an individual student or small group of students. The main goal of directed study is knowledge or skill acquisition, not research or creative work. Units: Variable.

Prerequisite: Counter Registration Required.

EDUC 390: *Tutorial Studies in Education*
Tutorial studies in the fields of educational psychology, learning theory, cognitive science, alternative education and on various topics related to teaching and learning. Units: Variable.

Prerequisite: Counter Registration Required.

EDUC 391: *Directed Study in Education*
Directed study follows a syllabus set primarily by the instructor to meet the needs or interests of an individual student or small group of students. The main goal of directed study is knowledge or skill acquisition, not research or creative work. Units: Variable.

Prerequisite: Counter Registration Required.

EDUC 399: *Independent Study in Education*
Advanced study arranged in consultation with the department. Students considering a senior honors project should register for this course. Units: Variable.

Prerequisite: Counter Registration Required.

EDUC 412: *Teaching Reading for Elementary*
For students pursuing elementary certification and preparing for the Foundations of Reading Test. Students will engage with literacy theory, explore reading development and the acquisition of reading competency, plan for literacy assessment and instruction (with attention to English language learners and learning disabilities), and integrate literacy with content instruction. Units: 6.

Prerequisite: EDST 180 and junior standing

EDUC 430: *Educating All Learners*
This course for students in the Teacher Education Program focuses on two important aspects of K-12 teaching: (1) helping learners develop academic and disciplinary literacy; and (2) tailoring instruction to specific learning needs (for students with disabilities, English language learners, struggling readers, students with gaps in academic knowledge, gifted students, etc.). Practicum of 20 hours required in a subject area class that includes learners with special needs. Units: 6.

Prerequisite: EDST 180 and junior standing

EDUC 431: ***Educating All Learners–Music***
This course for students seeking certification to teach music (choral, general, and/or instrumental) focuses on adapting music instruction to learners with disabilities. Practicum of 10 hours required in a music class that includes learners with special needs. Units: 3.

Prerequisite: EDST 180, junior standing, and declared major in music education

EDUC 555: ***Methods in Elementary Teaching***
For students preparing to teach in the elementary classroom. Students will practice and observe methodologies in instructional strategies, assessment, and organization of the elementary environment. Students will analyze how learner, subject, and environment influence pedagogical choice with emphasis on collaborative learning, differentiated instruction, and developmentally appropriate practice. Units: 6.

Prerequisite: Junior standing and admission to the teacher certification program

EDUC 560: ***Methods in Middle and Secondary Teaching***
A seminar on methods and organization of teaching particular subjects in the middle and secondary school, including English, social studies, mathematics, science, and theatre. Practicum of 20 hours required. Units: 6.

Prerequisite: Junior standing and admission to certification program

EDUC 563: ***Elementary and Secondary Foreign Language Methods***
A seminar on teaching foreign languages in the elementary, middle, and secondary school. Emphasis on curriculum planning, methods of instruction, and assessment of learning. Issues related to classroom management and organization will be addressed. Practicum of 20 hours required. Units: 6.

Prerequisite: Junior standing and admission to certification program

EDUC 565: ***Methods, Materials, and Assessment in Teaching English to Speakers of Other Languages***
A seminar in teaching English to speakers of other languages in elementary, middle, and secondary school as well as in foreign language classrooms abroad. The course focuses on curriculum planning, methods of instruction, and assessment of learning for English language learners in diverse learning environments. Practicum of 20 hours required. Units: 6.

Prerequisite: Junior standing and consent of instructor

EDUC 575: ***Elementary Content Area Methods I***
This course is for students concurrently enrolled in the elementary student teaching apprenticeship. The apprenticeship will design and teach lessons engaging elementary students and young children in the fundamental content, concepts, and inquiry tools of mathematics, English language arts, social studies, science, fine arts, physical education and health. Two-course sequence. Units: 3.

Prerequisite: Baccalaureate degree, admission to elementary teacher certification, and concurrent enrollment in EDUC 665 and EDUC 666

EDUC 576: ***Elementary Content Area Methods II***
Continuation of EDUC 575. Units: 3.

Prerequisite: EDUC 575 and concurrent enrollment in EDUC 666 and 676

EDUC 585: ***Art in the Elementary and Secondary Schools***
Art class observations, studio practice in both two- and three-dimensional disciplines, studio demonstrations/lectures, and selected readings and discussions relative to the visual expression of the elementary, junior, and senior high school student. Units: 6.

Also listed as Studio Art 585

Prerequisite: Four studio art courses, EDUC 180 and 340, and two art history courses.

EDUC 590: ***Tutorial Studies in Education***
Tutorial studies in the fields of educational psychology, learning theory, cognitive science, alternative education and on various topics related to teaching and learning. Units: Variable.

Prerequisite: Counter Registration Required.

EDUC 591: ***Directed Study in Education***
Directed study follows a syllabus set primarily by the instructor to meet the needs or interests of an individual student or small group of students. The main goal of directed study is knowledge or skill acquisition, not research or creative work. Units: Variable.

Prerequisite: Counter Registration Required.

EDUC 599: ***Independent Study in Education***
Advanced study arranged in consultation with the department. Students considering a senior honors project should register for this course. Units: Variable.

Prerequisite: Counter Registration Required.

EDUC 650: ***Student Teaching (Middle and Secondary Schools)***
Student teaching is normally taken during Term I, coinciding with the public school fall semester. A weekly seminar at Lawrence is required as part of this course. See department chair for prerequisites and for exceptions to the Term I requirement. Units: 18.

Prerequisite: Senior standing and admission to certification program; contact department chair about prerequisites and corequisites

EDUC 655: ***International Student Teaching***
This is an overseas student teaching option. After nine weeks of student teaching in the Fox Valley, students will be placed in one of 16 countries to complete the student teaching practicum. International student teaching is available during 13th Term only. Students must have been admitted to the student teaching program (college or conservatory) and have met all requirements for domestic student teaching. Students should contact the department chair for additional admission and fee requirements. Units: 18.

Prerequisite: Senior or graduate status, admission to the student teaching program and to the international student teaching program, passing score on Praxis II or ACTFL, proficiency tests and, beginning in 2015, a passing score on the TPA during the first 9 weeks of domestic student teaching.

EDUC 660: ***Advanced Methods in Teaching***
The seminar will engage students in critical reflection upon their student teaching experience. Concrete and theoretical problems having to do with teaching and learning will be explored (*e.g.,* classroom management, assessment of pupil performance, curriculum design, instructional methods), as will issues having to do with educational policy and school organization. Units: 3.

Prerequisite: Concurrent enrollment in EDUC 650 or consent of instructor

EDUC 665: ***Advanced Methods in Teaching-Elementary I***
The seminar will engage students in critical reflection upon their elementary student teaching experience. Concrete and theoretical problems of teaching and learning will be explored (e.g., classroom management, assessment, curriculum design), as will issues regarding educational policy and school organization. Two-course sequence taken in conjunction with the student teaching apprenticeship. Units: 3.

Prerequisite: Baccalaureate degree, admission to elementary teacher certification and concurrent enrollment in EDUC 575 and 675

EDUC 666: ***Advanced Methods in Teaching-Elementary II***
A continuation of EDUC 665. Units: 3.

Prerequisite: EDUC 665 and concurrent enrollment in EDUC 576 and EDUC 676

EDUC 675: ***Student Teaching Apprenticeship-Elementary I***
Student teaching for elementary licensure (EC-MC) is a full-time, two-semester apprenticeship in a K-6 grade classroom setting. This post-baccalaureate apprenticeship is an embedded clinical experience whereby the student teacher will learn the craft and art of teaching under the guidance of a master teacher from the Appleton Area School District. Units: 18.

Prerequisite: Baccalaureate degree, admission to elementary teacher certification, and concurrent enrollment in EDUC 575 and EDUC 665

EDUC 676: ***Student Teaching Apprenticeship-Elementary II***
Continuation of EDUC 675. Units: 18.

Prerequisite: EDUC 675 and concurrent enrollment in EDUC 576 and EDUC 666

EDUC 690: ***Tutorial Studies in Education***
Tutorial studies in the fields of educational psychology, learning theory, cognitive science, alternative education and on various topics related to teaching and learning. Units: Variable.

Prerequisite: Counter Registration Required.

EDUC 691: ***Directed Study in Education***
Directed study follows a syllabus set primarily by the instructor to meet the needs or interests of an individual student or small group of students. The main goal of directed study is knowledge or skill acquisition, not research or creative work. Units: Variable.

Prerequisite: Counter Registration Required

EDUC 699: ***Independent Study in Education***
Advanced study arranged in consultation with the department. Students considering a senior honors project should register for this course. Units: Variable.

Prerequisite: Counter Registration Required.

Introduction

The minor in education studies provides students in the college and conservatory with the opportunity to pursue focused inquiry into the philosophical, cultural, and social foundations of education; the historical and present-day relationship between school and society; the part formal education plays in human development; and/or contemporary issues of education policy and practice. The minor will help prepare students for graduate study or work in education-related fields.

Required for the education studies minor

1. Three foundational courses:
    a. EDST 180: *Psychology of Learning*
    b. EDST 350: *Ethnicity, Cultural Diversity and Education*
    c. And one of the following:
        - EDST 310: *Ethics and Education*
        - EDST 315: *Philosophy of Children*
2. Two (2) courses in education studies from among the following, at least one of which must be at the 400 level or above:
    - EDST 309: *Hollywood Goes to High School*
    - EDST 345: *Distributed Cognition*
    - EDST 380: *Engaging in Action Research*
    - EDST 400: *The Environment, Community and Education*
    - EDST 440: *Sociology of Education*
    - EDST 450: *Topics in Education Studies* (can be repeated as topics vary)
    - EDST 545: *Gesture Studies*
3. One of the following:
    - An independent study (EDST 399/599)
    - An academic internship (EDST 395/595)
    - Either *Developmental Psychology* (PSYC 260/265) or *Adolescent Psychology* (PSYC 460).

Possible settings for internships include but are not limited to: public, private, or charter schools; school district offices; museum or arts organizations; other non-profit or community organizations; social services agencies; governmental bodies; policy or advocacy groups; and other approved sites. Students seeking teacher certification may also complete the education studies minor, but student teaching may not be used to fulfill the internship or independent study requirement, nor may the internship substitute for the classroom practicum hours required prior to student teaching.

COURSES

EDST 180: *Psychology of Learning*
An investigation of how people learn. This course examines learning theories (*e.g.,* behavioral, humanistic, cognitive, constructivist) and their implications for the educational process in schools. Other topics include learning and the brain, the nature of expertise, the design of learning environments, and approaches to instruction that promote meaningful learning. Practicum of 20 hours required. Units: 6.

Also listed as Psychology 180

EDST 191: *Directed Study in Education Studies*
Directed study follows a syllabus set primarily by the instructor to meet the needs or interests of an individual student or small group of students. The main goal of directed study is knowledge or skill acquisition, not research or creative work. Units: Variable.

Prerequisite: Counter Registration Required.

EDST 195: *Internship in Education Studies*
Internship in a school or district office, museum or arts organization, other non-profit or community organization, social services agency, governmental body, policy or advocacy group, or other education-related setting with prior approval. (Does not count toward teacher certification.) The academic component of the internship includes readings related to the substance of the internship, discussions with the faculty supervisor, and a written report appropriate to the discipline. Course grades are based on this academic work. Units: Variable.

Prerequisite: Counter registration required.

EDST 309: *Hollywood Goes to High School*
Year after year, Hollywood turns out movies that are set in schools and present images of teachers and teens. Many of these films address typical coming-of-age issues, societal fear of teen crime and delinquency and, of course, the search for romance. A subset of these films provide powerful and culturally enduring images of teachers and teaching. High school movies also provide insight into the fantasies, anxieties, dreams, and assumptions prevalent in American culture. This course will examine the world and worldview found in Hollywood high school movies and the extent to which the stories they tell make us who we are. Units: 6.

Also listed as Film Studies 309

Prerequisite: Sophomore standing

EDST 310: ***Ethics and Education***
What is ethics and how does it connect with morals? What do either have to do with the activities of teaching and learning? Students in this class confront such questions by exploring the role of moral decision-making in classroom practices, and by examining how the practice of education promotes certain notions of human flourishing. Particular attention is given to an analysis of the "ethics of teaching." Readings draw from classical and contemporary works associated with the disciplines of philosophy and of education. Units: 6.

Prerequisite: Sophomore standing

EDST 315: ***Philosophy of Children***
Students will consider childhood and children through a philosophical lens. The first half of the course will focus on the philosophy of childhood, the second half will focus on how children philosophize the world. Readings will derive from philosophical texts, fiction and children's literature, and social media. Field experiences will be conducted in elementary classrooms encouraging children's wonder through philosophical discussion. Units: 6.

Prerequisite: Sophomore standing

EDST 350: ***Ethnicity, Cultural Diversity, and Education***
A study of the experience of children and adolescents from different ethnic, cultural, and economic groups. Emphasis on understanding the social consequences of these differences and how such differences affect educational achievement and attainment. The sources and educational effects of individual, institutional, and systemic racism, sexism, and other forms of prejudice and discrimination will also be examined. Practicum of 20 hours required. Units: 6.

Also listed as Ethnic Studies 352

Prerequisite: Sophomore standing

EDST 380: ***Engaging in Action Research***
This course engages students in social science research to collect and use data to solve real problems. Students interested in careers that emphasize working with others (teaching, counseling, nursing, social work) will find this course particularly relevant. Content will explore methods of examining instructional effectiveness. Lab will consist of classroom-based research experiences, data analysis, and collaborative inquiry. Units: 6.

Prerequisite: EDST 180 and Sophomore standing

EDST 390: ***Tutorial in Education Studies***
Tutorial studies in the fields of educational policy, environmental education, history of education, comparative education and on various topics related to the social foundations of education. Units: Variable.

Prerequisite: Counter Registration Required

EDST 391: ***Directed Study in Education Studies***
Directed study follows a syllabus set primarily by the instructor to meet the needs or interests of an individual student or small group of students. The main goal of directed study is knowledge or skill acquisition, not research or creative work. Units: Variable.

Prerequisite: Counter Registration Required.

EDST 395: ***Internship in Education Studies***
Internship in a school or district office, museum or arts organization, other non-profit or community organization, social services agency, governmental body, policy or advocacy group, or other education-related setting with prior approval. (Does not count toward teacher certification.) The academic component of the internship includes readings related to the substance of the internship, discussions with the faculty supervisor, and a written report appropriate to the discipline. Course grades are based on this academic work. Units: Variable.

Prerequisite: Counter registration required.

EDST 399: ***Independent Study in Education Studies***
Units: Variable.

Prerequisite: Counter Registration Required

EDST 400: ***The Environment, Community, and Education***
The course will examine the relationship between community-mindedness and the development of ecological literacy. Cultural assumptions about the natural world and our place in it that are implicit within the K-12 and college curriculum, and the manner in which modern forms of education shape our understanding of what it means to “live well in a place we know well” will be explored. Examples of how schools can contribute to environmental and social sustainability (and justice) via community- and place-based education will be presented. Units: 6.

Also listed as Environmental Studies 460

Prerequisite: Sophomore standing or consent of instructor

EDST 440: ***Sociology of Education***
An examination of the social foundations of education in the United States with particular attention paid to the cultural, political, and economic functions of education in modern society. Other topics include the reproductive function of schooling in a society divided along lines of race/ethnicity and class, schools as sites of cultural production, and the historical tension in the U.S. between “equality” and “excellence” in education. Practicum of 20 hours required. Units: 6.

Also listed as Ethnic Studies 340

Prerequisite: Sophomore standing

EDST 450: *Topics in Education Studies*
This seminar explores issues in contemporary education. Topics vary by term and focus on controversies or innovations in educational systems, practices, and policy or in the relations between school and society. May be repeated when topic is different. Units: 6.

Prerequisite: Sophomore standing and one course in education studies or instructor approval

EDST 545: *Gesture Studies*
Gesture studies is an interdisciplinary field that examines the use of the hands and other parts of the body in communication and cognition. In this seminar we discuss studies of gesture types, universals, and variations; gesture development; gesture production and perception; relations of gesture to thought and language (spoken and signed); and functions of gesture in human interaction, problem-solving, and learning. Units: 6.

Also listed as Linguistics 545, Psychology 545

Prerequisite: One course in linguistics or psychology, or consent of the instructor

EDST 590: *Tutorial in Education Studies*
Tutorial studies in the fields of educational policy, environmental education, history of education, comparative education and on various topics related to the social foundations of education. Units: Variable.

Prerequisite: Counter Registration Required

EDST 591: *Directed Study in Education Studies*
Directed study follows a syllabus set primarily by the instructor to meet the needs or interests of an individual student or small group of students. The main goal of directed study is knowledge or skill acquisition, not research or creative work. Units: Variable.

Prerequisite: Counter Registration Required.

EDST 595: *Internship in Education Studies*
Internship in a school or district office, museum or arts organization, other non-profit or community organization, social services agency, governmental body, policy or advocacy group, or other education-related setting with prior approval. (Does not count toward teacher certification.) The academic component of the internship includes readings related to the substance of the internship, discussions with the faculty supervisor, and a written report appropriate to the discipline. Course grades are based on this academic work. Units: Variable.

Prerequisite: Counter registration required.

EDST 599: *Independent Study in Education Studies*
Units: Variable.

Prerequisite: Counter Registration Required

EDST 690: ***Tutorial in Education Studies***
Tutorial studies in the fields of educational policy, environmental education, history of education, comparative education and on various topics related to the social foundations of education. Units: Variable.

Prerequisite: Counter Registration Required

EDST 691: ***Directed Study in Education Studies***
Directed study follows a syllabus set primarily by the instructor to meet the needs or interests of an individual student or small group of students. The main goal of directed study is knowledge or skill acquisition, not research or creative work. Units: Variable.

Prerequisite: Counter Registration Required.

EDST 695: ***Internship in Education Studies***
Internship in a school or district office, museum or arts organization, other non-profit or community organization, social services agency, governmental body, policy or advocacy group, or other education-related setting with prior approval. (Does not count toward teacher certification.) The academic component of the internship includes readings related to the substance of the internship, discussions with the faculty supervisor, and a written report appropriate to the discipline. Course grades are based on this academic work. Units: Variable.

Prerequisite: Counter registration required.

EDST 699: ***Independent Study in Education Studies***
Units: Variable.

Prerequisite: Counter Registration Required

Professor: Dintenfass

Associate professors: Bond, Hoffmann, Khor, McGlynn (chair), Spurgin (Bonnie Glidden Buchanan Professorship in English Literature)

Assistant professors: Barnes, Range

Visiting assistant professor: Segrest

Introduction

The English department at Lawrence offers students the opportunity to develop their skill at critical reading, writing, and analysis—skills that can be applied not only to "literary" texts but also to the texts and images produced by the cultures that surround us. Literature courses include analysis of British, American, African American, and postcolonial cultures. In creative writing, the department offers courses in fiction, poetry, and non-fiction.

Required for the English major

1. ENG 150 or its equivalent

After ENG 150, students majoring in English are required to complete eight six-unit courses, distributed as follows:

2. Two courses from the intermediate group: ENG 230, 240, 250, 260, 280, 281
3. Two courses focusing on periods before 1800: ENG 400, 420, 430, 435, 440, 443, 445, 446, 448, 450, 470, 527, and either 425 or 170 (but not both together)
4. One course focusing on the nineteenth century: ENG 455, 460, 465, 472, 473, 474, 476
5. One course focusing on the twentieth or twenty-first centuries: ENG 480, 483, 485, 490, 495, 498, 500, 501, 503, 510, 515, 516, 517, 518, 521
6. One additional course in English
7. In completing requirements 2-6, students are required to take course-work representing a range of literary and cultural traditions. Students are required to take at least one course, at any level, from each of the following three categories: 1) British, 2) American, and 3) African American, OR postcolonial. A course in African-American literature may satisfy either categories 2) or 3), but not both simultaneously. See the cultural traditions list below for which courses correspond to which group.
8. Finally, majors are also required to complete the English department's *Senior Experience* (see further explanation below).

Cultural traditions categories for the major

Students must take at least one course, at any level, from each of the following three categories:

1. **British**: ENG 170 (London Centre course), 230, 240, 281, 400, 420, 425, 430, 435, 440, 445, 446, 448, 450, 455, 460, 465, 480, 515, 527
2. **American**: ENG 250, 443, 470, 472, 473, 474, 476, 483, 485, 495, 498, 500, 501, 503, 510, 515
3. **African American**: ENG 260, 472, 510 OR **postcolonial**: ENG 280, 282, 517, 518, 521

Departmental advisors

When students officially declare themselves English majors, they should choose a departmental advisor who will be responsible for guiding them in planning and completing their major course of study. Questions about the advising of English majors should be addressed to the department chair.

Senior Experience in English

The English department's *Senior Experience* may be fulfilled through one of several options:

1. ENG 600: Senior Seminar in English: a seminar involving analysis of theoretical, historical, critical, and literary readings at an advanced level in conjunction with students' research and writing of an original, substantial paper (taken during the senior year or, in some cases, during spring term of the junior year);
2. An advanced course in creative writing with additional work determined by the instructor (taken during the junior or senior year); students should plan ahead so that they complete the necessary prerequisite for the advanced course in creative writing;
3. Student teaching in English, along with a paper co-directed by the student's academic advisor in English and a faculty member in the education department; or
4. An honors project in English (or adequate progress toward completing an honors project as approved by departmental petition); Students pursuing double majors or double degrees are encouraged to consult with faculty from the English department and the other major department prior to taking ENG 600 if they wish to undertake a research topic that draws upon both of their majors. Students pursuing double majors or double degrees also have the option of doing an honors project that is interdisciplinary in nature, as long as one of the directors of the project is a professor in the English department.

Required for the English minor

Six six-unit courses in English, distributed as follows:

1. Two courses from the following introductory and intermediate group: ENG 150, 230, 240, 250, 260, 280, 281
2. One course focusing on periods before 1800: ENG 170 (London Centre course), 400, 420, 425, 430, 435, 440, 443, 445, 446, 448, 450, 470, 527
3. One course focusing on the nineteenth century: ENG 455, 460, 465, 472, 473, 474, 476, 478
4. One course focusing on the twentieth or twenty-first centuries: ENG 480, 483, 485, 490, 495, 498, 500, 501, 503, 506, 510, 515, 516, 517, 518, 521
5. One additional course in English

Required for the creative writing minor

For students majoring in English, completing the creative writing minor requires taking a minimum of three courses in creative writing, including courses in at least two different literary genres. These courses can be at any level. THAR: 427 *Playwrighting* may also be used to fulfill one of the courses in the minor.

For students with majors outside of English, completing the creative writing minor requires taking a minimum of three courses in literary studies at any level in the English department as well as a minimum of three courses in creative writing. These creative writing courses need to include work in at least two different literary genres and can be at any level. Again, THAR: 427 *Playwrighting* may also be used to fulfill one of the courses in the minor.

Certification for secondary teaching in English

Students preparing to teach English in secondary schools should bear in mind that they must have from 30 to 40 semester hours of preparation in English for certification. *Freshman Studies* and Literary Analysis (ENG 150) count toward certification. Requirements for the major satisfy requirements for certification in Wisconsin, except that the student seeking certification must satisfactorily complete at least one course in writing (e.g., ENG 350, 360, or 370); at least one course in linguistics or the English language (e.g., LING 105 or 150); a tutorial in literature for adolescents; and either ENG 260, or 510 or a tutorial in literature by writers of color in America. Please refer to the Department of Education listing for more detailed information on preparation for teacher certification.

Advanced placement

All students who have earned a 4 or better in the Advanced Placement English Language and Composition Exam will be given credit for one course in English; for majors, this credit will fulfill the requirement of “one additional course in English.” All students who have earned a 4 or better in the Advanced Placement English Literature and Composition Exam will be given credit for one course in English and will receive advanced placement in courses at the intermediate level (ENG 230, 240, 250); for majors, this credit will fulfill the requirement of ENG 150. Questions about exemption and placement should be addressed to the department chair. The application of AP credit towards the general education requirements for either the B.A. or the B.Mus. degrees will be determined by university policy.

Graduate school

Students considering graduate work in English are advised that they should try to take two or more English department classes with at least two different members of the department. They will likely want to do more English course-work than the minimum that is required for the major. For the master's degree, most graduate schools require demonstrated proficiency in at least one modern language in addition to English. For the doctorate, the usual requirement is demonstrated proficiency in two modern languages, and, in some cases, also an ancient language. ENG 525: *Contemporary Critical Theory* is also an asset when preparing for graduate school. College work leading toward graduate study should be planned with these considerations in mind.

COURSES

ENG 150: *Literary Analysis*
An introduction to the techniques of literary analysis through the detailed study of individual texts. Units: 6.

ENG 170: *Shakespeare in London*
Students will study several plays by William Shakespeare selected from among the current offerings by the Royal Shakespeare and other companies. Discussions will address the plays themselves, production techniques, and the audiences to whom they appeal. Students are required to attend performances of the plays under study. *Offered at the London Centre.* Units: 6.

Also listed as Theatre Arts 170

Prerequisite: Must be attending Lawrence London Centre

ENG 189: *British and International Soccer Culture*
A study of the myths, narratives, and cultural implications of the British and international football (soccer) industry, from its Victorian roots to its global present. Offered at the London Centre. Units: 6.

Prerequisite: Must be attending the Lawrence London Centre.

ENG 191: *Directed Study in English*
Directed study follows a syllabus set primarily by the instructor to meet the needs or interests of an individual student or small group of students. The main goal of directed study is knowledge or skill acquisition, not research or creative work. Units: Variable.

Prerequisite: Counter Registration Required.

ENG 230: *British Writers I*
Intensive study of five or six major British authors from Chaucer to Swift. Emphasis on close reading and critical writing. Units: 6.

Prerequisite: ENG 150 or its equivalent or sophomore standing

ENG 240: *British Writers II*
Intensive study of five or six major British authors from Wordsworth to Yeats. Emphasis on close reading and critical writing. Units: 6.

Prerequisite: ENG 150 or its equivalent or sophomore standing

ENG 245: *The Long Novel*
A comparative study of nineteenth century European realism, with readings taken from a variety of national traditions. Authors studied may include Dickens, Flaubert, and Dostoevsky. Collaborative teaching of each text will expose participants to a wide range of critical and pedagogical methods. With instructor approval students may also register for an additional tutorial (3 units) in which we will read and discuss important theoretical works on the history of the novel form. Units: 6.

Also listed as Russian 260

Prerequisite: Sophomore standing

ENG 250: *American Writers*
Intensive study of major American authors from Emerson to Hughes. Emphasis on close reading and critical writing. Units: 6.

Prerequisite: ENG 150 or its equivalent or sophomore standing

ENG 260: *African American Writers*
A survey of African American literature from slave narratives through contemporary literature. Readings include works by Harriet Jacobs, Frederick Douglass, Langston Hughes, Zora Neale Hurston, Richard Wright, Amiri Baraka, Audre Lorde, and Toni Morrison. Units: 6.

Also listed as Ethnic Studies 360

Prerequisite: ENG 150 or its equivalent or sophomore standing

ENG 263: *Greek and Roman Drama in Translation*
In this course we analyze ancient plays both as great works of literature and as artifacts of a particular artistic, cultural, and political context. Students will read excerpts and complete plays in English from a variety of ancient authors, including (from Classical Athens) Aeschylus, Sophocles, Euripides, Aristophanes, and Menander, and (from late Republican and early Imperial Rome) Plautus, Terence, and Seneca. Units: 6.

Also listed as Classics 363

Prerequisite: Sophomore standing or consent of instructor

ENG 265: *Greek and Roman Epic in Translation*
An examination of ancient epic literature through the study of Homer's *Iliad* and *Odyssey* and Virgil's *Aeneid*, all read in English translation. Emphasis on the important features and themes of the epic genre, ancient conceptions of the hero, and the literary, cultural, and political resonance of these texts in classical antiquity. Units: 6.

Also listed as Classics 370

Prerequisite: Sophomore standing or consent of instructor

ENG 280: *Postcolonial Writers*
An introduction to major postcolonial works in their literary, historical, and cultural contexts. Readings include novels by African, Asian, and Caribbean authors such as Chinua Achebe, Salman Rushdie, and Jean Rhys. Units: 6.

Also listed as Ethnic Studies 280

Prerequisite: ENG 150 or its equivalent or consent of instructor

ENG 281: *History of the Book in London*
An introduction to the interdisciplinary field of the history of the book, focusing especially on London's role as a site of book production, distribution and consumption. We will work directly with manuscripts and rare books, studying the material history of books and writing techniques form early manuscripts to iPads. Offered at the London Centre. Units: 6.

Also listed as History 384

Prerequisite: Must be attending the Lawrence London Centre.

ENG 285: *Biblical Narratives in Literature*
An interdisciplinary exploration of the retelling of biblical narratives in modern literature. We will examine novels and poems that revisit biblical scenes, from the binding of Isaac to the crucifixion of Jesus, as independent literary works and in comparison to the biblical text and its retellings in early exegesis. Units: 6.

ENG 350: *Creative Writing: Non-Fiction*
Practice in the writing of non-fictional prose. Units: 6.

Prerequisite: Sophomore standing or consent of instructor

ENG 360: *Creative Writing: Fiction*
Practice in the writing of short fiction. Units: 6.

Prerequisite: Sophomore standing or consent of instructor

ENG 370: *Creative Writing: Poetry*
Practice in the writing of poetry. Units: 6.

ENG 390: *Tutorial Studies in English*
Tutorial study in the literature of various periods, English and American, and in literary forms and composition. Intended primarily for juniors and seniors. Arrangements should be discussed with the department chair. Units: Variable.

Prerequisite: Counter Registration Required.

ENG 391: *Directed Study in English*
Directed study follows a syllabus set primarily by the instructor to meet the needs or interests of an individual student or small group of students. The main goal of directed study is knowledge or skill acquisition, not research or creative work. Units: Variable.

Prerequisite: Counter Registration Required.

ENG 399: *Independent Study in English*
Advanced study, arranged in consultation with the department chair. Students considering an honors project should register for this course. Units: Variable.

Prerequisite: Counter Registration Required.

ENG 410: *Newtonian Lit: Chronicles of a Clockwork Universe*
Newtonian Lit is a course that investigates the connections between the literature and science of the Enlightenment, particularly with respect to contemporary notions of space and time. Students will analyze important texts from the fields of English and Physics, notably Laurence Sterne's *The Life and Opinions of Tristram Shandy, Gentleman* and Isaac Newton's *Principia*. Units: 6.

Also listed as Physics 215

Prerequisite: ENG 150 or its equivalent, plus any introductory course in the natural sciences (e.g., PHYS 141), plus sophomore standing or consent of instructor

ENG 420: *Studies in Medieval Literature*
A study of Middle English literature and culture, focusing especially on the oral and performative dimensions of literature produced between 1300 and 1550. Units: 6.

Prerequisite: Junior standing, ENG 230, or consent of instructor

ENG 425: *Shakespeare*
An introduction to Shakespeare's plays and their literary, historical, and theatrical context. Units: 6.

Also listed as Theatre Arts 432

Prerequisite: Junior standing, ENG 230, or consent of instructor

ENG 430: *Renaissance Literature*
A selected study of poetry and prose in Sixteenth Century England. Readings will include Spenser's *Faerie,Queene,* and lyric poetry from Wyatt to Sidney. Units: 6.

Prerequisite: Junior standing, ENG 230, or consent of instructor

ENG 435: *Renaissance Drama*
A study of eight to ten plays from the early modern period, excluding Shakespeare. Readings include Marlowe, Jonson, Middleton and Webster. Units: 6.

Also listed as Theatre Arts 436

Prerequisite: Junior standing, ENG 230, or consent of instructor

ENG 440: *Milton and the 17th Century*
A study of Donne and the metaphysical poets, the poetry and prose of Milton, and the poetry of Dryden. Emphasis on Milton. Units: 6.

Prerequisite: Junior standing, ENG 230, or consent of instructor

ENG 443: *New England Puritan Poetry*
A study of New England Puritan poetry in the context of new world spiritual aspirations and anxieties. Readings will include sections of Martin Luther's writings and Perry Miller's and others' criticism, as well as the poems of Anne Bradstreet, Edward Taylor, Michael Wiggelesworth, and other minor and post-Puritan poets. Units: 6.

Also listed as Religious Studies 343

Prerequisite: Sophomore standing

ENG 445: *Restoration and 18th-Century Comedy*
A study of English comedies as reflections of changing taste and thought in the period 1660-1800. Authors include Wycherley, Etherege, Congreve, Farquhar, Steele, Fielding, Goldsmith, and Sheridan. Units: 6.

Also listed as Theatre Arts 434

Prerequisite: Junior standing, ENG 230, or consent of instructor

ENG 446: *Gender and Enlightenment*
This course will examine writings by both men and women that reflect on the changing social roles for women in eighteenth-century Britain. Focusing on women's labor, reproduction, reading, and writing, the course will consider to what extent women could participate in the project of the Enlightenment. Units: 6.

Also listed as Gender Studies 446

Prerequisite: Junior standing, ENG 230, or consent of instructor

ENG 448: *Enlightenment Selves*
An interdisciplinary investigation of key concepts of identity and the emotions as understood during the Enlightenment. Students examine philosophical and literary texts to uncover how seventeenth and eighteenth century people conceived of their mental and emotional existence, and how these historical conceptions still influence contemporary theories of mind and self. Units: 6.

Also listed as Philosophy 448

Prerequisite: One course in either English or philosophy, or junior standing, or consent of instructor

ENG 450: *18th-Century Literature*
A study of major works in satire, poetry, and fiction as reflections of 18th-century thought and taste. Readings in Swift, Defoe, Pope, Fielding, Samuel Johnson, and others. Units: 6.

Prerequisite: Junior standing, ENG 230, or consent of instructor

ENG 455: *Romanticism*
A study of the period from 1790 to 1830, focusing on the development and elaboration of what we now call Romanticism. Readings in the major authors of the period: Blake, Wordsworth, Coleridge, Byron, Keats, Percy Shelley, and Mary Shelley. Units: 6.

Prerequisite: Junior standing, ENG 240, or consent of instructor

ENG 460: *The Victorian Age*
A study of the period from 1830 to 1900, focusing on poetry, fiction, and critical prose. Readings range widely, including selections from Carlyle, Tennyson, the Brownings, the Rossettis, and Oscar Wilde. Units: 6.

Prerequisite: Junior standing, ENG 240, or consent of instructor

ENG 465: *The English Novel*
A study of English fiction from 1740 to 1900. Readings include novels by Richardson, Burney, Austen, Dickens, Eliot, and Hardy. Units: 6.

Prerequisite: Junior standing, ENG 240, or consent of instructor

ENG 470: *Early American Writing*
A study of the ways early writers of America attempted to adapt “Old World” forms and styles to the “New World” — as they sought initially to compose and sustain themselves and gradually to constitute the United States of America. Narratives of exploration and travel, contact with Native Americans, Puritan poetry, and Revolutionary—era political writing are some of the topics the course will address. Selected readings from the 17th and 18th centuries into the early decades of the 19th. Units: 6.

Prerequisite: Junior standing, ENG 230, or consent of instructor

ENG 474: *American Poets of the Nineteenth Century*
This course will read across the spectrum of nineteenth-century American poetry, considering how and why writers turn to this versatile genre as their preferred mode of expression. Readings from Dickinson, Piatt, Melville, Whitman, Harper, Horton, Larcom, and others. Units: 6.

Prerequisite: Junior standing, an intermediate course in English, or consent of the instructor.

ENG 476: *Nineteenth-Century American Women Writers*
An exploration of 19th century women writers, including Sigourney, Harper, Stowe, Jacobs, Dickinson, Harding Davis, Chopin, Lazarus, Johnson, Zitlaka-sa and/or others. Units: 6.

Also listed as Gender Studies 476

Prerequisite: Junior standing, an intermediate course in English, or consent of instructor.

ENG 478
This lecture/discussion class will explore the rich literature African-American authors created, against great adversity, in nineteenth-century America. We will read works by Frederick Douglass, Frances Ellen Watkins Harper, Charlotte Forten Grimke, Paul Laurence Dunbar and others. Students will write short weekly papers and a substantial final research paper. Units: 6.

Also listed as Ethnic Studies 478

Prerequisite: ENG 250, ENG 260, or junior standing; or consent of instructor

ENG 480: *Modernist British Fiction*
A study of selected works of British fiction in relation to early 20th-century thought. Authors include Conrad, Lawrence, Joyce, Mansfield, Forster, Woolf, and others. Units: 6.

Prerequisite: Junior standing, ENG 240, or consent of instructor

ENG 483: *American Autobiography*
A study of prominent American autobiographies from the 19th and 20th centuries. The course will examine how autobiography responds to social, cultural, and aesthetic conditions and the relationship of the genre to the larger American literary tradition. Units: 6.

Prerequisite: Junior standing, ENG 250, or consent of instructor

ENG 485: *Modernist Poetry*
An exploration of modernist poetry, including work by Yeats, Eliot, Stein, Pound, H.D., Williams, Loy, and others. Units: 6.

Prerequisite: Junior standing, an intermediate course in English, or consent of instructor

ENG 490: *Modern Drama*
Studies in some of the major playwrights in Europe, England, and America from the time of Ibsen to the present. Units: 6.

Also listed as Theatre Arts 440

Prerequisite: Junior standing, an intermediate course in English, or consent of instructor

ENG 495: *Modernist American Fiction*
A study of American fiction from the first half of the 20th century. Authors include Wharton, Cather, Hemingway, Faulkner, Ellison, and others. Units: 6.

Prerequisite: Junior standing, ENG 250, or consent of instructor

ENG 498: *Representing War in American Writing*
This course will analyze the representation of war across the spectrum of American writing, examining the ways that national identity is posited in relation to military experience. Readings from a range of periods but focusing in particular on the Civil War, World Wars I and II, and the Vietnam War. Units: 6.

Prerequisite: Junior standing, an intermediate course in English, or consent of instructor

ENG 500: *Contemporary American Fiction*
Examination of selected works of American fiction, with particular emphasis on the literary movements of the post-World War II era, including postmodernism, multiculturalism, regionalism, and other topics. The course will include a diverse array of readings, which will vary by term and topic, as well as selected films and theoretical texts. Units: 6.

Prerequisite: Junior standing, ENG 250, or consent of instructor

ENG 501: *The Graphic Novel*
In recent years, graphic novels have taken a decidedly autobiographical turn as an increasing number of artists explore their own personal histories though a genre typically reserved for the fantastic and imagined. This course will examine a diverse array of contemporary graphic novels, ranging from popular comics to autobiography to experimental forms. Though the course will concentrate primarily on American graphic novels, it will include works produced by writer-artists in Asia, Western Europe, and elsewhere. Units: 6.

Prerequisite: ENG 250, junior standing, or consent of instructor

ENG 502: *Contemporary Jewish-American Literature*
A survey of contemporary American-Jewish authors, as Phillip Roth, Cynthia Ozick, Paul Auster, Art Spiegelman, Jonathan Safran-Foer, and others, exploring the question of identity, gender, minor-literature, religion, immigration, and heritage. The course will also examine the two key components of these works -- Jewish and American -- and inquire into their validity. Units: 6.

ENG 503: *Contemporary American Poetry*
Examination of selected works of American poetry with particular emphasis on the post-World War II era. The course will consider individual poets' responses both to poetic traditions and to formal and thematic innovations of the 20th century. Units: 6.

Prerequisite: Junior standing, ENG 250, or consent of instructor

ENG 506: ***Contemporary African-American Women Poets***
In this lecture/discussion course, we'll look at the great stylistic variety of poetry that Black women have been writing during the past twenty years. Students will consider poetry through the lenses of critical race and gender criticism and will write weekly short papers and a substantial research paper. Poets may include Marilyn Nelson, Natasha Trethewey, Claudia Rankine, Tracy K. Smith, Nikky Finney and others. Units: 6.

Also listed as Ethnic Studies 506, Gender Studies 506

Prerequisite: ENG 250, ENG 260, or junior standing; or consent of instructor

ENG 510: ***Literature of the Harlem Renaissance***
A study of poetry, fiction, and essays by African American writers from the era of World War I through the 1930s. Authors include Langston Hughes, Zora Neale Hurston, Claude McKay, Nella Larsen, W.E.B. Du Bois, and others. Units: 6.

Also listed as Ethnic Studies 561

Prerequisite: Junior standing, ENG 250 or 260, or consent of instructor

ENG 515: ***Gender and Modernist British/American Literature***
A study of the construction of gender in early 20th-century fiction and poetry. Authors include Cather, Woolf, Lawrence, Hemingway, Sassoon, and others. Units: 6.

Also listed as Gender Studies 445

Prerequisite: Junior standing, an intermediate course in English or gender studies, or consent of instructor

ENG 516: ***Literature and Human Rights***
An interdisciplinary investigation of the aesthetics and ethics of representing human rights and their violations in literature and film. Texts include novels, plays, essays, and films on topics such as genocide, torture, and development. Units: 6.

Also listed as Ethnic Studies 516

Prerequisite: Junior standing, ENG 280, or consent of instructor

ENG 517: ***Topics in Human Rights***
This course will address an advanced topic in the study of human rights such as human rights and narrative forms, ethical witnessing, or humanitarianism. Units: 6.

Prerequisite: Junior standing or consent of instructor

ENG 518: *Fictions of Globalization*
Is globalization really shrinking the global divide between rich and poor, or is this mere fiction? To explore this question, we will examine contemporary novels and films that showcase individuals in India and China as they grapple with issues such as economic migration, class struggle, and terrorism. Units: 6.

Also listed as Ethnic Studies 518

Prerequisite: ENG 280, junior standing, or consent of instructor

ENG 521: *Narratives of International News*
A study of the literature that re-presents world events in different ways from the mainstream news media. Texts include novels, memoirs, graphic novels, or documentary dramas. Units: 6.

Also listed as Ethnic Studies 521

Prerequisite: ENG 280, junior standing, or consent of instructor

ENG 522: *Literature and the Environment*
An interdisciplinary investigation of the ways that literature shapes environmental values and practices as well as responds to environmental concerns. We will study novels, films, and essays on topics such as organic food and farming, air and water pollution, and environmental justice movements. Units: 6.

Also listed as Environmental Studies 522

Prerequisite: Junior standing

ENG 525: *Contemporary Critical Theory*
A survey of important movements. Among the readings are selections by Derrida, Foucault, and Bakhtin as well as selections from more recent figures, such as Judith Butler, Eve Sedgwick, Henry Louis Gates Jr., Cornel West, and bell hooks. Units: 6.

Prerequisite: Junior standing or consent of instructor

ENG 527: *History of the Book*
To provide an introduction to the interdisciplinary field of Book History, which should help students think more critically about the impact of material culture on intellectual activity. The course will be taught as a speaking intensive seminar, which means that students will frequently be responsible for presenting reading material and leading discussion in the first half of class. Units: 6.

Also listed as History 385

Prerequisite: Junior standing or consent of the instructor.

ENG 530: *The English Language*
A study of the sounds, structure, usage, and history the English language. Units: 6.

Also listed as Linguistics 530

Prerequisite: LING 150 and sophomore standing, or consent of instructor

ENG 550: *Advanced Creative Writing: Nonfiction*
A writing workshop for students with previous creative writing experience. Units: 6.

Prerequisite: ENG 350 or ENG 360

ENG 560: *Advanced Creative Writing: Fiction*
A workshop for students with previous fiction writing experience. Units: 6.

Prerequisite: ENG 360 or consent of instructor

ENG 562: *Advanced Creative Writing: Novel Writing*
Course for students composing creative, book-length works of prose. Units: 6.

Prerequisite: ENG 350 or ENG 360, and ENG 550 or ENG 560

ENG 565: *Advanced Creative Writing: Poetry*
A workshop for students with previous poetry writing experience. Units: 6.

Prerequisite: ENG 370 or consent of instructor

ENG 590: *Tutorial Studies in English*
Tutorial study in the literature of various periods, English and American, and in literary forms and composition. Intended primarily for juniors and seniors. Arrangements should be discussed with the department chair. Units: Variable.

Prerequisite: Counter Registration Required.

ENG 591: *Directed Study in English*
Directed study follows a syllabus set primarily by the instructor to meet the needs or interests of an individual student or small group of students. The main goal of directed study is knowledge or skill acquisition, not research or creative work. Units: Variable.

Prerequisite: Counter Registration Required.

ENG 599: *Independent Study in English*
Advanced study, arranged in consultation with the department chair. Students considering an honors project should register for this course. Units: Variable.

Prerequisite: Counter Registration Required.

ENG 600: ***Senior Seminar in English***
A seminar involving analysis of theoretical, historical, critical, and literary readings at an advanced level in conjunction with students' research and writing of an original, substantial paper. Each section of the seminar will focus on a theme that can accommodate variety in students' individual research projects. Units: 6.

Prerequisite: Majors only; junior standing for spring term, otherwise, senior standing; at least two English courses numbered 400 or above

ENG 690: ***Tutorial Studies in English***
Tutorial study in the literature of various periods, English and American, and in literary forms and composition. Intended primarily for juniors and seniors. Arrangements should be discussed with the department chair. Units: Variable.

Prerequisite: Counter Registration Required.

ENG 691: ***Directed Study in English***
Directed study follows a syllabus set primarily by the instructor to meet the needs or interests of an individual student or small group of students. The main goal of directed study is knowledge or skill acquisition, not research or creative work. Units: Variable.

Prerequisite: Counter Registration Required.

ENG 699: ***Independent Study in English***
Advanced study, arranged in consultation with the department chair. Students considering an honors project should register for this course. Units: Variable.

Prerequisite: Counter Registration Required.

Professors: Bjornerud*** (Geology, Schober Professorship in Environmental Studies), Clark (Geology), B. De Stasio* (Biology, Dennis and Charlot Nelson Singleton Professor of Biological Sciences), Dreher (Philosophy, Lee Claflin-Robert S. Ingraham Professorship in Philosophy), Skran (Government, Edwin & Ruth West Professorship in Economics and Social Science), Stoneking (Physics)

Associate professors: Brozek** (Government, Stephen Edward Scarff Professor of International Affairs), Gerard** (Economics), Hixon (Government, Gordan R. Clapp Chair in American Studies), M. Jenike**** (Anthropology, Pieper Family Professor of Servant Leadership), Knudsen (Geology), Purkey (Education, Bee Connell Mielke Professorship in Education), Rico (History, chair), Sedlock (Biology)

*On leave Terms I, II, III; **On leave Terms II; ***On leave Terms II, III; ****On leave Terms III

Introduction

The field of environmental studies addresses some of the most critical and complicated issues of our time: those regarding environmental change and the future of humanity. The systems that make up planet Earth are simultaneously comprehensible and complex, predictable and chaotic, robust and fragile. Changes in one part of this system of systems may have far-reaching implications for other parts. As citizens of Earth, we cannot afford to remain ignorant of the global environmental consequences of our daily activities.

A degree in environmental studies prepares students for a wide spectrum of careers, including environmental law, consulting, policy making, technical innovation, wildlife management, teaching, natural resource management, and fundamental research. Students in the major share a common sequence of core courses, beginning with introductions to environmental science and policy through an intermediate level practicum and culminating with the senior capstone. Throughout the curriculum, majors are exposed to different perspectives on and tools for understanding the environment including those from the natural sciences, social sciences, and the humanities. In addition, all students are required to take advanced courses in one department to provide disciplinary depth. Students have considerable choice in their courses and work with their advisor to select courses that fit individual interests and career goals. The field experience requirement ensures that students get out of the classroom to put their academic work into practice.

The minor in environmental studies is designed to complement a major in any field.

Environmental studies major

1. Required core courses (30 Units)
    a. ENST 150: *Introduction to Environmental Science with Lab* (6 units)
    b. ENST 151: *Introduction to Environmental Policy* (6 units)
    c. ENST 300: *Symposium on Environmental Topics* (6 units)
    d. ENST 650: *Environmental Studies Senior Seminar* (6 units)
    e. MATH 107, 117 or 207; Statistics or BIOL 170: *Integrative Biology: Experimental Design and Analysis* or ANTH 207: *Quantitative Analysis in Anthropology* (6 units)
2. Perspectives from science (18 units)
   Three additional natural science courses from at least two different departments, one of which must be lab-based and one of which must be 200 or above.
3. Perspectives from policy (12 units)
    a. ECON 280 or ECON 285
    b. GOVT 270 or GOVT 380
4. Perspectives from history, society, and culture (6 units)
    - HIST 355
    - EDST 400
    - PHIL 360
    - ANTH 310
5. Disciplinary focus (18 units)
   Eighteen units from courses numbered 200 or above in a single department GOVT, ECON, CHEM, BIOL, GEOL, ANTH, and PHYS, selected in consultation with advisor.
6. Field experience
   Not necessarily for credit; typically about 50 hours of work outside the classroom or participation in an ENST-related internship or off-campus program.

Environmental studies minor

1. Required core courses (18 units)
    a. ENST 150: *Introduction to Environmental Science with Lab* (6 units)
    b. ENST 151: *Introduction to Environmental Policy* (6 units)
    c. ENST 300: *Symposium on Environmental Topics* (6 units)
2. Courses with significant emphasis on environmental topics (30 units)
   Any five environmental studies cross-listed courses. Environmental studies courses taken through Lawrence-sponsored off-campus programs, such as the Semester in Environmental Science may also fulfill this requirement, with approval of the Environmental Studies Steering Committee. Special note: No more than three courses may be applied simultaneously toward completion of this minor and a student's major.

Senior Experience in environmental studies

The Senior Seminar (ENST 650) is the culmination of the environmental studies major and serves as the program's *Senior Experience*. Through discussions of primary literature and guest lectures, students are engaged with cutting-edge scholarship in the natural sciences, social sciences, and the humanities. Students also complete individual projects, which consist of developing temporal or spatial models of environmentally relevant phenomena. In the course of modeling, students must find and acquire relevant data, determine functional relations between model elements, perform sensitivity analyses, and justify their choices and assumptions. Results and conclusions are presented orally and in a written document. The 6-unit course is offered once a year and has ENST 150, ENST 151 and ENST 300 as prerequisites. Students may elect, with the approval of their ENST advisor, to identify a different project, such as an independent research project, as their *Senior Experience*. Completion of ENST 650, however, is required for all environmental studies majors.

COURSES

ENST 115: *Energy Technology, Society, and the Environment*

Explores energy production, storage, and usage as they are currently practiced. Certain emerging technologies will also be addressed. Environmental and socio-economic impact will be discussed in the context of limitations imposed by the laws of physics. Units: 6.

Also listed as Physics 112

ENST 150: *Environmental Science*

Presents principles of biology, chemistry, geology, and physics that relate to such environmental issues as resource limitation, pollution, and environmental degradation. Designed to foster understanding of scientific measures of environmental quality. One laboratory per week. Units: 6.

Also listed as Geology 150

Prerequisite: Freshman or sophomore standing; consent of instructor required for juniors and seniors

ENST 151: *Introduction to Environmental Policy*

This course applies principles of economics and political science to environmental issues, including pollution, resource limitation, and environmental degradation. It is designed to foster an understanding of the environmental policy-making and regulatory process in the United States and globally. Units: 6.

Also listed as Government 151, Economics 151

ENST 191: ***Directed Study in Environmental Studies***
Directed study follows a syllabus set primarily by the instructor to meet the needs or interests of an individual student or small group of students. The main goal of directed study is knowledge or skill acquisition, not research or creative work. Units: Variable.

Prerequisite: Counter Registration Required.

ENST 195: ***Internship in Environmental Studies***
An opportunity for environmental studies students to gain practical experience in the commercial, government, or nonprofit sectors. The internship is supplemented by readings and discussions with a supervising faculty member. At the conclusion of the internship, the student must submit a summative report that considers the internship experience in the context of the student's other academic work. The academic component of the internship includes readings related to the substance of the internship, discussions with the faculty supervisor, and a written report appropriate to the discipline. Course grades are based on this academic work.
Units: Variable.

Prerequisite: Counter Registration Required.

ENST 202: ***Geology and Health***
A course investigating the links between geology and health, considering topics such as asbestos, natural and anthropogenic water contamination, and cycling of trace elements as both contaminants and necessary nutrients. Designed to illuminate the link between the seemingly disparate fields of geology and the health of life on earth. Units: 6.

Also listed as Geology 213

Prerequisite: GEOL 110

ENST 208: ***Sustainable China: Environment and Economy***
This course integrates environmental and economic topics relevant for understanding sustainability in the Chinese context, including economic development, natural resource management, urban growth, and environmental policy. It is a prerequisite for a December study trip to China. Units: 6.

Also listed as Government 208, Economics 208

Prerequisite: Limited to students selected for the Sustainable China study trip

ENST 210: ***Animal Behavior***
A lecture and field-study course examining the principles and problems of animal behavior. Subjects include orientation, feeding, locomotion, communication, escape in time and space, biological rhythms, mate choice, and aspects of social behavior, examined from evolutionary, ontogenetic, physiological, ecological, and ethological perspectives. Lecture and laboratory. Units: 6.

Also listed as Biology 200

Prerequisite: BIOL 150

ENST 212: ***Physiological Ecology***
Biological stresses induced by environmental variables are described. Physiological and molecular adaptations associated with flowering, disease resistance, pollination, germination, and nutrient uptake and partitioning are discussed and investigated, using both field and laboratory experience. Lecture and laboratory. Units: 6.

Also listed as Biology 231

Prerequisite: BIOL 110 or BIOL 130

ENST 213: ***Evolutionary Biology***
A study of biological evolution, including natural selection, adaptation, the evolution of sex, speciation, extinction, and constraints on evolutionary change. Reading primary literature is emphasized. Two lectures and one discussion per week. Units: 6.

Also listed as Biology 235

Prerequisite: BIOL 130 or ANTH 140

ENST 220: ***General Ecology***
An introduction to the interactions between organisms and the environment, exploring the role of physical, chemical, and biotic processes, including human activities, in determining the structure and function of populations, communities, and ecosystems. Topics include resource availability, competition, predation, symbiosis, and natural and anthropogenic disturbances such as disease, biological invasions, pollution, and climate change. Lecture and laboratory. Units: 6.

Also listed as Biology 230

ENST 222: ***Atmospheric & Environmental Chemistry***
This course focuses on the fundamental chemical processes that control Earth's atmosphere, ocean, soil, and climate. The course emphasizes the mechanisms that regulate the flow of energy in different ecosystems, the environmental role of particulate matter and solar radiation, chemistry-climate relationships, and the anthropogenic impact on the environment. Units: 6.

Also listed as Chemistry 212

Prerequisite: CHEM 116

ENST 230: ***History of the Earth and Life***
A study of the physical, chemical, and organic evolution of the Earth since its origin 4.5 billion years ago, with emphasis on times of change and crisis. The course also examines the evolution of ideas about Earth's history, illustrating how science and culture are inherently entangled. Units: 6.

Also listed as Geology 210

Prerequisite: GEOL 110

ENST 235: ***Weather, Climate, and Climate Change***
A study of basic meteorologic principles and climate patterns. These phenomena will be discussed in relation to evidence of past climate change and implications of global warming on future climate. Units: 6.

Also listed as Geology 214

Prerequisite: GEOL 110 or 150

ENST 237: ***Environmental Remote Sensing and GIS Applications***
Fundamentals of electromagnetic radiation and the interaction of radiation with matter are introduced as the basis of remote sensing. Interpretation and manipulation of remotely sensed images are used to demonstrate the wealth of information remote sensing provides. Applications and case studies from geology, environmental science, ecology, agronomy, and urban planning will be explored. High school physics recommended. Lecture and laboratory. Units: 6.

Also listed as Geology 220

Prerequisite: GEOL 110; high school physics recommended

ENST 240: ***Chemistry of the Earth: Low-Temperature Environments***
An introduction to the geochemical processes at the Earth¿s surface. Emphasis is placed on how chemical processes such as thermodynamics, phase equilibria, and oxidation-reduction reactions shape the Earth surface and near-surface environments. Units: 6.

Also listed as Geology 240

Prerequisite: GEOL 110 and CHEM 115; concurrent enrollment in GEOL 245

ENST 245: ***Conservation Biology***
This course explores scientific concepts related to the conservation and restoration of Earth's biological diversity. Topics include patterns of species and ecosystem diversity, the relationship between biodiversity and ecosystem functioning, causes of extinction, assessing extinction risk, behavioral indicators, *in-situ* and *ex-situ* management strategies for endangered species, and ecosystem restoration. Lecture only. Units: 6.

Also listed as Biology 245

Prerequisite: BIOL 150 and sophomore standing

ENST 250: ***Analytical Chemistry***
A course in the quantitative description of chemical equilibria in solution (acid-base, complexation, redox, solubility) using classical, separation, electrochemical, and spectrochemical methods of analysis. This course covers methods of quantification, statistics, and data analysis as applied to modern chemistry. Students will have the opportunity to individually design projects. Three lectures and two laboratory periods per week. Units: 6.

Also listed as Chemistry 210

Prerequisite: CHEM 116, placement exam, or consent of instructor

ENST 260: ***Research Methods in Archaeology***
Presents the research process in archaeology and offers an overview of essential data-collection and analysis techniques, including site survey and excavation, settlement pattern analysis, lithic analysis, and ceramic analysis. Students will take part in field research. Units: 6.

Also listed as Anthropology 220

Prerequisite: ANTH 120

ENST 270: *Global Environmental Politics*
This course provides an examination of the environment as an issue in world politics. Emphasis will be placed on the role of both state and non-state actors (*i.e.,* the UN, NGOs) in global environmental regimes that are designed to deal with global warming, ozone depletion, and other environmental issues. Particular attention will be paid to the positions taken by both developed and developing countries. As part of the course, students will participate in a simulation of an international negotiation on an environmental issue. Units: 6.

Also listed as Government 270

Prerequisite: Sophomore standing or ENST 150 or GOVT 110

ENST 280: *Environmental Economics*
The course shows how economists analyze environmental problems and the types of solutions they propose (if any). Topic coverage includes property rights and externalities, cost-benefit analysis, regulatory policy instruments, the interplay between policy and innovation, and basic models of political economy. Units: 6.

Also listed as Economics 280

Prerequisite: ECON 100 or ENST 151

ENST 300: *Symposium on Environmental Topics*
The heart of this course is an annual symposium organized around a well-defined topic with both scientific and policy components — *e.g.,* nuclear waste disposal, global warming. Each year, two or three nationally recognized experts on the selected topic are brought to campus. In the weeks before a visit by one of the major speakers, students, together with environmental studies faculty, read and discuss papers suggested by the speaker. The speakers meet with students in the seminar following their public lecture, providing students with an opportunity to interact directly with scientists and policy makers at the forefront of environmental issues.

Topic for Fall 2016: Environmental Challenges of Africa

In this symposium, students will learn about the environmental challenges facing African countries and peoples. While a "challenge" is similar to a "problem" in that the existence of one suggests an unmet need or even perhaps a crisis, the definition of a challenge is different. A problem can be defined but not solved, while a challenge, once defined, cries out for some method of meeting it. Thus, in this course, we will examine major environmental challenges facing Africa and then consider different ways of meeting them. Possible topics for projects include the following: water scarcity, deforestation, desertification, mining/natural resource exploitation, wildlife conservation, urban pollution, e-waste, population issues, land use (including agriculture).

Topic for Spring 2017: Urban Agriculture

An exploration of the urban agriculture movement including readings, guest speakers, field trips, and hands-on learning on our own urban farm (aka SLUG). Class is discussion based with a group final project and 5hrs of service learning per week expected.

Units: 6.

Prerequisite: ENST 150, sophomore standing

ENST 310: *Aquatic Ecology*
The principles of the ecology of fresh waters, developed through discussions, laboratory, and field investigations of the functional relationships and productivity of biotic communities as they are affected by the dynamics of physical, chemical, and biotic parameters. Lecture and laboratory. Units: 6.

Also listed as Biology 330

Prerequisite: BIOL 150 or BIOL 170 (or concurrent enrollment) or BIOL 230

ENST 311: *Field Experience in Development*
Students engaged in this course will have the opportunity to do field research in a developing country. Each student will develop and implement a project that concerns economic, political, and/or environmental issues important in Sierra Leone, Jamaica, or another selected country. Students will also have the opportunity to learn from both national and local leaders in political, economic, environmental, and social development issues. Class members will travel to a developing country during a term break. Students must register for this course in the term prior to the planned travel and in the subsequent term, when they will present their research to the wider Lawrence community.

Location for 2016-17: Students will travel to Sierra Leone during spring break. Admission is by application to Prof. Skran. Students should register for both fall and winter terms.

Units: 3.

Also listed as Economics 206, Government 401

Prerequisite: Completed or concurrent enrollment in ENST 300, ECON 205, or GOVT 500 (Research Methods in Comparative Politics and International Relations); ECON 170 and ECON 211

ENST 330: *Advanced Geochemistry*
A more detailed investigation of geochemical principles and processes through the investigation of important geochemical issues. Readings come heavily from the primary literature. Units: 6.

Also listed as Geology 340

Prerequisite: GEOL 240 and CHEM 115, or consent of instructor; CHEM 116 recommended

ENST 335: ***Physics of the Earth: Surface Environments***
This course studies the movement of water, solute, and sediment through the landscape and the resulting properties and distribution of surficial earth materials and landforms. Topics include weathering; soil development; runoff; mass movement; river, glacial, and coastal processes; and deposition in sedimentary environments. One lab per week. Units: 6.

Also listed as Geology 360

Prerequisite: GEOL 110 and 240 or consent of instructor; PHYS 141 or 151 recommended

ENST 340: ***Plant Ecology***
This course emphasizes core concepts in ecology and evolution from the unique perspective of plants. Students will explore the interactions between plants and their environment over a range of scales; from individuals to populations and communities. Lecture and laboratory. Units: 6.

Also listed as Biology 335

Prerequisite: BIOL 170

ENST 345: ***Terrestrial Field Ecology***
A hands-on course intended to demonstrate basic ecological principles using local terrestrial ecosystems. Field research projects will introduce students to methods in hypothesis development, experimental design, data collection, statistical analysis, and scientific writing and presentation. Research topics will include estimating population size, community structure, plant-animal interactions, and foraging behavior. Lecture and laboratory. Units: 6.

Also listed as Biology 345

Prerequisite: BIOL 150 or BIOL 170, and sophomore standing

ENST 355: ***History of the American Environment***
North Americans have transformed the environment while being shaped by nature in turn. This course surveys the changing relationships between Americans and their physical environment in historical context from the 17th century to the present. Topics include the “Columbian exchange,” agriculture, urbanization, conservation, and the emergence of contemporary environmentalism. Units: 6.

Also listed as History 355

Prerequisite: Sophomore standing

ENST 360: ***Environmental Ethics***
An examination of some ethical assumptions that might figure in discussions of environmental policy by economists, legal experts, philosophers, and policy scientists. Units: 6.

Also listed as Philosophy 360

Prerequisite: One course in economics or environmental studies or government or philosophy; or junior standing

ENST 365: ***Ecological Anthropology***
A study of relationships between human communities and their natural environments (*i.e.,* humans studied as members of ecosystems). Topics include the interactions between environment, human biology, and social organization and anthropological perspectives on global environmental problems. Units: 6.

Also listed as Anthropology 310

Prerequisite: One anthropology course or consent of instructor

ENST 378: ***East Asian Environmental History***
This course will explore traditional East Asian ideas about the relationship between humans and their natural environments, as well the premodern and modern history of that interaction. We will also consider the relationship between these philosophies and practice, both for the societies we study and for our own. Units: 6.

Also listed as East Asian Studies 378

Prerequisite: Some background in East Asian Studies or Environmental Studies is recommended.

ENST 387: ***Let Us Arise: Ireland's Deep Time***
Taking a dramaturgical and geographical approach to explore a deep sense of place, we will use the lens of culture (drama, poetry, fiction, music, film, history and visual arts) to investigate the variegated quality of Ireland's land and its people. Units: 6.

Also listed as Theatre Arts 387

Prerequisite: Sophomore standing and ENST 150, ENST 151, or THAR 327

ENST 390: ***Tutorial in Environmental Studies***
Advanced study and analysis of a particular topic or case related to environmental issues, viewed from the perspective of more than one academic discipline. Units: Variable.

Prerequisite: Counter Registration Required.

ENST 391: ***Directed Study in Environmental Studies***
Directed study follows a syllabus set primarily by the instructor to meet the needs or interests of an individual student or small group of students. The main goal of directed study is knowledge or skill acquisition, not research or creative work. Units: Variable.

Prerequisite: Counter Registration Required.

ENST 395: ***Internship in Environmental Studies***
An opportunity for environmental studies students to gain practical experience in the commercial, government, or nonprofit sectors. The internship is supplemented by readings and discussions with a supervising faculty member. At the conclusion of the internship, the student must submit a summative report that considers the internship experience in the context of the student's other academic work. The academic component of the internship includes readings related to the substance of the internship, discussions with the faculty supervisor, and a written report appropriate to the discipline. Course grades are based on this academic work.
Units: Variable.

Prerequisite: Counter Registration Required.

ENST 399: ***Independent Study in Environmental Studies***
Advanced independent research, under the guidance of a faculty mentor or mentors, on a particular topic related to the environment. The student is required to produce a formal paper or equivalent (*e.g.,* poster session, Web page, presentation at a professional meeting) as a tangible record of the work carried out. Units: Variable.

Prerequisite: Counter Registration Required.

ENST 410: ***Ecological Energetics***
Field and laboratory experimental investigations of the transfer and transformation of energy or energy-containing materials between and within organisms and populations of aquatic ecosystems. Part of the Marine Biology Term. Lecture and laboratory. Units: 6.

Also listed as Biology 434

Prerequisite: BIOL 330, concurrent enrollment in BIOL 505 and 226 and consent of instructor

ENST 420: ***The Geography of Life: Biodiversity in a Changing Planet***
Earth is a dynamic and changing planet, comprised of tightly linked ecosystems and organisms. In this course we explore relationships between the biotic and abiotic drivers that influence the distribution of global diversity. We use large-scale datasets to develop practical skills for monitoring the responses of biodiversity to environmental change. Units: 6.

Also listed as Biology 420

Prerequisite: BIOL 150 and BIOL 170; preferred but not required: BIOL 230 and BIOL 235

ENST 430: *Watershed Hydrology*
An introduction to the basic components of the hydrologic cycle, focusing on surface water and groundwater systems. Measurement and analysis of hydrologic data are emphasized. Application to contemporary issues such as flooding, watershed development, and groundwater contamination will be discussed. Units: 6.

Also listed as Geology 430

Prerequisite: GEOL 110; PHYS 141 or 151 recommended

ENST 440: *Environmental Biology*
An investigation of how microbial organisms use and influence their environment. Experiments in the field and laboratory will explore the roles of microbes in ecosystems with a particular focus on the transfer of energy within and between organisms. Part of the Marine Biology Term. Units: 6.

Also listed as Biology 435

Prerequisite: BIOL 330, concurrent enrollment in BIOL 505 and BIOL 200, and consent of instructor

ENST 460: *The Environment, Community, and Education*
The course will examine the relationship between community-mindedness and the development of ecological literacy. Cultural assumptions about the natural world and our place in it that are implicit within the K-12 and college curriculum, and the manner in which modern forms of education shape our understanding of what it means to “live well in a place we know well” will be explored. Examples of how schools can contribute to environmental and social sustainability (and justice) via community- and place-based education will be presented. Units: 6.

Also listed as Education Studies 400

Prerequisite: Sophomore standing or consent of instructor

ENST 470: *Environmental Politics*
An examination of selected aspects of environmental policy in the United States. Topics include the historical development of US environmental policy, environmental justice, urban environmental issues, connections between food systems and the environment, and the application of economic reasoning to environmental policy making. Units: 6.

Also listed as Government 465

Prerequisite: ENST 151 and junior standing, or consent of instructor

ENST 478: *Topics in Environmental History*
An in-depth examination of a particular topic in environmental history, suitable for majors in history and environmental studies. Students from other majors should consult the instructor before registering. May be repeated for credit when topic is different.

Units: 6.

Also listed as History 478

Prerequisite: HIST 355

ENST 494: *Music and the Environment*
In many societies around the world, people use music to connect with nature, specific places, and surrounding environments. This course will explore music performance practices and repertoire that expresses or enacts these connections. Case studies will include songlines and Australian Aboriginal land claims, North American protest songs, and the intimate relationships between music and nature of the BaAka people in central Africa and among the Kakuli people in Papua, among others. Units: 6.

Also listed as Musicology 494

Prerequisite: Sophomore standing or consent of instructor

ENST 505: *Coral Reef Environments*
Examines the ecology of coral reef environments. Lecture, laboratory, and field components. Part of the Marine Biology Term. Lecture and laboratory. Units: 6.

Also listed as Biology 505

Prerequisite: BIOL 330 and concurrent enrollment in BIOL 226 and BIOL 434

ENST 522: *Literature and the Environment*
An interdisciplinary investigation of the ways that literature shapes environmental values and practices as well as responds to environmental concerns. We will study novels, films, and essays on topics such as organic food and farming, air and water pollution, and environmental justice movements. Units: 6.

Also listed as English 522

Prerequisite: Junior standing

ENST 590: *Tutorial in Environmental Studies*
Advanced study and analysis of a particular topic or case related to environmental issues, viewed from the perspective of more than one academic discipline. Units: Variable.

Prerequisite: Counter Registration Required.

ENST 591: ***Directed Study in Environmental Studies***
Directed study follows a syllabus set primarily by the instructor to meet the needs or interests of an individual student or small group of students. The main goal of directed study is knowledge or skill acquisition, not research or creative work. Units: Variable.

Prerequisite: Counter Registration Required.

ENST 595: ***Internship in Environmental Studies***
An opportunity for environmental studies students to gain practical experience in the commercial, government, or nonprofit sectors. The internship is supplemented by readings and discussions with a supervising faculty member. At the conclusion of the internship, the student must submit a summative report that considers the internship experience in the context of the student's other academic work. The academic component of the internship includes readings related to the substance of the internship, discussions with the faculty supervisor, and a written report appropriate to the discipline. Course grades are based on this academic work.
Units: Variable.

Prerequisite: Counter Registration Required.

ENST 599: ***Independent Study in Environmental Studies***
Advanced independent research, under the guidance of a faculty mentor or mentors, on a particular topic related to the environment. The student is required to produce a formal paper or equivalent (*e.g.,* poster session, Web page, presentation at a professional meeting) as a tangible record of the work carried out. Units: Variable.

Prerequisite: Counter Registration Required.

ENST 650: ***Environmental Studies Senior Seminar***
A seminar on issues and methods of environmental studies and a focal point of the environmental studies major. Topics include scientific measures of environmental quality, natural resource management, pollution, prices, and public policy and ethical considerations. Students employ data and models to address a chosen environmental problem. Faculty members from contributing disciplines participate. Units: 6.

Prerequisite: ENST 150, ENST 300, and senior standing; or consent of the instructor

ENST 690: ***Tutorial in Environmental Studies***
Advanced study and analysis of a particular topic or case related to environmental issues, viewed from the perspective of more than one academic discipline. Units: Variable.

Prerequisite: Counter Registration Required.

ENST 691: ***Directed Study in Environmental Studies***
Directed study follows a syllabus set primarily by the instructor to meet the needs or interests of an individual student or small group of students. The main goal of directed study is knowledge or skill acquisition, not research or creative work. Units: Variable.

Prerequisite: Counter Registration Required.

ENST 695: ***Internship in Environmental Studies***
An opportunity for environmental studies students to gain practical experience in the commercial, government, or nonprofit sectors. The internship is supplemented by readings and discussions with a supervising faculty member. At the conclusion of the internship, the student must submit a summative report that considers the internship experience in the context of the student's other academic work. The academic component of the internship includes readings related to the substance of the internship, discussions with the faculty supervisor, and a written report appropriate to the discipline. Course grades are based on this academic work.
Units: Variable.

Prerequisite: Counter Registration Required.

ENST 699: ***Independent Study in Environmental Studies***
Advanced independent research, under the guidance of a faculty mentor or mentors, on a particular topic related to the environment. The student is required to produce a formal paper or equivalent (*e.g.,* poster session, Web page, presentation at a professional meeting) as a tangible record of the work carried out. Units: Variable.

Prerequisite: Counter Registration Required.

Associate professors: Balsekar (Government), Carlson (Art and Art History), Chang (French and Francophone Studies), Daughtry (Anthropology, chair), Frederick (History), Hoffmann (English), Khor (English), Miller (Conservatory of Music), Ongiri (Film Studies, Jill Beck Director of Film Studies), Purkey (Education, Bee Connell Mielke Professorship in Education), Vetinde (French and Francophone Studies)

Assistant professor: Downing (Conservatory of Music)

Instructor: Wegehaupt (Dean of Faculty Office)

Postdoctoral fellow: Arthur (Dean of Faculty Office)

Introduction

Drawing upon its own interdisciplinary body of theory, concepts and methodological approaches, ethnic studies at Lawrence provides intellectual environments in which students can participate in meaningful dialogue about topics too often shrouded in silence. Ethnic studies appeals to students who want to explore the evolution of ethno-racial identities in both U.S. domestic and global contexts, and examine current issues pertaining to race and ethnicity. Students take ethnic studies courses to enhance their own ability to negotiate multi-ethnic and inter-racial relationships and to thrive in workplace diversity. Students broaden their own worldview when they study concepts of ethnicity and learn what it means to identify with an ethnic group on the basis of national origin, family heritage, shared historical experience, customs and traditions, and/or language. Students think critically about the concept of race when they explore how race is a recent human invention, how race is about culture and politics and not biology, and how race and racism are still embedded in institutions and everyday life.

The ethnic studies minor at Lawrence offers two core courses that introduce students to theory, concepts and approaches from the social sciences (ETST 200: *Race and Ethnicity in the United States*) and the arts and humanities (ETST 210: *Expressions of Ethnicity*). Students take at least one of the two core courses and four additional elective courses, at least one from each of two categories—domestic and global—to build a minor that reflects individual student interests in certain topics or current debates, specific ethno-racial communities, geographic areas, or historical time periods. In a senior capstone requirement, students may choose from a range of options designed to bring reflection and focus to their ethnic studies experience.

Required for the minor in ethnic studies

1. One of the two core courses:
    - ETST 200: *Race and Ethnicity in the United States*
    - ETST 210: *Expressions of Ethnicity*
2. Four additional courses, at least one from each of two categories—domestic and global—and representing course work from at least two different departments. No more than two courses may count toward the student's major. A student may choose to do the second core course as one of the electives.
    a. *Domestic:* courses that focus on the experience of a major ethnic group in the United States or on relations among ethnic groups in the United States. The following are just a few examples of courses that have met this requirement:
        - ETST 240: *Sociology of Education*
        - ETST 353: *Ethnicity, Cultural Diversity, and Education*
        - ETST 360: *Survey of African American Literature*
        - ETST 380/381: *"Ideal Immigrants"? The German Experience in America*
        - ETST 420: *The American Civil War*
        - ETST 425: *Black, Brown and Queer on Film*
        - ETST 561: *Literature of the Harlem Renaissance*

    b. *Global:* courses that focus on the experience of ethnicity and relations among ethnic groups outside the United States or comparative courses that include both the United States and other parts of the world. The following are just a few examples of courses that have met this requirement:
        - ETST 221: *Europe in the Age of Nationalism, World War, and Totalitarianism, 1851–1990*
        - ETST 226: *Identity Politics and Ethnic Conflict*
        - ETST 251: *Immigration and Refugees: Changing the Face of Europe*
        - ETST 325: *Ethnicity in Latin America*
        - ETST 382: *The Literature and Culture of Ethnic Minorities in Germany*
        - ETST 560: *Contemporary British and Post-Colonial Fiction*
        - ETST 583: *Hispanic Issues*
        - ETST 584: *Black Cultural Nationalisms*

    Courses cross-listed in ethnic studies will count toward completion of the minor whether students register for them using the program's designation (ETST) or an individual department's designation. A student may choose to do the second core course as one of the electives. No more than two courses used for the minor may count towards the student's major, and no more than two courses may be taken from one department.
3. C average in the minor

Senior Experience in ethnic studies

A capstone experience, mentored or approved by an ethnic studies advisor, is required. Students may choose one of the following five options:

- ETST 695: *Ethnic Studies Field Experience* accompanied by a written reflection
- Upper-level independent studies in Ethnic Studies (ETST 599 or 699)
- Participation in the ACM Urban Studies program accompanied by a written reflection
- EDUC 595: *Methods, Materials and Assessments in Teaching English to Speakers of Other Languages*
- Student teaching in an ethnically diverse K-12 classroom or program

COURSES

ETST 120: *Modern Africa Since 1800*

The history of Africa from the end of the trans-Atlantic slave trade to the present. We will discuss the effects of abolition on Africa, the nature of pre-colonial African societies on the eve of conquest, the European "Scramble for Africa," the colonial era, African nationalism and decolonization, and the post-colonial period. Themes will cover social, political, economic, and religious history. Units: 6.

Also listed as History 125

ETST 121: *Traditional East Asian Civilization*

An introductory survey of East Asia from the dawn of indigenous civilization to the 16th century. Focus on the growth of a Sinitic center and its interaction with the sedentary and nomadic peoples on its Inner Asian and Pacific rims. Emphasis on the diverse peoples and societies of the area and the historical processes that bound them together through a common tradition. Units: 6.

Also listed as East Asian Studies 140, History 160

ETST 135: *American Indian History: Pre-Contact to 1830*

An introductory survey exploring American Indian history from the period preceding contact with African and Europeans to the era of removal. Focuses on the social, cultural, political and economic diversity of native peoples and their experiences with European colonialism. Units: 6.

Also listed as History 135

ETST 136: ***American Indian History 1830 to the Present***
This is an introductory survey exploring American Indian history from the removal era to the present. This course explores the social, political, and economic challenges Native people faced as a result of American expansion and colonialism. It focuses on the ways in which American Indian communities transformed in response to these changes, as well as their persistence and integrity as tribal nations in the present. Units: 6.

Also listed as History 136

ETST 191: ***Directed Study in Ethnic Studies***
Directed study follows a syllabus set primarily by the instructor to meet the needs or interests of an individual student or small group of students. The main goal of directed study is knowledge or skill acquisition, not research or creative work. Units: Variable.

Prerequisite: Counter Registration Required.

ETST 195: ***Internship in Ethnic Studies***
Practical experience working with diverse population, focused on volunteer, policy, or advocacy work. For example, students might volunteer to tutor youth in ethnically diverse educational programs, or work with a local immigrant relocation agency. Students work for 5-10 hours a week, depending on the amount of credit being earned, meet periodically with the instructor, and submit a written reflection connecting the experience to their academic work in Ethnic Studies. The academic component of the internship includes readings related to the substance of the internship, discussions with the faculty supervisor, and a written report appropriate to the discipline. Course grades are based on this academic work. Units: Variable.

Prerequisite: Counter Registration Required

ETST 200: ***Race and Ethnicity in the United States***
An interdisciplinary study of race and ethnicity in the United States. The course examines the development of racial and ethnic categorization; patterns of stratification; and the role of political, cultural, and economic forces in shaping ideas about race and ethnicity. The course will explore the social consequences of race and ethnicity with particular attention to racial and ethnic tolerance, discrimination, and institutional racism. The Civil Rights Movement, affirmative action, and immigration policies will be analyzed, as well as connections between ethnic stratification, class, and gender. Other topics will vary from term to term. Units: 6.

ETST 210: ***Expressions of Ethnicity***
An introductory course in which film, theatre, literature, visual arts, and music are analyzed in an effort to explore the many ways in which ethnicity is expressed, reflected, and constructed in American culture. Issues of identity, authenticity, impersonation, commodification, stereotypes, integration, and audience will be raised. Units: 6.

ETST 220: *Atlantic Slave Trade*
An examination of the Atlantic trade in enslaved Africans from its beginning in the 15th century to its eventual abolition in the 19th century. Topics include ideas of slavery in Europe and Africa; the development of the Atlantic trade; the economic, social, political, and religious effects of the slave trade in Africa and the Americas; the rise of racism; abolition and its aftermath. Units: 6.

Also listed as History 215

Prerequisite: Sophomore standing or consent of instructor

ETST 221: *Europe in the Age of Nationalism, World War, and Totalitarianism, 1851–1990*
An examination of European history from the Age of National Unification through the collapse of the Soviet Empire. Topics include imperialism, the two World Wars, the Russian Revolution, fascism, totalitarianism, mass nationalism, and the reemergence of eastern and central Europe. Units: 6.

Also listed as History 275

Prerequisite: Sophomore standing or consent of instructor

ETST 222: *History of the American West*
This course examines realities and images of the frontier/western experience from exploration and settlement of North America through the present. Included are native and immigrant groups, technology, transportation, agriculture, mining, and urbanization, as well as effects of the frontier on national character. Units: 6.

Also listed as History 330

Prerequisite: Sophomore standing

ETST 223: *Nationalism in Modern History*
An examination of the idea and the reality of nationalism in modern history. Among the questions we will ask are: Is nationalism a modern phenomenon, or does it have pre-modern origins? Is it compatible with democracy and human rights or fundamentally hostile to them? Is it primarily a European phenomenon transplanted to other places, or are there indigenous roots of nationalism throughout the world? We will attempt to answer these questions by reading theoretical works on nationalism from a variety of disciplines and by examining historical case studies. Units: 6.

Also listed as History 295

Prerequisite: Sophomore standing or consent of instructor

ETST 224: ***Introduction to Judaism: Canon, Thought, Practice***
The oldest monotheistic religion, studied through its classic texts (including the Bible, Talmud, Maimonides, the Zohar and much more). Readings of the modern era will highlight the shift from a religion to a national/ethnic identity. In addition, key terms of the Jewish cycle of life will be introduced. Units: 6.

Also listed as Religious Studies 225

ETST 226: ***Identity Politics and Ethnic Conflict***
Are conflicts between identity groups inevitable? Why do outbreaks of violence and ethnic conflict occur when they do? How have governments dealt with diversity and with what consequences? Students will read both new and classic works from the literature on nationalism, identity politics, genocide and post-conflict resolution across the world. Units: 6.

Also listed as Government 226

Prerequisite: Sophomore standing or consent of instructor

ETST 280: ***Survey of Postcolonial Literature***
An introduction to major postcolonial works in their literary, historical, and cultural contexts. Readings include novels by African, Asian, and Caribbean authors such as Chinua Achebe, Salman Rushdie, and Jean Rhys. Units: 6.

Also listed as English 280

Prerequisite: ENG 150 or its equivalent or consent of instructor

ETST 290: ***African-American Art***
Beginning with the late eighteenth century and concluding with art today, this course examines African-American history through visual culture. We will examine how race relations in the United States were and are constructed through visual culture including: painting, sculpture, public monuments, photography, advertising, and performance. Units: 6.

Also listed as Art History 272

Prerequisite: Sophomore standing

ETST 300: ***Strong Women, Strong Nations: Perspectives of Contemporary Native American Women***
An interdisciplinary examination of issues facing Native American women today. This course explores the ways gender, race and ethnicity shape identity as well as narrative constructions of nation in regional contexts. Readings by contemporary indigenous women authors, with field trips to federally recognized tribal lands and discussion with Native American women leaders, activists, scholars, musicians, artists and business leaders from a variety of nations. Units: 6.

Also listed as Gender Studies 320

ETST 310: *Topics in Ethnic Studies*
An explanation of a particular topic in ethnic studies. Topics may pertain to an issue or debate, a specific ethno-racial community, a geographic area, or a historical time period. The specific topic investigated changes each year or varies by term. May be repeated when topic is different.

Topic for Fall 2016: Black Cultural Tourism

Investigation of black travelers and tourists as well as black bodies as 'othered' objects of the tourist gaze. Students will read foundational texts in both global cultural tourism and black cultural tourism and will explore the travel blogs of black travelers and the websites of black-owned travel companies. Student assignments include visual analyses of websites, social media activities, and the population of a course-specific student-centered blog.

Topic for Winter 2017: African Immigrant Narratives

A survey of literature and film about African immigrant experiences in the United States. Students will complete film and book reviews, create an infographic that covers migration data from a specific African country since 1960, and develop a research project (paper, multimedia presentation, or digital project) that analyzes immigration and media representations of African immigrants in the United States.

Units: 6.

Prerequisite: Sophomore standing

ETST 315: *Introduction to the Art Museum: History, Issues, and Practices*
Introduction to art museums and exhibitions as objects of critical inquiry, and to issues and practices in the art museum field. Topics will include: history and evolution of collecting and display; museum exhibitions and knowledge formation; collection practices and ethics; exhibition theory and design; controversies, institutional critique, and the artist-as-curator. Units: 6.

Also listed as Art History 315

Prerequisite: Sophomore standing

ETST 320: *Empire and Nation in Russian History*
The course examines the history of ethnically diverse territories referred to as "Russia" from early modern times to 1991. Themes include the formation of the Russian empire, its transformation into the Soviet Union, and its partial collapse in 1991; the meaning of "empire," "nation," and "ethnicity" in historical context; and the interaction of Russians with non-Russian peoples in Ukraine, the Baltic States, Central Asia, and the Caucasus. Units: 6.

Also listed as History 315

Prerequisite: Sophomore standing or consent of instructor; HIST 320 or 325 recommended

ETST 321: ***Race Relations in the United States, 1865–Present***
An examination of relations between black and white Americans since Emancipation. Topics will include Reconstruction, the rise of Jim Crow, the Great Migrations, the Civil Rights Movement, urban unrest, and white backlash. Units: 6.

Also listed as History 345

Prerequisite: Sophomore standing and HIST 132

ETST 325: ***Ethnicity in Latin America***
Explores the coming together of distinct Native, African, and European ethnicities in Latin America, and the resulting creation of new ethnicities. We examine how race has been understood in Latin American history and how attitudes toward race have fundamentally shaped the history of the region. Units: 6.

Also listed as History 378

Prerequisite: Sophomore standing; HIST 178 or HIST 179 recommended

ETST 330: ***Indians of North America***
A cultural study of the Indians of North America, including examination of the impact of European ideas and technology on Indian societies. Emphasis on environmental adaptations, levels of social and cultural complexity, problems of historical interpretation, and the methods and theories of ethnology and their applications to North American cultures. Units: 6.

Also listed as Anthropology 350

Prerequisite: ANTH 110

ETST 332: ***Ethnography of the Middle East and North Africa***
Introduction to the peoples and cultures of the Middle East and North Africa, an area of tremendous cultural, religious, linguistic, and economic diversity. Focus on the nature of ethnography as a research method and key areas of inquiry that have concerned anthropologists working in Arab and Muslim societies. Topics include social organization, tribalism, colonialism, gender, religion, nationalism, ethnic and religious minorities, and the politics of identity. Units: 6.

Also listed as Anthropology 358

Prerequisite: ANTH 110 or consent of instructor

ETST 335: *Anthropology of South Asia*
Introduces the complexity of South Asian society and culture through the study of ethnographies of gender, religious life, kinship, social organization, and economy in the colonial and post-colonial periods. Units: 6.

Also listed as Anthropology 360

Prerequisite: ANTH 110 or consent of instructor

ETST 336: *Decolonization, Activism and Hope: Changing the Way We See Native America*
This course explores the damaging effects of colonization and colonial patterns of representation on Native American people throughout history. It calls on students to produce creative interdisciplinary projects that engage with the community and offer more accurate, better-informed representations of Native American culture in the United States. Seminar/studio with readings by significant Native American authors and field trips to federally recognized tribal lands. Units: 6.

Prerequisite: Sophomore standing or consent of instructor

ETST 340: *Sociology of Education*
An examination of the social foundations of education in the United States with particular attention paid to the cultural, political, and economic functions of education in modern society. Other topics include the reproductive function of schooling in a society divided along lines of race/ethnicity and class, schools as sites of cultural production, and the historical tension in the U.S. between “equality” and “excellence” in education. Practicum of 20 hours required. Units: 6.

Also listed as Education Studies 440

Prerequisite: Sophomore standing

ETST 341: *Human Variation*
A survey of human biological variation and adaptation. Topics include the geographic distribution of human variation; evolutionary approaches to understanding human diversity; historic and modern concepts of race and ethnicity; human biological adaptations to disease, climate, poverty, and other stressors; and the genetics of simple and complex traits. Units: 6.

Also listed as Anthropology 341

Prerequisite: ANTH 140, BIOL 110, or consent of instructor

ETST 352: *Ethnicity, Cultural Diversity, and Education*
A study of the experience of children and adolescents from different ethnic, cultural, and economic groups. Emphasis on understanding the social consequences of these differences and how such differences affect educational achievement and attainment. The sources and educational effects of individual, institutional, and systemic racism, sexism, and other forms of prejudice and discrimination will also be examined. Practicum of 20 hours required. Units: 6.

Also listed as Education Studies 350

Prerequisite: Sophomore standing

ETST 360: *African American Writers*
A survey of African American literature from slave narratives through contemporary literature. Readings include works by Harriet Jacobs, Frederick Douglass, Langston Hughes, Zora Neale Hurston, Richard Wright, Amiri Baraka, Audre Lorde, and Toni Morrison. Units: 6.

Also listed as English 260

Prerequisite: ENG 150 or its equivalent or sophomore standing

ETST 375: *Arab-American Experiences*
The aim of this course is to look at the history of Arab-American experience through literature, literary theory, and pop-culture. This course will chronicle the history and development of Arab experiences in the U. S. over a century (1880s-present). The course will also employ an interdisciplinary approach to examine the immigrants' contributions, self-view, challenges, and society's views of them. Units: 6.

Prerequisite: Sophomore standing

ETST 382: *Migrants and German Culture*
Despite a long-term refusal to open itself to immigration, Germany has become a nation of immigrants and asylum-seekers. The course focuses on how both literature and films, including works by and about minorities in Germany, have dealt with key cultural phenomena: multiculturalism, diversity, acculturation, assimilation, “majority culture,” and parallel societies. Units: 6.

Also listed as Film Studies 447, German 447

Prerequisite: GER 312 or consent of the instructor

ETST 390: *Tutorial in Ethnic Studies*
Units: Variable.

Prerequisite: Counter Registration Required.

ETST 391: *Directed Study in Ethnic Studies*
Directed study follows a syllabus set primarily by the instructor to meet the needs or interests of an individual student or small group of students. The main goal of directed study is knowledge or skill acquisition, not research or creative work. Units: Variable.

Prerequisite: Counter Registration Required.

ETST 395: *Internship in Ethnic Studies*
Practical experience working with diverse population, focused on volunteer, policy, or advocacy work. For example, students might volunteer to tutor youth in ethnically diverse educational programs, or work with a local immigrant relocation agency. Students work for 5-10 hours a week, depending on the amount of credit being earned, meet periodically with the instructor, and submit a written reflection connecting the experience to their academic work in Ethnic Studies. The academic component of the internship includes readings related to the substance of the internship, discussions with the faculty supervisor, and a written report appropriate to the discipline. Course grades are based on this academic work. Units: Variable.

Prerequisite: Counter Registration Required

ETST 399: *Independent Study in Ethnic Studies*
Units: Variable.

Prerequisite: Counter Registration Required.

ETST 410: *Advanced Topics in Ethnic Studies*
An in-depth investigation of a particular topic in Ethnic Studies. Topics may pertain to an issue or debate, a specific ethno-racial community, a geographic area, or a historical time period. The specific topic investigated changes each year or varies by term. May be repeated for credit when topic is different.

Topic for Spring 2017: Digital Ethnic Studies

A critical look at digital humanities projects from the last decade that examine race, ethnicity, immigration, and America's cultural history. Focus on visual analysis of digital projects and examination of the intersecting histories they represent. Students will use online software (Omeka, WordPress) to develop their own digital project related to race, ethnicity, and cultural pluralism in the United States. Seminar format.

Units: 6.

Prerequisite: ETST 200 or ETST 210, or consent of instructor

ETST 415: *Africa in the European Imagination*
This advanced seminar examines the conceptualization of Africa and Africans in modern European intellectual history. The course details how European thinkers explored issues of race and identity through their figurative and physical engagement with the African continent. Topics include travel narratives, the philosophy of slavery and abolition, and imperialism. (G & C) Units: 6.

Also listed as History 415

Prerequisite: Sophomore standing

ETST 420: *The American Civil War*
A comprehensive examination of the Civil War era between 1840 and 1877. Major themes and topics will include the political crisis leading to secession, the military conduct of the war, the end of slavery, the effects of the war on American society, and Reconstruction. Units: 6.

Also listed as History 470

Prerequisite: Junior standing and HIST 131, or consent of instructor

ETST 425: *Black, Brown, and Queer on Film: Race, Gender, and Sexuality on Film*
Visual culture has long defined that which is not white, not queer, and not male as deviant from the visual norm. This course will explore the way in which film culture has traditionally positioned people it defines as deviant from the racial, ethnic, gender or sexual norm and the ways in which filmmakers have responded to that positioning. Units: 6.

Also listed as Film Studies 325, Gender Studies 325

Prerequisite: Sophomore standing or consent of instructor

ETST 465: *Mestizos, Métis, and Mulattos: Mixed-Race People in the Atlantic World, 1400–1850*
This course examines how race worked in the Atlantic World (Africa, Europe, and the Americas) between 1400 and 1850 through the perspectives of mixed-race individuals and communities. We will use a comparative framework to understand how people created, resisted, and used their cross-racial identities to navigate their lives. *Fulfills seminar requirement.* (G&C or NA) Units: 6.

Also listed as History 465

Prerequisite: Junior standing or consent of instructor

ETST 471: *Performing Arts of Bali*
This course explores the intersections of Balinese music, dance, drama, and ritual. Discussions will include how globalization, tourism, and economic and religious tensions affect the arts and performer's lives. Students will have hands-on experience learning to play Balinese gamelan instruments. Units: 6.

Also listed as Musicology 471

Prerequisite: Sophomore standing

ETST 478: *Nineteenth-Century African-American Writers*
This lecture/discussion class will explore the rich literature African-American authors created, against great adversity, in nineteenth-century America. We will read works by Frederick Douglass, Frances Ellen Watkins Harper, Charlotte Forten Grimke, Paul Laurence Dunbar and others. Students will write short weekly papers and a substantial final research paper. Units: 6.

Also listed as English 478

Prerequisite: ENG 250, ENG 260, or junior standing; or consent of instructor

ETST 480: *Latin American Civilization and Culture*
A broad introduction to the culture of the Latin American continent and its relations to North American culture. The course presents Latin American civilization, history, economic and political situation, and diverse culture. Emphasis is placed on high cultural manifestations such as art and literature, as well as on the everyday habits of the people. Recommended for students who plan to participate in one of our study-abroad programs in Latin America. Units: 6.

Also listed as Spanish 400

Prerequisite: One 300-level Spanish course, its equivalent, or consent of instructor

ETST 506: *Contemporary African-American Women Poets*
In this lecture/discussion course, we'll look at the great stylistic variety of poetry that Black women have been writing during the past twenty years. Students will consider poetry through the lenses of critical race and gender criticism and will write weekly short papers and a substantial research paper. Poets may include Marilyn Nelson, Natasha Trethewey, Claudia Rankine, Tracy K. Smith, Nikky Finney and others. Units: 6.

Also listed as English 506, Gender Studies 506

Prerequisite: ENG 250, ENG 260, or junior standing; or consent of instructor

ETST 512: *Fictions of Africa*
An exploration of African culture and history through literature and film by African authors/directors. Issues to be explored include African debates on colonialism, post-colonialism, gender, class, and ethnic stratification, religion, modernization and development. Fictional works will be discussed in tandem with ethnographic monographs and critical essays. Units: 6.

Also listed as Anthropology 512

Prerequisite: Junior or senior standing and at least two other courses in the social sciences

ETST 516: *Literature and Human Rights*
An interdisciplinary investigation of the aesthetics and ethics of representing human rights and their violations in literature and film. Texts include novels, plays, essays, and films on topics such as genocide, torture, and development. Units: 6.

Also listed as English 516

Prerequisite: Junior standing, ENG 280, or consent of instructor

ETST 518: *Fictions of Globalization*
Is globalization really shrinking the global divide between rich and poor, or is this mere fiction? To explore this question, we will examine contemporary novels and films that showcase individuals in India and China as they grapple with issues such as economic migration, class struggle, and terrorism. Units: 6.

Also listed as English 518

Prerequisite: ENG 280, junior standing, or consent of instructor

ETST 521: *Narratives of International News*
A study of the literature that re-presents world events in different ways from the mainstream news media. Texts include novels, memoirs, graphic novels, or documentary dramas. Units: 6.

Also listed as English 521

Prerequisite: ENG 280, junior standing, or consent of instructor

ETST 561: *Literature of the Harlem Renaissance*
A study of poetry, fiction, and essays by African American writers from the era of World War I through the 1930s. Authors include Langston Hughes, Zora Neale Hurston, Claude McKay, Nella Larsen, W.E.B. Du Bois, and others. Units: 6.

Also listed as English 510

Prerequisite: Junior standing, ENG 250 or 260, or consent of instructor

ETST 583: *Latin@ Studies (in English)*
This course covers the main cultural issues in Latin@ communities. It concentrates on the Latin@s of the United States, the definitions of these communities, and their cultural expressions. Through theoretical materials as well as literature, film, historical documents, testimony, etc., this course addresses a variety of subjects related to Latin@ culture. Taught in English. Units: 6.

Also listed as Spanish 466

ETST 584: *Black Cultural Nationalisms*
A study of the variations of black cultural nationalisms in the works of francophone writers from Africa and the Diaspora. This course examines the writers, challenge to the “Négritude” school and the ways in which they articulate plural and locational black identities to affirm their unique sense of national belonging. Readings from authors such as Senghor, Cé’saire, Laye, Condé’, Chamoiseau, Contant, and Glissant. Units: 6.

Also listed as French 588

Prerequisite: One 400-level French course or consent of instructor

ETST 590: *Tutorial in Ethnic Studies*
Units: Variable.

Prerequisite: Counter Registration Required.

ETST 591: *Directed Study in Ethnic Studies*
Directed study follows a syllabus set primarily by the instructor to meet the needs or interests of an individual student or small group of students. The main goal of directed study is knowledge or skill acquisition, not research or creative work. Units: Variable.

Prerequisite: Counter Registration Required.

ETST 595: *Internship in Ethnic Studies*
Practical experience working with diverse population, focused on volunteer, policy, or advocacy work. For example, students might volunteer to tutor youth in ethnically diverse educational programs, or work with a local immigrant relocation agency. Students work for 5-10 hours a week, depending on the amount of credit being earned, meet periodically with the instructor, and submit a written reflection connecting the experience to their academic work in Ethnic Studies. The academic component of the internship includes readings related to the substance of the internship, discussions with the faculty supervisor, and a written report appropriate to the discipline. Course grades are based on this academic work. Units: Variable.

Prerequisite: Counter Registration Required

ETST 599: ***Independent Study in Ethnic Studies***
Units: Variable.

Prerequisite: Counter Registration Required.

ETST 690: ***Tutorial in Ethnic Studies***
Units: Variable.

Prerequisite: Counter Registration Required.

ETST 691: ***Directed Study in Ethnic Studies***
Directed study follows a syllabus set primarily by the instructor to meet the needs or interests of an individual student or small group of students. The main goal of directed study is knowledge or skill acquisition, not research or creative work. Units: Variable.

Prerequisite: Counter Registration Required.

ETST 695: ***Internship in Ethnic Studies***
Practical experience working with diverse population, focused on volunteer, policy, or advocacy work. For example, students might volunteer to tutor youth in ethnically diverse educational programs, or work with a local immigrant relocation agency. Students work for 5-10 hours a week, depending on the amount of credit being earned, meet periodically with the instructor, and submit a written reflection connecting the experience to their academic work in Ethnic Studies. The academic component of the internship includes readings related to the substance of the internship, discussions with the faculty supervisor, and a written report appropriate to the discipline. Course grades are based on this academic work. Units: Variable.

Prerequisite: Counter Registration Required

ETST 699: ***Independent Study in Ethnic Studies***
Units: Variable.

Prerequisite: Counter Registration Required.

Professors: Cohen* (History, Patricia Harnar Boldt Professor of Liberal Studies and Professor of History), Fares (Spanish), Peterson (German), Skran (Government, Edwin & Ruth West Professorship in Economics and Social Science), Troy (Theatre Arts, J. Thomas and Julie E. Hurvis Professorship in Theatre and Drama)

Associate professors: Carlson (Art and Art History), McQuinn (Conservatory of Music), Ongiri (Film Studies, Jill Beck Director of Film Studies, chair), Shimon* (Art and Art History), Spurgin (English, Bonnie Glidden Buchanan Professorship in English Literature), Tapia (Spanish), Vorenkamp (Religious Studies)

Assistant professor: Guenther-Pal (German)

Visiting assistant professor: Haydock

Lecturers: Baybrook, Berg

*On leave Term II

Introduction

Film studies regards visual culture as producing both vital art forms and cultural artifacts that can be rigorously analyzed. Although they draw on literary and other artistic traditions, cinematic texts have always had their own identifiable properties and conventions. Many of the courses listed below pay particular attention to the history, analysis, and interpretation of film as a key form of modern culture. Other courses specifically engage with the production of visual culture through filmmaking, animation and the production of digital media. All film studies courses provide students with background in the theory and criticism of moving images. Film studies invites interdisciplinary approaches, and the course offerings at Lawrence are drawn not only from the program's core, but also from various language departments: Chinese, English, French, German, Russian, and Spanish; there are also film courses in the Departments of Anthropology, Art and Art History, Education, History, Theatre Arts, and the Conservatory of Music. Students taking courses in film studies have access to a wide range of interpretive methodologies, national cinemas, film styles and genres, and they can combine an interest in film studies with almost any discipline in the liberal arts.

Required for the film studies major

1. A minimum of 10 film studies courses to include:
    a. FIST 100: *Introduction to Film Studies*
    b. Three additional designated courses, one in each category:
        i. Film History: FIST 210: *Film History I*, FIST 211: *Film History II*
        ii. Film Theory: FIST 402: *Film Theory and Criticism*
        iii. Filmmaking: FIST 370: *Avant-Doc*, FIST 371: *Documentary Forms*
    c. Six elective courses
    d. A *Senior Experience* capstone project that allows students to create either a film or a research paper as a final project

Required for the film studies minor

1. A minimum of six film studies courses to include:
    a. FIST 100: *Introduction to Film Studies*
    b. One course in each of two categories:
        i. Film History: FIST 210: *Film History I*, FIST 211: *Film History II*
        ii. Film Theory: FIST 402: *Film Theory and Criticism,* or a designated theory course
    c. Filmmaking: FIST 370: *Avant-Doc*, FIST 371: *Documentary Forms*
    d. Three electives

COURSES

FIST 100: *Introduction to Film Studies*
This course provides students with a basic introduction to the vocabulary of film studies and an overview of historical, analytical, and theoretical approaches to film. Students will begin to develop the critical means for engaging with the filmic medium in discussion and writing. These aims will be met through a diverse selection of films rooted in different cultures, times, and ideologies. Units: 6.

FIST 110: *Interdisciplinary Video*
Designed primarily for students interested in incorporating video into their current or future work in other academic and creative disciplines. This course offers a practical introduction to basic editing, camera, and sound techniques, paired with a general study of multiple methodologies and current debates in representational ethics. Units: 6.

FIST 120: *Image and Sound I*
A basic introduction to the fundamental forms, concepts, terminology, and techniques of filmmaking, contextualized within a critical/historical framework. Students explore multiple approaches to creating meaning through readings, screenings, lectures, discussions, and critiques, paired with video exercises and hands-on instruction. Units: 6.

FIST 191: *Directed Study in Film Studies*
Directed study follows a syllabus set primarily by the instructor to meet the needs or interests of an individual student or small group of students. The main goal of directed study is knowledge or skill acquisition, not research or creative work. Units: Variable.

Prerequisite: Counter Registration Required.

FIST 210: *Film History I*
A foundation course on the history of cinema in a global and transnational context, Film History I focuses on "silent" film (early film to the present day) and the transition to sound. Topics include creative and technological practices; national cinemas in context; narrative, documentary, and experimental modes. Units: 6.

Prerequisite: FIST 100 or consent of instructor

FIST 211: *Film History II*
A foundations course on the history of cinema in a global and transnational context, Film History II focuses on the sound era. Topics include creative and technological practices; studio, avant-garde, and postcolonial cinemas; independent, contemporary, and digital film; narrative, documentary, and experimental modes. Units: 6.

Prerequisite: FIST 100 or consent of instructor

FIST 220: *Image and Sound II*
A continuation of FIST 120 with expanded instruction in image design, sound design, sequencing, and concept development. Historical development of the medium and contemporary approaches to creative expression, representational ethics, and audience are emphasized through exercises, readings, lectures, demonstrations, discussions, and critiques, culminating in a final video project. Units: 6.

Prerequisite: FIST 120 or consent of instructor

FIST 222: *Sound Design*
An introduction to film sound studies paired with hands-on exploration of cinematic audio recording and editing techniques, with emphasis on sound/image relationships and the use of sound to create meaning. Students will engage in close readings of critical and theoretical texts, view and discuss film screenings, and produce a series of short audio and video exercises, culminating in a final video project showcasing the creative use of film sound. Units: 6.

Prerequisite: FIST 120 or consent of instructor

FIST 240: *New Media in Art*
An introduction to new media within a fine art context. Digital photography, experimental video, sound, photo book design, and blogging are covered as students use the Internet as a venue for presenting projects. The evolution of technology, new media theory, contemporary art discourse, and visual culture are examined through projects, readings, lectures, demonstrations, discussions, critiques, and visiting artist presentations. Mac-based. When scheduled on Tuesday-Thursday, class will dismiss early for University Convocations. Units: 6.

Also listed as Studio Art 240

Prerequisite: ART 100 or ART 110

FIST 245: ***Interarts: New Media Projects***
Digital media are used to explore the relationship between art and knowledge. Lectures, discussions, readings, and critiques will investigate contemporary art practices and interdisciplinarity. Conceptual-development, planning and production will be covered as students work individually or collaboratively on video, performance, installation, and web projects. Mac-based. When scheduled on Tuesday-Thursday, class will dismiss early for University Convocations. Units: 6.

Also listed as Studio Art 245

Prerequisite: ART 100 or ART 110, or consent of instructor

FIST 260: ***The Art of Film***
A study of the narrative and visual techniques in films selected from masterpieces of modern cinema. Readings in film history, film theory, and film aesthetics along with viewings of approximately ten movies from various periods and countries, by directors such as Eisenstein, Wells, Fellini, Kurasawa, and Truffaut. Units: 6.

Prerequisite: Sophomore standing

FIST 270: ***Post-Soviet Film (in English)***
This course will focus on the works of seminal filmmakers in the post-Soviet period. Through the prism of post-Soviet films students will be introduced to contemporary Russian culture and to the issues explored within these cinematic narratives: national identity, gender relations, role of the arts in a post-Soviet society, and the re-examination of Russia's historical and cultural past. Taught in English. Units: 6.

Also listed as Russian 270

FIST 277: ***Introduction to German Film Studies***
With its pivotal role in the inauguration of the cinema, knowledge of German film is critical to any understanding of the history of film. This course is intended to be an introduction both to German cinema and to the discipline of film studies. Considered perhaps as one of the most accessible aesthetic forms, the moving image pervades our everyday lives and yet we seldom think of what we do in the movie theatre as “reading.” Throughout this course, students will be introduced to the practice of reading the filmic text using three structuring lenses: 1) history, 2) formal and generic elements, and 3) film criticism. Units: 6.

Also listed as German 377

Prerequisite: GER 312

FIST 278: *Introduction to German Film (in English)*
With its pivotal role in the inauguration of the cinema, knowledge of German film is critical to an understanding of the history of film. Considered as one of the most accessible aesthetic forms, the moving image pervades our everyday lives, and yet we seldom think of what we do as "reading" films. Throughout this course, students will be introduced to the practice of reading German films using three structuring lenses: 1) film and cultural history, 2) formal and generic elements, and 3) film criticism. Units: 6.

Also listed as German 278

FIST 287: *Russian Through Film*
This course will examine topics in Russian film. Topics may include specific genres (*e.g.*, the sad comedy), the work of a director or tradition, films important for a specific historical moment (*e.g.*, *The Thaw* or *World War Two*), or films devoted to a specific theme. Students will expand their Russian vocabulary, improve fluency, increase speaking confidence and gain cultural knowledge by viewing Russian films and analyzing the psychology of the characters. Throughout this course, students will be introduced to the practice of reading the filmic text using three structuring lenses: 1) history, 2) formal and generic elements, and 3) film criticism. May be repeated when topic is different.

Topic for Winter 2017: Love, Sex and Family in Late Soviet and Post-Soviet Film

In this course, we will discuss topics of love, sex, and family as they are presented in a few late Soviet and post-Soviet films (*e.g., Autumn Marathon, Adam's Rib*, etc.). Students will advance their listening, speaking, and writing skills and enrich their knowledge of vocabulary and grammar through regular writing assignments and in-class exercises and discussions.

Also listed as Russian 287

Prerequisite: RUSS 250 or consent of instructor

FIST 300: *Reel Men: Masculinity in American Film, 1945–2000*
Focusing on an array of well-known American films — "The Maltese Falcon," "Red River," "Dr. Strangelove," "McCabe and Mrs. Miller," "Chinatown," "Die Hard," and "American Beauty" among them — the course will integrate film theory, gender theory, and American history to address the problem of how masculinity has been constructed in American culture since World War II. Not open to students who have previously received, or need to receive, credit for HIST 400. Units: 6.

Also listed as History 300, Gender Studies 323

Prerequisite: Sophomore level or above

FIST 302: *Cinematically Speaking*
French films function as a springboard for readings, discussions, oral presentations, and short critical essays. We will briefly examine the history of French film from 1940 to the present, study cinematic techniques, the vocabulary of cinema, and explore the principal themes. Units: 6.

Also listed as French 302

Prerequisite: FREN 202 or consent of instructor

FIST 305: *Film as History and History as Film*
An examination, through selected films, of specific moments in European history and an examination of film itself as a source of historical interpretation. Possible "historical moments" include Medieval England, Nazi Germany, and the Holocaust, and possible films include *Becket, The Triumph of the Will,* and *Schindler's List.* Units: 6.

Also listed as History 305

Prerequisite: Sophomore standing or consent of instructor

FIST 309: *Hollywood Goes to High School*
Year after year, Hollywood turns out movies that are set in schools and present images of teachers and teens. Many of these films address typical coming-of-age issues, societal fear of teen crime and delinquency and, of course, the search for romance. A subset of these films provide powerful and culturally enduring images of teachers and teaching. High school movies also provide insight into the fantasies, anxieties, dreams, and assumptions prevalent in American culture. This course will examine the world and worldview found in Hollywood high school movies and the extent to which the stories they tell make us who we are. Units: 6.

Also listed as Education Studies 309

Prerequisite: Sophomore standing

FIST 318: *Topics in Filmmaking*
This course allows for an in-depth examination of various aspects of filmmaking, with a dual focus on close reading of related film studies texts and practical exploration of advanced techniques, culminating in a final video project.

Topic for Spring 2017: 16mm Film

An introduction to the artistic use of 16mm film in the digital age. Students will learn basic 16mm motion picture camera, editing, and sound techniques, and explore both traditional and modern workflows.

Topic for Spring 2017: Image Design

A hands-on and conceptual exploration of cinematic image design. Students will study foundational composition principles, practice advanced techniques in cinematography and lighting, and create a short film or video project that showcases the creative use of composition to create meaning.

Units: 6.

Prerequisite: FIST 100 or consent of instructor

FIST 319: *Principles of Editing*
A theoretical and practical introduction to connecting images and sound in a compelling way. The goal is to promote understanding of film, video, and new media as tools for creative expression and to help students think critically and make informed choices about editing. Units: 6.

Prerequisite: FIST 100 or consent of instructor

FIST 320: *Topics in Russian Film (in English)*
This course explores facets of the development of Russian film in its historical and cultural context. Topics may include: “The Golden Age of Soviet Film,” “The Cinema of Tarkovsky,” and “Film as Propaganda.” Taught in English. Russian majors and minors may participate in a two-unit tutorial in which discussions and some course readings will be in Russian. Units: 6.

Also listed as Russian 320

FIST 324: *Gender and Cinema*
This course examines gender and film in an international context. Topics include the construction of femininity and masculinity in film, feminist and queer film theories, analysis of film using intersectional and formal approaches, women behind the camera, and gender and genre. Units: 6.

Also listed as Gender Studies 324

Prerequisite: FIST 100, GEST 100, the equivalent, or consent of instructor

FIST 325: *Black, Brown, and Queer on Film: Race, Gender, and Sexuality on Film*
Visual culture has long defined that which is not white, not queer, and not male as deviant from the visual norm. This course will explore the way in which film culture has traditionally positioned people it defines as deviant from the racial, ethnic, gender or sexual norm and the ways in which filmmakers have responded to that positioning. Units: 6.

Also listed as Gender Studies 325, Ethnic Studies 425

Prerequisite: Sophomore standing or consent of instructor

FIST 330: *Introduction to Film*
An introduction to the critical analysis of Latin American and Spanish film. Selected films represent various countries, genres and directors from Latin America and Spain. Readings of relevant film theory, class discussions and composition tasks prepare students for other advances courses in the Spanish program. Units: 6.

Also listed as Theatre Arts 352, Spanish 430

Prerequisite: SPAN 202, its equivalent, or consent of instructor; not open to native speakers of Spanish.

FIST 340: *Intermediate New Media in Art*
A continuation of Art 240 or 245 using the digital medium within a contemporary art context. Digital photography, experimental video, social media, performance, and installation are covered while using the Internet and campus spaces as venues for projects. Contemporary art discourse is examined through projects, readings, lectures, demonstrations, discussions, critiques, and visiting artist presentations. Mac-based. When scheduled on Tuesday-Thursday, class will dismiss early for University Convocations. Units: 6.

Also listed as Studio Art 340

Prerequisite: ART 240 or ART 245

FIST 345: *Screenwriting*
An exploration of the plot, character, and theme in the work of short films and scripts followed by the creation of one or more short screenplays. Units: 6.

Prerequisite: FIST 100 or consent of instructor

FIST 350: *Modern Chinese Literature and Cinema in Translation*
A survey of 20th-century Chinese fiction and cinema. Iconoclastic works of modern Chinese vernacular fiction from 1919 through the post-Cultural Revolution (1966-1976) will be juxtaposed alongside films dealing with the same period, such as *Red Sorghum* (1987) and *Farewell, My Concubine* (1992) made by the so-called Fifth Generation of film directors (born after 1949, when the People's Republic was founded). Class conducted in English. No knowledge of Chinese required. Units: 6.

Also listed as Chinese and Japanese 350, East Asian Studies 350

Prerequisite: Sophomore standing; EAST 150 recommended

FIST 354: *History of Russian and Soviet Film*
This course will introduce the student to the rich and varied tradition of Russian and Soviet cinema from the Pre-Revolutionary period to the present. Works by major filmmakers will be viewed and discussed in the context of the culture, economy, society, and politics of the time. Taught in English. Units: 6.

Also listed as History 354, Russian 354

Prerequisite: Sophomore standing

FIST 357: *Film in Germany (In English)*
This course selects from 90 years of filmmaking in Germany. Films range from expressionism to Nazi propaganda and from escapist comedies to avant garde art. Learning to "read" German films critically also means finding out how to understand movies from Hollywood and beyond. Possible topics include "From Caligari to Hitler," "German Literature as Film," and "What Makes Lola Run." Taught in English. German majors and minors may participate in a two-unit tutorial in which discussions and some course readings will be in German. Units: 6.

Also listed as Theatre Arts 351, German 357

FIST 360: *Chinese Contemporary Film in English*
Using feature films and documentaries from the so-called Fifth [1982-] and Sixth Generations [beginning in the 1990s] of film directors in China, this course provides a visual record of the immense political, economic, and social changes in China since the Reform and Opening up period at the end of the Cultural Revolution. Taught in English. Units: 6.

Also listed as East Asian Studies 360, Chinese and Japanese 360

Prerequisite: Sophomore standing; EAST 150 or EAST 420 recommended

FIST 362: *Vampires, Monsters, and Man-Eaters*
This course examines the borders of the human through the figures of the vampire, monster, and femme fatale in literature, film, and the visual arts. Featured in the works of canonized authors as well as within popular culture, “monstrousness” can provide valuable insights into numerous aspects of German history and psychosexual relations. Possible texts include the early vampire film *Nosferatu*, Wedekind’s Lulu tragedies, Patrick Süskind’s*Das Parfüm*, and paintings by H.R. Giger. Units: 6.

Also listed as Gender Studies 362, German 462

Prerequisite: GER 312

FIST 370: *Avant-Doc*
An exploration of personal, experimental, and emerging approaches to documentary filmmaking through video projects, readings, screenings, lecture, discussion, and critique. This course examines both contemporary practice and historical intersections among filmmaking traditions, with a focus on engaging with critical dialogues and diverse ways of articulating relationships between maker, subject, and audience. Units: 6.

Prerequisite: Familiarity with editing software or consent of instructor

FIST 371: *Documentary Forms*
This course presents a broad overview of contemporary and historical documentary filmmaking practice through readings, screenings, discussion, and short video projects. Students will engage with critical dialogues and explore several distinct approaches to documentary production, including rhetorical, observational, participatory, and reflexive forms, culminating in a completed short documentary. Units: 6.

Prerequisite: FIST 120 or consent of instructor

FIST 390: *Tutorial in Film Studies*
Units: Variable.

Prerequisite: Counter Registration Required.

FIST 391: *Directed Study in Film Studies*
Directed study follows a syllabus set primarily by the instructor to meet the needs or interests of an individual student or small group of students. The main goal of directed study is knowledge or skill acquisition, not research or creative work. Units: Variable.

Prerequisite: Counter Registration Required.

FIST 399: *Independent Study in Film Studies*
Units: Variable.

Prerequisite: Counter Registration Required.

FIST 400: ***Reel Men: Masculinity in American Film, 1945–2000***
At the upper level, the course will serve as a history seminar in preparation for the history department's capstone course. Those taking it at that level will be required to write at least one paper addressing film or gender theory and to write a 10-15 page research prospectus. Not open to students who have previously received credit for HIST 300. Units: 6.

Also listed as Gender Studies 423, History 400

Prerequisite: Junior standing or above

FIST 402: ***Film Theory and Criticism***
What is the language of film? What is the relationship between spectator and screen? What is the role of film as mass and global phenomena? This course explores basic issues in film theory and criticism that may include auteur theory, genre criticism, apparatus theory, stardom, feminist and queer film theories. Units: 6.

Prerequisite: One of FIST 100, FREN 302, FREN 411, GER 177, GER 277, GER 357, GER 411, or SPAN 330; or consent of instructor

FIST 411: ***Fascism and Film***
This course in French may be taken in conjunction with GER 411, taught in English. It will expand on the films made in France by Continental under the Nazi Occupation, 1940-1944. Concurrent registration in GER 411 is required. Units: 2.

Also listed as French 411

Prerequisite: One course in French at the 300 level or consent of instructor

FIST 412: ***Fascism and Film (In English)***
This course lets students examine films that were ostensibly made as entertainment or explicitly crafted as propaganda in the historical context of Nazi Germany and occupied France. Aside from learning how governments and their cinematic agents used this relatively new medium to shape public opinion (in support of the war, against Jews, etc.) students will see where and how resistance was possible. Units: 6.

Also listed as German 411

FIST 418: *Topics in Film Studies*
Topics in Film Studies allows for an in depth examination of topics across time, for example, the work of women directors, or it permits a detailed analysis of special topics, for example, Turkish-German or Central European film.

Topic for Spring 2017: The Aesthetic of Resistance in African American Cinema

Cinema culture has provided one of the major forums for negotiating African American inclusion within the larger American body politic. D.W. Griffith's film *Birth of a Nation*, which celebrated the Ku Klux Klan and is widely considered to be the beginning of narrative cinema culture in the U.S., is also the beginning of an image culture that has often worked directly against the interests of African Americans. This class will explore the ways filmmakers have challenged dominant modes of racial representation and created a cinematic aesthetic of resistance to mainstream visual culture.

Units: 6.

FIST 419: *Korean Modern History through Literature and Film*
Using fiction, feature films, and historical texts, this course provides an in-depth introduction to modern Korean history, from the end of the Chŏsun dynasty in 1910 to contemporary North and South Korea. Students will gain an understanding of Korea's colonial experience, civil war, dictatorships, development, democratization, and gender politics. Units: 6.

Also listed as East Asian Studies 418

Prerequisite: EAST 150 or consent of instructor

FIST 420: *Topics in Film Genre*
This topics course allows for an in-depth examination of film genre in various historical, national, theoretical, and aesthetic contexts. Course under this heading may focus on a single genre (for example, the musical) or be comparative. May be repeated when topic is different.

Topic for Spring 2017: Film Rules—The Powers and Perils of Genres

Each genre—sci-fi adventure, documentary, noir, romantic comedy, the western—takes its shape and creates its pleasure by observing a unique set of rules, assumptions and values. But following those rules can be as dangerous as breaking them. When does a formula flop? When does it become art? This course examines how generes pose not just economic but also cultural, artistic, and ethical challenges for producers, consumers and scholars of film. Units: 6.

Prerequisite: FIST 100 or consent of instructor

FIST 421: *Editing the Manuscript: Studies in Film Criticism and Publication*
An introduction to the hidden side of critical writing, where an editor's decisions and revisions define a field. As assistant editors to an active peer-reviewed journal, students will master the critical skills—from grammar, logic, and style to organization, sense of audience, and collaborative management—that shape Film Studies as both a professional market and an intellectual culture. Units: 6.

Prerequisite: Freshman Studies

FIST 422: *Borrowed Music in the Movies*
When a film uses a pre-existing piece of music (popular or classical), meanings multiply, both within and outside the film itself. This course will explore these meanings, focusing on the fluid and reciprocal relationship between film and the music it borrows. Units: 6.

Also listed as Musicology 422

Prerequisite: MUCO 202

FIST 447: *Migrants and German Culture*
Despite a long-term refusal to open itself to immigration, Germany has become a nation of immigrants and asylum-seekers. The course focuses on how both literature and films, including works by and about minorities in Germany, have dealt with key cultural phenomena: multiculturalism, diversity, acculturation, assimilation, “majority culture,” and parallel societies. Units: 6.

Also listed as Ethnic Studies 382, German 447

Prerequisite: GER 312 or consent of the instructor

FIST 460: *Topics in Community-Engaged Film Production*
This course will explore the role of documentary video in public life, the way in which new digital media are reshaping communities and civic engagement, and the potential of video as a creative medium of participatory democracy.

Topic for Spring 2017: Civic Life Project

The Civic Life Project at Lawrence uses the production of short video documentaries as a medium of democratic engagement. The course is a laboratory for community-based storytelling in which students work in teams on documentary projects with community partners.

Units: 6.

Prerequisite: FIST 100 or consent of instructor

FIST 464: *Francophone Literature and Screen Adaptations*
Focusing on the works of writers and filmmakers such as Sembene Ousmane, Joseph Zobel, Aimé Césaire, D.T. Niane, Dani Kouyate, Euzhan Palcy and Raoul Peck the course examines the interface between the literary and filmic media in raising consciousness about societal challenges, nationhood, power and identity. It also analyzes the strengths and weaknesses of each medium in accomplishing these objectives. Units: 6.

Also listed as French 464

Prerequisite: 300-level French course or consent of instructor

FIST 540: *Advanced New Media in Art*
A continuation of Art 340 using new media at an advanced level. Digital photography, experimental video, social media, performance, and installation are covered while using the Internet and campus spaces as venues for projects. Contemporary art discourse is examined through projects, readings, lectures, demonstrations, discussions, critiques, and visiting artist presentations. Mac-based. When scheduled on Tuesday-Thursday, class will dismiss early for University Convocations. Units: 6.

Also listed as Studio Art 540

Prerequisite: ART 340 and consent of instructor

FIST 580: *Dis(re)membering the Nation: Contemporary Film & Fiction of Spain and Latin America*
A thematic analysis of film and fiction produced in the late and post-dictatorial context of Spain and several Latin American countries. The course studies the cultural processes of historical memory, collective trauma, oblivion, and questioning of national narratives in selected works from the past four decades. Readings include Manuel Puig's *Kiss of the Spider Woman*, Ariel Dorfman's *Death and the Maiden*, and Carmen Martin Gaite's *The Back Room*, as well as films by Lucrecia Martel, Victor Erice, Pablo Larrain, and Guillermo del Toro, among others. Units: 6.

Also listed as Spanish 580

Prerequisite: One 400-level course in Spanish or consent of instructor

FIST 590: *Tutorial in Film Studies*
Units: Variable.

Prerequisite: Counter Registration Required.

FIST 591: ***Directed Study in Film Studies***
Directed study follows a syllabus set primarily by the instructor to meet the needs or interests of an individual student or small group of students. The main goal of directed study is knowledge or skill acquisition, not research or creative work. Units: Variable.

Prerequisite: Counter Registration Required.

FIST 599: ***Independent Study in Film Studies***
Units: Variable.

Prerequisite: Counter Registration Required.

FIST 690: ***Tutorial in Film Studies***
Units: Variable.

Prerequisite: Counter Registration Required.

FIST 691: ***Directed Study in Film Studies***
Directed study follows a syllabus set primarily by the instructor to meet the needs or interests of an individual student or small group of students. The main goal of directed study is knowledge or skill acquisition, not research or creative work. Units: Variable.

Prerequisite: Counter Registration Required.

FIST 699: ***Independent Study in Film Studies***
Units: Variable.

Prerequisite: Counter Registration Required.

Professors: Hoft-March (The Milwaukee-Downer College and College Endowment Association Professorship), Sarnecki

Associate professors: Chang (chair), Vetinde

Instructor: Galambosh (Linguistics)

Introduction

Goals of the beginning and intermediate sequences in French are comprehension of both the oral and written language beyond an elementary level, development of the capacity to express reasonably complicated thought both orally and in writing, and an introduction to French and Francophone literatures and cultures.

At the advanced level, the student is expected to reach competence in use and knowledge of the French language and to become conversant with French and Francophone literatures and cultures. Students will not only familiarize themselves but also engage critically with important intellectual ideas from the French-speaking world as they have evolved across time and space.

From the beginning, French is used extensively, if not totally, in the classroom. Except where specified, all class discussion, essays, and examinations are conducted in French.

Required for the French major

Students complete a French major by taking a minimum of 60 units beyond FREN 202, including 12 to 18 units at the 300 level, at least 12 units at the 400 level, and at least 12 units at the 500 level, plus the Senior Seminar. At least 18 of the 400- or 500-level units must be taken on the Lawrence campus.

French majors will be required to attend at least one Björklunden French language immersion weekend in either their junior or senior year. Participation in the immersion experience will allow department members to evaluate majors' levels of proficiency in listening and speaking in a free and unstructured linguistic environment. Students who major in French are also required to attend at least six meetings of the French Table; for one of the Tables they will serve as discussion leader.

Finally, all French majors will be required to assemble a portfolio of a selection of their work in the French program. The portfolio is designed to keep a record of progress over the course of a French major's career in terms of linguistic proficiency, mastery of specific literary and cultural content, and sophistication of ideas.

Portfolios must be submitted by the second week of Term III of the student's senior or super-senior year. The French and Francophone Studies department will receive and approve only completed portfolios, and the portfolio submissions must be in PDF format.

The French portfolio must include:

1. A list of all courses taken for the major
2. A list of works included in the portfolio
    a. A two- to three-page essay in French that captures the concept of “la francophonie” through discussion of one aspect of cultural production (cinema, literature, media, music, etc.) that distinguishes and yet relates French and Francophone identity
3. Samples of students' work will be drawn from each of the following categories:
    a. One sample essay from each of the following levels: French 300, French 400, and French 500. At least one of the essays should discuss a Francophone topic.
    b. The student's senior capstone project.

A student may request permission to submit a video recording of an oral presentation in place of one essay.

Required for the French minor

Students complete a French minor by taking a minimum of 36 units beyond FREN 202, which will include 12 units at the 300 level and at least 6 units at the 400 level and 6 units at the 500 level. A C or above average in the minor also is required.

French minors will be required to attend at least one Björklunden immersion weekend in either their junior or senior year. Participation in the immersion experience will allow department members to evaluate minors’ levels of proficiency in listening and speaking in a free and unstructured linguistic environment. Students who minor in French are also required to attend at least six meetings of the French Table and complete a short project based on work pre-approved by the department. There will be an oral presentation of the project before at least two members of the department.

Finally, students must declare their intent to minor in French in writing to the department chair in their junior year.

Concerning study abroad

The department urges students to take advantage of the international study programs in France, Senegal or Quebec.

Placement examination

The placement examination for students taking French at Lawrence for the first time is available online at the department's home page. To take the exam, go to lawrence.edu/academics/study/french_francophone_studies/placement_exams and follow the instructions. The exam may be taken on or off campus. Students wishing to place out of the language requirement by proficiency examination should sign up through the department chair for an oral proficiency interview and writing exam in addition to the placement test.

At the beginning and intermediate levels, courses are numbered to indicate relative difficulty, the lowest numbers identifying those that require the least proficiency in French. At the level of FREN 400 and above, however, students should consult a French instructor.

At whatever level students place, they should plan to begin their study of French in the freshman or sophomore year.

Senior Experience in French and Francophone Studies

French and Francophone studies requires a *Senior Experience* that consists of a one-term senior seminar (winter) in which possible research topics are defined and outlined, culminating in a written thesis and an oral, in-class presentation of the student's work. Other types of research projects and interdisciplinary capstones in French may meet the requirement; the possibility of an alternative project must be discussed with the department chair and the student's advisor.

Students pursuing double majors, double degrees, and education certification, are strongly encouraged to consult with their advisors and relevant department chairs to plan and negotiate their overall *Senior Experience* as early as possible. It is imperative that students interested in pursuing an interdisciplinary capstone that integrates their interests in both majors consult with the department chair by fall of the senior or super-senior year.

COURSES

FREN 101: *Beginning French I*
A beginning course designed to give training in reading, writing, speaking, and understanding. This course is for students with no previous training in the French language. It is recommended that students take 101, 102, and 200 in three consecutive terms. Five class meetings per week. Units: 6.

FREN 102: *Beginning French II*
A continuation of French 101. It is recommended that students take 101, 102, and 200 in three consecutive terms. Five class meetings per week. Units: 6.

Prerequisite: FREN 101

FREN 191: *Directed Study in French*
Directed study follows a syllabus set primarily by the instructor to meet the needs or interests of an individual student or small group of students. The main goal of directed study is knowledge or skill acquisition, not research or creative work. Units: Variable.

Prerequisite: Counter Registration Required.

FREN 195: *Internship in French*
An opportunity for students to apply their French language skills in business, government, and the non-profit sector on the regional, national, and international level. Arranged in collaboration with and supervised by a member of the department. Includes readings, discussion, report, and/or portfolio. Advance consultation and application required. Repeatable for up to 6 units. Units: 2 OR 3.

Prerequisite: Counter Registration Required

FREN 200: *Intermediate French I*
A continuation of French 102, structured to help students develop their skills in reading, writing, speaking, and listening. Five class meetings per week. Units: 6.

Prerequisite: FREN 102 or placement by the department

FREN 201: *Intermediate French II*
Designed to help students attain facility in reading and oral comprehension and mastery of basic skills in writing and speaking. Includes grammar review that continues in French 202. Students with two to four years of high school French or the equivalent should contact the department about placement in this course. Four class meetings per week. Units: 6.

Prerequisite: FREN 200 or placement by the department

FREN 202: *Intermediate French III*
A continuation of French 200 or 201, intended to develop further a student's proficiency in the four language skills. Placement determined by examination and consultation with the instructor. Four class meetings per week. Units: 6.

Prerequisite: FREN 200 or 201 or a minimum of three years of high school French or the equivalent

FREN 301: *Introduction to French Literary Studies*
This course introduces students to a wide range of literary genres through a careful selection of short texts and films. We study how the French have written their literary history to create and reinforce a unique national identity through a close reading of the works of writers such as Villon, Labé, Molière, Voltaire, Hugo, Maupassant, Camus, and Duras. Units: 6.

Prerequisite: FREN 202 or consent of instructor

FREN 302: *Cinematically Speaking*
French films function as a springboard for readings, discussions, oral presentations, and short critical essays. We will briefly examine the history of French film from 1940 to the present, study cinematic techniques, the vocabulary of cinema, and explore the principal themes. Units: 6.

Also listed as Film Studies 302

Prerequisite: FREN 202 or consent of instructor

FREN 303: *Introduction to Francophone Literary Studies*
This course aims at introducing students to the nature and role of literature in the francophone world. Selected pieces from various literary genres (folk tales, poetry, drama, and novels) by writers such as Césaire, Senghor, Diop, Bâ, Jalloun, Kateb, and Memmi will be read. Themes will include colonialism, resistance, and identity formation. Units: 6.

Prerequisite: FREN 202 or consent of instructor

FREN 304: *Pleasures of the Text*
This course's texts are chosen for their accessibility to advanced intermediate readers of French. Objectives include: increased fluency in reading, vocabulary building, mastery of idiomatic structures, and an exploration of what makes reading worthwhile as well as pleasurable. We sample medieval legends, love poetry, dramatic novellas, and short modern novels. Units: 6.

Prerequisite: FREN 202 or consent of instructor

FREN 325: *Destination Dakar*
A required course for students who plan to take French 400 that will serve as an introduction to Dakar. Students will be asked to participate in weekly meetings. Units: 2.

FREN 390: *Tutorial Studies in French*
Topic of study and the structure of the term's work depend on the interest of the student, the instructor, and the subject. Tutorials are not substitutes for courses but opportunities to pursue topics suggested by courses. Units: Variable.

Prerequisite: Counter Registration Required.

FREN 391: *Directed Study in French*
Directed study follows a syllabus set primarily by the instructor to meet the needs or interests of an individual student or small group of students. The main goal of directed study is knowledge or skill acquisition, not research or creative work. Units: Variable.

Prerequisite: Counter Registration Required.

FREN 395: *Internship in French*
An opportunity for students to apply their French language skills in business, government, and the non-profit sector on the regional, national, and international level. Arranged in collaboration with and supervised by a member of the department. Includes readings, discussion, report, and/or portfolio. Advance consultation and application required. Repeatable for up to 6 units. Units: 2 OR 3.

Prerequisite: Counter Registration Required

FREN 399: *Independent Study in French*
A thorough investigation of a topic of a student's choice, carried out in consultation with an instructor. Students considering an honors project in their senior year should register for this course, for one or more terms. Units: Variable.

Prerequisite: Counter Registration Required.

FREN 400: *Senegalese Culture*
This course is part of the Lawrence Francophone Seminar in which students study in French-speaking West Africa for ten weeks. Offered in alternate years. Units: 6.

Also listed as Anthropology 450

Prerequisite: Must be attending the LU Francophone Seminar

FREN 401: *Senegalese Literature and History*
This course is part of the Lawrence Francophone Seminar in which students study in French-speaking West Africa for ten weeks. Offered in alternate years. Units: 6.

Prerequisite: Must be attending the LU Francophone Seminar

FREN 402: *French Language*
This course is part of the Lawrence Francophone Seminar in which students study in French-speaking West Africa for ten weeks. Offered in alternate years. Units: 6.

Prerequisite: Must be attending the LU Francophone Seminar

FREN 403: *Beginning Wolof*
This course is part of the Lawrence Francophone Seminar in which students study in French-speaking West Africa for ten weeks. Offered in alternate years. Units: 3.

Prerequisite: Must be attending the LU Francophone Seminar

FREN 404: *Senegalese Music*
This course is part of the Lawrence Francophone Seminar in which students study in French-speaking West Africa for ten weeks. Units: 3.

Also listed as Music Repertoire-Perf Study 405

Prerequisite: Must be attending the LU Francophone Seminar

FREN 410: *Romantics, Realists, and Rebels*
Beginning with Rousseau's idealistic notions of nature, gender relationships, and social responsibility, this course examines the diverse ways in which Romantics, Realists, and Rebels reacted to the social, cultural, and political upheavals of the 19th century. Through the works of novelists, artists, poets, and musicians such as Chateaubriand, Delacroix, Chopin, Hugo, Balzac, Sand, Flaubert, Baudelaire, and Rimbaud (among others), we trace the wide range of responses characteristic of this turbulent period. Units: 6.

Prerequisite: At least one 300-level course in French or consent of instructor.

FREN 411: *Fascism and Film*
This course in French may be taken in conjunction with GER 411, taught in English. It will expand on the films made in France by Continental under the Nazi Occupation, 1940-1944. Concurrent registration in GER 411 is required. Units: 2.

Also listed as Film Studies 411

Prerequisite: One course in French at the 300 level or consent of instructor

FREN 420: *Defining Frenchness*
This course examines the French national self-image over the centuries, including the creation of a national historical narrative. We will also consider how defining the non-French, the foreigner, and especially the immigrant helps to reify national self-image. Units: 6.

Prerequisite: One 300-level French course or consent of instructor

FREN 440: *Contemporary Issues in the French-Speaking World*
This course is designed to give students insights into the realities of contemporary France and other parts of the French-speaking world (Belgium, Switzerland, Québec, Vietnam, francophone Africa, and the Islands of the Pacific and Indian Ocean) through the study and discussion of literature, essays, film, art, and recent newspaper and magazine excerpts, as well as radio and television broadcasts from the French media. Units: 6.

Prerequisite: One 300-level course or consent of instructor

FREN 445: *Media and French Revolutions*
In this course, we will think about how mediated representations shape our understanding of the world we live in by investigating the dynamic relationship between diverse forms of media (print, visual, and audio) and the French revolutions of the 19th century, as well as the Franco-Algerian War and the events of May 1968. Units: 6.

Prerequisite: One 300-level course or consent of instructor

FREN 452: *Saint Louisian Literature*
The first capital of French colonial West Africa, Saint Louis is arguably the cradle of Senegalese literature. This course is a study of the works of selected writers who contributed to the emergence of the literature of the historic city and critically analyzes its thematic concerns and place in the discourse of Senegalese nationhood. Units: 6.

Prerequisite: One 300-level French course or consent of instructor

FREN 460: *Translation and Stylistics*
This course provides students with the knowledge and basic skills involved in translating between English and French. It surveys various approaches to translation, grammatical problems involved, and linguistic and cultural differences. Literary, business, and diplomatic texts will be used. Units: 6.

Prerequisite: One 300-level course or consent of instructor

FREN 464: *Francophone Literature and Screen Adaptations*
Focusing on the works of writers and filmmakers such as Sembene Ousmane, Joseph Zobel, Aimé Césaire, D.T. Niane, Dani Kouyate, Euzhan Palcy and Raoul Peck the course examines the interface between the literary and filmic media in raising consciousness about societal challenges, nationhood, power and identity. It also analyzes the strengths and weaknesses of each medium in accomplishing these objectives. Units: 6.

Also listed as Film Studies 464

Prerequisite: 300-level French course or consent of instructor

FREN 480: *Travelers' Tales*
This course will investigate the dynamic reciprocal relationship between travel, real or imagined, and the development of a discourse on the Other. Drawing on the works of Montaigne, Graffigny, Rimbaud, Baudelaire, Loti, Celine, Maran, Dadié, and Beyala, the course will explore the writers' fantasies in their attempt to acquaint us with the "exotic." Units: 6.

Prerequisite: One 300-level French course or consent of instructor

FREN 501: *Immigrant Voices*
This course examines the myths and realities of immigrant life through the writings of Maghrebin and sub-Saharan African francophone writers (Beyala, Diome, Boukedenna, Mounsi, Begag, and Chaouite). The course will address questions of identity, assimilation, acculturation, integration, alienation, and marginalization and various survival strategies. Units: 6.

Prerequisite: One 400-level French course or consent of instructor

FREN 502: *Childhood*
This course focuses on the representation of the child in French and Francophone literature. We will examine the construction of childhood by looking at changing notions of innocence, ongoing debates about education, cultural narratives about becoming gendered, and individual narratives about assuming an identity. Units: 6.

Prerequisite: One 400-level French course or consent of instructor

FREN 503: *Women Writing in French*
Seeking to uncover lives that had remained largely hidden, women writing in French have revealed and shared their innermost desires and frustrations. French and francophone women writers have braved ostracism to question their identity and their relationship to family and society. Authors may include Duras, Djebar, Cixous, Bugul, Kristeva, Sebbar, Sand, Colette, and Hébert. Units: 6.

Also listed as Gender Studies 503

Prerequisite: One 400-level French course or consent of instructor

FREN 504: *Je t'aime, moi non plus: Franco-American Love-Hate Stories*
How did the national friendship forged during the "sister" American and French Revolutions devolve into the post-9/11 enmity-filled era of "freedom fries" and widespread French-bashing? In this course, we will examine a variety of each nation's diverse mutual representations in order to better understand the dynamic and often volatile nature of Franco-American cultural relations. Units: 6.

Prerequisite: One 400-level course in French or consent of instructor

FREN 555: *Myths of Paris*
In this course, we will examine some of the major literary, cultural, and intellectual movements that have shaped the character of French depictions of Paris from the 18 to the 21st centuries. Special focus will be placed on literary and visual representations of Paris and the construction of its myths. Units: 6.

Prerequisite: One 400-level course or consent of instructor

FREN 557: *The Story of "I": Contemporary Life Writing in France*
This course is based on close reading of a variety of life writing forms including coming-of-age narrative, testimonial, the reinvented self, and texts of self-healing. We focus on the ethics of narration (self-distortion, misrepresentation of others, etc.). Our study extends in some cases to cinematic self-representations. Units: 6.

FREN 568: *France Under Nazi Occupation*
This course looks at France and its people under Nazi occupation. It examines well-known films and literature produced under German and Vichy censorship and the risks those cultural products did or did not entail. It compares those literary and cinematic texts with more recent attempts to make sense of the difficult period. Units: 6.

Prerequisite: One 400 level French course or consent of instructor

FREN 588: *Black Cultural Nationalisms*
A study of the variations of black cultural nationalisms in the works of francophone writers from Africa and the Diaspora. This course examines the writers, challenge to the “Négritude” school and the ways in which they articulate plural and locational black identities to affirm their unique sense of national belonging. Readings from authors such as Senghor, Cé’saire, Laye, Condé’, Chamoiseau, Contant, and Glissant. Units: 6.

Also listed as Ethnic Studies 584

Prerequisite: One 400-level French course or consent of instructor

FREN 590: *Tutorial Studies in French*
Topic of study and the structure of the term’s work depend on the interest of the student, the instructor, and the subject. Tutorials are not substitutes for courses but opportunities to pursue topics suggested by courses. Units: Variable.

Prerequisite: Counter Registration Required.

FREN 591: *Directed Study in French*
Directed study follows a syllabus set primarily by the instructor to meet the needs or interests of an individual student or small group of students. The main goal of directed study is knowledge or skill acquisition, not research or creative work. Units: Variable.

Prerequisite: Counter Registration Required.

FREN 595: ***Internship in French***
An opportunity for students to apply their French language skills in business, government, and the non-profit sector on the regional, national, and international level. Arranged in collaboration with and supervised by a member of the department. Includes readings, discussion, report, and/or portfolio. Advance consultation and application required. Repeatable for up to 6 units. Units: 2 OR 3.

Prerequisite: Counter Registration Required

FREN 599: ***Independent Study in French***
A thorough investigation of a topic of a student's choice, carried out in consultation with an instructor. Students considering an honors project in their senior year should register for this course, for one or more terms. Units: Variable.

Prerequisite: Counter Registration Required.

FREN 600: ***Senior Seminar***
Seniors meet with the instructor early in Term I to select a specific topic. They read and discuss texts at the beginning of the Winter Term, then formulate their own projects, which may take them in a direction of their choice (literature, art, history, music, etc.). Units: 6.

FREN 690: ***Tutorial Studies in French***
Topic of study and the structure of the term's work depend on the interest of the student, the instructor, and the subject. Tutorials are not substitutes for courses but opportunities to pursue topics suggested by courses. Units: Variable.

Prerequisite: Counter Registration Required.

FREN 691: ***Directed Study in French***
Directed study follows a syllabus set primarily by the instructor to meet the needs or interests of an individual student or small group of students. The main goal of directed study is knowledge or skill acquisition, not research or creative work. Units: Variable.

Prerequisite: Counter Registration Required.

FREN 695: ***Internship in French***
An opportunity for students to apply their French language skills in business, government, and the non-profit sector on the regional, national, and international level. Arranged in collaboration with and supervised by a member of the department. Includes readings, discussion, report, and/or portfolio. Advance consultation and application required. Repeatable for up to 6 units. Units: 2 OR 3.

Prerequisite: Counter Registration Required

FREN 699: ***Independent Study in French***
A thorough investigation of a topic of a student's choice, carried out in consultation with an instructor. Students considering an honors project in their senior year should register for this course, for one or more terms. Units: Variable.

Prerequisite: Counter Registration Required.

Associate professor: Carlson (Art and Art History, chair)

Introduction

Freshman Studies has been the cornerstone of the Lawrence curriculum for over 60 years. Designed by Nathan Pusey, who left Lawrence for the presidency at Harvard, it was first taught in 1945 and is still best understood as an introduction to liberal learning.

Students take *Freshman Studies* in their first two terms on campus. Each section of the course includes about fifteen students, allowing for close relationships between students and teachers. Because each section uses the same reading list, *Freshman Studies* also helps students to join in the life of a larger intellectual community, one that now includes generations of Lawrentians.

In keeping with such goals, *Freshman Studies* is expansive and inclusive. Instead of endorsing a single point of view, the course embraces works from many different traditions. Every division of the curriculum is represented on the syllabus, and recent versions of the course have included writings by Plato and Zhuangzi, short stories by Jorge Luis Borges, Elizabeth Bishop's poetry, lectures by Richard Feynman, Stanley Milgrim's experiments, Dorothea Lange’s photography, and the music of Miles Davis.

Through their encounters with such works, students gain an appreciation of different approaches to knowledge. They also join each other in exploring a host of important questions: What is the best sort of life for human beings? Are there limits to human knowledge? How should we respond to injustice and suffering? In addition to raising these questions, *Freshman Studies* serves more immediate and practical goals. The course encourages lively discussion and introduces students to the conventions of academic writing. In the first term, for example, students learn that a paper must serve the needs of an intelligent, curious reader. They also learn that a good paper should be organized around a central claim or thesis and supported with evidence from the text.

In the second term, students build on these foundations, moving on to more complex forms of argument. Students may be asked to assess the interpretations of earlier scholars or to contrast the treatment of a crucial theme in two very different texts. Through their work in *Freshman Studies*, then, students begin to master the skills needed for success in more advanced courses.

COURSES

FRST 100: *Freshman Studies I*
Required of first-year students and selected transfer students. Through the study of works representing a variety of intellectual and cultural traditions, students develop fundamental skills: the ability to read closely, to speak and write clearly, to persuade a reader and express themselves. Regular class work is supplemented by lectures and performances by Lawrence faculty members or by visiting scholars or artists. Units: 6.

Prerequisite: Registration through Dean of Student Academic Services

FRST 101: *Freshman Studies II*
Required of first-year students and selected transfer students. A continuation of *Freshman Studies I,* this course is designed to help students refine their abilities as readers, writers, and thinkers. As in *Freshman Studies I,* instructors stress close reading, cogent discussion, and clear writing. Regular class sessions are again supplemented by lectures and performances by Lawrence faculty members or by visiting scholars or artists. Units: 6.

Prerequisite: Registration through Dean of Student Academic Services

Professors: Gottfried (Psychology, chair), Hoft-March (French and Francophone Studies, The Milwaukee-Downer College and College Endowment Association Professorship), Peterson (German)

Associate professors: Daughtry (Anthropology), Haines** (Psychology), Pickett* (Physics), Privatt*** (Theatre Arts, James G. and Elthel M. Barber Professor of Theatre and Drama), Rico (History)

Assistant professors: Guenther-Pal (German), Proctor (Anthropology)

Instructors: Boyd Kramer, Wegehaupt (Dean of Faculty Office)

*On leave Terms I, II, III; **On leave Term II; ***On leave Term III

Introduction

Gender is a fundamental aspect of personal and social identity and a biological, psychological, and cultural category of paramount importance for people everywhere. In addition, gender is often a criterion for social stratification and different political treatment, as well as a favored symbol for expressing values and beliefs. Gender studies offers students an opportunity for focused study of such varied issues, in both contemporary and past societies, as human reproduction, gender roles in the family and society, the psychology of identity, sexual orientation, and representations of women and men in literature, music, and art.

Required for the major in gender studies

1. Two core courses (interdisciplinary in nature):
    a. GEST 100: *Introduction to Gender Studies*
    b. GEST 200: *Introduction to Feminist Theory and Practice*
2. Two additional cross-listed six-unit courses, cross-listed and offered within various disciplines that focus primarily on gender. These courses must be distributed as follows:
    a. One must be either GEST 110 or GEST 350.
    b. One must be either GEST 180 or GEST 270.
3. At least six additional six-unit courses in either gender studies or cross-listed, and some may be gender-component courses, as described below. The six courses must be distributed as follows:
    a. At least two courses must be at the level of 200 or above.
    b. At least one course must be at the level of 400 or above.
    c. Up to 6 units of independent study in gender studies may be substituted for one course.
    d. One of the six courses must be a *Senior Experience* of at least six units.

Courses cross-listed in gender studies will count toward completion of the major whether students register for them using the program's designation (GEST) or an individual department's designation.

Required for the minor in gender studies

1. Two core courses:
    a. GEST 100: *Introduction to Gender Studies*
    b. GEST 200: *Introduction to Feminist Theory and Practice*
2. Four additional six-unit courses that focus primarily on gender. The four courses must be distributed as follows:
    a. Three must be cross-listed in gender studies; the one remaining course may be a gender-component course. If these are gender-component course, students must complete a form (to be signed by the instructor and their gender studies advisor) that outlines which course requirements will be fulfilled with work applicable to gender studies. This form must be completed and submitted to the gender studies advisor by the end of the second week of the term. Forms may be downloaded from the gender studies web page.
    b. At least two courses must be at the level of 200 or above.
    c. Completion of an independent study in gender studies can be substituted for one course.

Courses cross-listed in gender studies will count toward completion of the minor whether students register for them using the program's designation (GEST) or an individual department's designation.

Senior Experience in Gender Studies

Students majoring in gender studies will enroll in a *Senior Experience* that is approved by the gender studies advisory board and mentored by a gender studies faculty member.

The *Senior Experience* will be at least one term, but may be more depending on the route the student pursues. The experience may be an independent study, an internship/practicum accompanied by an independent study, or an approved project in an advanced course.
The *Senior Experience* will culminate in a senior thesis about the project, and an oral presentation of the student's work. A variety of artistic or research projects, interdisciplinary projects, and projects based on social service or activist initiatives may be appropriate *Senior Experiences*, but must be approved in consultation with the student's advisor and the advisory board.

Students interested in pursuing an interdisciplinary capstone that integrates their interests in gender studies with another major or student teaching, are strongly encouraged to consult with their advisors and relevant department chairs to plan and negotiate their overall *Senior Experience* as early as possible.

COURSES

GEST 100: ***Introduction to Gender Studies***
What is gender? How is it constructed by the social world in which we live? How are our models of masculinity and femininity interwoven with models of race, sexuality, class, nationality, etc.? We will explore these questions theoretically and through interdisciplinary focal points - these may include "testosterone," "beauty," "domesticity," or other examples as chosen by the instructors. Units: 6.

GEST 110: ***Gender and Feminism in Historical Perspective***
A comparative world history of both gender relations and the emergence of a feminist consciousness within the past 500 years. Case studies drawn from different regions of the world will precede the examination of the emergence of a global feminism in the late 20th and early 21st centuries. Topics will include the social roles of men and women, ideas about masculinity and femininity, understandings of sexual orientation, forms of systematic subordination, and the politics of modern feminisms. Units: 6.

Also listed as History 140

GEST 180: ***The Biology of Human Reproduction***
An introductory course focusing on human reproduction to demonstrate some basic biological principles. The course includes discussion of cellular and organismal processes related to the development of human biological complexity. Current research in reproductive biology and its impact on the individual and society is considered. Lecture and laboratory. Primarily for non-science majors; credit not applicable to the biology major. Units: 6.

Also listed as Biology 100

GEST 191: ***Directed Study in Gender Studies***
Directed study follows a syllabus set primarily by the instructor to meet the needs or interests of an individual student or small group of students. The main goal of directed study is knowledge or skill acquisition, not research or creative work. Units: Variable.

Prerequisite: Counter Registration Required

GEST 195: *Internship in Gender Studies*
Internships may be obtained in a wide variety of field settings: agencies or organizations focused on education, health care, economics, violence, legal or counseling services, or other arenas in which gender plays a formative role. For example, students might work with a Gay-Straight Alliance or at Planned Parenthood. Students will integrate a scholarly component into their internship with the help of their faculty and on-site supervisor. Students' Internships may be done during the academic year (at a local placement or on campus) or during the summer. The academic component of the internship includes readings related to the substance of the internship, discussions with the faculty supervisor, and a written report appropriate to the discipline. Course grades are based on this academic work. Units: Variable.

Prerequisite: Counter Registration Required

GEST 200: *Introduction to Feminist Theory and Practice*
Examines and critiques a variety of feminist theories and how they apply to people's lives today. We explore the tension between feminist theory and practice as we look at significant contributions to the field by women of color, gay and lesbian studies, queer studies, and the study of masculinities. Units: 6.

Prerequisite: GEST 100

GEST 220: *Women in Early America, 1607–1860*
An examination of the experiences of women in early America, focusing both on women's lives and on the changing economic, political, and cultural roles they played in American society. Themes include women and the family, women's religious experiences, women and industrialization, and the effects of slavery on black and white women. Units: 6.

Also listed as History 335

Prerequisite: Sophomore standing or consent of instructor

GEST 222: *Music and Gender*
This course will explore the relationship between music and gender in the Western world from the Middle Ages to the present. Considering classical and popular music, including music videos and film, as well as writings about gender and music, we will explore music's role as a reflection of, reaction to, and active participant in gender construction. Units: 6.

Also listed as Musicology 221

Prerequisite: Sophomore standing

GEST 256: *Transgender Lives*
An introduction to the historical and literary representations of transgender people. Using a feminist lens, this course will examine issues such as identity, pathology, representations of the "other," and of course, cultural ideas about gender norms and appearance. Units: 6.

Prerequisite: GEST 100 or consent of instructor

GEST 261: *Feminism and Philosophy*
A consideration of the contribution of feminism to a range of subjects of philosophical inquiry, including: the philosophy of mind, ethics and the history of philosophy. Units: 6.

Also listed as Philosophy 260

Prerequisite: One course in philosophy, sophomore standing, or consent of instructor

GEST 270: *The Psychology of Gender*
An examination of theory and research on gender identity, gender roles, discrimination, and gender similarities and differences. Topics include gender stereotypes, gender identity development, sexual orientation, sex education, as well as intersections of gender with other aspects of identity. Units: 6.

Also listed as Psychology 310

Prerequisite: Sophomore standing

GEST 280: *Topics in Gender Studies*
Explores a particular topic of current interest in gender studies, and may be cross-listed with other departments. Topics will vary with each offering of the course. Different iterations of the course may be taken for credit with the instructor's consent.

Topic for Spring 2017: Gender Variance

Tomboys, sissies, butches, and queens: all of them are genders that we consider "non-normative," yet when we talk about gender we are often referring to normative definitions of masculinity and femininity. We'll choose readings from literature, social science, and films to examine these forms of gender variance, with a specific eye on the ways we pathologize "non-normative" gender. The course will provide some literary theory, some gender theory, and some queer theory, and also will also function as an introduction to other important topics such as race, class, and privilege.

Units: 6.

Prerequisite: GEST 100, or another GEST class and consent of instructor

GEST 300: ***Introduction to Queer Theory***
Offers theoretical frameworks for grappling with social constructions of sexuality alongside those of gender, class, race, and other identity categories. This class, like the field itself, uses the term "queer" to designate not just people but also practices: it explores representational and interpretive strategies that highlight inconsistencies within our cultural models of sexuality, desire, and subjectivity. Units: 6.

Prerequisite: GEST 100, or another GEST class and consent of instructor

GEST 315: ***Gender in 20th-Century Africa***
An examination of the changing roles of African men and women in the 20th century. The course will focus on the rapid social transformations of the 20th century — colonialism, abolition of slavery, the spread of Christianity and Islam, urbanization, the birth of new nations — and their challenges to traditional understandings of what it meant to be a man or woman. Units: 6.

Also listed as History 220

Prerequisite: Junior standing or some gender studies background

GEST 320: ***Strong Women, Strong Nations: Perspectives of Contemporary Native American Women***
An interdisciplinary examination of issues facing Native American women today. This course explores the ways gender, race and ethnicity shape identity as well as narrative constructions of nation in regional contexts. Readings by contemporary indigenous women authors, with field trips to federally recognized tribal lands and discussion with Native American women leaders, activists, scholars, musicians, artists and business leaders from a variety of nations. Units: 6.

Also listed as Ethnic Studies 300

GEST 323: ***Reel Men: Masculinity in American Film, 1945–2000***
Focusing on an array of well-known American films — "The Maltese Falcon," "Red River," "Dr. Strangelove," "McCabe and Mrs. Miller," "Chinatown," "Die Hard," and "American Beauty" among them — the course will integrate film theory, gender theory, and American history to address the problem of how masculinity has been constructed in American culture since World War II. Not open to students who have previously received, or need to receive, credit for HIST 400. Units: 6.

Also listed as Film Studies 300, History 300

Prerequisite: Sophomore level or above

GEST 324: *Gender and Cinema*
This course examines gender and film in an international context. Topics include the construction of femininity and masculinity in film, feminist and queer film theories, analysis of film using intersectional and formal approaches, women behind the camera, and gender and genre. Units: 6.

Also listed as Film Studies 324

Prerequisite: FIST 100, GEST 100, the equivalent, or consent of instructor

GEST 325: *Black, Brown, and Queer on Film: Race, Gender, and Sexuality on Film*
Visual culture has long defined that which is not white, not queer, and not male as deviant from the visual norm. This course will explore the way in which film culture has traditionally positioned people it defines as deviant from the racial, ethnic, gender or sexual norm and the ways in which filmmakers have responded to that positioning. Units: 6.

Also listed as Film Studies 325, Ethnic Studies 425

Prerequisite: Sophomore standing or consent of instructor

GEST 345: *Theorizing the Female Body in East Asian Art*
This discussion-based course will examine how tomb murals, paintings, prints, photography, and film have addressed the female body throughout East Asian history. We will explore how social and political issues were defined and negotiated through the gendered images of bodies in Japan, Korea and China in the context of national identity formation, historical reconstruction, subjectivity and sexuality. Coursework will include exams and a research paper. Units: 6.

Also listed as East Asian Studies 345, Art History 345

Prerequisite: Sophomore standing

GEST 350: *Anthropology of Gender*
An anthropological approach to the study of gender and a/sexuality, and how they intersect with other dimensions of social difference such as race, class, and ethnicity. Topical, ethnographic approach to examining these intersections. Focus on issues such as sexual behavior, reproduction, parenting, trans* identity, work, communication, and violence. Units: 6.

Also listed as Anthropology 306

Prerequisite: ANTH 110 or GEST 100

GEST 351: *Archaeology of Gender*
An examination of the relationship between gender and material culture. Focus on how gender and gender roles are reflected in the archaeological record and on the problems in identifying and determining gender roles in prehistory. Readings include studies from both the Old and New Worlds and modern theoretical approaches. Units: 6.

Also listed as Anthropology 320

Prerequisite: One anthropology course or consent of instructor

GEST 362: *Vampires, Monsters, and Man-Eaters*
This course examines the borders of the human through the figures of the vampire, monster, and femme fatale in literature, film, and the visual arts. Featured in the works of canonized authors as well as within popular culture, “monstrousness” can provide valuable insights into numerous aspects of German history and psychosexual relations. Possible texts include the early vampire film *Nosferatu*, Wedekind’s Lulu tragedies, Patrick Süskind’s*Das Parfüm*, and paintings by H.R. Giger. Units: 6.

Also listed as Film Studies 362, German 462

Prerequisite: GER 312

GEST 390: *Tutorial Studies in Gender Studies*
Advanced study, arranged and carried out under the direction of an advisor. Units: Variable.

Prerequisite: Counter Registration Required.

GEST 391: *Directed Study in Gender Studies*
Directed study follows a syllabus set primarily by the instructor to meet the needs or interests of an individual student or small group of students. The main goal of directed study is knowledge or skill acquisition, not research or creative work. Units: Variable.

Prerequisite: Counter Registration Required.

GEST 395: *Internship in Gender Studies*
Internships may be obtained in a wide variety of field settings: agencies or organizations focused on education, health care, economics, violence, legal or counseling services, or other arenas in which gender plays a formative role. For example, students might work with a Gay-Straight Alliance or at Planned Parenthood. Students will integrate a scholarly component into their internship with the help of their faculty and on-site supervisor. Students’ Internships may be done during the academic year (at a local placement or on campus) or during the summer. The academic component of the internship includes readings related to the substance of the internship, discussions with the faculty supervisor, and a written report appropriate to the discipline. Course grades are based on this academic work. Units: Variable.

Prerequisite: Counter Registration Required

GEST 399: ***Independent Study in Gender Studies***
Advanced study, arranged in consultation with an advisor. Students considering an honors project should register for this course for one or more terms. Units: Variable.

Prerequisite: Counter Registration Required.

GEST 410: ***Gender, Politics, and Current Events in Latin America***
A critical analysis of current events in Latin America with a focus on gender and political issues. Through films, magazine articles, fiction, and selected radio and television broadcasts from Latin America, students will study major events that relate and give expression to the cultural mores of Latin Americans within the realm of gender and politics. The course allows students to continue to develop their oral communication skills in the target language and, with a wide range of topics and interests, to work toward an understanding of gender issues and political events that have shaped and transformed Latin America. Units: 6.

Also listed as Spanish 410

Prerequisite: One 300-level Spanish course, its equivalent, or consent of instructor

GEST 412: ***Gender, Politics, and Current Events in Spain***
A critical analysis and discussion of recent and current events in Spain with a focus on issues of gender and sexuality, immigration, and nationalism. Students study and present on topics that affect Spanish society today by reading, watching and listening to a variety of media sources, articles and theoretical readings. Units: 6.

Also listed as Spanish 316

Prerequisite: One 300-level Spanish course, its equivalent, or consent of instructor

GEST 415: ***Society and the Sexes in Pre-Industrial Europe***
A seminar, organized topically, exploring changing gender definitions, economic and social roles, family structures and functions, and styles of intimacy from 1000 to 1800. A variety of primary sources and scholarly interpretations examined. Units: 6.

Also listed as History 430

Prerequisite: Junior standing or consent of instructor

GEST 421: ***Music and Gender***
This course will explore the relationship between music and gender in the Western world from the Middle Ages to the present. Considering classical and popular music, including music videos and film, as well as writings about gender and music, we will explore music's role as a reflection of, reaction to, and active participant in gender construction. Units: 6.

Also listed as Musicology 421

Prerequisite: MUCO 202

GEST 423: *Reel Men: Masculinity in American Film, 1945–2000*
At the upper level, the course will serve as a history seminar in preparation for the history department's capstone course. Those taking it at that level will be required to write at least one paper addressing film or gender theory and to write a 10-15-page research prospectus. Not open to students who have previously received credit for HIST 300. Units: 6.

Also listed as Film Studies 400, History 400

Prerequisite: Junior standing or above

GEST 445: *Gender and Modernist British/American Literature*
A study of the construction of gender in early 20th-century fiction and poetry. Authors include Cather, Woolf, Lawrence, Hemingway, Sassoon, and others. Units: 6.

Also listed as English 515

Prerequisite: Junior standing, an intermediate course in English or gender studies, or consent of instructor

GEST 446: *Gender and Enlightenment*
This course will examine writings by both men and women that reflect on the changing social roles for women in eighteenth-century Britain. Focusing on women's labor, reproduction, reading, and writing, the course will consider to what extent women could participate in the project of the Enlightenment. Units: 6.

Also listed as English 446

Prerequisite: Junior standing, ENG 230, or consent of instructor

GEST 476: *Nineteenth Century American Women Writers*
An exploration of 19th century women writers, including Sigourney, Harper, Stowe, Jacobs, Dickinson, Harding Davis, Chopin, Lazarus, Johnson, Zitlaka-sa and/or others. Units: 6.

Also listed as English 476

Prerequisite: Junior standing, an intermediate course in English, or consent of instructor.

GEST 493: *Music and Gender in Cross-Cultural Perspective*
This course examines the relationship between the constructions of gender identities and music performance and practice, and looks at history and development of approaches, theories, and studies regarding this relationship. Each week contains theoretical readings from gender studies, women’s studies, or feminist scholarship as well as ethnomusicological case studies from a variety of locations around the world. Units: 6.

Also listed as Musicology 493

Prerequisite: Sophomore standing

GEST 500: *Advanced Topics in Gender Studies*
An examination of a particular topic of current interest in gender studies or feminist theory; may be cross-listed with other departments and programs. Topics in this series will vary each time the course is offered. Different iterations of the course may be taken for credit with the instructor's permission. Units: 6.

Prerequisite: Junior standing and gender studies at the 200-level or above, or consent of instructor; individual versions of the course may carry other prerequisites

GEST 503: *Women Writing in French*
Seeking to uncover lives that had remained largely hidden, women writing in French have revealed and shared their innermost desires and frustrations. French and francophone women writers have braved ostracism to question their identity and their relationship to family and society. Authors may include Duras, Djebar, Cixous, Bugul, Kristeva, Sebbar, Sand, Colette, and Hébert. Units: 6.

Also listed as French 503

Prerequisite: One 400-level French course or consent of instructor

GEST 506: *Contemporary African-American Women Poets*
In this lecture/discussion course, we'll look at the great stylistic variety of poetry that Black women have been writing during the past twenty years. Students will consider poetry through the lenses of critical race and gender criticism and will write weekly short papers and a substantial research paper. Poets may include Marilyn Nelson, Natasha Trethewey, Claudia Rankine, Tracy K. Smith, Nikky Finney and others. Units: 6.

Also listed as English 506, Ethnic Studies 506

Prerequisite: ENG 250, ENG 260, or junior standing; or consent of instructor

GEST 560: *Topics in Gender and Social Development*
This seminar examines social development in childhood and adolescence. A variety of issues will be explored including achievement motivation, attachment, and parenting. Special emphasis is given to the topics of gender identity, gender roles, sex education, and sexual orientation.

Topic for Winter 2017: Gender and Social Development

Special emphasis is given to the development of gender identity, gender roles, and sexual orientation. Other topics include sex education, parenting, and LGBT youth risk and resilience.

Units: 6.

Also listed as Psychology 560

Prerequisite: PSYC 260 or 265, PSYC 310, or consent of instructor

GEST 570: *Topics in Prejudice: Sex and Sexism*
Examination of the psychology of prejudice. Readings and discussions cover general theories of prejudice as well as the dynamics of specific types of prejudice (*e.g.,* racism, sexism). The specific areas covered may shift from year to year.

Topic for Fall 2016: Sex and Sexism

Examines social psychological theories and research on how gender affects social interaction, especially how heterosexual attraction shapes and maintains traditional sexist attitudes, subtle biases, and continued gender inequality. Requires in-depth critiques of published studies; intended for junior or senior psychology majors who have completed the Research Methods in Psychology sequence.

Units: 6.

Also listed as Psychology 570

Prerequisite: PSYC 270, MATH 117, or consent of instructor

GEST 590: *Tutorial Studies in Gender Studies*
Advanced study, arranged and carried out under the direction of an advisor. Units: Variable.

Prerequisite: Counter Registration Required.

GEST 591: *Directed Study in Gender Studies*
Directed study follows a syllabus set primarily by the instructor to meet the needs or interests of an individual student or small group of students. The main goal of directed study is knowledge or skill acquisition, not research or creative work. Units: Variable.

Prerequisite: Counter Registration Required.

GEST 595: *Internship in Gender Studies*
Internships may be obtained in a wide variety of field settings: agencies or organizations focused on education, health care, economics, violence, legal or counseling services, or other arenas in which gender plays a formative role. For example, students might work with a Gay-Straight Alliance or at Planned Parenthood. Students will integrate a scholarly component into their internship with the help of their faculty and on-site supervisor. Students' Internships may be done during the academic year (at a local placement or on campus) or during the summer. The academic component of the internship includes readings related to the substance of the internship, discussions with the faculty supervisor, and a written report appropriate to the discipline. Course grades are based on this academic work. Units: Variable.

Prerequisite: Counter Registration Required

GEST 599: ***Independent Study in Gender Studies***
Advanced study, arranged in consultation with an advisor. Students considering an honors project should register for this course for one or more terms. Units: Variable.

Prerequisite: Counter Registration Required.

GEST 690: ***Tutorial Studies in Gender Studies***
Advanced study, arranged and carried out under the direction of an advisor. Units: Variable.

Prerequisite: Counter Registration Required.

GEST 691: ***Directed Study in Gender Studies***
Directed study follows a syllabus set primarily by the instructor to meet the needs or interests of an individual student or small group of students. The main goal of directed study is knowledge or skill acquisition, not research or creative work. Units: Variable.

Prerequisite: Counter Registration Required.

GEST 695: ***Internship in Gender Studies***
Internships may be obtained in a wide variety of field settings: agencies or organizations focused on education, health care, economics, violence, legal or counseling services, or other arenas in which gender plays a formative role. For example, students might work with a Gay-Straight Alliance or at Planned Parenthood. Students will integrate a scholarly component into their internship with the help of their faculty and on-site supervisor. Students' Internships may be done during the academic year (at a local placement or on campus) or during the summer. The academic component of the internship includes readings related to the substance of the internship, discussions with the faculty supervisor, and a written report appropriate to the discipline. Course grades are based on this academic work. Units: Variable.

Prerequisite: Counter Registration Required

GEST 699: ***Independent Study in Gender Studies***
Advanced study, arranged in consultation with an advisor. Students considering an honors project should register for this course for one or more terms. Units: Variable.

Prerequisite: Counter Registration Required.

Professors: Bjornerud* (Schober Professorship in Environmental Studies), Clark

Associate professor: Knudsen (chair)

Visiting assistant professors: Malone, Schaal

*On leave Terms II, III

Introduction

If “geology” makes you think of dusty collections of rocks, minerals, and old bones, visit the Lawrence geology department. You will discover a thriving group of faculty members and students who consider geology to be a way of seeing the Earth, a lens through which the planet’s past and present come simultaneously into focus.

Lawrence geology students have an exceptional range of research experiences, comparable to what students from larger universities would first encounter at graduate school. In a single academic term, you could find yourself sampling ice-age lake sediments with the department’s portable drill rig, mapping the roots of an ancient mountain belt in Michigan’s upper peninsula, instrumenting a watershed in Eastern Wisconsin, examining microscopic rock structures with image-analysis software, and conducting geochemical and crystallographic studies with research equipment shared with the chemistry and physics departments. All geology majors complete a research project as part of their *Senior Experience*, and many present results of their research at professional meetings.

Field-based studies are at the heart of the Lawrence geology program. Recent destinations for the annual all-department field trip have included Hawaii, the Adirondacks, Wyoming, Ontario, Scotland, and Puerto Rico. Shorter trips are integrated into academic-year courses, and there also are opportunities for summer field courses, internships, and research projects. Appleton is within a few hours’ drive of classical geological localities, including iron ore deposits and ancient volcanoes in northern Wisconsin and Michigan, a fossil forest preserved in glacial sediments on the shores of Lake Michigan, and the world-renowned glacial landscape of the Kettle Moraine. Local environmental issues related to surface and groundwater protection also provide the basis for student field projects.

In many ways, geology is the ideal liberal arts degree. It is a discipline that draws not only upon one’s observational and analytical abilities but also upon one’s aesthetic and creative instincts.

Required for the geology major

1. Required core courses
    a. GEOL 110: *Introductory Geology*
    b. GEOL 210: *History of Earth and Life*
    c. GEOL 240: *Chemistry of the Earth: Low-Temperature Environments*
    d. GEOL 245: *Mineralogical Analysis*
    e. GEOL 250: *Chemistry of the Earth: High-Temperature Environments*
    f. GEOL 360: *Physics of the Earth: Surface Processes*
    g. GEOL 370: *Physics of the Earth: Subsurface Processes*
    h. GEOL 580: *Junior Seminar*
    i. GEOL 620: *Senior Capstone*
2. An additional twelve units in geology courses numbered 200 or higher
3. Courses in other sciences and mathematics
    - CHEM 116 (may be waived by placement exam)
    - MATH 107 or 117 or 120 or 140 or 207
    - PHYS 141 or 151

Required for the geology minor

1. Required core courses
    a. GEOL 110: *Introductory Geology*
    b. GEOL 210: *History of Earth and Life*
    c. Any two of the following:
        - GEOL 240: *Chemistry of the Earth: Low-Temperature Environments*
        - GEOL 250: *Chemistry of the Earth: High-Temperature Environments*
        - GEOL 360: *Physics of the Earth: Surface Processes*
        - GEOL 370: *Physics of the Earth: Subsurface Processes*
2. An additional twelve units in geology courses numbered 200 or higher
3. C average in the minor

Required for the interdisciplinary major in the natural sciences in geology and a secondary discipline

1. GEOL 110 and GEOL 210
2. PHYS 150 and 160 or, with the permission of the secondary department, PHYS 120 and 130.
3. Either:
    - BIOL 110 and 120 or BIOL 110 and 140, or
    - CHEM 115 and 116 or equivalent chosen to include the secondary interest
4. At least 10 additional six-unit courses in the sciences (biology, chemistry, geology, and physics) numbered 200 or above, with at least five in geology and at least three in the secondary discipline
5. GEOL 580 and 620

Broad field science

Students who complete a major, a minimum of two courses in each of two other science disciplines, and at least one course in each of the remaining three disciplines (including space science) will be eligible for broad field certification.

Please refer to the “Education” section for more detailed information on teacher certification.

Senior Experience in geology

The *Senior Experience* in geology comprises two 3-unit courses (GEOL 580 and 620), typically offered in the in spring term of the junior year and the winter term of the senior year respectively.

The junior seminar (GEOL 580) helps students begin to acquire an “insider's view” of the geosciences. In the first part of the course, students explore the philosophical and historical underpinnings of the discipline and develop strategies for finding and reading technical literature. Then, working with at least one member of the geology faculty, each student identifies a substantive research question and designs a plan by which to investigate that question.

In the senior capstone (GEOL 620), students work with faculty mentors to carry out these research plans (sometimes building upon work that they conducted during summer study on campus, in the field, or through programs at other universities as well as Independent Study work). By the end of GEOL 620, each student presents his or her research results and analyses to the department as a whole. Some students opt to continue their capstone research throughout their senior year as senior thesis or honors thesis projects.

COURSES

GEOL 110: *Introductory Geology*
An introduction to the study of the Earth, examining the interdependent global systems (atmosphere, hydrosphere, biosphere, tectosphere) that set Earth apart from its planetary neighbors. Emphasis is also placed on human participation in and perturbation of these systems. One lab per week. This course may not be taken on a Satisfactory/Unsatisfactory basis. Units: 6.

GEOL 150: *Environmental Science*
Presents principles of biology, chemistry, geology, and physics that relate to such environmental issues as resource limitation, pollution, and environmental degradation. Designed to foster understanding of scientific measures of environmental quality. One laboratory per week. Units: 6.

Also listed as Environmental Studies 150

Prerequisite: Freshman or sophomore standing; consent of instructor required for juniors and seniors

GEOL 191: *Directed Study in Geology*
Directed study follows a syllabus set primarily by the instructor to meet the needs or interests of an individual student or small group of students. The main goal of directed study is knowledge or skill acquisition, not research or creative work. Units: Variable.

Prerequisite: Counter Registration Required.

GEOL 195: *Internship in Geology*
An opportunity for students to gain work experience in industry, government, or the non-profit sector. The academic component, supervised by a Lawrence instructor, includes readings, discussion with the instructor, and a formal presentation and written report, which can be used to satisfy the geology department's senior seminar requirement. (Grades are based on this academic work.) Intended to be used for research that is later developed into an honors project. Applications for an internship must be submitted by the fifth week of the term preceding the proposed internship. Units: Variable.

Prerequisite: Counter Registration Required.

GEOL 210: ***History of the Earth and Life***
A study of the physical, chemical, and organic evolution of the Earth since its origin 4.5 billion years ago, with emphasis on times of change and crisis. The course also examines the evolution of ideas about Earth's history, illustrating how science and culture are inherently entangled. Units: 6.

Also listed as Environmental Studies 230

Prerequisite: GEOL 110

GEOL 213: ***Geology and Health***
A course investigating the links between geology and health, considering topics such as asbestos, natural and anthropogenic water contamination, and cycling of trace elements as both contaminants and necessary nutrients. Designed to illuminate the link between the seemingly disparate fields of geology and the health of life on earth. Units: 6.

Also listed as Environmental Studies 202

Prerequisite: GEOL 110

GEOL 214: ***Weather, Climate, and Climate Change***
A study of basic meteorologic principles and climate patterns. These phenomena will be discussed in relation to evidence of past climate change and implications of global warming on future climate. Units: 6.

Also listed as Environmental Studies 235

Prerequisite: GEOL 110 or 150

GEOL 216: ***Apocalypses: The Earth, The Solar System, and the Universe***
This course explores the questions of endings—of the Universe, Solar System, Earth and Life—and how these can be addressed through the methods of astronomy, physics, and geology. Topics considered include environmental and planetary catastrophes, the late evolution of the Earth and the Sun, and the cosmological fate of the Universe. Apocalypses is intended as a bookend to the Origins course (PHYS 212/BIOL 212/GEOL 215). Units: 6.

Also listed as Physics 216

Prerequisite: Introductory course in any two different natural sciences; at least one intermediate course in a natural science; sophomore standing

GEOL 220: ***Environmental Remote Sensing and GIS Applications***
Fundamentals of electromagnetic radiation and the interaction of radiation with matter are introduced as the basis of remote sensing. Interpretation and manipulation of remotely sensed images are used to demonstrate the wealth of information remote sensing provides. Applications and case studies from geology, environmental science, ecology, agronomy, and urban planning will be explored. High school physics recommended. Lecture and laboratory. Units: 6.

Also listed as Environmental Studies 237

Prerequisite: GEOL 110; high school physics recommended

GEOL 240: ***Chemistry of the Earth: Low-Temperature Environments***
An introduction to the geochemical processes at the Earth's surface. Emphasis is placed on how chemical processes such as thermodynamics, phase equilibria, and oxidation-reduction reactions shape the Earth surface and near-surface environments. Units: 6.

Also listed as Environmental Studies 240

Prerequisite: GEOL 110 and CHEM 115; concurrent enrollment in GEOL 245

GEOL 245: ***Mineralogical Analysis***
This course serves as an introduction to mineralogical analyses. Students will utilize a variety of analytical techniques including Polarized Light Microscopy, X-ray diffraction, and Scanning Electron Microscopy to study crystallography and mineral chemistry. Students will use these tools to analyze a variety of geological samples including rocks, soils, and sediments. Intended to be taken simultaneously with GEOL 240. Units: 3.

Prerequisite: Concurrent enrollment in GEOL 240/ENST 240

GEOL 250: ***Chemistry of the Earth: High-Temperature Environments***
Introduction to the chemical processes that form igneous and metamorphic rocks, with emphasis on how mineralogical, chemical, and isotopic clues can be used to gather information about Earth's early history and its inaccessible interior. One lab per week. Units: 6.

Prerequisite: GEOL 110 and CHEM 116; GEOL 240 and GEOL 245

GEOL 260: ***Introduction to Paleobiology***
An organismal and systems approach to the study of the marine and terrestrial fossil record. The course will focus on diversification and extinction of biotas in the context of the environmental history of Earth. Lecture and laboratory. Units: 6.

Prerequisite: GEOL 110 or BIOL 110

GEOL 340: ***Advanced Geochemistry***
A more detailed investigation of geochemical principles and processes through the investigation of important geochemical issues. Readings come heavily from the primary literature. Units: 6.

Also listed as Environmental Studies 330

Prerequisite: GEOL 240 and CHEM 115, or consent of instructor; CHEM 116 recommended

GEOL 360: ***Physics of the Earth: Surface Environments***
This course studies the movement of water, solute, and sediment through the landscape and the resulting properties and distribution of surficial earth materials and landforms. Topics include weathering; soil development; runoff; mass movement; river, glacial, and coastal processes; and deposition in sedimentary environments. One lab per week. Units: 6.

Also listed as Environmental Studies 335

Prerequisite: GEOL 110 and 240 or consent of instructor; PHYS 141 or 151 recommended

GEOL 370: ***Physics of the Earth: Sub-Surface Processes***
Introduction to the study of the mechanics of Earth's crust and mantle, including mountain-building processes, seismicity and faulting, mantle convection, interpretation of deformed rocks. Four-day field trip late in term. One lab per week. Units: 6.

Prerequisite: GEOL 240 or consent of instructor

GEOL 390: ***Tutorial Studies in Geology***
Advanced work, arranged and carried out in consultation with an instructor. Units: Variable.

Prerequisite: Counter Registration Required.

GEOL 391: ***Directed Study in Geology***
Directed study follows a syllabus set primarily by the instructor to meet the needs or interests of an individual student or small group of students. The main goal of directed study is knowledge or skill acquisition, not research or creative work. Units: Variable.

Prerequisite: Counter Registration Required.

GEOL 395: *Internship in Geology*
An opportunity for students to gain work experience in industry, government, or the non-profit sector. The academic component, supervised by a Lawrence instructor, includes readings, discussion with the instructor, and a formal presentation and written report, which can be used to satisfy the geology department's senior seminar requirement. (Grades are based on this academic work.) Intended to be used for research that is later developed into an honors project. Applications for an internship must be submitted by the fifth week of the term preceding the proposed internship. Units: Variable.

Prerequisite: Counter Registration Required.

GEOL 399: *Independent Study in Geology*
Advanced research, arranged in consultation with the department. Students considering an honors project should register for this course, for one or more terms. Units: Variable.

Prerequisite: Counter Registration Required.

GEOL 430: *Watershed Hydrology*
An introduction to the basic components of the hydrologic cycle, focusing on surface water and groundwater systems. Measurement and analysis of hydrologic data are emphasized. Application to contemporary issues such as flooding, watershed development, and groundwater contamination will be discussed. Units: 6.

Also listed as Environmental Studies 430

Prerequisite: GEOL 110; PHYS 141 or 151 recommended

GEOL 520: *Seminar in Selected Topics in Geology*
An opportunity for students to read and analyze primary literature on significant topics in geology.

Topic for Winter 2017: Physical Modeling of Earth Processes

An exploration of the design and use of scale and analog models of earth processes such as earth quakes, landslides, groundwater flow, and sediment transport. The course will cover theoretical underpinnings of scale models as well as their limitations. We will also explore data acquisition and temporal and spatial analysis techniques.

Topic for Spring 2017:

Units: Variable.

Prerequisite: Open to students with a declared major in the natural sciences

GEOL 550: *Seminar in Field Geology*
During spring break, winter break, or prior to Term I, students conduct field investigations at an area of geological complexity, such as the Grand Canyon, Death Valley, Wyoming, Hawaii, the Florida Keys, southern Colorado, or Puerto Rico. May be repeated for credit when topic is different.

Topic for Fall 2016: Geology of the Driftless Area

An exploration of the bedrock geology, mineralogy, geomorphology, and hydrogeology of the Driftless Area. The Driftless Area is an ancient landscape, unique in that it was not carved out by the the glaciations that have sculpted most of the Upper Midwest. We will investigate features such as the ancient Wyalusing River, the mineral deposits responsible for Wisconsin's nickname of "The Badger State," and the groundwater hydrology and geochemistry that makes streams in this area premier trout habitat.

Units: 3.

Prerequisite: GEOL 110 and consent of instructor

GEOL 580: *Junior Seminar in Geology*
The goal of the Junior Seminar is to engage geology majors in the scientific process. The course begins with consideration of the history of geology as a discipline. We discuss modes of thinking that are shared with other scientific disciplines as well as those unique to the geosciences, and we read seminal papers that shaped the development of the field. With the guidance of a faculty member, each student identifies a topic to investigate in depth. Students lead discussions, prepare literature reviews and give final presentations on their topics. The topic a student explores in the junior seminar may be (but is not required to be) the same as the one studied intensively in the Senior Capstone course (GEOL 620). For some students, the junior seminar topic may also be linked to a research project to be continued over the summer and/or through the student's senior year as an independent study or honors project. Units: 3.

Prerequisite: Declared geology major or minor and junior standing, or consent of instructor.

GEOL 590: *Tutorial Studies in Geology*
Advanced work, arranged and carried out in consultation with an instructor. Units: Variable.

Prerequisite: Counter Registration Required.

GEOL 591: *Directed Study in Geology*
Directed study follows a syllabus set primarily by the instructor to meet the needs or interests of an individual student or small group of students. The main goal of directed study is knowledge or skill acquisition, not research or creative work. Units: Variable.

Prerequisite: Counter Registration Required.

GEOL 595: *Internship in Geology*
An opportunity for students to gain work experience in industry, government, or the non-profit sector. The academic component, supervised by a Lawrence instructor, includes readings, discussion with the instructor, and a formal presentation and written report, which can be used to satisfy the geology department's senior seminar requirement. (Grades are based on this academic work.) Intended to be used for research that is later developed into an honors project. Applications for an internship must be submitted by the fifth week of the term preceding the proposed internship. Units: Variable.

Prerequisite: Counter Registration Required.

GEOL 599: *Independent Study in Geology*
Advanced research, arranged in consultation with the department. Students considering an honors project should register for this course, for one or more terms. Units: Variable.

Prerequisite: Counter Registration Required.

GEOL 620: *Senior Capstone in Geology*
The goal of this course is to assist geology majors in becoming scientific practitioners. The course places emphasis on framing testable hypotheses, collecting and analyzing meaningful datasets, and developing models of geologic phenomena. Each student applies these skills to a particular project or problem in the earth sciences. Units: 3.

Prerequisite: GEOL 580, declared geology major or minor and senior standing, or consent of instructor.

GEOL 690: *Tutorial Studies in Geology*
Advanced work, arranged and carried out in consultation with an instructor. Units: Variable.

Prerequisite: Counter Registration Required.

GEOL 691: *Directed Study in Geology*
Directed study follows a syllabus set primarily by the instructor to meet the needs or interests of an individual student or small group of students. The main goal of directed study is knowledge or skill acquisition, not research or creative work. Units: Variable.

Prerequisite: Counter Registration Required.

GEOL 695: ***Internship in Geology***
An opportunity for students to gain work experience in industry, government, or the non-profit sector. The academic component, supervised by a Lawrence instructor, includes readings, discussion with the instructor, and a formal presentation and written report, which can be used to satisfy the geology department's senior seminar requirement. (Grades are based on this academic work.) Intended to be used for research that is later developed into an honors project. Applications for an internship must be submitted by the fifth week of the term preceding the proposed internship. Units: Variable.

Prerequisite: Counter Registration Required.

GEOL 699: ***Independent Study in Geology***
Advanced research, arranged in consultation with the department. Students considering an honors project should register for this course, for one or more terms. Units: Variable.

Prerequisite: Counter Registration Required.

Professor: Peterson (chair)

Associate professor: Lunt*

Assistant professor: Guenther-Pal

Visiting assistant professor: Carone

Post-doctoral fellow: Nousek (Hurvis NEH Fellow in the Humanities)

*On leave Term I

Introduction

German has long been a key language of culture, the arts, philosophy, and the social and natural sciences. For better and for worse, Germany has played a significant role in European and world history, while united Germany is one of the driving forces behind European integration and economic development. As a result, German is an important language—not just in Germany, Austria, Liechtenstein, and the German-speaking cantons of Switzerland—but also as a second language throughout the continent. Germany itself is changing in ways that shatter old prejudices and make German an exciting culture to explore. Not only has Döner Kebab become Germans favorite fast food, but with at least 20 percent of Germans having migrant backgrounds, it is no wonder that some of the most interesting literature and film has been produced by people who do not fit the stereotypical image of Germans.

The German department at Lawrence University assists students not just in learning the German language, but also becoming familiar with Germany's literature, history, and culture, including popular culture—film, television and popular literature. German courses also encourage students to develop analytical and interpretive skills. This mix of information, analysis and interpretation helps them understand an increasingly dynamic, diverse and interdependent international community, a global community in which Germany is an ever more important player. The knowledge and abilities that German students acquire can help them in a wide variety of careers and give them a lifetime of cultural pleasure.

The study of German begins with the language, but the Lawrence German program insists that language is always part of a cultural nexus. Lawrence's German program is designed to help students develop proficiency in all four language skills: listening, speaking, reading, and writing. Since it only makes sense to learn German in courses with significant cultural content, beginning and intermediate instruction always integrates pertinent cultural material and provides an opportunity for comparisons between German and American experiences. Most classes, even at the elementary level, are conducted in German, and the program insists that every course, at all levels, is both a language and cultural course. Knowledge of a second language in its cultural context makes students aware of their own language and culture; they are less likely to take things for granted. Of course, the best way to experience difference is to live in another culture, and the German department strongly encourages students to take advantage of opportunities for study in the German-speaking world through our affiliated programs in Berlin, Freiburg, and Vienna. We also offer a short-term trip to Berlin in conjunction with a course called "Berlin: Experiencing a Great City." On campus they can maintain a connection to things

German through the department's lunch and dinner tables, which are all facilitated by our language assistants.

Once the cultural and linguistic foundations have been laid, students embark on a deeper exploration of German culture, history, and society. The German department at Lawrence embraces the notion of German studies. Although works of great literature offer unparalleled access to German culture, students will also be exposed to a wider variety of cultural artifacts—film, television, nonfiction texts, popular narratives, etc.—than might be the case in more traditional German programs.

Required for the German major

1. Sixty units beyond GER 202, including GER 285 and 312. At least 36 of these units must be taken at Lawrence. Only 12 units taught in English may count toward the major, but tutorials taken in conjunction with English courses may count as German credit.
2. Students usually complete a capstone project in the senior seminar or in conjunction with a departmental course taken during the senior year.
3. Students who expect to graduate present a portfolio by the second week of their final term. The student's advisor will review a portfolio consisting of the following materials submitted electronically:
    1. a brief statement in which students evaluate their development as German majors
    2. a list of courses taken for the major
    3. sample pages of Lesejournale from all German courses numbered 300 and above taken at Lawrence
    4. four papers from upper-level courses, two of which may be from courses taken abroad
    5. a copy of the capstone paper

Required for the German minor

1. Thirty-six units beyond GER 202, including GER 285 and 312. At least 24 of these units must be taken at Lawrence. Only six units taught in English may count toward the minor, but tutorials taken in conjunction with English courses may count as German credits.
2. A C average in the minor is also required.

Teaching certification in German

The German department offers a course of study that prepares its majors to teach German at the elementary and secondary levels. Students interested in teaching German, K-12, should plan to complete the major and should consult with the education department, about certification requirements.

Senior Experience in German

The German department's revised Senior Experience consists of a longer, research paper to be completed either through an independent study or the senior seminar. Students should develop individual paper topics by the end of Fall Term. The capstone project may be completed during Winter Term, or it may spill over into an independent study during Spring Term.

In either case, the senior seminar allows students to help each other develop their ideas and arguments; they will also present their findings to the entire senior cohort.**:** Students who are pursuing a double major or teaching certification should work with all concerned departments to assess the feasibility of an interdisciplinary capstone.

COURSES

GER 101: *German 1*

The first course of a two-term sequence that introduces students to the basics of German. The traditional four skills of speaking, writing, reading, and listening are practiced, yet the prime concern is adequate comprehension and response within a given situation. Units: 6.

GER 102: *German 2*

A continuation of German 101. Students improve their communicative skills with continued practice in the four skills of speaking, writing, reading, and listening while learning about the culture of German-speaking countries. Units: 6.

Prerequisite: GER 101 or the equivalent

GER 191: *Directed Study in German*

Directed study follows a syllabus set primarily by the instructor to meet the needs or interests of an individual student or small group of students. The main goal of directed study is knowledge or skill acquisition, not research or creative work. Units: Variable.

Prerequisite: Counter Registration Required.

GER 195: *Internship in German*

An opportunity for students to apply their German language skills in business, government, and the non-profit sector on the regional, national, and international level. Arranged in collaboration with and supervised by a member of the department. Includes readings, discussion, report, and/or portfolio. Advance consultation and application required. Units: 2 OR 3.

Prerequisite: Counter Registration Required.

GER 201: ***Intermediate German I***
Further development of the four basic skills with an emphasis on increasing the student's ability to understand literary as well as non-literary texts of increasing difficulty. Units: 6.

Prerequisite: GER 102 or the equivalent

GER 202: ***Intermediate German II***
Special emphasis on building reading and writing skills and expanding vocabulary. Cultural units include "Die Schwarzwaldklinik," a German TV series that develops listening comprehension and raises issues for student essays. Units: 6.

Prerequisite: GER 201 or the equivalent

GER 276: ***Grim(m) Stories? Comparative Fairy Tales in Translation***
The course focuses on tales collected by the Brothers Grimm, but it will also include other "national" collections (Perrault, Basile, Afanas'ev). Students will be introduced to various interpretative approaches (formalistic, structural, psychological, Marxist) that will enable them to analyze types, themes, and motives across cultures. Taught in English, but with the opportunity for students proficient in German or French to read in those languages. Course will count toward the humanities general education requirement for B.A. and B.A./B.Mus students. Units: 6.

GER 278: ***Introduction to German Film (in English)***
With its pivotal role in the inauguration of the cinema, knowledge of German film is critical to an understanding of the history of film. Considered as one of the most accessible aesthetic forms, the moving image pervades our everyday lives, and yet we seldom think of what we do as "reading" films. Throughout this course, students will be introduced to the practice of reading German films using three structuring lenses: 1) film and cultural history, 2) formal and generic elements, and 3) film criticism. Units: 6.

Also listed as Film Studies 278

GER 285: ***Advanced Composition and Conversation***
Students improve and refine writing and speaking skills through study of a variety of written texts, discussion based on readings, grammar exercises, and systematic vocabulary building. The primary work in the course involves composing (in multiple drafts) texts that fall into diverse categories, including descriptive, argumentative, and persuasive essays. Units: 6.

Prerequisite: GER 202 or consent of instructor

GER 290: ***Berlin: Experiencing a Great City (in English)***
This course introduces students to one of the world's great cities. Classwork includes the history, culture, and literature of Berlin as well as preparations for a series of day-long walking tours of the city that students will conduct themselves for their classmates with the help of a guidebook. In addition, students will conduct comparative research on some aspect of life in the U.S. or Germany. Students must complete both the classroom portion of the course and the Berlin trip to receive credit. Taught in English. Not open to students who have previously received or need to receive credit for GER 389. Units: 2 OR 4.

GER 312: ***Reading Texts and Contexts***
This course serves as a transition from the language sequence to advanced courses in German literature and culture. Texts vary from novels to non-fiction, from drama to poetry, and from written forms to film. While familiarizing students with both literary and cultural analysis, the course stresses literature's place in fostering an understanding of German society. Units: 6.

Prerequisite: GER 275, 285 or consent of instructor

GER 355: ***The Holocaust in German Culture (in English)***
This course focuses on literary responses to the Holocaust, but it also deals with film and the issue of commemoration. After a discussion of the difficulty of representing the Holocaust, the course examines the Holocaust's role in the construction of German-Jewish identity and its impact on post-war German culture. Taught in English. German majors and minors may participate in a two-unit tutorial in which discussions and some course readings will be in German. Units: 6.

Also listed as History 311

Prerequisite: Sophomore standing or consent of instructor

GER 357: ***Film in Germany (in English)***
This course selects from 90 years of filmmaking in Germany. Films range from expressionism to Nazi propaganda and from escapist comedies to avant garde art. Learning to "read" German films critically also means finding out how to understand movies from Hollywood and beyond. Possible topics include "From Caligari to Hitler," "German Literature as Film," and "What Makes Lola Run." Taught in English. German majors and minors may participate in a two-unit tutorial in which discussions and some course readings will be in German. Units: 6.

Also listed as Theatre Arts 351, Film Studies 357

GER 359: *Inventing Germany (in English)*
Students use literary and non-fiction texts to examine German national identity as it developed from the French Revolution through Bismarck and two world wars to “reunification” in 1990. Topics include the role of Germany in Europe, the legacy of divided Germany, and diversity in German society today. Taught in English. German majors and minors may participate in a two-unit tutorial in which discussions and some course readings will be in German. Units: 6.

Also listed as History 310

GER 375: *Novellen*
Although Novellen developed as a literary form throughout Europe, it was particularly popular in Germany from the late 18th through the 20th centuries. This course introduces students to the Novelle as a form, to a variety of interesting works of literature and to the cultural, social and political developments in which Novellen were written and read. Units: 6.

Prerequisite: GER 312

GER 377: *Introduction to German Film Studies*
With its pivotal role in the inauguration of the cinema, knowledge of German film is critical to any understanding of the history of film. This course is intended to be an introduction both to German cinema and to the discipline of film studies. Considered perhaps as one of the most accessible aesthetic forms, the moving image pervades our everyday lives and yet we seldom think of what we do in the movie theatre as “reading.” Throughout this course, students will be introduced to the practice of reading the filmic text using three structuring lenses: 1) history, 2) formal and generic elements, and 3) film criticism. Units: 6.

Also listed as Film Studies 277

Prerequisite: GER 312

GER 388: *German Drama*
Study of German dramatic literature that may or may not culminate in a workshop performance of a play or portions of plays. Students will situate German plays in their literary, historical and cultural context and also perform short dramatic readings. Assignments may also include short essays and oral presentations. Units: 6.

Prerequisite: GER 312

GER 389: ***Berlin: Experiencing a Great City***
An introduction to one of the world's great cities. Classwork includes the history, culture and literature of Berlin and preparations for day-long walking tours that students will lead. Students will do some readings and discussions in German and write their comparative paper in German Students must completed both the classroom portion of the course and the Berlin trip to receive credit. Taught in English. Not open to students who have previously received credit for GER 290. Units: 2 OR 6.

Prerequisite: GER 312

GER 390: ***Tutorial Studies in German***
Individual study arranged and carried out in close consultation with an instructor.
Units: Variable.

Prerequisite: Counter Registration Required.

GER 391: ***Directed Study in German***
Directed study follows a syllabus set primarily by the instructor to meet the needs or interests of an individual student or small group of students. The main goal of directed study is knowledge or skill acquisition, not research or creative work. Units: Variable.

Prerequisite: Counter Registration Required.

GER 395: ***Internship in German***
An opportunity for students to apply their German language skills in business, government, and the non-profit sector on the regional, national, and international level. Arranged in collaboration with and supervised by a member of the department. Includes readings, discussion, report, and/or portfolio. Advance consultation and application required. Units: 2 OR 3.

Prerequisite: Counter Registration Required.

GER 399: ***Independent Study in German***
Advanced research on a topic of the student’s choice, arranged in consultation with the department. Students considering an honors project should register for this course.
Units: Variable.

Prerequisite: Counter Registration Required.

GER 411: ***Fascism and Film (in English)***
This course lets students examine films that were ostensibly made as entertainment or explicitly crafted as propaganda in the historical context of Nazi Germany and occupied France. Aside from learning how governments and their cinematic agents used this relatively new medium to shape public opinion (in support of the war, against Jews, etc.) students will see where and how resistance was possible. Units: 6.

Also listed as Film Studies 412

GER 412: *Literature and Social Problems*
Few would question literature's status as art, but literary texts are often also locations where authors explore imaginary solutions to real social problems. Unlike political pamphlets or non-fiction accounts, literature lets readers experience various problems and issues as they impact the lives of individual characters caught in difficult situations, e.g., class, ethnic, and gender conflicts, ecological disasters. Units: 6.

Prerequisite: GER 312

GER 416: *Kinder- und Jugendliteratur*
This course examines the development of the distinct genre of literature for children and adolescents since the 18th century. It combines the analysis of classic texts, e.g., Heidi or Karl May, with close readings of modern cult classics. Units: 6.

Prerequisite: GER 312 or consent of instructor

GER 417: *Deutsche? Demokratische? Republik?*
In the years since the fall of the Berlin Wall in 1989, both the promise and the problems of the German Democratic Republic have faded from memory. Indeed, the experience seems to have receded into the distant past. This course explores both the lofty goals and difficult circumstances of the DDR's birth and its gradual decline and fall. The course pays particular attention to literary and filmic representations of hope and fear that the country engendered. Units: 6.

Prerequisite: GER 312

GER 418: *Topics in German Cultural Studies*
Topics in German Cultural Studies allows for an in-depth examination of topics across time, for example, women's writing or crime fiction, or it permits a detailed analysis of special topics, for example, Turkish-German culture in contemporary German film.

Topic for Fall 2016: Freaks of Culture--Spectacular Bodies on Display

This course focuses on enfreakment, human spectacles, and extraordinary bodies in the cultures of the German-speaking countries. We explore bodily difference and gazes of power through the lenses of critical identity studies (e.g., disability, gender, ethnic, and queer studies). Various phenomena that we examine include: colonialism and human zoos/Völkerschauen; the science of enfreakment (ethnology, eugenics, medicine, sexology); fat ladies and freak shows; representations of disability, war, and injury in the visual arts; body modification and cosmetic surgery; reality TV; and reversing the gaze. The course engages with a wide range of genres and media from short stories, novels, and television to film, fine arts, and advertising.

Units: 6.

Prerequisite: GER 312

GER 421: *Grimms Märchen*
This course examines the entire corpus of the Grimm's fairy tales, from the well-known to the obscure. Students will learn to find structural similarities and to situate the tales in their historical, social and literary context. Units: 6.

Prerequisite: GER 312 or consent of instructor

GER 422: *Der deutsche Krimi: Narratives of Crime and Detection*
In this course we will examine the development of crime and detective fiction in the German-speaking countries through close reading of several different media--novels, short stories, film, radio drama, television, and essays. Units: 6.

Prerequisite: GER 312 or instructor approval

GER 431: *Topics in German-Jewish Studies*
Study of German-Jewish authors, intellectual figures, and topics from the Enlightenment to the present. This course will examine the role of dual identities, issues of assimilation/acculturation, Jewish identification and the notion of Jewish self-hatred. Representative writers include Mendelssohn, Heine, Kafka, Freud, Benjamin, Celan, Becker, Hilsenrath, and Honigmann. May be repeated when topic is different.

Topic for Spring 2017: Shifting Significance: Jewish-German Literature in the Wake of the Wall

The name "Jew" signifies differently at different times in German history. Literature can open this inquiry into "Jewishness" and make historical problems and possibilities visible. Focusing on texts dealing with "Jewishness" after a different historical juncture than the Holocaust, this seminar analyzes how cultural discourses employ the figure of the Jew. Issues include identity, Wirtschaftsmigration, Kontingent, popular reception/marketing and literary narration.

Units: 6.

Prerequisite: GER 312

GER 447: *Migrants and German Culture*
Despite a long-term refusal to open itself to immigration, Germany has become a nation of immigrants and asylum-seekers. The course focuses on how both literature and films, including works by and about minorities in Germany, have dealt with key cultural phenomena: multiculturalism, diversity, acculturation, assimilation, "majority culture," and parallel societies. Units: 6.

Also listed as Ethnic Studies 382, Film Studies 447

Prerequisite: GER 312 or consent of the instructor

GER 462: *Vampires, Monsters, and Man-Eaters*
This course examines the borders of the human through the figures of the vampire, monster, and femme fatale in literature, film, and the visual arts. Featured in the works of canonized authors as well as within popular culture, “monstrousness” can provide valuable insights into numerous aspects of German history and psychosexual relations. Possible texts include the early vampire film Nosferatu, Wedekind’s Lulu tragedies, Patrick Süskind’s Das Parfüm, and paintings by H.R. Giger. Units: 6.

Also listed as Gender Studies 362, Film Studies 362

Prerequisite: GER 312

GER 543: *Studies in 20th-Century Literature and Culture*
This course explores various themes in 20th-century culture, most importantly the impact of modernity on the German imagination. Possible topics include the rise of Expressionism and Dada, art and culture of the Weimar Republic, the development of popular and middlebrow culture, Nazi aesthetics, the art and culture of the 1950s and 1960s, and literature in divided Germany. Units: 6.

Prerequisite: GER 312 or consent of instructor

GER 544: *Studies in Contemporary Literature and Culture*
This course deals with current cultural, economic, political, and social issues in Germany, Austria, and Switzerland. Topics include the ongoing process of German unification, the situation of women and minorities, reckoning with the Nazi past, and new developments in German literature. Units: 6.

Prerequisite: GER 312 or consent of instructor

GER 590: *Tutorial Studies in German*
Individual study arranged and carried out in close consultation with an instructor.
Units: Variable.

Prerequisite: Counter Registration Required.

GER 591: *Directed Study in German*
Directed study follows a syllabus set primarily by the instructor to meet the needs or interests of an individual student or small group of students. The main goal of directed study is knowledge or skill acquisition, not research or creative work. Units: Variable.

Prerequisite: Counter Registration Required.

GER 595: *Internship in German*
An opportunity for students to apply their German language skills in business, government, and the non-profit sector on the regional, national, and international level. Arranged in collaboration with and supervised by a member of the department. Includes readings, discussion, report, and/or portfolio. Advance consultation and application required. Units: 2 OR 3.

Prerequisite: Counter Registration Required.

GER 599: *Independent Study in German*
Advanced research on a topic of the student's choice, arranged in consultation with the department. Students considering an honors project should register for this course.
Units: Variable.

Prerequisite: Counter Registration Required.

GER 600: *Senior Seminar*
Students and the instructor decide in advance on a specific topic or common theme. They read and discuss texts at the beginning of the term. Students then formulate their own projects, which may take them in a direction of their own choosing (literature, history, music, art, etc.).
Units: 2 OR 4.

Prerequisite: Declared major in German

GER 690: *Tutorial Studies in German*
Individual study arranged and carried out in close consultation with an instructor.
Units: Variable.

Prerequisite: Counter Registration Required.

GER 691: *Directed Study in German*
Directed study follows a syllabus set primarily by the instructor to meet the needs or interests of an individual student or small group of students. The main goal of directed study is knowledge or skill acquisition, not research or creative work. Units: Variable.

Prerequisite: Counter Registration Required.

GER 695: *Internship in German*
An opportunity for students to apply their German language skills in business, government, and the non-profit sector on the regional, national, and international level. Arranged in collaboration with and supervised by a member of the department. Includes readings, discussion, report, and/or portfolio. Advance consultation and application required. Units: 2 OR 3.

Prerequisite: Counter Registration Required.

GER 699: ***Independent Study in German***
Advanced research on a topic of the student's choice, arranged in consultation with the department. Students considering an honors project should register for this course.
Units: Variable.

Prerequisite: Counter Registration Required.

Professors: Hoft-March (French and Francophone Studies, The Milwaukee-Downer College and College Endowment Association Professorship), Peterson (German, chair), Skran (Government, Edwin & Ruth West Professorship in Economics and Social Science)

Associate professors: Balsekar (Government), Blitstein (History), Brozek* (Government, Stephen Edward Scarff Professor of International Affairs, chair), Chang (French and Francophone Studies), Khor (English), Smith (Religious Studies), Tapia (Spanish), Thomas (Russian), Vetinde (French and Francophone Studies)

Assistant professors: Caruthers (Economics, Asst. Prof of Economics), Downing (Conservatory of Music)

*On leave Term II

Introduction

Global studies is an interdisciplinary major that investigates the broad range of cultural, political, social and economic forces at play historically and today. Global studies majors will understand the global influences on the lives of individuals and will be sensitive to different identities, practices, thought systems, institutions and structures, particularly their roots, scope and linkages. They will recognize their place in the global community, including their impact—for good or ill—on cultural, political, economic and environmental issues. Global studies majors will possess the foundation necessary to lead responsible, meaningful, engaged lives in a connected, diverse and ever-changing world.

The global studies curriculum is designed to give students a structure in which to explore a range of interests. An introductory course introduces students to the diverse perspectives on globalization and models of interdisciplinary investigation. Global studies majors will choose a set of electives from one of four thematic groupings, all of which include approaches from multiple disciplines. In order to maintain a dynamic, up-to-date listing, electives that will count toward each of the tracks in the global studies major will be listed on the departmental website. This structure balances the breadth and depth of students' academic training and ensures that global studies majors will develop the ability to ask interconnected, interdisciplinary questions. Students may, in close consultation with their academic advisor, self-design a thematic track.

Required for the major in global studies

1. GLST 100: *Intro to Global Studies* (6 units)
2. The equivalent of a minor in one additional language (~30 to 66 units, depending on incoming students' initial proficiency, i.e., where they begin their minor, and on the requirements of the chosen language.)
   Alternatively, some students may choose to fulfill the language requirement through the completion of GER+5 courses in one language plus three terms (or the equivalent of one year) in either a second language or mathematics/statistics/modeling. The combination of languages must clearly contribute to a particular project or career ambition, be approved by an advisor in global studies and demonstrate coherence with respect to the chosen track. Languages acquired during an off-campus experience are acceptable as long as the student achieves linguistic and cultural competency equivalent to the GER requirement.
3. In consultation with a global studies faculty advisor, students must choose a set of eight six-unit thematically connected electives that meet the goals of one track listed below. Students and advisors should consult the departmental website carefully when selecting courses that count toward their track in the global studies major. All electives must satisfy the following requirements.
   a. Three six-unit courses from the arts, humanities or musicology at the introductory or intermediate level (course numbers 100-300 or above); (18 units)
   b. Three six-unit courses from the social sciences at the introductory or intermediate level (course numbers 100-300 or above); (18 units)
   c. Two six-unit courses at the advanced level (course number 400+). One course must be from the social sciences; the other comes from the fields of arts, humanities or musicology.
   d. Note: No more than two 100-level courses may count toward the elective requirements, and no more than two upper-level language department courses may be double-counted for the track and the language minor (or minor equivalent).
   e. Note: The core courses normally count within this portion of the requirements.
4. Required global experience at an off-campus site (local, domestic or abroad)
   Global studies students are required to participate in a globally engaged off-campus experience. Most students will fulfill this requirement through an approved Lawrence study abroad program. However, we recognize study abroad is not feasible for all students. Therefore, the off-campus global experience may also include local projects with global connections. Examples include working with the Fox Valley Refugee Resettlement Agency, the Hispanic Chamber of Commerce, the Hmong-American Partnership of the Fox Cities, the Northeast Wisconsin Chinese Association or with the City of Appleton's Office of Diversity & Inclusion. These projects must include 10 weeks of engagement, be connected to either the global studies primary language or track, and be pre-approved by a global studies advisor.

Global studies tracks

1. Nations and Identities: Nations remain a central form of organization in the global world. Nations lie at the center of our interlocking system of political and economic institutions, and they also provide the organizing principle behind national languages and cultures, ethnic identities and even sporting events. Although nations claim to be ancient, modern nations only began to develop in the 18th century, and their future is by no means assured. This track seeks to approach global studies through an emphasis on the construction and function of nation, with attention given as well to newer, transnational forms of identity. Since the study of the nation requires a broad sense of the history of the nation, the reasons it developed and the variety of forms it has taken, there is a significant history component to this track, along with an emphasis on classes offered in government. In addition, classes in literature, culture and the arts will enrich students' understanding of how national identities are constructed and become emotionally compelling, as well as how they are contested through migration and integration, through devolution into smaller units, and by institutions and practices that transcend national boundaries. Students who choose the nations and identities track must take at least two of the following four courses:
    - GOVT 226: *Identity Politics and Ethnic Conflict*
    - GOVT 260: *European Democracies*
    - HIST 295: *Nationalism in Modern History*
    - HIST 315: *Empire and Nation in Russian History*
2. Cities: One of the central signs for globalization and even modernity is the importance of cities. Much of what is most exciting and new in our world stems from the cultural and ethnic mixing that takes place in global cities. Many Lawrence students aim to work in American cities that cater to the "creative class"—that is, young people who seek to participate in the new opportunities opened up by education and technology. This cities track will prepare students for thinking about the history of urbanization and our interconnected world by understanding the socio-cultural, economic and political complexities of the nature and evolution of major cities. Depending on course content, examined cities may include (but are not limited to): Algiers, Athens, Beijing, Berlin, Buenos Aires, Cairo, Dakar, Paris, Istanbul, Moscow, Istanbul, Jerusalem, Johannesburg, Mexico City, Buenos Aires, Seoul, Shanghai and Tokyo. Students who choose the cities track must take at least two of the following four courses:
    - GOVT 245: *Comparative Politics of Developing Countries*
    - RLST 365: *Faith and Power in the Mediterranean*
    - GER 290/388: *Berlin: Experiencing a Great City*
    - GLST TBD: *Understanding Colonialism*

3. Human Security: Human security is the study of global violence through the lens of the individual, with particular emphasis on vulnerable and marginalized communities. It includes multiple forms of vulnerability and structural violence, including discrimination, displacement, genocide, disease, poverty and environmental stress. This track offers students the opportunity to understand human security and vulnerable populations through an interdisciplinary lens, including narratives and other representations of human agency and social scientific analysis of the policies and institutions designed to address these challenges. Students who choose the human security track must take at least two of the following four courses:
    - GOVT 248: *Social Entrepreneurship*
    - ECON 200: *Development Economics*
    - MUCO 493: *Music and Gender in Cross-Cultural Perspective*
    - ENG 516: *Literature and Human Rights*
4. Arts and Exchange: One path to understanding our global world is in the artistic expressions (including literature, performing arts, visual arts and film) through which identities are staked out and claimed. This track offers students the opportunity to think about the arts from the perspective of global systems, exchanges and regulations. Students will be encouraged to consider how economic systems, international organizations, the movement of people and the commodification and commercialization of cultural practices affect artistic production, notions of ownership and meaning across borders. Students who choose the arts and exchange track must take at least two of the following four courses:
    - HIST 105: *Cross-Cultural Interactions Along the Silk Road*
    - ECON 205: *International Economics*
    - ENG 280: *Postcolonial Writers*
    - GOV 480: *International Organization*

Senior Experience in global studies

The global studies major culminates in a *Senior Experience* consisting of a six-unit senior seminar. The seminar brings together students from all tracks, and it includes a set of common readings that revisit important theoretical issues in the field global studies. The readings will also highlight disciplinary differences in the objects of inquiry available to scholars of global studies and show again how interdisciplinary inquiry produces deeper understanding. Students' work in the seminar culminates with a portfolio showcasing their work in the major, and they will present that work to other members of the seminar. The portfolio will consist of the two components listed below. Together, the *Senior Experience* components will demonstrate that a student has developed interdisciplinary and intercultural proficiency.

1. A written, critical reflection on the student's off-campus global experience, with particular emphasis on curricular connections and personal development.
2. A revised version of a substantial (10–15 pages) paper written on a global topic and in an advanced (400+ level) course counting toward the global studies major.

Courses

GLST 100: *Introduction to Global Studies*
What does it mean to think globally? This discussion-based course invites students to explore how networks and flows of people, wealth, goods, ideas and information across vast distances have shaped human experience. Course materials draw on insights from a range of disciplines, enabling students to apply global perspectives to the study of issues such as identity, war, migration, commerce, artistic expression and communication. Units: 6.

GLST 191: *Directed Study in Global Studies*
Directed study follows a syllabus set primarily by the instructor to meet the needs or interests of an individual student or small group of students. The main goal of directed study is knowledge or skill acquisition, not research or creative work. Units: Variable.

GLST 270: *Theories of the Global*
We live in an interconnected world of culture, goods, services and decisions exceeding national borders, but how do we understand what is happening and why? This seminar will complement economics and politics by considering postcolonialism, Marxism, feminism, critical theory and cultural studies in understanding global trends. Students will engage with critical paradigms and cultural artifacts in reading responses, written papers and a culminating project. Units: 6.

UNIC 352: *Understanding Colonialism*
An overview of European colonialism in Africa and Asia, this course focuses on colonial ideologies in the 19th and 20th centuries. It will investigate the myths and realities of colonialism and compare the colonial practices of the Belgians, Dutch, English and French. Our analysis will be informed by essays written by leading colonial theorists, novels and films. Lecture/discussion with response essays and a final project. Units: 6.

Prerequisite: Sophomore standing

GLST 390: *Tutorial in Global Studies*
A tutorial is a primarily student-driven course of study undertaken by an individual student or small group of students in collaboration with one or more faculty members. The primary goal of a tutorial is expansion, refinement, and synthesis of knowledge and abilities through in-depth exploration of a specific topic. Units: Variable.

GLST 391: *Directed Study in Global Studies*
Directed study follows a syllabus set primarily by the instructor to meet the needs or interests of an individual student or small group of students. The main goal of directed study is knowledge or skill acquisition, not research or creative work. Units: Variable.

GLST 399: ***Independent Study in Global Studies***
Independent study is an opportunity to go beyond the established curriculum and undertake largely student-directed work that in most disciplines is expected to result in the generation of new scholarship or the creation of a new work or performance. Units: Variable.

GLST 590: ***Tutorial in Global Studies***
A tutorial is a primarily student-driven course of study undertaken by an individual student or small group of students in collaboration with one or more faculty members. The primary goal of a tutorial is expansion, refinement, and synthesis of knowledge and abilities through in-depth exploration of a specific topic. Units: Variable.

GLST 591: ***Directed Study in Global Studies***
Directed study follows a syllabus set primarily by the instructor to meet the needs or interests of an individual student or small group of students. The main goal of directed study is knowledge or skill acquisition, not research or creative work. Units: Variable.

GLST 599: ***Independent Study in Global Studies***
Independent study is an opportunity to go beyond the established curriculum and undertake largely student-directed work that in most disciplines is expected to result in the generation of new scholarship or the creation of a new work or performance. Units: Variable.

GLST 690: ***Tutorial in Global Studies***
A tutorial is a primarily student-driven course of study undertaken by an individual student or small group of students in collaboration with one or more faculty members. The primary goal of a tutorial is expansion, refinement, and synthesis of knowledge and abilities through in-depth exploration of a specific topic. Units: Variable.

GLST 691: ***Directed Study in Global Studies***
Directed study follows a syllabus set primarily by the instructor to meet the needs or interests of an individual student or small group of students. The main goal of directed study is knowledge or skill acquisition, not research or creative work. Units: Variable.

GLST 699: ***Independent Study in Global Studies***
Independent study is an opportunity to go beyond the established curriculum and undertake largely student-directed work that in most disciplines is expected to result in the generation of new scholarship or the creation of a new work or performance. Units: Variable.

Professors: Adenwalla, Hah, Skran (Edwin & Ruth West Professorship in Economics and Social Science)

Associate professors: Balsekar, Brozek* (Stephen Edward Scarff Professor of International Affairs), Hixon (Gordan R. Clapp Chair in American Studies, chair), Shober, Wulf

*On leave Term I

Introduction

Instruction in the government department responds to an intensely political age and its intellectual challenges. Our main objective is to help students learn how to explain, interpret, and evaluate political institutions, policies, behaviors, and beliefs. Majors learn how to employ a variety of methods to analyze political phenomena, as well as how to defend their analyses with rigorous, evidence-based arguments.

The introductory course (GOVT 110) provides an introduction to the analysis of the contemporary political system primarily through an examination of the theory and practice of American government. Students proceeding further are introduced to the major problems of political analysis and to the interplay of theory and data before going on to advanced courses in American politics and policy, comparative politics, constitutional law, international politics, and political theory.

A major in government prepares students for success in a wide variety of careers including politics, law, business, teaching, or non-profit work. Those who pursued advanced degrees have done so in political science, business, law, international relations, public policy, history, medicine, education, urban planning, development studies, and many other fields.

Required for the government major

Government majors must complete either of the following two tracks:

Required for the government major general track

1. GOVT 110: *Introduction to Political Science*
2. GOVT 271: *Research Methods in Political Science*
3. One of the following courses in American politics:
    - GOVT 211: *Flexibility and Freedom: American Federalism in Transition*
    - GOVT 220: *American Elections, Candidates, and Political Parties*
    - GOVT 360: *The American Presidency*
    - GOVT 370: *Congressional Politics*
    - GOVT 375: *American Political Development*
    - GOVT 380: *Introduction to Public Policy*
4. One of the following courses in comparative politics:
    - GOVT 215: *Democracy in Comparative Perspective*
    - GOVT 245: *Comparative Politics of Developing Countries*

5. One of the following courses in international politics:
    - GOVT 140: *Introduction to International Relations*
    - GOVT 340: *International Politics*
6. One of the following courses in political theory:
    - GOVT 200: *Politics and Human Nature*
    - GOVT 235: *American Political Thought*
    - GOVT 315: *Founding the Just Regime*
    - GOVT 405: *Individuality and Community in Modern Politics*
7. One six-unit course numbered 400 or above
8. *Senior Experience*: one six-unit course numbered 500 or above. Students may satisfy this requirement by completing a 500 or higher-level seminar, independent study, tutorial, directed study, or internship.
9. At least eleven six-unit courses total
10. C average in the major
11. At most two 100-level courses may count toward the major.
12. Students may count one cross-listed course in economics toward the major.

Required for the government major international relations track

1. GOVT 110: *Introduction to Political Science*
2. GOVT 140: *Introduction to International Relations*
3. GOVT 340: *International Politics*
4. GOVT 271: *Research Methods in Political Science*
5. One of the following courses in comparative politics:
    - GOVT 215: *Democracy in Comparative Perspective*
    - GOVT 245: *Comparative Politics of Developing Countries*
6. One of the following courses in political theory:
    - GOVT 200: *Politics and Human Nature*
    - GOVT 315: *Founding the Just Regime*
    - GOVT 405: *Individuality and Community in Modern Politics*
7. One six-unit course numbered 400 or above in international or comparative politics
8. *Senior Experience*: one six-unit course numbered 500 or above, with an international or comparative focus. Students may satisfy this requirement by completing a 500 or higher-level seminar, independent study, tutorial, directed study, or internship.
9. Three additional six-unit elective courses
10. At least eleven six-unit courses total
11. C average in the major
12. At most three 100-level courses may count toward the major.
13. One of the electives must be a course with a comparative or international focus offered by a department outside of government. Students must clear their choices with their advisors in advance. Foreign language courses may only satisfy this requirement if they exceed the level required for the B.A. degree.
14. Students may count one cross-listed course in economics, in addition to the above course, toward the major.

15. Students may count Government 211, 220, 360, 370, 375, or 380 instead of Government 110 if they secure permission from the relevant course instructor or if they have received credit for AP Government.

Required for the government minor

1. GOV 110: *Introduction to Political Science*
2. One six-unit course in American politics
3. One six-unit course in political theory
4. Two six-unit courses from the fields of comparative politics and international relations
5. One six-unit course at the advanced level numbered 400 or above, excluding tutorials and independent studies
6. A total of at least six six-unit courses, four of which must be numbered 200 or above
7. C average in the minor

Off-campus study

See Washington Semester in the “Off-campus programs” section.

Senior Experience in government

The *Senior Experience* in government will allow seniors to pursue a capstone research project, an academic internship in government or politics, or other culminating work chosen in consultation with faculty advisors. Capstone research projects may be pursued through a senior seminar, in approved upper-level courses or independent studies, or through work toward an honors thesis.

COURSES

GOVT 110: ***Introduction to Political Science***
An introduction to the nature of contemporary politics and government. Topics drawn primarily from American national, state, and local government and politics, with other political systems introduced for comparative purposes. Emphasis on such major concepts as power, legitimacy, political culture, conflict, and rational choice and on an examination of how a political system manages problems related to political change. Units: 6.

GOVT 140: ***Introduction to International Relations***
An introductory study of the cultural, political, and economic interactions among states and non-state actors in global politics. Special attention is paid to key issues, including international security, foreign policy decision-making, and the role of diplomacy in promoting cooperation. Required for the interdisciplinary area in international studies. Units: 6.

GOVT 151: ***Introduction to Environmental Policy***
This course applies principles of economics and political science to environmental issues, including pollution, resource limitation, and environmental degradation. It is designed to foster an understanding of the environmental policy-making and regulatory process in the United States and globally. Units: 6.

Also listed as Environmental Studies 151, Economics 151

GOVT 191: ***Directed Study in Government***
Directed study follows a syllabus set primarily by the instructor to meet the needs or interests of an individual student or small group of students. The main goal of directed study is knowledge or skill acquisition, not research or creative work. Units: Variable.

Prerequisite: Counter Registration Required.

GOVT 195: ***Internship in Government***
Work with a government agency, legislative office, research institution, private employer, or other relevant organization, arranged under the direction of an instructor in the department. The academic component of the internship includes readings related to the substance of the internship, discussions with the faculty supervisor, and a written report appropriate to the discipline. Course grades are based on this academic work. Units: Variable.

Prerequisite: At least one government course at 200-level or above and consent of instructor; Counter Registration Required

GOVT 200: *Politics and Human Nature*
What activities are most appropriate for human beings? What is the purpose of political activity? What is the best practicable constitution for a political community? This course examines several philosophers' arguments concerning the best political regime in light of their respective visions of human nature and happiness. Units: 6.

Prerequisite: FRST 101 or sophomore standing

GOVT 204: *Special Topics in Government*
This course explores a topic in American politics, comparative politics, international politics, political theory, or another government subfield which is not addressed by the Government Department's regular course offerings.

Topic for Spring 2017: Women, Health and Development This course focuses on the human security of women in developing countries. Special attention will be paid to the social and health problems of refugee women and female entrepreneurs.

Units: Variable.

GOVT 208: *Sustainable China: Environment and Economy*
This course integrates environmental and economic topics relevant for understanding sustainability in the Chinese context, including economic development, natural resource management, urban growth, and environmental policy. It is a prerequisite for a December study trip to China. Units: 6.

Also listed as Environmental Studies 208, Economics 208

Prerequisite: Limited to students selected for the Sustainable China study trip

GOVT 211: *Flexibility and Freedom: American Federalism in Transition*
Federalism is a compromise between freedom and equality. How much authority should member states have over elections? Education? The environment? Immigration? Observers characterize federalism both as a bulwark against tyranny and a perpetrator of inequality. This course considers federalism's development in the United States and Europe, its contradictions, and its survival in a global society. Units: 6.

Prerequisite: GOVT 110 or consent of instructor

GOVT 215: *Democracy in Comparative Perspective*
This course examines variations in the institutional design and practice of democracy drawing on a range of national and historical cases. Course materials will address the following questions: Are there social, cultural, or economic prerequisites for democratic stability? How and why does the design of democratic institutions vary across national borders? Why does democracy sometimes produce undesirable social, political, and economic outcomes? And why and how do democracies collapse? Units: 6.

GOVT 216: ***Alliances and Power Politics***
An examination of the origins and development of U.S. alliances since 1945 that considers the internal and international politics of various countries, including China, Japan, and the United States, employing relevant theories of politics, economics, and psychology. Units: 6.

Prerequisite: Completion of one term at Lawrence

GOVT 220: ***American Elections, Candidates, and Political Parties***
A study of the development, organization, structure, and activities of American political parties, with special attention to the recruitment and selection of presidential candidates. Units: 6.

Prerequisite: GOVT 110 or consent of instructor

GOVT 226: ***Identity Politics and Ethnic Conflict***
Are conflicts between identity groups inevitable? Why do outbreaks of violence and ethnic conflict occur when they do? How have governments dealt with diversity and with what consequences? Students will read both new and classic works from the literature on nationalism, identity politics, genocide and post-conflict resolution across the world. Units: 6.

Also listed as Ethnic Studies 226

Prerequisite: Sophomore standing or consent of instructor

GOVT 235: ***American Political Thought***
This course examines the character and historical development of American political thought. Students analyze ideas about liberty, virtue, equality, authority, and community expressed in political tracts and speeches from colonial times to the present. Units: 6.

Prerequisite: Sophomore standing or consent of instructor

GOVT 245: ***Comparative Politics of Less-Developed Countries***
This course provides an introduction to politics in less-developed countries, paying close attention to differences within the so-called “developing world” and the impact of economic realities on politics. In doing so, it addresses questions about the relationship between economic development and democracy and the impact of globalization on poor countries. Units: 6.

Prerequisite: Sophomore standing and one of GOVT 110 or GOVT 140

GOVT 248: *Social Entrepreneurship*
Social entrepreneurs all over the world adopt and implement innovative ideas in order to address some of the world's most pressing problems. In this course, students will study the many dimensions of social entrepreneurship, especially those ventures that address problems of human rights and sustainable development. Units: 6.

Also listed as Innovation & Entrepreneurship 245

Prerequisite: Sophomore standing or consent of instructor

GOVT 260: *European Democracies*
An examination of the historical development and contemporary characteristics of western European political systems that first compares the contemporary systems of Great Britain, France, and Germany and then focuses on challenges facing European democracies today, including environmental problems and increasing immigration. Particular attention is paid to the process of European integration and the role of the European Union. Units: 6.

Prerequisite: GOVT 110 or sophomore standing

GOVT 270: *Global Environmental Politics*
This course provides an examination of the environment as an issue in world politics. Emphasis will be placed on the role of both state and non-state actors (*i.e.,* the UN, NGOs) in global environmental regimes that are designed to deal with global warming, ozone depletion, and other environmental issues. Particular attention will be paid to the positions taken by both developed and developing countries. As part of the course, students will participate in a simulation of an international negotiation on an environmental issue. Units: 6.

Also listed as Environmental Studies 270

Prerequisite: Sophomore standing or ENST 150 or GOVT 110

GOVT 271: *Research Methods in Political Science*
Considers research approaches and methods political scientists use to create knowledge. The course will explore quantitative and qualitative techniques with theory and hands-on applications. The goal of the course is to improve students' ability to read research critically and to make and test their own arguments in political science. Units: 6.

Prerequisite: GOVT 110 or consent of instructor

GOVT 274: *Public Economics*
Public economics covers a range of topics from taxation to social insurance and redistribution to homeland security. The course develops a template for framing and analyzing public policy issues that provides a basis for understanding the rationale for government intervention, the alternative policy instruments that can be used to affect economic outcomes, and the economic tools used to evaluate the effects of intervention. Units: 6.

Also listed as Economics 271

Prerequisite: ECON 100 or ECON 120

GOVT 275: *Global Economic Relations*
This course covers the major concepts utilized in the field of international political economy. Major issues covered include globalization, monetary policy, trade policy, and the role of international institutions such as the WTO. Units: 6.

Also listed as Economics 202

Prerequisite: ECON 100 or ECON 120

GOVT 276: *Economic Development*
This course seeks to provide students with a broad based understanding of economic development and the choices countries face. To obtain such an understanding, students will read the works of contemporary economists who provide a variety of approaches to poverty alleviation and the tradeoffs that must be confronted. Emphasis will be placed on close reading, class discussion, and on writing a number of papers that compare and contrast different views of economic development. Units: 6.

Also listed as Economics 200

Prerequisite: ECON 100 or 120

GOVT 280: *U.S. Foreign Policy*
Analysis and interpretation of the nature, patterns, and trends of American foreign policy since World War II. Emphasis on the origins, development, and passing of the Cold War and on factors of continuing significance. Units: 6.

Prerequisite: GOVT 110 recommended

GOVT 315: *Founding the Just Regime*
Can a corrupt people create a just regime? What role must violence, deception, persuasion, and reflection play in promoting political justice? What are the ground and scope of citizens' political obligations? This course studies the difficulties of creating and reforming political communities. Units: 6.

Prerequisite: Sophomore standing

GOVT 320: *Introduction to Constitutional Law*
This course examines the American Constitution's structure and purposes; who may authoritatively interpret the Constitution; and legal debates that have attended American constitutional development. It focuses particular attention on competing claims about the founding; interpretive expertise and authority; the contract and commerce clauses; the separation of powers; and federalism. Units: 6.

Prerequisite: Sophomore standing

GOVT 321: *Civil Liberties and the Supreme Court*
A study of landmark 20th-century civil-rights and liberties cases in U.S. constitutional law. These cases involve critical constitutional issues concerning the nationalization of the Bill of Rights, freedom of speech and press, abortion and the right to privacy, desegregation and affirmative action. Units: 6.

Prerequisite: GOVT 110 or sophomore standing

GOVT 340: *International Politics*
An analysis of patterns of interactions of state and non-state actors in a system without supreme authority, focusing on alternative theoretical frameworks rather than substantive problems. Special emphasis on “realist” and “liberal” theories; the nature and uses of power in international politics; and issues of security, including conventional war, weapons of mass destruction, terrorism, environmental decay, and migration. Units: 6.

Prerequisite: GOVT 110 or 140 or sophomore standing

GOVT 351: *Broadsides to Blogs: Mass Media in American Politics*
From colonial broadsides to last night's blog, American politics has been enmeshed with mass media. Students will consider the roll of the mass media in shaping what citizens think about candidates for office, election campaigns, making of policy, and ultimately, governing. Does the mass media undermine democracy or strengthen it? Units: 6.

Prerequisite: GOVT 220 or consent of instructor

GOVT 360: *The American Presidency*
An examination of the politics of the American presidency, including the constitutional foundations of the office, elections, and the president's relationships with Congress, the courts, the public, media, and the executive branch. The main theme of the course is the difficulty of assessing presidential leadership, in particular sorting the effects of presidents' individual characteristics and strategies from contextual constraints and opportunities. Units: 6.

Prerequisite: GOVT 110 and GOVT 271, or consent of instructor

GOVT 365: *International Law*
A study of the role of law in international politics. Attention to the distinctive nature of the international legal system and to the relevance of international law to the control of violence, promotion of peace, protection of human rights, and management of resources. Current problems and the outlook for the future world order are assessed. Units: 6.

Prerequisite: GOVT 110 or GOVT 140 or sophomore standing

GOVT 370: *Congressional Politics*
This course covers the basics of congressional politics, including elections, the constitutional framework, committees, parties, and legislative procedures. Thematic focuses include strategies of legislative coalition building and the relative importance of partisanship, constituent pressures, and policy expertise in congressional politics. Units: 6.

Prerequisite: GOVT 110 or consent of instructor

GOVT 380: *Introduction to Public Policy*
This course considers economic and democratic models for structuring the collective choices that become public policy. It then explores how major American institutions balance political control and technical expertise in the design, enactment and implementation of public policy. Units: 6.

Prerequisite: GOVT 271 or MATH 107 or consent of instructor

GOVT 385: *Modern British Politics*
This course analyzes the central structures and processes of British politics, the important policy issues of recent years, British attitudes toward the political system, and critiques of British politics and history. *Offered at the London Centre.* Units: 6.

Prerequisite: Must be attending the Lawrence London Centre.

GOVT 390: *Tutorial Studies in Government*
Advanced study, arranged and carried out under the direction of an instructor. Units: Variable.

Prerequisite: Counter Registration Required.

GOVT 391: *Directed Study in Government*
Directed study follows a syllabus set primarily by the instructor to meet the needs or interests of an individual student or small group of students. The main goal of directed study is knowledge or skill acquisition, not research or creative work. Units: Variable.

Prerequisite: Counter Registration Required.

GOVT 395: *Internship in Government*
Work with a government agency, legislative office, research institution, private employer, or other relevant organization, arranged under the direction of an instructor in the department. The academic component of the internship includes readings related to the substance of the internship, discussions with the faculty supervisor, and a written report appropriate to the discipline. Course grades are based on this academic work. Units: Variable.

Prerequisite: At least one government course at 200-level or above and consent of instructor; Counter Registration Required

GOVT 399: *Independent Study in Government*
Advanced research, arranged in consultation with the department. Students considering an honors project should register for this course, for one or more terms. Units: Variable.

Prerequisite: Counter Registration Required.

GOVT 401: *Field Experience in Development*
Students engaged in this course will have the opportunity to do field research in a developing country. Each student will develop and implement a project that concerns economic, political, and/or environmental issues important in Sierra Leone, Jamaica, or another selected country. Students will also have the opportunity to learn from both national and local leaders in political, economic, environmental, and social development issues. Class members will travel to a developing country during a term break. Students must register for this course in the term prior to the planned travel and in the subsequent term, when they will present their research to the wider Lawrence community.

Location for 2016-17: Students will travel to Sierra Leone and/or Morocco during winter break. Admission is by application to Prof. Skran. Students should register for both fall and winter terms.**:** Units: 3.

Also listed as Environmental Studies 311, Economics 206

Prerequisite: ENST 300, GOVT 248, GOVT 500 and RLST 240

GOVT 405: *Individuality and Community*
This course studies how political theorists responded to the emergence of open societies in the West. It focuses on the scope of personal autonomy, the consequences of commerce and luxury, the best political and economic arrangements, and other topics explored by writers from the Renaissance to the Twentieth Century. Units: 6.

Also listed as Economics 415

Prerequisite: Junior standing or consent of instructor

GOVT 425: *Topics in International Security*
This course is an exploration of the politics of international security. The specific topic will vary by term, but the concepts to be covered include bargaining, diplomacy, conflict and cooperation.

Topic for Winter 2017: War and Pop Culture

Using film, television, music, novels and comic books, this course explores the complex relationship between war and popular culture. The core question in the course is how popular culture both reflects and shapes our collective understanding of war.

Units: 6.

Prerequisite: GOVT 340, GOVT 280, or junior standing.

GOVT 426: *Topics in U.S. Foreign Policy*
This course will address an advanced topic in American foreign policy, such as military intervention, humanitarian, aid, arms control, trade policy, or counter-terrorism. Whenever possible, this course will be designed, planned and taught in collaboration with the Distinguished Visiting Scarff Professor. Units: 6.

Prerequisite: GOVT 280, GOVT 340, GOVT 380, or consent of instructor

GOVT 435: *Voting, Political Participation, and Public Opinion*
Who votes and why? How do individuals form opinions about politics? How are scientific surveys and polls conducted and what are their limitations? This course examines voting, participation, and public opinion formation (primarily in the United States) through theories of political psychology and rational choice. Units: 6.

Prerequisite: GOVT 220, 360, 370, or 380

GOVT 444: *Political Economy of Regulation*
This course focuses on the tension between politics and expertise that characterize the administrative regulatory state often called "the fourth branch of government." Several competing models of political economy shape an exploration of the continuing evolution of the U.S. regulatory system, the process by which regulations are proposed, written, implemented, and enforced, and the tools used to evaluate the costs and benefits of regulations. Units: 6.

Also listed as Economics 444

Prerequisite: ECON 300 and ECON 380

GOVT 446: *Topics in Comparative Politics*
This course will address an advanced topic in the sub-field of Comparative Politics, such as democracy and authoritarianism, politics of the city, political participation and social movements, gender and politics, or the comparative method.

Topic for Spring 2017: Recent Works in Comparative Politics

This seminar gives students the opportunity to engage with recently published and, in most cases, award-winning works – books and articles – in Comparative Politics. The course is designed to encourage students to reflect on the logic and practice of social science inquiry and to demonstrate a variety of approaches and methodologies used in the subfield. In addition to listed pre-requisites, GOVT 271 is strongly recommended.

Units: 6.

Prerequisite: GOVT 215, or GOVT 245, or consent of instructor.

GOVT 465: *Environmental Politics*
An examination of selected aspects of environmental policy in the United States. Topics include the historical development of US environmental policy, environmental justice, urban environmental issues, connections between food systems and the environment, and the application of economic reasoning to environmental policy making. Units: 6.

Also listed as Environmental Studies 470

Prerequisite: ENST 151 and junior standing, or consent of instructor

GOVT 475: *Games and Strategy in Politics*
Political scientists often interpret politics as a game between strategic actors. This course surveys applications of game theory and social-choice theory to a wide variety of political phenomena. Units: 6.

Prerequisite: Junior standing or consent of instructor

GOVT 480: *International Organizations*
An examination of the role of international organizations (IOs) in world politics, focusing on both the historical development and the contemporary functions of the United Nations and other IOs in regard to the promotion of international peace and security. Attention is also given to the role of IOs in regard to global issues such as peacekeeping, humanitarian intervention, and environmental protection and to regional organizations, especially the European Union. As part of the course, students will participate in a simulation of the United Nations. Units: 6.

Prerequisite: GOVT 140, GOVT 340, or consent of instructor

GOVT 500: ***Senior Seminar in Government***
Topic for Fall 2016: Comparative Politics and International Relations

This seminar is intended to help students conceptualize and complete a senior experience project. Readings from comparative politics and international relations will be used to model the various stages of, and approaches to, conducting research.**:** *Topic for Winter 2017: Refugees and Global Politics*

The basic assumption of this seminar is that refugees, rather than being a purely humanitarian concern, are instead a global issue with important strategic, political, economic, and social implications. Students will examine both the causes and consequences of mass refugee movements, from the Cold War years through to our own day. Students will have the opportunity to write a substantial research paper on either a particular refugee group, a host country, or a thematic issue facing the international refugee regime.

Topic for Spring 2017: Research in American Politics

The first part of the seminar will be devoted to an overview of the scope and methods of political science research. During the balance of the term, students will design and produce individual research projects or extensive literature reviews on topics of their choice related to American politics or policy. Projects must be descriptive or explanatory rather than prescriptive. Ideally, students entering this seminar should have some background in the topic they wish to study.

Units: 6.

GOVT 538: ***Outside the Margin of Error: Polling and Quantitative Prediction in Modern Politics***
Politicians and prognosticators have increasingly turned to “Big Data”, futures markets, and poll aggregation to predict political outcomes. The course will explore the theory and accuracy of these quantitative predictions, discuss contemporary issues of data quality, and suggest whether quantitative analysis of politics is more than entertainment for political junkies. Units: 6.

Prerequisite: Junior standing and completion of the quantitative general education requirement, or consent of instructor

GOVT 590: ***Tutorial Studies in Government***
Advanced study, arranged and carried out under the direction of an instructor. Units: Variable.

Prerequisite: Counter Registration Required.

GOVT 591: ***Directed Study in Government***
Directed study follows a syllabus set primarily by the instructor to meet the needs or interests of an individual student or small group of students. The main goal of directed study is knowledge or skill acquisition, not research or creative work. Units: Variable.

Prerequisite: Counter Registration Required.

GOVT 595: *Internship in Government*
Work with a government agency, legislative office, research institution, private employer, or other relevant organization, arranged under the direction of an instructor in the department. The academic component of the internship includes readings related to the substance of the internship, discussions with the faculty supervisor, and a written report appropriate to the discipline. Course grades are based on this academic work. Units: Variable.

Prerequisite: At least one government course at the 200 level or above and consent of instructor; Counter Registration Required

GOVT 599: *Independent Study in Government*
Advanced research, arranged in consultation with the department. Students considering an honors project should register for this course, for one or more terms. Units: Variable.

Prerequisite: Counter Registration Required.

GOVT 690: *Tutorial Studies in Government*
Advanced study, arranged and carried out under the direction of an instructor. Units: Variable.

Prerequisite: Counter Registration Required.

GOVT 691: *Directed Study in Government*
Directed study follows a syllabus set primarily by the instructor to meet the needs or interests of an individual student or small group of students. The main goal of directed study is knowledge or skill acquisition, not research or creative work. Units: Variable.

Prerequisite: Counter Registration Required.

GOVT 695: *Internship in Government*
Work with a government agency, legislative office, research institution, private employer, or other relevant organization, arranged under the direction of an instructor in the department. The academic component of the internship includes readings related to the substance of the internship, discussions with the faculty supervisor, and a written report appropriate to the discipline. Course grades are based on this academic work. Units: Variable.

Prerequisite: At least one government course at the 200 level or above and consent of instructor; Counter Registration Required

GOVT 699: *Independent Study in Government*
Advanced research, arranged in consultation with the department. Students considering an honors project should register for this course, for one or more terms. Units: Variable.

Prerequisite: Counter Registration Required.

Professors: Cohen** (Patricia Harnar Boldt Professor of Liberal Studies and Professor of History), Podair* (Robert S. French Professor of American Studies)

Associate professors: Blitstein, Frederick (chair Terms II and III), Kern (chair Term I), Rico

Assistant professor: Vance

Visiting assistant professor: Bardeen

Instructor: Wegehaupt (Dean of Faculty Office)

*On leave Term I; **On leave Term III

Introduction

Consciously or not, all of us operate as historians. We make judgments and decisions based on our knowledge, however inadequate, of what has gone before. Furthermore, we make sense of our own position in the present by composing and telling stories about where we have been in the past. The formal study of history—the critical examination of human accomplishments and failures—does likewise, and it greatly enhances our ability to judge and decide about both private matters and public issues. Although historical awareness does not offer immediate solutions to contemporary problems, it does lead to a better understanding of them. Studying what was remote in time and space provides important perspectives on politics, society, and culture.

Required for the history major

1. The minimal requirement for the major is 10 six unit courses.
2. Students must complete a sequence of three courses specifically designed to promote the skills and method of disciplined historical inquiry and to culminate in the production of an original and substantial piece of historical research. These courses must be taken in order and at specified times, so students must take special care when planning their advancement through the major.
    a. Students are required to take HIST 101: *Introduction to Historical Methods*, during their freshman or sophomore year.
    b. Students are required to take HIST 620: *Historiography*, during their junior year.
    c. Students are required to take HIST 650: *The Practice of History*, during their senior year. Exceptions may be granted, however, for majors who petition to complete a piece of advanced and original historical research in suitable off-campus programs.
3. Students must complete seven additional courses that will serve both to broaden and to deepen their historical knowledge. One of the seven courses must be a seminar or independent study in which students will begin a research project to be completed in HIST 650.
    a. Students are required to take at least one six-unit course from each of the following three categories: North America (NA), Europe (E), and Global and Comparative (G&C).

   b. Students are required to take at least one course that covers materials up to the year 1750.
   c. Students are required to take at least one course designated as a seminar (numbered between 400 and 599) or one designated as an independent study (numbered between 400 and 599), during their junior year or during the Fall Term of their senior year.
   d. Students are encouraged to take as many additional courses focusing on their own areas of interest as they and their advisors deem appropriate for the completion of the major.
4. Students must have a C average in the major.

Required for the history minor

1. The minimal requirement for the minor is 6 six-unit courses.
2. Students must take at least one introductory course (numbered between 100 and 199).
3. Students must take at least five additional courses.
   a. No more than one may be an introductory course.
   b. At least one must be a seminar or independent study (numbered between 400 and 599).
4. Students must have a C average in the minor.

Off-campus study

The history department encourages majors, whenever possible, to participate in one of the off-campus programs offered either by Lawrence or under the auspices of the Associated Colleges of the Midwest or other consortial arrangements. The Lawrence London Centre and the ACM Newberry Library Program have proven to be of particular interest to history majors, though majors have benefited from participation in numerous others—especially those that match up with students' area interests (see Off-Campus Programs).

Graduate school

Students who are considering graduate studies in history should know that most doctoral programs require one or more (usually two) languages in addition to English and should work closely with their advisors to plan their schedules accordingly.

Advanced placement

Students who have earned a 4 or better in the Advanced Placement Examinations in American History, European History, or World History will receive six units of credit in history and may use that credit in partial fulfillment of the major. (History majors should consult with their advisors to determine which departmental introductory course their AP credit might replace.) These same students are strongly encouraged to consult with any member of the department about appropriate placement in courses above the introductory level.

Senior Experience in history

The *Senior Experience* in the history department consists of a collaborative one-term seminar, *The Practice of History*, culminating in an original and substantial piece of historical research. Students will be introduced to the standards of research and writing common to the historical profession and will be guided through their own individual projects. *The Practice of History* represents the culmination of a course sequence that includes *Introduction to Historical Methods* and *Historiography*. It is open to history majors who have completed an advanced seminar, tutorial, or independent study and have outlined a research topic that they are prepared to pursue intensively.

COURSES

HIST 101: *Introduction to Historical Methods*

An introduction to the practical skills of doing history aimed at freshmen and sophomores planning to major in history and others seriously interested in learning how to navigate the waters of historical study. Emphasis is on acquiring the techniques current historians use to research into the past, making sense of their findings, and presenting them to others in a variety of media. Using materials appropriate to a theme that changes from year to year, students will discover how to do a thorough bibliographical search of all major genres of historical works, to find and interpret primary sources, and master the basic historical essay. Units: 6.

HIST 105: *Cross-Cultural Interactions Along the Silk Road, 200 BCE–1400 CE*

The so-called "Silk Road" was the world's first superhighway, linking East Asia to the Mediterranean. The peoples along the way not only traded luxury goods, but also ideas, technology, and more. This course offers a thematic examination of the dynamic, cross-cultural interactions along the ancient and medieval Silk Road. Units: 6.

Also listed as East Asian Studies 105

HIST 110: *The Emergence of the Modern World*

An introduction to world history from 500 to 1750. Attention to global change through the emergence of world systems, as well as the development of worldwide commercial and colonial empires. Thematic focus on the nature of cross-cultural relations and the dynamics of power and resistance. Special emphasis on analysis of documents and historical interpretations. (G&C or E) Units: 6.

HIST 115: *The Modern World*:
An introductory examination of the development of modern global civilization from the end of the 18th century to the early 21st century, surveying the final modernization of the West through successive waves of political, industrial, and social revolutions and exploring the worldwide reaction to the spread of modern mass society brought about by Western efforts at global domination. Special emphasis on analysis of documents and historical interpretations. (G&C or E) Units: 6.

HIST 120: *Africa to 1800*
An introductory survey of African history to 1800. The course focuses on problems of the environment, the organization of society, foreign trade and influence, state building, and maintaining non-state forms of governance. Topics include African kingdoms and empires, migration, Islam, and the trade in enslaved Africans. Special emphasis on how historians use archaeology, linguistics, and oral traditions to reconstruct African history. (G&C) Units: 6.

HIST 125: *Modern Africa Since 1800*
The history of Africa from the end of the trans-Atlantic slave trade to the present. We will discuss the effects of abolition on Africa, the nature of pre-colonial African societies on the eve of conquest, the European "Scramble for Africa," the colonial era, African nationalism and decolonization, and the post-colonial period. Themes will cover social, political, economic, and religious history. (G&C) Units: 6.

Also listed as Ethnic Studies 120

HIST 130: *Colonies to Republic: British North America, 1607–1789*
A survey of North American history from the arrival of the first European voyagers through establishment of the Republic in 1789. Emphasis on the major political, intellectual, social, and economic changes of the period and on the nature of historical inquiry and analysis. (NA) Units: 6.

HIST 131: *Republic to Nation: The United States, 1789–1896*
A study of the major social, political, economic, and intellectual developments in American society from 1789 through 1896. Topics include the industrialization of the economy, the diversification of the population, the democratization of American politics, and the evolution of an American character. (NA) Units: 6.

HIST 132: *Nation in a Modern World: The United States, 1896–Present*
An examination of reform, dissent, and protest in the United States as it passed through eras of economic transformation, social crises, technological revolution, and international confrontation. Emphasis on domestic history, including the reforms of the Progressive-Great Depression eras, the Civil Rights Movement, and civil protest during the Vietnam period. (NA) Units: 6.

HIST 135: ***American Indian History: Pre-Contact to 1830***
An introductory survey exploring American Indian history from the period preceding contact with African and Europeans to the era of removal. Focuses on the social, cultural, political and economic diversity of native peoples and their experiences with European colonialism. (NA) Units: 6.

Also listed as Ethnic Studies 135

HIST 136: ***American Indian History 1830 to the Present***
This is an introductory survey exploring American Indian history from the removal era to the present. This course explores the social, political, and economic challenges Native people faced as a result of American expansion and colonialism. It focuses on the ways in which American Indian communities transformed in response to these changes, as well as their persistence and integrity as tribal nations in the present. (NA) Units: 6.

Also listed as Ethnic Studies 136

HIST 140: ***Gender and Feminism in Historical Perspective***
A comparative world history of both gender relations and the emergence of a feminist consciousness within the past 500 years. Case studies drawn from different regions of the world will precede the examination of the emergence of a global feminism in the late 20th and early 21st centuries. Topics will include the social roles of men and women, ideas about masculinity and femininity, understandings of sexual orientation, forms of systematic subordination, and the politics of modern feminisms. (G&C) Units: 6.

Also listed as Gender Studies 110

HIST 145: ***Introduction to the Middle East***
Provides an introduction to the history, geography and politics of the Middle East. General themes include the historical timeline, geographic characteristics, and political systems of the region. Additionally, students will pair primary source materials with traditional secondary texts to study specific thematic components such as terrorism, religion, and gender. (G&C) Units: 6.

HIST 150: ***Stuart England, 1603–1715***
This course explores the causes and impact of the English Civil War, the effect of the Restoration, the Glorious Revolution, and the path to the Hanoverian Succession. The economics, politics, religion, social history, and cultural aspects of the period are also studied. Visits to museums and buildings of the period are included. (E) *Offered at the London Centre.* Units: 6.

Prerequisite: Must be attending the Lawrence London Centre.

HIST 160: ***Traditional East Asian Civilization, 1800 B.C.–1600***
An introductory survey of East Asia from the dawn of indigenous civilization to the 16th century. Focus on the growth of a Sinitic center and its interaction with the sedentary and nomadic peoples on its Inner Asian and Pacific rims. Emphasis on the diverse peoples and societies of the area and the historical processes that bound them together through a common tradition. (G&C) Units: 6.

Also listed as East Asian Studies 140, Ethnic Studies 121

HIST 165: ***Modern East Asian Civilization, 1600–1990***
An introductory survey of the modern history of East Asia, examining the efforts of traditional states, particularly China and Japan, to respond to Western intrusion into the region after 1600. Focus on social and cultural problems created by attempts to modernize yet defend tradition and on the differing results of Chinese and Japanese approaches. (G&C) Units: 6.

Also listed as East Asian Studies 150

HIST 178: ***Colonial Latin American History***
An introduction to the creation and rule of Colonial Latin America between the 15th and 19th centuries. Emphasis is on the patterns of conquest and cultural encounter, mechanisms of colonial rule, interaction between ethnic groups, and the cultural impact of the colonial experience upon Latin America's peoples. (G&C) Units: 6.

HIST 179: ***Modern Latin American History, 1821–Present***
An introduction to Latin America, from 1821 to the present. Focus is placed on new nations as they struggle to create themselves, and weather the challenges of external influence. Emphasis on how Latin America has developed ethnically, politically, and economically and how these factors affect its position in the world today. (G&C) Units: 6.

HIST 180: ***Survey of Greek History***
A study of ancient Greek history from the Bronze Age to 146 B.C.E. Emphasis on the rise and fall of the Greek city-state as a political, societal, and cultural model. Readings include the historians Herodotus and Thucydides. All texts in English. (E) Units: 6.

Also listed as Classics 150

HIST 185: ***Survey of Roman History***
A study of the history of Rome from its origins through the Republic and Empire to the reign of Constantine. Emphasis on political and cultural developments and the acquisition and maintenance of empire. Readings may include Livy, Tacitus, Suetonius, and the *Historia Augusta*. All texts in English. (E) Units: 6.

Also listed as Classics 160

HIST 191: ***Directed Study in History***
Directed study follows a syllabus set primarily by the instructor to meet the needs or interests of an individual student or small group of students. The main goal of directed study is knowledge or skill acquisition, not research or creative work. Units: Variable.

Prerequisite: Counter Registration Required.

HIST 195: ***Internship in History***
An opportunity for students to gain experience in public history. Students might work for a museum, historic site, government agency or archive, including the Lawrence University Archives. Arranged under the direction of an instructor in the department in accordance with the guidelines for academic internships as stated in the course catalog. The academic component of the internship includes readings related to the substance of the internship, discussions with the faculty supervisor, and a written report appropriate to the discipline. Course grades are based on this academic work. Units: Variable.

Prerequisite: Counter Registration Required

HIST 200: ***American Experiences: An Introduction to American Studies***
This course will introduce students to a pioneering interdisciplinary field. American Studies employs the disciplines of history, literature, politics, religion, art, music, film, and architecture, among others, to integrate a host of American experiences, examining “America” as a place, a nation, a symbol, a stereotype, and a culture. (NA) Units: 6.

Prerequisite: Sophomore standing or above

HIST 201: ***The History of American Cities***
This course examines the development of American urban centers from the colonial era to the present, focusing especially on the evolution of the physical environment, urban political economy, structures of race, class, and gender, suburbanization, and responses to the urban crisis. (NA) Units: 6.

Prerequisite: Sophomore standing

HIST 205: ***Cross-Cultural Contacts in the Early Modern World***
Examines contacts among various peoples between 1350 and 1750. Focus on cultural or ethnic identity, the role of power in relations between groups, and theoretical problems involved in such study. Examples include ancient and medieval cultural contacts, European settlement in North and South America, the African slave trade, and contacts among the peoples of Southeast Asia, India, China, and Japan. (G&C) Units: 6.

Prerequisite: Sophomore standing or consent of instructor

HIST 206: ***Perchance to Dream: A Comparative History of Dreams from Antiquity to Present***
For centuries, dream interpretation has been integrated into philosophical discourse, used as a political tool, and touted as proof of otherworldly activities. This seminar will examine dream theories as products of socio-cultural development in different historical contexts, including ancient Greece, medieval Japan, early modern China, and the U.S. and Europe. Units: 6.

HIST 207: ***The Atlantic World***
Between 1400 and 1800 the peoples living on the coasts of the Atlantic Ocean forged personal, cultural, economic, and political relationships which tied Africa, Europe, and the Americas into an integrated "Atlantic World." This course investigates those connections and contemplates the usefulness of the Atlantic World as a concept. (G&C or NA) Units: 6.

Prerequisite: Sophomore standing or consent of instructor

HIST 215: ***Atlantic Slave Trade***
An examination of the Atlantic trade in enslaved Africans from its beginning in the 15th century to its eventual abolition in the 19th century. Topics include ideas of slavery in Europe and Africa; the development of the Atlantic trade; the economic, social, political, and religious effects of the slave trade in Africa and the Americas; the rise of racism; abolition and its aftermath. (G&C) Units: 6.

Also listed as Ethnic Studies 220

Prerequisite: Sophomore standing or consent of instructor

HIST 220: ***Gender in 20th Century Africa***
An examination of the changing roles of African men and women in the 20th century. The course will focus on the rapid social transformations of the 20th century — colonialism, abolition of slavery, the spread of Christianity and Islam, urbanization, the birth of new nations — and their challenges to traditional understandings of what it meant to be a man or woman. (G&C) Units: 6.

Also listed as Gender Studies 315

Prerequisite: Junior standing or some gender studies background

HIST 235: *Periclean Athens*
A study of the history of Athens from the end of the Persian Wars to the execution of Socrates (479 to 399 B.C.E.). A wide range of material and topics will be considered: social and political developments, warfare, empire, diplomacy, intellectual and cultural life. Emphasis on the revolution in ideas and visions of humanity that defined the golden age of classical Greece. All texts in English. (E) Units: 6.

Also listed as Classics 300

Prerequisite: Sophomore standing or consent of instructor

HIST 240: *Augustan Rome*
An introduction to ancient Rome and Roman civilization, focusing on the Age of Augustus in all its aspects: art, literature, politics, empire, law, entertainment, and society. Emphasis on the political and cultural changes that took place during this revolutionary period. All texts in English. (E) Units: 6.

Also listed as Classics 310

Prerequisite: Sophomore standing or consent of instructor

HIST 245: *History of England to 1485*
A study of the history of England (and, to a lesser degree, Scotland and Wales) from prehistoric times to the accession of the House of Tudor. Special attention to the history of London. Especially recommended for, but not limited to, students going to the London Centre. (E) Units: 6.

HIST 247: *The Impact of Empire on Great Britain, 1814–1914*
In 1914 the British empire contained a population of over 400 million people and was territorially the largest empire in world history. While the British spread their ideas about government, language, religion, and culture to their colonies, Britain itself was also profoundly influenced by the colonies it ruled. This course will explore aspects of the impact of the Empire on British politics, economics, society, and popular culture during the 19th century. Among the topics to be covered are the anti-slavery movement, imperialism and new imperialism, jingoism and popular culture, economic responses, and the influence of imperialism on culture and the arts. The myriad resources of London will be used to provide specific examples of how important the Empire was in shaping British identity and institutions during the 19th century. *Offered at the London Centre.* (G&C or E) Units: 6.

Prerequisite: Must be attending the Lawrence London Centre.

HIST 249: ***The Early Middle Ages: 400–1000 A.D.***
A study of European history from the Decline of Rome and the Barbarian Invasions through the age of Viking expansion, the Ottonian Empire, and the rise of feudalism, with emphasis in intellectual, cultural, and institutional development. (E) Units: 6.

Prerequisite: Sophomore standing or consent of instructor

HIST 250: ***The High Middle Ages: Papal Revolution to Dante***
A study of the High and Late Middle Ages, with emphasis upon intellectual, cultural, and institutional development, from the Papal Revolution, Scholasticism, and the Crusades through the 13th century and its changes in such concepts as time, space, and matter. (E) Units: 6.

Prerequisite: Sophomore standing or consent of instructor

HIST 260: ***Culture and Power in Renaissance Europe***
A study of intellectual, artistic, and religious innovations and their relation to dynamic political and social transformations between roughly 1350 and 1550. Beginning with the concepts of rediscovery, rebirth, and renewal as expressed in the writings of Renaissance Humanists, the course will explore how a new cosmology informed changes in artistic expression, political theory and practice, production and commerce, overseas expansion, popular ritual and spectacle, gender relations, and understandings of the self. (E) Units: 6.

Prerequisite: Sophomore standing or consent of instructor

HIST 261: ***Rebellion and Discipline in Reformation Europe***
An examination of the religious fragmentation of Christian Europe and its social and political aftermath from 1500 to 1715. The course will survey how revolt against the church evolved into a series of rebellions against authority — peasants against nobles, cities against overlords, and nobles against monarchs — and eventually culminated in a reassertion of social discipline through the consolidation of the state's power, the formation of confessional orthodoxies (Lutheran, Calvinist, Catholic), an increased policing of morality, and the domestication of men's and women's roles in society. (E) Units: 6.

Prerequisite: Sophomore standing or consent of instructor

HIST 266: *Topics in History*
The specific topic investigated changes each year. Student responsibilities may include engagement with secondary historical writings, primary source evaluation, research and essay writing.

Topic for Fall 2016: Building Cosmopolis--Carribean Colonialism and the Making of London

An examination of colonialism in the Caribbean and how that process fueled the development of the city of London. We will specifically examine the evolution of the city from 1500–1900 and the colonial products and processes that shaped this change. *Offered at the London Centre.*

Units: 6.

HIST 270: *Europe in the Age of Revolution, 1789–1851*
An examination of European history from the French Revolution through the revolutions of 1848, focusing on the socioeconomic, political, and ideological configurations that emerged out of the French and Industrial Revolutions. Topics include the rise of liberalism, nationalism, socialism, and the modern state within their various historical contexts. (E) Units: 6.

Prerequisite: Sophomore standing or consent of instructor

HIST 275: *Europe in the Age of Nationalism, World War, and Totalitarianism, 1851–1990*

An examination of European history from the Age of National Unification through the collapse of the Soviet Empire. Topics include imperialism, the two World Wars, the Russian Revolution, fascism, totalitarianism, mass nationalism, and the reemergence of eastern and central Europe. (E) Units: 6.

Also listed as Ethnic Studies 221

Prerequisite: Sophomore standing or consent of instructor

HIST 276: *Spy vs. Spy: Espionage and the Cold War*
An examination of the Cold War through the lens of intelligence and espionage. Themes include the origins of the CIA and KGB, Soviet and American intelligence successes and failures, mass hysteria and popular fascination with spies, and the contribution of espionage to the Soviet collapse. (G&C) Units: 6.

Prerequisite: Sophomore standing or consent of instructor. HIST 132 or 325 recommended

HIST 280: ***Religion, Magic, and Witchcraft in Early Modern Europe***
Witchcraft and witch-hunting in Europe between 1350 and 1750. An examination of the concepts of religion and magic and an exploration of such topics as magical practices, the relationship between heresy and magic, the evolution of witchcraft, the dynamics and demise of witch-hunting, the role of gender, and definitions of societal deviance. Readings in primary sources and modern historical and anthropological scholarship. (E) Units: 6.

Prerequisite: Sophomore standing or consent of instructor

HIST 281: ***Thinking About Harry Potter***
A course in contemporary history focusing upon Harry Potter as a cultural phenomenon. Students with an already copious knowledge of J.K. Rowling's stories will further explore them in terms of their relation to history, legend, and myth; their contested aesthetic merit and ethical values; and their broader social and political implications. Units: 6.

HIST 290: ***Modern European Thought I, 1500–1800***
A close examination of 17th- and 18th-century intellectual trends (during the Scientific Revolution and Enlightenment) that influenced the epistemological, scientific, and political assumptions of the modern world. Works by such authors as Galileo, Bacon, Descartes, Hobbes, Newton, Locke, Voltaire, Rousseau, Goethe, and Wollstonecraft will trace the displacement of divine authority by human authority as the basis of knowledge in what some modern philosophers have called the "Quest for Certainty" that followed the 16th century. (E) Units: 6.

Prerequisite: Sophomore standing or consent of instructor

HIST 291: ***Modern European Thought II, 1789–present***
An examination of modern thought focusing on the problem of self and society since the late 18th century. Topics include individualism and individuality, "economic man," socialism, feminism, fascism, existentialism, and post-modernism. Readings from Adam Smith, J. S. Mill, Dostoevsky, Marx, Freud, Woolf, and Foucault. (E) Units: 6.

Prerequisite: Sophomore standing or consent of instructor

HIST 295: *Nationalism in Modern History*
An examination of the idea and the reality of nationalism in modern history. Among the questions we will ask are: Is nationalism a modern phenomenon, or does it have pre-modern origins? Is it compatible with democracy and human rights or fundamentally hostile to them? Is it primarily a European phenomenon transplanted to other places, or are there indigenous roots of nationalism throughout the world? We will attempt to answer these questions by reading theoretical works on nationalism from a variety of disciplines and by examining historical case studies. (G&C) Units: 6.

Also listed as Ethnic Studies 223

Prerequisite: Sophomore standing or consent of instructor

HIST 300: *Reel Men: Masculinity in American Film, 1945–2000*
Focusing on an array of well-known American films — “The Maltese Falcon,” “Red River,” “Dr. Strangelove,” “McCabe and Mrs. Miller,” “Chinatown,” “Die Hard,” and “American Beauty” among them — the course will integrate film theory, gender theory, and American history to address the problem of how masculinity has been constructed in American culture since World War II. Not open to students who have previously received, or need to receive, credit for HIST 400. (NA) Units: 6.

Also listed as Film Studies 300, Gender Studies 323

Prerequisite: Sophomore level or above

HIST 305: *Film as History and History as Film*
An examination, through selected films, of specific moments in European history and an examination of film itself as a source of historical interpretation. Possible “historical moments” include Medieval England, Nazi Germany, and the Holocaust, and possible films include *Becket, The Triumph of the Will,* and *Schindler’s List.* (E) Units: 6.

Also listed as Film Studies 305

Prerequisite: Sophomore standing or consent of instructor

HIST 308: *Half the Sky: Chinese Women's History*
This course examines important questions about the lives of women in the last thousand years of Chinese history. Through an exploration of primary sources in translation, classic works of fiction, film, memoirs, and oral histories, we will address theoretical questions fundamental to both women’s studies and Chinese history. Units: 6.

Also listed as East Asian Studies 308

Prerequisite: Sophomore standing or consent of instructor

HIST 310: ***Inventing Germany***
Students use literary and non-fiction texts to examine German national identity as it developed from the French Revolution through Bismarck and two world wars to “reunification” in 1990. Topics include the role of Germany in Europe, the legacy of divided Germany, and diversity in German society today. Taught in English. German majors and minors may participate in a two-unit tutorial in which discussions and some course readings will be in German. (E) Units: 6.

Also listed as German 359

HIST 311: ***The Holocaust in German Culture (in English)***
This course focuses on literary responses to the Holocaust, but it also deals with film and the issue of commemoration. After a discussion of the difficulty of representing the Holocaust, the course examines the Holocaust’s role in the construction of German-Jewish identity and its impact on post-war German culture. Taught in English. German majors and minors may participate in a two-unit tutorial in which discussions and some course readings will be in German. (E) Units: 6.

Also listed as German 355

Prerequisite: Sophomore standing or consent of instructor

HIST 315: ***Empire and Nation in Russian History***
The course examines the history of ethnically diverse territories referred to as “Russia” from early modern times to 1991. Themes include the formation of the Russian empire, its transformation into the Soviet Union, and its partial collapse in 1991; the meaning of “empire,” “nation,” and “ethnicity” in historical context; and the interaction of Russians with non-Russian peoples in Ukraine, the Baltic States, Central Asia, and the Caucasus. (G&C) Units: 6.

Also listed as Ethnic Studies 320

Prerequisite: Sophomore standing or consent of instructor; HIST 320 or 325 recommended

HIST 320: ***Imperial Russia, 1682–1917***
A history of the Russian Empire from the reign of Peter I through the revolutions of 1917. Themes include serfdom and its abolition, attempts at modernization, the emergence of political opposition to autocracy, cultural developments, and Russia’s role in the European state system. (G&C) Units: 6.

Prerequisite: Sophomore standing or consent of instructor

HIST 323: ***Topics in Russian History and Culture (in English)***
An interdisciplinary course examining the relationship between politics and culture in Russia since the 18th century through the close analysis of a specific historical theme. Emphasis is placed on reading and discussing literary texts, historical primary sources, and, where applicable, watching films. Possible themes include: Power and Culture in the Russian Revolution, 1900-1936; The Soviet 1960s; and The Agony of Populism: Terrorism and Literature in Russia's Nineteenth Century. Not open to students who have previously received, or need to receive credit for HIST 423. (G&C) Units: 6.

Also listed as Russian 323

Prerequisite: Sophomore standing and one course in Russian language, literature, or history

HIST 325: ***The Soviet Union, 1917–1991***
A study of the creation of a socialist state on the territory of the former Russian empire. Themes include the revolutionary origins of the state, economic modernization and social transformation, the emergence of the Stalinist political order, nationality policy, intellectual and artistic activity, and the decline and collapse of the Soviet system. (G&C) Units: 6.

Prerequisite: Sophomore standing or consent of instructor

HIST 326: ***The Soviet Union and the Second World War***
The Soviet Union emerged as one of the key victors in the Second World War (known as the Great Patriotic War in Russia). Yet the war was devastating for the country and its people and victory came at a tremendous price. This course reexamines the impact of the war on the Soviet Uion, what kind of war effort took place on the Eastern Front and in the rear of the Soviet Union, and what kind of victory was achieved. To help address the themes of the course we will read a variety of works and documents including official government documents, personal diaries, letters, and memoirs many of which until recently were either unknown or unpublished in the West. Units: 6.

Prerequisite: Sophomore standing

HIST 330: ***History of the American West***
This course examines realities and images of the frontier/western experience from exploration and settlement of North America through the present. Included are native and immigrant groups, technology, transportation, agriculture, mining, and urbanization, as well as effects of the frontier on national character. (NA) Units: 6.

Also listed as Ethnic Studies 222

Prerequisite: Sophomore standing

HIST 335: ***Women in Early America, 1607–1860***
An examination of the experiences of women in early America, focusing both on women's lives and on the changing economic, political, and cultural roles they played in American society. Themes include women and the family, women's religious experiences, women and industrialization, and the effects of slavery on black and white women. (NA) Units: 6.

Also listed as Gender Studies 220

Prerequisite: Sophomore standing or consent of instructor

HIST 337: ***Microhistory: The Local and the Global in Early American History***
This course explores the larger themes and questions in early American history through the historical approach of "microhistory"—the study of a specific community, institution, or individual. In the process we will also contemplate the possibilities and limits of microhistory, and craft a research project using the approach. (NA) Units: 6.

Prerequisite: Sophomore standing or consent of instructor

HIST 345: ***Race Relations in the United States, 1865–Present***
An examination of relations between black and white Americans since Emancipation. Topics will include Reconstruction, the rise of Jim Crow, the Great Migrations, the Civil Rights Movement, urban unrest, and white backlash. (NA) Units: 6.

Also listed as Ethnic Studies 321

Prerequisite: Sophomore standing and HIST 132

HIST 350: ***The 1920s, Great Depression, and New Deal, 1920–1945***
After considering the 1920s as a "new era" in American history, the course examines the impact of the Great Depression upon American institutions and attitudes, with extensive analysis of the New Deal's domestic reform program and its creation of a national welfare state. (NA) Units: 6.

Prerequisite: Sophomore standing and HIST 132

HIST 353: ***The JFK Assassination in American Politics, Culture, and Memory***
The assassination of John F. Kennedy, one of the 20th century's defining events, continues to exert a powerful hold on the American people. This course examines the assassination's impact on American society in the 1960s and beyond, including changes in political behavior, cultural attitudes, media practices, and international relations. Units: 6.

Prerequisite: Sophomore standing

HIST 354: *History of Russian and Soviet Film*
This course will introduce the student to the rich and varied tradition of Russian and Soviet cinema from the Pre-Revolutionary period to the present. Works by major filmmakers will be viewed and discussed in the context of the culture, economy, society, and politics of the time. Taught in English. Units: 6.

Also listed as Film Studies 354, Russian 354

Prerequisite: Sophomore standing

HIST 355: *History of the American Environment*
North Americans have transformed the environment while being shaped by nature in turn. This course surveys the changing relationships between Americans and their physical environment in historical context from the 17th century to the present. Topics include the “Columbian exchange,” agriculture, urbanization, conservation, and the emergence of contemporary environmentalism. (NA) Units: 6.

Also listed as Environmental Studies 355

Prerequisite: Sophomore standing

HIST 360: *Contemporary China, 1949–2000*
A discussion course on selected issues in the social and cultural history of modern China. Literature, films, documents, and historical studies are examined to explore the intimate side of personal, family, and social life and the nature and impact of social and cultural changes in 20th-century China. (G&C) Units: 6.

Also listed as East Asian Studies 420

Prerequisite: Sophomore standing or consent of instructor; HIST 165 recommended

HIST 361: *Western Encounters with China: Perceptions and Misperceptions*
This course examines Western encounters with China since the thirteenth century, from Marco Polo to contemporary journalists, such as Peter Hessler. Students will analyze and assess Western perceptions and misperceptions of China through a variety of primary sources in translation and relevant secondary studies. Units: 6.

Also listed as East Asian Studies 361

Prerequisite: Sophomore standing

HIST 366: *Topics in British History*
An examination of a particular topic in British History. The specific topic investigated changes each year. Student responsibilities may include engagement with secondary historical writings, primary source evaluation, research and essay writing.

Topic for Fall 2016: Plague and Fire--Disaster and the Making of London

An examination of the context and consequences of the 1665 Great Plague and the 1666 Great Fire of London. Through primary source readings we will explore how these events fueled religious and political animosities and contributed to the remaking of urban infrastructure in England and abroad. *Offered at the London Centre.*

Units: 6.

HIST 371: *The Rise and Fall of American Empires: The Americas, from the Beginnings Through the Conquest*
A study of the Aztec, Inca, and Maya civilizations, focusing on cultural and technological development. Additional focus is on pre-Columbian cultural succession, imperial expansion of the Aztec and Incan empires, and native participation in the conquest. (G&C) Units: 6.

Prerequisite: Sophomore standing

HIST 374: *Visions of Conquest*
The creation of Colonial Latin America meant the political, cultural and spiritual reconfiguration of society on both sides of the Atlantic. In this course, we will elucidate the process of conquest through the study of historical accounts, cultural artifacts of the colonizers and colonized alike, and relevant theoretical texts. This course is held concurrently with SPAN 470. Lectures, discussion, and reading and writing assignments are in English. Students interested in work in the Spanish language who have met the prerequisites should register for SPAN 470. (G&C) Units: 6.

Prerequisite: Sophomore standing

HIST 376: *International Development in Historical Perspective*
History of economic development theory, policy, and practice throughout the world since 1945. Particular focus will be given to the evolution of orthodoxy in this field, from modernization theory through dependency theory to neoliberalism, considering the performance and criticism of each. Case studies include African, Asian, and Latin American countries. (G&C) Units: 6.

Prerequisite: Sophomore standing or consent of instructor.

HIST 378: *Ethnicity in Latin America*
Explores the coming together of distinct Native, African, and European ethnicities in Latin America, and the resulting creation of new ethnicities. We examine how race has been understood in Latin American history and how attitudes toward race have fundamentally shaped the history of the region. (G&C) Units: 6.

Also listed as Ethnic Studies 325

Prerequisite: Sophomore standing; HIST 178 or HIST 179 recommended

HIST 384: *History of the Book in London*
An introduction to the interdisciplinary field of the history of the book, focusing especially on London's role as a site of book production, distribution and consumption. We will work directly with manuscripts and rare books, studying the material history of books and writing techniques form early manuscripts to iPads. Offered at the London Centre. Units: 6.

Also listed as English 281

Prerequisite: Must be attending the Lawrence London Centre.

HIST 385: *History of the Book*
To provide an introduction to the interdisciplinary field of Book History, which should help students think more critically about the impact of material culture on intellectual activity. The course will be taught as a speaking intensive seminar, which means that students will frequently be responsible for presenting reading material and leading discussion in the first half of class. Units: 6.

Also listed as English 527

Prerequisite: Junior standing or consent of the instructor.

HIST 388: *Early Modern Japan*
This discussion course offers an overview of the early modern history of Japan. Through an analysis of literature, woodblock prints, documents, and secondary historical studies we will explore selected issues in the social and cultural history of the Tokugawa and Meiji periods. Units: 6.

Also listed as East Asian Studies 388

Prerequisite: Sophomore standing or consent of instructor

HIST 390: *Tutorial Studies in History*
A reading program, specially designed and implemented in consultation with an instructor. Writing is required. Students must consult in advance with the member of the department with whom they wish to work. Units: Variable.

Prerequisite: Counter Registration Required.

HIST 391: ***Directed Study in History***
Directed study follows a syllabus set primarily by the instructor to meet the needs or interests of an individual student or small group of students. The main goal of directed study is knowledge or skill acquisition, not research or creative work. Units: Variable.

Prerequisite: Counter Registration Required.

HIST 395: ***Internship in History***
An opportunity for students to gain experience in public history. Students might work for a museum, historic site, government agency or archive, including the Lawrence University Archives. Arranged under the direction of an instructor in the department in accordance with the guidelines for academic internships as stated in the course catalog. The academic component of the internship includes readings related to the substance of the internship, discussions with the faculty supervisor, and a written report appropriate to the discipline. Course grades are based on this academic work. Units: Variable.

Prerequisite: Counter Registration Required

HIST 399: ***Independent Study in History***
A research project organized in consultation with an instructor, culminating in a major research paper. Students must consult in advance (preferably during spring registration) with the member of the department with whom they wish to work. Students considering an honors project should register for this course. Units: Variable.

Prerequisite: Counter Registration Required.

HIST 400: ***Reel Men: Masculinity in American Film, 1945–2000***
At the upper level, the course will serve as a history seminar in preparation for the history department's capstone course. Those taking it at that level will be required to write at least one paper addressing film or gender theory and to write a 10-15-page research prospectus. Not open to students who have previously received credit for HIST 300. (NA) *Fulfills seminar requirement.* Units: 6.

Also listed as Film Studies 400, Gender Studies 423

Prerequisite: Junior standing or above

HIST 415: *Africa in the European Imagination*
This advanced seminar examines the conceptualization of Africa and Africans in modern European intellectual history. The course details how European thinkers explored issues of race and identity through their figurative and physical engagement with the African continent. Topics include travel narratives, the philosophy of slavery and abolition, and imperialism. (G & C) Units: 6.

Also listed as Ethnic Studies 415

Prerequisite: Sophomore standing

HIST 422: *Revolt and Revolution in Latin America*
This seminar investigates resistance in its many forms in Latin American history. Attention to abstract notions of “revolution” will be complemented by evaluating how particular episodes of violent unrest in Latin America have served as the tools of both the weak and the powerful. (G&C) *Fulfills seminar requirement.* Units: 6.

Prerequisite: Junior standing and HIST 178 or 179, or consent of the instructor

HIST 423: *Topics in Russian History and Culture*
An interdisciplinary seminar examining the relationship between politics and culture in Russia since the 18th century through the close analysis of a specific historical theme. Emphasis is placed on reading and discussing literary texts, historical primary sources, and, where applicable, watching films. Possible themes include: Power and Culture in the Russian Revolution, 1900-1936; The Soviet 1960s; and The Agony of Populism: Terrorism and Literature in Russia's Nineteenth Century. Students in this course will be expected to complete a research paper in preparation for the History Department's senior experience and will meet periodically with the instructor for that purpose. This course fulfills the seminar requirement for history majors. Not open to students who have previously received credit for HIST 323/RUSS 323. *Fulfills seminar requirement.* (G&C) Units: 6.

Prerequisite: Junior standing and either History 320 or 325, or consent of instructor.

HIST 430: *Society and the Sexes in Pre-Industrial Europe*
A seminar, organized topically, exploring changing gender definitions, economic and social roles, family structures and functions, and styles of intimacy from 1000 to 1800. A variety of primary sources and scholarly interpretations examined. (E) *Fulfills seminar requirement.* Units: 6.

Also listed as Gender Studies 415

Prerequisite: Junior standing or consent of instructor

HIST 431: *Violence in Medieval and Early Modern Europe*
A chronological and thematic examination of the understandings, uses, and effects of violence between roughly 1000 and 1800. Structured loosely around changing distinctions between licit and illicit forms of violence, the course will explore the transition from reliance upon self-help to well-articulated systems of jurisdiction at different levels of society. Topics will include warfare (feud, conflict among states, mercenaries, standing armies), jurisprudence (interrogation, torture, public execution), revolt (riot, rebellion), and interpersonal violence (criminal behavior, retribution). Readings will include a wide variety of documentary materials and scholarship. (E) *Fulfills seminar requirement*. Units: 6.

Prerequisite: Junior standing or consent of instructor

HIST 435: *Nazism and Stalinism in Comparative Perspective*
This course examines the political, social, and cultural histories of two of the 20th century's most notorious regimes. We will seek to determine what they had in common and, in doing so, answer the question, "What is totalitarianism?" (E or G&C) *Fulfills seminar requirement.* Units: 6.

Prerequisite: Junior standing and HIST 115 or 325, or consent of instructor

HIST 440: *Themes in European Intellectual History, 1789–present*
A seminar in the history of ideas, focusing on one of several topics that shift periodically. Possible topics include the concept of freedom in French thought since the Revolution and the rise of post-modernism in 20th-century Europe. (E) *Fulfills seminar requirement.* Units: 6.

Prerequisite: Junior standing and HIST 115 or consent of instructor

HIST 460: *The Era of the American Revolution*
A chronological and a topical approach to the causes, events, and consequences of the American Revolution. Narrative, fiction, film, and methodological sources are used to consider questions such as: Was the American Revolution revolutionary?; What were the economic and social motives behind the war?; and How different was American society after the war? *Fulfills seminar requirement.* (NA) Units: 6.

Prerequisite: History 130 or consent of instructor

HIST 465: ***Mestizos, Métis, and Mulattos: Mixed-Race People in the Atlantic World, 1400–1850***
This course examines how race worked in the Atlantic World (Africa, Europe, and the Americas) between 1400 and 1850 through the perspectives of mixed-race individuals and communities. We will use a comparative framework to understand how people created, resisted, and used their cross-racial identities to navigate their lives. *Fulfills seminar requirement.* (G&C or NA) Units: 6.

Also listed as Ethnic Studies 465

Prerequisite: Junior standing or consent of instructor

HIST 470: ***The American Civil War***
A comprehensive examination of the Civil War era between 1840 and 1877. Major themes and topics will include the political crisis leading to secession, the military conduct of the war, the end of slavery, the effects of the war on American society, and Reconstruction. (NA) *Fulfills seminar requirement.* Units: 6.

Also listed as Ethnic Studies 420

Prerequisite: Junior standing and HIST 131, or consent of instructor

HIST 471: ***The American Civil War—A Transatlantic Perspective***
This course will extend the American Civil War across the Atlantic, combining a narrative of the conflict in the North and South with the story of its transformative impact upon Great Britain. Units: 6.

Prerequisite: Sophomore standing; must be attending the Lawrence London Centre

HIST 472: ***Lincoln: Revolutionary American***
This course will place Abraham Lincoln at the center of a revolution in American politics, society, and culture between 1840 and 1865, as the young nation argued violently over the meaning of its founding principles and the nature of "American" identity itself. Units: 6.

Prerequisite: Sophomore standing

HIST 475: ***The History of America at Play***
How serious is play? This class explores the ways in which seemingly frivolous activities — ordinary American entertainment — have reflected and shaped hierarchies of race, class, and gender as well as urban economies and landscapes. (NA) *Fulfills seminar requirement.* Units: 6.

Prerequisite: Junior standing and one of HIST 130, 131, 0R 132

HIST 478: *Topics in Environmental History*
An in-depth examination of a particular topic in environmental history, suitable for majors in history and environmental studies. Students from other majors should consult the instructor before registering. May be repeated for credit when topic is different. Units: 6.

Also listed as Environmental Studies 478

Prerequisite: HIST 355

HIST 479: *Travel and Tourism in American History*
This course explores the emergence of tourism in the United States from the early national period to the present, paying particular attention to the dynamics of ethnicity and gender in shaping tourism within modern consumer culture. We will study a variety of primary and secondary sources, including travel narratives and films. (NA) *Fulfills seminar requirement.* Units: 6.

Prerequisite: Sophomore standing and at least one of HIST 130, 131, or 132

HIST 480: *Reconsidering the 1960s*
A seminar examining the major themes and issues of the decade. Topics include Vietnam, the Great Society, civil rights, the counterculture, and feminism. Fiction, oral narrative, and the developing historiographical literature will be employed as aids in addressing the period. (NA) *Fulfills seminar requirement.* Units: 6.

Prerequisite: Junior standing and HIST 132

HIST 481: *The Transatlantic Sixties: The United States and Great Britain*
This course will place the history of the 1960s into a transatlantic context, exploring the decade as a global event that linked the United States and Great Britain. Units: 6.

Prerequisite: Sophomore standing; must be attending the Lawrence London Centre

HIST 491: *Borderlands in Modern East and Inner Asia: History, Culture, and Identity*
Seminar on Euro-Asian borderlands, with a focus on East Asia during the Modern Period. Adopting a transnational approach, the course examines the fluidity of the concept of the "frontier," along with various understandings of what borderlands are, from the perspective of both indigenous peoples and those from afar. (G&C) *Fulfills seminar requirement.* Units: 6.

Also listed as East Asian Studies 491

Prerequisite: Junior standing or consent of instructor

HIST 492: ***The Art of Healing: A History of Chinese Medicine***
This course offers an interdisciplinary exploration of the history of Chinese medicine. Students will study the canonical literature of the discipline, and analyze the ways in which those texts and ideas have been reshaped in modern and contemporary practice. Topics include: forensic medicine, gender, religion, and public health. Units: 6.

Also listed as East Asian Studies 492

Prerequisite: Junior standing

HIST 499: ***A History of Lawrence University***
The course is a study of the history of Lawrence University, from its founding ideas to its modern form. We will consider how Lawrence fits into broader historical trends. This course will have a focus on primary research, particularly in the Lawrence archives. Units: 6.

Prerequisite: Sophomore standing

HIST 510: ***The Origins of War***
A study of the concerns that lead states to war through analysis of the strategic and diplomatic crises that precipitated two great historical conflicts: the Peloponnesian War in 431 B.C. and the First World War in 1914. Students will regard themselves as diplomats assigned to report on the developing situations. (E) Units: 6.

Also listed as Classics 510

Prerequisite: Junior standing or consent of instructor

HIST 590: ***Tutorial Studies in History***
A reading program, specially designed and implemented in consultation with an instructor. Writing is required. Students must consult in advance with the member of the department with whom they wish to work. Units: Variable.

Prerequisite: Counter Registration Required.

HIST 591: ***Directed Study in History***
Directed study follows a syllabus set primarily by the instructor to meet the needs or interests of an individual student or small group of students. The main goal of directed study is knowledge or skill acquisition, not research or creative work. Units: Variable.

Prerequisite: Counter Registration Required.

HIST 595: *Internship in History*
An opportunity for students to gain experience in public history. Students might work for a museum, historic site, government agency or archive, including the Lawrence University Archives. Arranged under the direction of an instructor in the department in accordance with the guidelines for academic internships as stated in the course catalog. The academic component of the internship includes readings related to the substance of the internship, discussions with the faculty supervisor, and a written report appropriate to the discipline. Course grades are based on this academic work. Units: Variable.

Prerequisite: Counter Registration Required.

HIST 599: *Independent Study in History*
A research project organized in consultation with an instructor, culminating in a major research paper. Students must consult in advance (preferably during spring registration) with the member of the department with whom they wish to work. Students considering an honors project should register for this course. Units: Variable.

Prerequisite: Counter Registration Required.

HIST 620: *Historiography*
A seminar examining both philosophical and methodological aspects of historical studies. Readings include modern treatises on the nature of history, select works of important philosophers of history, and examples of contemporary approaches to historical research and writing. Units: 6.

Prerequisite: Junior standing or consent of instructor

HIST 650: *The Practice of History*
A collaborative senior seminar culminating in an original and substantial piece of historical research. Students will be introduced to the standards of research and writing common to the historical profession and will be guided, as apprentice historians, through their own individual projects. Open to history majors who, having completed an advanced seminar, tutorial, or independent study, have outlined a research topic that they are prepared to pursue intensively. Units: 6.

Prerequisite: Senior standing or consent of instructor

HIST 690: *Tutorial Studies in History*
A reading program, specially designed and implemented in consultation with an instructor. Writing is required. Students must consult in advance with the member of the department with whom they wish to work. Units: Variable.

Prerequisite: Counter Registration Required.

HIST 691: ***Directed Study in History***
Directed study follows a syllabus set primarily by the instructor to meet the needs or interests of an individual student or small group of students. The main goal of directed study is knowledge or skill acquisition, not research or creative work. Units: Variable.

Prerequisite: Counter Registration Required.

HIST 695: ***Internship in History***
An opportunity for students to gain experience in public history. Students might work for a museum, historic site, government agency or archive, including the Lawrence University Archives. Arranged under the direction of an instructor in the department in accordance with the guidelines for academic internships as stated in the course catalog. The academic component of the internship includes readings related to the substance of the internship, discussions with the faculty supervisor, and a written report appropriate to the discipline. Course grades are based on this academic work. Units: Variable.

Prerequisite: Counter Registration Required.

HIST 699: ***Independent Study in History***
A research project organized in consultation with an instructor, culminating in a major research paper. Students must consult in advance (preferably during spring registration) with the member of the department with whom they wish to work. Students considering an honors project should register for this course. Units: Variable.

Prerequisite: Counter Registration Required.

Professors: Brandenberger (Physics, Alice G. Chapman Emeritus Professorship in Physics), Skran (Government, Edwin & Ruth West Professorship in Economics and Social Science), Troy (Theatre Arts, J. Thomas and Julie E. Hurvis Professorship in Theatre and Drama)

Associate professor: Galambos (Economics, Dwight and Marjorie Peterson Professor of Innovation, chair)

Instructor: Vaughan (Economics)

Lecturer: Pertl (Conservatory of Music, Dean of the Conservatory)

Introduction

The mission of the innovation and entrepreneurship (I&E) interdisciplinary area is to enable students to further pursue their passion through innovative and entrepreneurial ventures in courses and co-curricular activities. It is important to note that we use the word “innovative” in a particular sense, referring to creative, original thinking that leads to new ideas, products, or services that create value for society. Similarly, we use “entrepreneurial” in a specific way, referring to taking initiative and creating positive change in the world. Finally, our use of the word “venture” includes both for-profit and non-profit ventures, and more broadly any initiative to deliver a product or service in a sustainable way.

Innovation and entrepreneurship, understood in this sense, fit naturally into a liberal education. The cultivation of innovative, entrepreneurial thought and action requires one to approach problems from multiple perspectives, to think creatively beyond the status quo, to create and deliver coherent, persuasive arguments. These are essential skills that a liberal education aims to impart to its recipients. The I&E program is one place among many where Lawrence’s curriculum attempts to develop the ability to create what did not exist before. I&E courses attempt to enhance the ability to generate new ideas or processes. Certainly other courses do this in other ways. Graduates who embrace innovative and entrepreneurial attitudes will be better equipped to create fulfilling lives for themselves—lives that extend their liberal arts experience.

Required for the I&E interdisciplinary area

1. Three core courses:
    a. I-E 100: *In Pursuit of Innovation*
    b. I-E 110: *Financial Literacy*
    c. I-E 300: *Entrepreneurial Ventures*
2. At least one elective from:
    - MUEP 280: *The Entrepreneurial Musician*
    - GOVT 248: *Social Entrepreneurship*
    - ECON 405: *Economics of Innovation and Entrepreneurship*
    - ECON 400: *Industrial Organization*
    - I-E 410: *Topics of Finance*
    - Other courses in which aspects of innovation or entrepreneurship are central, such as Topics in Education Studies (EDST 450: *Educating for Creativity*); CMSC 410: *Systems Analysis and Design*
3. A second course from 2. above, or an additional course that is directly relevant to innovation and entrepreneurship. At this time these include:
    - ART 600: *Studio Art Senior Seminar*
    - RLST 245: *Apple, Google, Facebook*
    - ENG 503: *Contemporary American Poetry*
    - ANTH 210: *Research Methods in Cultural Anthropology*
    - FIST 245: *Interarts: New Media Projects*
    - ART 320: *Intermediate Printmaking* or ART 520: *Advanced Printmaking*
    - PHYS 340: *Optics*
4. Practicum: A 3-unit course or internship such as Start-Up Theatre, Rabbit Gallery, KidsGive, or Lawrence Baroque Ensemble; Internship in Studio Art (ART 395, 595, or 695), or others, including the option of a 400-level IS to continue a project started in a course. Alternatively, participation in the ACM Chicago Program with a focus on entrepreneurship.

COURSES

I-E 100: *In Pursuit of Innovation*
This course acquaints students with various aspects of innovation and entrepreneurship, broadly understood. Topics cover methodologies, theories, and history of innovation. The course focuses largely on projects pursued by teams which conceive and conduct ventures that illuminate innovation and entrepreneurship. Class activities include lectures, discussions, student presentations. Experienced guest experts will offer advice and guidance to student teams. May not be taken on an S/U basis. Units: 6.

Also listed as Economics 211

Prerequisite: Sophomore standing

I-E 110: *Financial Literacy*
A study of accounting principles and procedures, leading to a review of financial statements and to an understanding of how accounting data are used to analyze business and economic activities. Units: 6.

Prerequisite: Sophomore standing

I-E 191: *Directed Study in Innovation & Entrepreneurship*
Units: Variable.

Prerequisite: Counter Registration Required

I-E 195: *Practicum in Innovation & Entrepreneurship*
An opportunity for students to gain practical experience with innovation and entrepreneurship in the context of a for-profit or not-for-profit organization, an ongoing student venture (*e.g.*, Rabbit Gallery, Greyfell Theatre, Paper Fox Printmaking Workshop, or KidsGive), or a startup venture. The academic component of the internship includes readings related to the substance of the internship, discussions with the faculty supervisor, and a written report appropriate to the discipline. Course grades are based on this academic work. Units: Variable.

Prerequisite: Counter Registration Required

I-E 245: *Social Entrepreneurship*
Social entrepreneurs all over the world adopt and implement innovative ideas in order to address some of the world's most pressing problems. In this course, students will study the many dimensions of social entrepreneurship, especially those ventures that address problems of human rights and sustainable development. Units: 6.

Also listed as Government 248

Prerequisite: Sophomore standing or consent of instructor

I-E 255: *Start-Up Theatre*
Open to students from theatre, economics, and other students interested in entrepreneurship in the performing arts. Topics change each year. May be repeated when topic is different up to 6 total units. Units: Variable.

Also listed as Theatre Arts 255, Economics 255

Prerequisite: Sophomore standing

I-E 280: *The Entrepreneurial Musician*
A broad introduction to entrepreneurship for musicians, dancers, thespians, visual artists, and other interested students. This course aspires to give students the tools and the mindset to become agents of innovative, entrepreneurial change, social entrepreneurs or entrepreneurial artists. After presenting a social science view of entrepreneurship, the course will feature faculty from a variety of disciplines as well as visiting entrepreneurs. This is a project-oriented course with extensive speaking that will challenge convention, push you to new realms of creative thought, and stretch the boundaries of collaborative learning. Are you ready to unleash the power of the liberal arts? Units: 6.

Also listed as Music Education and Pedagogy 280

I-E 285: *The Eloquent Musician*
Course explores and promotes the art of speaking elegantly and knowledgeably about music in the context of live musical performance, and writing engagingly about music for a general audience. Course designed for music majors and other students with strong musical background and interest in interactive concerts and other public programs. Units: 6.

Also listed as Music Repertoire-Perf Study 285

Prerequisite: Major in music or consent of instructor

I-E 300: *Entrepreneurial Ventures*
This course provides a thorough introduction to business models and business plans as relevant for both non-profit and for-profit ventures. Students will work in teams to develop plans for a new enterprise. The course relies heavily on the expertise of invited speakers (including alumni) and the analysis of case studies. Each invited expert will give a guest lecture, lead discussion of a case study, and mentor students in their projects. Units: 6.

Prerequisite: I-E 110 and one of: I-E 100, I-E 280, or I-E 248

I-E 390: *Tutorial in Innovation & Entrepreneurship*
Units: Variable.

Prerequisite: Counter Registration Required

I-E 391: ***Directed Study in Innovation & Entrepreneurship***
Units: Variable.

Prerequisite: Counter Registration Required

I-E 395: ***Practicum in Innovation & Entrepreneurshp***
An opportunity for students to gain practical experience with innovation and entrepreneurship in the context of a for-profit or not-for-profit organization, an ongoing student venture (*e.g.*, Rabbit Gallery, Greyfell Theatre, Paper Fox Printmaking Workshop, or KidsGive), or a startup venture. The academic component of the internship includes readings related to the substance of the internship, discussions with the faculty supervisor, and a written report appropriate to the discipline. Course grades are based on this academic work. Units: Variable.

Prerequisite: Counter Registration Required

I-E 399: ***Independent Study in Innovation & Entrepreneurship***
Units: Variable.

Prerequisite: Counter Registration Required

I-E 590: ***Tutorial in Innovation & Entrepreneurship***
Units: Variable.

Prerequisite: Counter Registration Required

I-E 591: ***Directed Study in Innovation & Entrepreneurship***
Units: Variable.

Prerequisite: Counter Registration Required

I-E 595: ***Practicum in Innovation & Entrepreneurship***
An opportunity for students to gain practical experience with innovation and entrepreneurship in the context of a for-profit or not-for-profit organization, an ongoing student venture (*e.g.*, Rabbit Gallery, Greyfell Theatre, Paper Fox Printmaking Workshop, or KidsGive), or a startup venture. The academic component of the internship includes readings related to the substance of the internship, discussions with the faculty supervisor, and a written report appropriate to the discipline. Course grades are based on this academic work. Units: Variable.

Prerequisite: Counter Registration Required

I-E 599: ***Independent Study in Innovation & Entrepreneurship***
Units: Variable.

Prerequisite: Counter Registration Required

I-E 690: ***Tutorial in Innovation & Entrepreneurship***
Units: Variable.

Prerequisite: Counter Registration Required

I-E 691: ***Directed Study in Innovation & Entrepreneurship***
Units: Variable.

Prerequisite: Counter Registration Required

I-E 695: ***Practicum in Innovation & Entrepreneurship***
An opportunity for students to gain practical experience with innovation and entrepreneurship in the context of a for-profit or not-for-profit organization, an ongoing student venture (*e.g.*, Rabbit Gallery, Greyfell Theatre, Paper Fox Printmaking Workshop, or KidsGive), or a startup venture. The academic component of the internship includes readings related to the substance of the internship, discussions with the faculty supervisor, and a written report appropriate to the discipline. Course grades are based on this academic work. Units: Variable.

Prerequisite: Counter Registration Required

I-E 699: ***Independent Study in Innovation & Entrepreneurship***
Units: Variable.

Prerequisite: Counter Registration Required

Professor: Skran (Government, Edwin & Ruth West Professorship in Economics and Social Science, chair)

Introduction

The interdisciplinary area in international studies encourages students to discover the relationships among different societies. It is also intended to heighten their sensitivity to the degree to which cultural-linguistic factors affect perception of the world. The program offers students an opportunity to use skills and perspectives gained from study of modern languages and civilizations to enhance their understanding of international events and developments encountered in their studies in the social sciences and humanities.

Just as interdisciplinary areas (IAs) are intended to provoke students to examine the boundaries between their major fields and closely related fields of study, the interdisciplinary area in international studies is a vehicle through which students may discover and explore the international dimensions of their majors. It is also a means through which a student may demonstrate a commitment to enhanced understanding of those dimensions.

The interdisciplinary area in international studies has an informal, but natural, relationship with the social organization called Lawrence International. Students who participate in the interdisciplinary area should consider seriously membership in Lawrence International and should attend the meetings and functions of the organization. Lawrence International extends a warm welcome to all students and especially to those who evince interest in international matters.

Required for the interdisciplinary area in international studies

1. One six-unit course in a language other than English beyond the level required for completion of Lawrence's language requirement.
2. GOV 140 or GOV 150. Students should fulfill this requirement in the freshman or sophomore year. Juniors are discouraged from taking GOV 140, and the course is closed to seniors without the consent of instructor.
3. At least four six-unit courses, from at least three different departments, that embody international and/or cross-cultural context and that can be shown by the student to conform to a coherent design, either regional or thematic in nature. The student must present a clear articulation of the design either during a culminating conversation between the student and the Interdisciplinary Area Advisory Committee or in some other suitable context—e.g., an advanced-level seminar in international studies, when such an offering is available.
4. Notification of the faculty advisor by the first Friday of Term III of intention to complete the IA in the current academic year.

COURSES

GOVT 140: Introduction to International Relations

An introductory study of the cultural, political, and economic interactions among states and non-state actors in global politics. Special attention is paid to key issues, including international security, foreign policy decision-making, and the role of diplomacy in promoting cooperation. Required for the interdisciplinary area in international studies. Units: 6.

Professors: Fares (Spanish, chair), Podair* (History, Robert S. French Professor of American Studies), Richeson (Conservatory of Music), Troy (Theatre Arts, J. Thomas and Julie E. Hurvis Professorship in Theatre and Drama)

Associate professors: Frederick (History, chair), Tapia (Spanish)

Assistant professor: Encarnacion (Conservatory of Music, Director of Jazz Studies)

*On leave Term II

Introduction

Latin America is the product of one of the most dramatic intersections of human societies in world history. Europeans, Native Americans, and Africans began a process that has created a politically, socially, and economically complex region. Latin America and its peoples have played a vital role in the development of the modern world, and that role is only increasing at the start the 21st century. The minor in Latin American studies provides students an opportunity to study this field from a variety of disciplinary angles. By employing the tools of various disciplines, including anthropology, Spanish, economics, government, history, and others, students can begin the process of understanding this vast mosaic of peoples and nations.

Required for the minor in Latin American studies

Students must take six courses (at least 36 units), including:

1. Core requirements: 2 courses (normally 12 units), from the following list:
    - HIST 178: *Colonial Latin American History*
    - HIST 179: *Modern Latin American History 1821-Present*
    - HIST 371: *The Rise and Fall of American Empires*
    - HIST 374/SPAN 570: *Visions of the Conquest*
    - HIST 378/ETST 325: *Ethnicity in Latin America*
    - HIST 422: *Revolt and Revolution in Latin America*
    - SPAN 320: *Introduction to Literary Texts*
    - SPAN 425, 426/ARHI 270, 271: *Latin American Visual Art*
    - SPAN 430: *Introduction to Film*
    - SPAN 466: *Latin@ Studies*
    - SPAN 521: *Latin American Literature*
    - SPAN 577: *Space as Text*
    - SPAN 580: *Dis(re)membering the Nation: Contemporary Film & Fiction of Spain and Latin America*
    - SPAN 585: *Buenos Aires*
2. Electives: 4 courses (normally 24 units). Elective courses from other disciplines must allow students to focus their individual work on Latin America, and such work must count for at least 25 percent of the final grade for the course. Course content can change from term to term; therefore, when choosing electives, it is the responsibility of the student to speak to the professor to confirm that 25 percent of the graded work can be based on Latin American themes. Courses not included on this list may be used as electives provided they meet the above requirements.

- Conservatory courses with consent of the instructor and of one of the Program co-chairs.
- Up to one internship.

3. Limitations:
    - Only up to six units can be from an independent study or tutorial (550 level).
    - Only up to a maximum of 18 units can be from any single discipline (including cross-listed courses).
    - Only up to a maximum of 18 units can be from the student's major/minor.
    - Only up to two courses can be from under the 200 level.
    - A C average in the minor is required.
    - At least 60 percent of the units must be taken on the Appleton campus.

COURSES

ARHI 270: *Latin American Visual Art (in English)*
The course introduces the cultures of Latin America through a survey of its major movements and artists from the early 19th century to the present. Image-based lectures will be accompanied by discussion of visual and thematically related texts (*i.e.,* biographies, letters, scholarly articles) and carefully selected fragments of videos. Taught in English. Units: 6.

Also listed as Spanish 426

ETST 325: *Ethnicity in Latin America*
Explores the coming together of distinct Native, African, and European ethnicities in Latin America, and the resulting creation of new ethnicities. We examine how race has been understood in Latin American history and how attitudes toward race have fundamentally shaped the history of the region. Units: 6.

Also listed as History 378

Prerequisite: Sophomore standing; HIST 178 or HIST 179 recommended

HIST 178: *Colonial Latin American History*
An introduction to the creation and rule of Colonial Latin America between the 15th and 19th centuries. Emphasis is on the patterns of conquest and cultural encounter, mechanisms of colonial rule, interaction between ethnic groups, and the cultural impact of the colonial experience upon Latin America's peoples. (G&C) Units: 6.

HIST 179: *Modern Latin American History, 1821–Present*
An introduction to Latin America, from 1821 to the present. Focus is placed on new nations as they struggle to create themselves, and weather the challenges of external influence. Emphasis on how Latin America has developed ethnically, politically, and economically and how these factors affect its position in the world today. (G&C) Units: 6.

HIST 371: ***The Rise and Fall of American Empires: The Americas, from the Beginnings Through the Conquest***
A study of the Aztec, Inca, and Maya civilizations, focusing on cultural and technological development. Additional focus is on pre-Columbian cultural succession, imperial expansion of the Aztec and Incan empires, and native participation in the conquest. (G&C) Units: 6.

Prerequisite: Sophomore standing

HIST 374: ***Visions of Conquest***
The creation of Colonial Latin America meant the political, cultural and spiritual reconfiguration of society on both sides of the Atlantic. In this course, we will elucidate the process of conquest through the study of historical accounts, cultural artifacts of the colonizers and colonized alike, and relevant theoretical texts. This course is held concurrently with SPAN 470. Lectures, discussion, and reading and writing assignments are in English. Students interested in work in the Spanish language who have met the prerequisites should register for SPAN 470. (G&C) Units: 6.

Prerequisite: Sophomore standing

HIST 378: ***Ethnicity in Latin America***
Explores the coming together of distinct Native, African, and European ethnicities in Latin America, and the resulting creation of new ethnicities. We examine how race has been understood in Latin American history and how attitudes toward race have fundamentally shaped the history of the region. (G&C) Units: 6.

Also listed as Ethnic Studies 325

Prerequisite: Sophomore standing; HIST 178 or HIST 179 recommended

HIST 422: ***Revolt and Revolution in Latin America***
This seminar investigates resistance in its many forms in Latin American history. Attention to abstract notions of “revolution” will be complemented by evaluating how particular episodes of violent unrest in Latin America have served as the tools of both the weak and the powerful. (G&C) *Fulfills seminar requirement.* Units: 6.

Prerequisite: Junior standing and HIST 178 or 179, or consent of the instructor

SPAN 320: ***Introduction to Literary Texts***
An introduction to the critical analysis of texts that represent various periods, genres and authors in Latin American and Spanish literature. Readings of texts and theory, class discussions and composition tasks prepare students for other advanced courses in the Spanish program. Units: 6.

Prerequisite: SPAN 202, its equivalent, or consent of instructor. Not open to native speakers of Spanish

SPAN 400: ***Latin American Civilization and Culture***
A broad introduction to the culture of the Latin American continent and its relations to North American culture. The course presents Latin American civilization, history, economic and political situation, and diverse culture. Emphasis is placed on high cultural manifestations such as art and literature, as well as on the everyday habits of the people. Recommended for students who plan to participate in one of our study-abroad programs in Latin America. Units: 6.

Also listed as Ethnic Studies 480

Prerequisite: One 300-level Spanish course, its equivalent, or consent of instructor

SPAN 410: ***Gender, Politics, and Current Events in Latin America***
A critical analysis of current events in Latin America with a focus on gender and political issues. Through films, magazine articles, fiction, and selected radio and television broadcasts from Latin America, students will study major events that relate and give expression to the cultural mores of Latin Americans within the realm of gender and politics. The course allows students to continue to develop their oral communication skills in the target language and, with a wide range of topics and interests, to work toward an understanding of gender issues and political events that have shaped and transformed Latin America. Units: 6.

Also listed as Gender Studies 410

Prerequisite: One 300-level Spanish course, its equivalent, or consent of instructor

SPAN 425: ***Latin American Visual Art***
The course introduces the cultures of Latin America through a survey of its major movements and artists from the early 19th century to the present. Image-based lectures will be accompanied by discussion of visual and thematically related texts (i.e., biographies, letters, scholarly articles) and carefully selected fragments of videos. Units: 6.

Also listed as Art History 275

Prerequisite: One 300-level course in Spanish or consent of instructor

SPAN 426: ***Latin American Visual Art (in English)***
The course introduces the cultures of Latin America through a survey of its major movements and artists from the early 19th century to the present. Image-based lectures will be accompanied by discussion of visual and thematically related texts (*i.e.,* biographies, letters, scholarly articles) and carefully selected fragments of videos. Taught in English. Units: 6.

Also listed as Art History 270

SPAN 430: *Introduction to Film*
An introduction to the critical analysis of Latin American and Spanish film. Selected films represent various countries, genres and directors from Latin America and Spain. Readings of relevant film theory, class discussions and composition tasks prepare students for other advances courses in the Spanish program. Units: 6.

Also listed as Theatre Arts 352, Film Studies 330

Prerequisite: SPAN 202, its equivalent, or consent of instructor; not open to native speakers of Spanish.

SPAN 466: *Latin@ Studies (in English)*
This course covers the main cultural issues in Latin@ communities. It concentrates on the Latin@s of the United States, the definitions of these communities, and their cultural expressions. Through theoretical materials as well as literature, film, historical documents, testimony, etc., this course addresses a variety of subjects related to Latin@ culture. Taught in English. Units: 6.

Also listed as Ethnic Studies 583

Prerequisite: One 300-level Spanish course, its equivalent, or consent of instructor

SPAN 520: *Survey of Latin American Literature I*
A study of texts from Pre-Columbian and Spanish-speaking cultures from the 15th to 19th centuries, the period of “discovery writing” of Spanish colonies in Latin America, focusing on development and elaboration of genres and on the search for cultural and political emancipation from Spain. Units: 6.

Prerequisite: One 400-level Spanish course, its equivalent, or consent of instructor

SPAN 521: *Survey of Latin American Literature II*
A study of major Latin American writers and literary movements from the period of Independence (ca. 1810) to the 20th century. Units: 6.

Prerequisite: One 400-level Spanish course, its equivalent, or consent of instructor

SPAN 577: *Space as Text*
A critical analysis of the role of space and borders in contemporary literature. We will examine the critical theory on the topic and apply those insights to texts mainly from or about Latin American and the Atlantic regions. We will include spatial representations from the visual arts and films. Units: 6.

Prerequisite: One 400-level course in Spanish or consent of instructor

SPAN 580: ***Dis(re)membering the Nation: Contemporary Film & Fiction of Spain and Latin America***

A thematic analysis of film and fiction produced in the late and post-dictatorial context of Spain and several Latin American countries. The course studies the cultural processes of historical memory, collective trauma, oblivion, and questioning of national narratives in selected works from the past four decades. Readings include Manuel Puig's *Kiss of the Spider Woman*, Ariel Dorfman's *Death and the Maiden*, and Carmen Martin Gaite's *The Back Room*, as well as films by Lucrecia Martel, Victor Erice, Pablo Larrain, and Guillermo del Toro, among others. Units: 6.

Also listed as Film Studies 580

Prerequisite: One 400-level course in Spanish or consent of instructor

SPAN 585: ***Latin American Urban Cultures—Buenos Aires***

Urban cultures express the transformations of a globalized world. Taking the Buenos Aires case as its focus, the course analyzes the cultural production from, of, and about the city, from multiple perspectives, in order to achieve an understanding of the issues facing Latin American urban spaces in the 21st century. Units: 6.

Prerequisite: One 400-level Spanish course, its equivalent, or consent of instructor

Professors: Gottfried (Psychology), Ryckman (Philosophy)

Associate professors: Lunt* (German, chair Terms II and III), Sung (Chinese and Japanese), Williams (Education, chair Term I)

Assistant professors: Phelan (Philosophy), Proctor (Anthropology)

Instructors: Chiu (Chinese and Japanese, Schmidt Fellow and Instructor of Chinese), Galambosh, Makita (Chinese and Japanese)

*On leave Term I

Introduction

The goal of linguistics is the enrichment of knowledge about the nature, grammar, and history of human language. Linguistics is a theoretical and applied discipline, akin to philosophy, anthropology, and cognitive psychology.

The core areas of linguistic theory are phonology, morphology, syntax, and semantics. A grammar is a system of rules that characterize the phonology, morphology, syntax, and semantics of a natural language. The properties of grammars are the central focus of linguistic theory.

Because language is central to all humanistic disciplines, as well as to several social science areas, it is studied from many points of view. Linguistics itself cannot be said to recognize a single optimal approach to the subject; hence the courses provide a variety of approaches that reflect the diversity of the field.

Required for the linguistics major

1. LING 150: *Introduction to Linguistics*
2. Two of the following courses:
    - LING 335: *Introduction to Lexical Semantics*
    - LING 340: *Introduction to Syntax*
    - LING 350: *Introduction to Phonology*
    - LING 380: *Introduction to Morphology*
3. Two of the following courses:
    - LING 400: *Philosophy of Language*
    - LING 405: *How to Do Things With Words*
    - LING 420: *Topics in Logic*
    - LING 470: *Cognitive Linguistics*
4. Four elective courses chosen from either #2 and #3 above, or from the following list:
    - CMSC 150: *WWII Codebreaking*
    - CMSC 150: *Web Client Programming*
    - CMSC 150: *Introduction to Computer Science*
    - CMSC 210: *Introduction to Scientific Programming*
    - LING 120: *Language and Discrimination*
    - LING 210: *Language and the Law*

- LING 265: *Introduction to Japanese Language and Culture*
- LING 310: *Introduction to East Asian Linguistics*
- LING 320: *Historical Linguistics*
- LING 330: *Language and Culture*
- LING 360: *Second Language Acquisition*
- LING 370: *Phonetics*
- LING 374: *Advanced Grammar Studies (Spanish)*
- LING 375/376: *Spanish Phonetics*
- LING 430: *Methods in Linguistic Anthropology*
- LING 440: *Comparative Syntax*
- LING 450: *Psycholinguistics*
- LING 530: *The English Language*
- LING 531: *Semiotics*
- LING 545: *Gesture Studies*
- LING 190, 390, 590, 690: *Tutorial Studies in Linguistics*
- PHIL 150: *Symbolic Logic*

5. One of the following:
    - Study of two languages other than English, each for three terms (i.e. first-year level)
    - Completion of the fifth term of one language other than English (i.e. second-year level)
    - Study of one language other than English for four terms and the completion of an off-campus language program
6. LING 650: *Senior Seminar*

Required for the linguistics minor

1. LING 150: *Introduction to Linguistics*
2. Two of the following core courses:
    - LING 335: *Introduction to Lexical Semantics*
    - LING 340: *Introduction to Syntax*
    - LING 350: *Introduction to Phonology*
    - LING 380: *Introduction to Morphology*
    - LING 400: *Philosophy of Language*
    - LING 405: *How to Do Things With Words*
    - LING 420: *Topics in Logic*
    - LING 470: *Cognitive Linguistics*
3. Two courses selected from the list of electives, or from the list of core courses (#2 and #3 above).
4. C average in the minor

Required for the minor in teaching ESL

1. Three courses in linguistics:
    a. LING 150: *Introduction to Linguistics*
    b. LING 360: *Second Language Acquisition*
    c. LING 530: *The English Language* or a 3-unit Independent Study (LING 399) on the structure of English
2. Two courses in education:
    a. EDST 350: *Ethnicity, Cultural Diversity, and Education*
    b. EDUC 565: *Methods, Materials, and Assessment in ESL*
3. C average in the minor

Senior Experience in linguistics

The *Senior Experience* in the linguistics program consists of LING 650 and an independent study that may be carried out over one, two, or three terms. Students choose an area of interest and work with a faculty member who does work in that field, or closely related to that field. The independent study culminates in a research paper and an oral presentation to faculty and students in the linguistics program.

Possible venues for presentation include the annual linguistics Björklunden weekend, the Linguistics Tea, or the Richard A. Harrison Symposium.

Students pursuing double majors are encouraged to find a topic that combines their interests in both fields.

COURSES

LING 120: *Language and Discrimination*
This course examines language as a potential site of social statement and, sometimes, social conflict, particularly with respect to questions of “race” and ethnicity. We will explore language-based discrimination, beliefs about language and language variation, and ways language is used to construct and reflect social identities and social group boundaries. Units: 6.

LING 150: *Introduction to Linguistics*
Introduction to theory and methods of linguistics: universal properties of human language; phonetic, phonological, morphological, syntactic, and semantic structures and analysis; nature and form of grammar. Units: 6.

LING 191: *Directed Study in Linguistics*
Directed study follows a syllabus set primarily by the instructor to meet the needs or interests of an individual student or small group of students. The main goal of directed study is knowledge or skill acquisition, not research or creative work. Units: Variable.

Prerequisite: Counter Registration Required.

LING 210: *Language and the Law*
An introduction to the field of Forensic Linguistics, the application of linguistics to the language of the law. Topics will include the use of language by various participants in the legal process (judges, lawyers, police, witnesses), the plain-language movement, and the linguist as expert witness. Units: 6.

LING 225: *Language and The City*
This course examines the origins and consequences of linguistic diversity in London, using insights from sociolinguistics. We will use the city of London as a kind of laboratory in which to study how social forces influence language use and the ways that languages influence social structure. Units: 6.

Prerequisite: Must be attending the Lawrence London Centre

LING 255: *Introduction to Chinese Language and Culture*
A survey of the Chinese language family, its linguistic structure, dialectal variations, writing system, speech registers, interaction with other languages and the internet world, and its role in reflecting cultural and societal aspects such as social class, familial hierarchy, age and gender, and Confucianism. Taught in English. Units: 6.

Also listed as Chinese and Japanese 255

Prerequisite: CHJA 101 or consent of instructor

LING 265: *Introduction to Japanese Language and Culture*
A survey introducing major characteristics of Japanese language with reference to the structure of Japanese society. Topics include honorifics, use of pronouns, loan words, age and gender differences in the language. The course will also familiarize students with various aspects of traditional and contemporary Japanese culture. Units: 6.

Also listed as Chinese and Japanese 265, East Asian Studies 265

Prerequisite: Sophomore standing; CHJA 112 recommended

LING 310: *Introduction to East Asian Linguistics*
Survey of genetic, regional, and typological classification of East Asian languages; writing systems for Chinese, Japanese, Korean, and Tibetan languages; descriptive and comparative analyses of phonological, morphological, and syntactic structures of East Asian languages. More than one language may be investigated in detail. Units: 6.

Also listed as Chinese and Japanese 310, East Asian Studies 310

Prerequisite: LING 150 and sophomore standing

LING 320: *Historical Linguistics*
An introduction to the principles and procedures of historical and comparative linguistics: sound change, genetic classification, reconstruction, language variation, and comparative philology. Emphasis on Indo-European, with particular attention to methodology and the historical development of the discipline itself. Units: 6.

Prerequisite: LING 150 or consent of instructor

LING 325: *Introduction to Sociolinguistics*
This course presents an introduction to sociolinguistics, a discipline within linguistics concerned with the systematic investigation of language in relation to the social world. Topics include language variation and change, social identity and language use, linguistic diversity, and language ideologies. We will also practice methods for collecting and analyzing sociolinguistic data. Units: 6.

Prerequisite: LING 150

LING 330: *Language and Culture*
An introduction to the core concepts of linguistic anthropology, definitions of language, basic methods of linguistic anthropology (observation, transcription, analysis, ethnography), power and language, language discrimination, and language ideology theory. Lectures, discussions, and labs. Units: 6.

Also listed as Anthropology 330

Prerequisite: ANTH 110 or LING 150

LING 335: *Words, Words, Words: Introduction to Lexical Semantics*
This course introduces fundamental concepts and research issues in the linguistic study of word meaning. Topics include: representation of word meaning; relation between lexical, truth-conditional and context-dependent meanings; semantic relations; meaning variation; semantic properties of nouns and verbs (e.g. mass-count distinction, verb classes, aspect, semantic roles); interaction between content and function words. Units: 6.

Prerequisite: LING 150

LING 340: *Introduction to Syntax*
An introduction to descriptive analysis of morphological and syntactic structures in natural languages with an emphasis on gaining insight into the nature of such structures, rather than on linguistic formalization. Topics include levels of representation, X-bar theory, case theory, thematic roles, the lexicon, grammatical function-changing rules, and head-complement relations. Units: 6.

Prerequisite: LING 150 or consent of instructor

LING 350: *Introduction to Phonology*
An introduction to the formal study of phonetics, phonemics, and phonological analysis and theory. Topics include stress, syllable structure, tones, metrics, phonotactics, and links between phonology and morphology/syntax; exercises on familiar and unfamiliar languages. Units: 6.

Prerequisite: LING 150 or consent of instructor

LING 355: *Child Language Acquisition*
Every normally developing human acquires language in early childhood. This course explores how this feat is accomplished. We will examine data on children's linguistic knowledge at difference developmental stages and what types of theories might explain these data. Students will also have the opportunity to analyze real child language data. Units: 6.

Prerequisite: LING 150, or PSYC 260 or PSYC 265

LING 360: *Second Language Acquisition*
This course will introduce various issues in the study of second-language acquisition from different perspectives. Topics will include comparisons to first-language acquisition, factors related to second-language acquisition, and learner strategies. Units: 6.

Prerequisite: LING 150 or consent of instructor

LING 370: *Phonetics*
An introduction to the science of speech sounds, focusing on descriptive and experimental studies of articulation and speech acoustics. Laboratory demonstrations of speech production, acoustical analysis, and speech synthesis are combined with lecture/demonstrations to relate phonetics research to theories of phonology and language acquisition. Units: 6.

Also listed as Psychology 375

Prerequisite: LING 150, PSYC 340, or consent of instructor

LING 374: *Advanced Grammar Studies*
In-depth study of grammar, syntax, and composition that builds on concepts learned in the intermediate courses. Problem areas, particularly at the advanced level of the language, are studied systematically. Units: 6.

Also listed as Spanish 345

Prerequisite: SPAN 202, its equivalent, or consent of the instructor

LING 375: *Spanish Phonetics*
Spanish Phonetics will immerse students in the pronunciation and general phonetics of the Spanish language as it is spoken in Spain and Latin America. The course will help students to perfect their accent in Spanish and make them aware of the different accents of spoken Spanish. It also will serve Conservatory of Music students who desire to practice their diction in Spanish. Taught in Spanish. Course does not count towards the humanities general education requirement for B.A. and B.A./B.Mus. students. Not open to native speakers of Spanish. Units: 6.

Also listed as Spanish 340

Prerequisite: SPAN 202, its equivalent, or consent of instructor; not open to native speakers of Spanish

LING 380: *Introduction to Morphology*
An introduction to morphology, the study of the internal structure of words. Topics include the concept of the morpheme, the structure of words and processes of word formation, inflection versus derivation, and issues in morphological theory. The assignments involve in-depth analyses of data from various languages. Units: 6.

Prerequisite: LING 150

LING 390: *Tutorial Studies in Linguistics*
Available to advanced students of linguistics. Units: Variable.

Prerequisite: Counter Registration Required.

LING 391: *Directed Study in Linguistics*
Directed study follows a syllabus set primarily by the instructor to meet the needs or interests of an individual student or small group of students. The main goal of directed study is knowledge or skill acquisition, not research or creative work. Units: Variable.

Prerequisite: Counter Registration Required.

LING 399: *Independent Study in Linguistics*
Available to advanced students of linguistics. Units: Variable.

Prerequisite: Counter Registration Required.

LING 400: *Philosophy of Language*
An examination of major theories of meaning, reference, and cognitive content and an attempt to understand how language functions to relate “internal” psychological states to things in the “external” world. Contemporary philosophers are emphasized. Units: 6.

Also listed as Philosophy 400

Prerequisite: One course in philosophy, junior standing, or consent of instructor; PHIL 150 recommended

LING 405: *How to Do Things With Words*
An examination of major and cutting edge topics in the philosophy of language and linguistics. Where do word meanings come from? How can one word mean different things in different contexts? How do we promise or make commitments? Why do slurs hurt and jokes amuse? What is the nature of metaphor? Where does the border between what words mean and what speakers mean with words lie? These and other questions will be considered. Appropriate for students with an interest in philosophy, linguistics, or cognitive science. Units: 6.

Also listed as Philosophy 405

Prerequisite: One course in philosophy, junior standing, or consent of the instructor

LING 420: *Topics in Logic*
An investigation of topics selected from among the following: consistency and completeness theorems for both sentential and predicate logic, Gödel’s Incompleteness Theorem, logical paradoxes (Russell’s Paradox, the Liar Paradox, and Newcomb’s Paradox), and modal-tense logic and its formal semantics. Units: 6.

Also listed as Philosophy 420

Prerequisite: PHIL 150 or consent of instructor

LING 430: *Methods in Linguistic Anthropology*
A hands-on introduction to advanced linguistic anthropology and sociolinguistics methods and relevant theories. Will cover transcription, discourse analysis, conversion analysis, and narrative analysis. Classes will be a combination of labs, workshops, and seminars. Prerequisites are non-negotiable. Units: 6.

Also listed as Anthropology 430

Prerequisite: Junior standing, and ANTH 210 or ANTH 330

LING 450: *Topics in the Psychology of Language*
An examination of the nature and structure of language, integrating knowledge from linguistics, psychology, neurophysiology, and sociology. Focus on the psychological theories and experimental evidence about language production and perception. Units: 6.

Also listed as Psychology 540

Prerequisite: PSYC 340, LING 150, or consent of instructor

LING 470: *Cognitive Linguistics*
Cognitive linguistics is a subfield of linguistics and cognitive science that studies conceptual structure, language, and meaning in relation to general cognitive mechanisms. Topics include cognitive and construction grammars, categorization, construal, image schemas, mental spaces, conceptual metaphors, and conceptual blending. Units: 6.

Prerequisite: LING 150 or consent of instructor

LING 530: *The English Language*
A study of the sounds, structure, usage, and history the English language. Units: 6.

Also listed as English 530

Prerequisite: LING 150 and sophomore standing, or consent of instructor

LING 531: *Semiotics*
Semiotics is the study of signs, symbols, and signification in social life. This course will cover semiotic theory, including theorists such as Saussure, Peirce, Jakobson, Lévi-Strauss, Barthes, and Bakhtin, and the application of semiotics to the study of language and social life, conducted through lectures and seminar-style discussions. Units: 6.

Also listed as Anthropology 531

Prerequisite: ANTH 330/LING 330

LING 545: *Gesture Studies*
Gesture studies is an interdisciplinary field that examines the use of the hands and other parts of the body in communication and cognition. In this seminar we discuss studies of gesture types, universals, and variations; gesture development; gesture production and perception; relations of gesture to thought and language (spoken and signed); and functions of gesture in human interaction, problem-solving, and learning. Units: 6.

Also listed as Education Studies 545, Psychology 545

Prerequisite: One course in linguistics or psychology, or consent of the instructor

LING 590: *Tutorial Studies in Linguistics*
Available to advanced students of linguistics. Units: Variable.

Prerequisite: Counter Registration Required.

LING 591: *Directed Study in Linguistics*
Directed study follows a syllabus set primarily by the instructor to meet the needs or interests of an individual student or small group of students. The main goal of directed study is knowledge or skill acquisition, not research or creative work. Units: Variable.

Prerequisite: Counter Registration Required.

LING 599: *Independent Study in Linguistics*
Available to advanced students of linguistics. Units: Variable.

Prerequisite: Counter Registration Required.

LING 650: *Senior Seminar*
In this course students do substantial preparatory work for their senior experience project in linguistics. They identify and develop a research question, do preliminary research, and write a well-conceived research proposal. Topics include linguistic data collection, linguistic argumentation and analysis, and standards of academic writing in linguistics. Units: 6.

Prerequisite: Senior standing

LING 690: *Tutorial Studies in Linguistics*
Available to advanced students of linguistics. Units: Variable.

Prerequisite: Counter Registration Required.

LING 691: ***Directed Study in Linguistics***
Directed study follows a syllabus set primarily by the instructor to meet the needs or interests of an individual student or small group of students. The main goal of directed study is knowledge or skill acquisition, not research or creative work. Units: Variable.

Prerequisite: Counter Registration Required.

LING 699: ***Independent Study in Linguistics***
Available to advanced students of linguistics. Units: Variable.

Prerequisite: Counter Registration Required.

Professors: Parks, Pourciau

Associate professors: Corry, Gregg** (chair), Krebsbach, Sanerib*

Assistant professor: Loy

Visiting assistant professors: Rocks

*On leave Term I; **On leave Term III

Introduction

Pattern and form surround us—from the branching angles of our blood vessels and the complexity of computer algorithms to inventory scheduling and the four-dimensional geometry of our universe. As the pure expression of pattern and form, mathematics provides the language for science. In the past 100 years, many disciplines have been virtually transformed by the infusion of mathematics, so that alongside the traditional field of mathematical physics, one now finds new disciplines such as mathematical biology, mathematical ecology, mathematical economics, mathematical linguistics and mathematical psychology.

But mathematics is so much more than its applications. As the study of formal structures, mathematics offers a supreme beauty, an abstract forest of pattern and form, at once deep, intricate, logical, and surprising, a forest holding wonders both known and unknown. The search for these wonders is no game, for mathematics bears on eternal truth: Primes—such as 2, 3, 5, 7, 11, 13, ...—cannot be written as the product of two smaller integers. How many primes are there? Infinitely many. This is a well-known wonder proved by Euclid. Twin primes—such as 3 and 5, 5 and 7, 11 and 13, 17 and 19, ...—are “consecutive” primes. How many twin primes are there? No one knows. Mathematicians have unleashed their most sophisticated weapons on this problem, but the question remains unanswered. It is an unknown wonder. Will you be the first to find the answer? Whatever the answer, it is an eternal and universal truth: true for all time, in all places, to every intellect.

To reflect the diversity of modern mathematics and its applications, the department, alone or in conjunction with the economics department, offers three separate majors:

- Mathematics
- Mathematics-computer science
- Mathematics-economics

Our core sophomore sequence provides majors with a firm foundation in the two pillars of mathematics (Abstract Algebra and Real Analysis), paving the way for exploration of diverse elective offerings at the junior and senior level. We offer courses in many areas of pure and applied mathematics, elementary and advanced statistics, and computer science. Majors engage in a one-term independent study during their senior year, working on a topic of their choice under the guidance of a faculty member.

This transforming experience demonstrates a student's ability to learn mathematics with little supervision and to clearly and cogently express this knowledge both verbally and in writing.

The department offers a number of elementary- and intermediate-level courses designed to meet the needs of students who wish to continue the study of mathematics or to complete required work in another major.

Lawrentians majoring in mathematics and/or computer science prepare themselves for a wide variety of interesting careers, but wherever life takes them, they have one thing in common—the logical and precise, yet intuitive and creative, habit of mind instilled by the serious study of abstract mathematics.

For a full description of Lawrence's computer facilities and for descriptions of the computer science courses visit the computer science web page.

Required for the mathematics major

1. Complete or place out of the calculus sequence: MATH 140, 150, and 160
2. One of the following:
    - MATH 210
    - MATH 220
    - MATH 240
3. One computer science course numbered 110 or above (excluding 170)
4. MATH 300 and 310
5. 24 additional units in mathematics courses numbered 400 or above
6. Completion of a 6-unit independent study project in at least one term of the senior year.
7. A C average in the major.

COURSE SUGGESTIONS

In choosing courses beyond the core sequence, students should note that certain advanced courses may be particularly relevant to majors with specific interests or career goals. These lists offer suggestions; students are not expected to take all the courses in a given list.

- Pure mathematics: 410, 525, 530, 535, 540, 545, 550, 560, 565, and 600
- Computer science: 420, 435, 525, 540, and 565
- Operations research: 410, 420, 435, 440, 445, 525, and 550
- Applied mathematics: 410, 420, 435, 440, 445, 535, and 550
- Statistics and actuarial science: 410, 420, 435, 440, 445, and 550
- Engineering: 410, 420, 435, 440, 535, and 550
- Secondary teaching: 410, 495, 525, 530, 535, 545, 550, and 600

Required for the mathematics minor

1. Calculus through MATH 160
2. One of the following:
    - MATH 210
    - MATH 220
    - MATH 240
3. MATH 300 and MATH 310
4. 6 units in any one upper-level mathematics course numbered from 400 to 600, except MATH 495
5. C average in the minor.

Required for the interdisciplinary mathematics-computer science major

1. The core sequence: MATH 140, 150, 160 and CMSC 150, 250, 270
2. MATH 220 and 300
3. CMSC 460, 510, 515
4. 6 additional units in mathematics courses selected from:
    - MATH 310
    - MATH 420
    - MATH 525
    - MATH 540
5. 6 additional units in a computer science course numbered 400 or above
6. 6 additional units in a computer science course numbered 400 or above or selected from among MATH 310, 420, 525, and 540
7. Completion of an independent study project prior to the Spring Term of the senior year
8. CMSC 600 in the senior year

Required for the interdisciplinary mathematics-economics major

1. The mathematics component of the major is:
    - MATH 140, 150, 160, 240, 300, 310
    - Either MATH 435 or 445
    - 6 additional units in a mathematics course numbered 400 or above, with 435, 440, 445, or 560 recommended
2. The economics component of the major is:
    - ECON 100
    - ECON 300, 320, and 380 (majors must take all three courses prior to completion of the junior year. The Economics department must approve any exception.)
    - Any three six-unit courses numbered between 400 and 580
3. The interdisciplinary component of the major is:
    - Completion of an independent study project that has been approved by both departments.
    - A major must have an advisor in each department.

Tutorials

The department views tutorials as opportunities to enhance its usual course offerings, not duplicate them. In order to reserve tutorials for this purpose, no tutorials are given for courses routinely offered, and the department does not normally permit a tutorial to be used to satisfy any requirement for the major.

First-year courses

The department offers two calculus sequences: MATH 140, 150, 160 (*Calculus I, II, III*) and MATH 120, 130 (*Applied Calculus I, II*). Students intending to major in mathematics, mathematics-computer science, mathematics-economics, physics, or chemistry, or any student intending to take advanced mathematics courses, must complete the Calculus I, II, III sequence. Properly prepared students should enter this calculus sequence their freshman year. Proper preparation means strong high school mathematics, including a pre-calculus or elementary functions course. Strong scores in a standard college preparatory exam offer good evidence, as well. Students who lack this preparation yet need the three-course sequence should consult their advisor and the mathematics department as soon as possible.

The *Applied Calculus I, II* sequence is designed to introduce students to the mathematics used in the social and life sciences. This sequence demands less technical proficiency than does the *Calculus I, II, III* sequence. Good performance in high school mathematics through the junior year should be adequate preparation.

Advanced placement

Advanced placement in the *Calculus I, II, III* sequence and up to 12 Lawrence units may be obtained by presenting a score of 4 or 5 on the AB or BC calculus exams administered by the College Board or by performing well on an exemption-credit exam given by the department during Welcome Week. Consult the department for details. Students intending to enter *Calculus I* should not take the department's exemption-credit exam.

Advanced placement and six Lawrence units (for CMSC 150) may be obtained by scoring 4 or 5 on the A or AB College Board computer science exam. Consult the department for proper placement.

Six Lawrence units (for MATH 107) may be obtained by scoring 4 or 5 on the College Board statistics exam. Consult the department for proper placement.

Off-campus and cooperative programs

Students wishing to combine a liberal arts degree with engineering should consider the 3-2 program in engineering.

The department encourages students to apply to the many Research Experiences for Undergraduates (REU) programs funded by the National Science Foundation; in these summer programs, students are paid to participate in research teams at various campuses throughout the country. Students may also be interested in the Budapest Semester in Mathematics or in one of several other off-campus study options. Department faculty members can provide details.

Course numbering

Typically, course numbered below 400 are offered each year, while courses numbered 400 or higher are offered every other year.

Senior Experience in mathematics

The mathematics department's *Senior Experience* consists of a 6-unit (typically one-term) independent study project completed in the senior year. The project must demonstrate the capacity to learn mathematics (or statistics) independently or to utilize mathematics or mathematical technique as an innovative or substantive part of a larger project.

Interdisciplinary mathematics-economics majors must demonstrate the ability to combine topics in both disciplines—bringing appropriate techniques of mathematics or statistics to bear on the study of economics, or learning mathematics or statistics suggested by economic models

Interdisciplinary mathematics-computer science majors must complete their independent study project in two parts: an independent study in the Fall or Winter Term of the senior year (usually 3 units), followed by a presentation of their results in the Winter Term Computer Science Senior Seminar (3 units).

For mathematics and mathematics-computer science majors, the project must be approved and supervised by a faculty member in the mathematics department. For mathematics-economics majors, the project must be approved by a faculty member of each department and supervised by a member of one of the departments. Students should consult with departmental members in the spring before their senior year, in order to plan appropriately for their *Senior Experience*.

COURSES

MATH 107: *Elementary Statistics*
For students in all disciplines. Provides the background needed to evaluate statistical arguments found in newspapers, magazines, reports, and journals and the logic and techniques necessary to perform responsible elementary statistical analysis. Topics include basic data analysis, one-variable regression, experimental and sampling design, random variables, sampling distributions, and inference (confidence intervals and significance testing). This course may not be taken on a Satisfactory/Unsatisfactory basis. Units: 6.

Prerequisite: Sophomore standing.

MATH 120: *Applied Calculus I*
A course in the applications of mathematics to a wide variety of areas, stressing economics and the biological sciences. Topics may include recursive sequences and their equilibria, the derivative of a function, optimization, fitting abstract models to observed data. Emphasis placed on algebraic and numerical techniques and on understanding the role of mathematical thinking. Mathematics 120 and 130 do not prepare students for more advanced courses in mathematics. Units: 6.

Prerequisite: Three years of high school mathematics;

MATH 130: *Applied Calculus II*
A continuation of math 120. Topics may include the indefinite and definite integral, elementary linear algebra including matrix arithmetic and solving linear equations, vectors, partial derivatives, Lagrange multipliers. Both algebraic and numerical computations. Units: 6.

Prerequisite: MATH 120 or the equivalent

MATH 140: *Calculus I*
Functions, limits, derivatives, the Mean Value Theorem, definition and properties of integrals, the Fundamental Theorem of Calculus, and applications to related rates, curve sketching, and optimization problems. Placement exam not required. Units: 6.

Prerequisite: Four years of high school mathematics

MATH 150: *Calculus II*
Applications of integration, exponential and logarithmic functions, techniques of integration, infinite sequences and series, and Taylor series. Units: 6.

Prerequisite: Advanced placement, MATH 140, or MATH 120 and consent of instructor

MATH 160: ***Calculus III***
Functions of two or more variables, partial derivatives, chain rules, optimization, vectors, derivatives of vector-valued functions, Lagrange multipliers, multiple integrals, line integrals, and Green's Theorem. Units: 6.

Prerequisite: MATH 150 or advanced placement

MATH 191: ***Directed Study in Mathematics***
Directed study follows a syllabus set primarily by the instructor to meet the needs or interests of an individual student or small group of students. The main goal of directed study is knowledge or skill acquisition, not research or creative work. Units: Variable.

Prerequisite: Counter Registration Required.

MATH 210: ***Differential Equations with Linear Algebra***
A study of differential equations and related techniques in linear algebra. Topics include first-order equations and their applications, existence and uniqueness of solutions, second-order linear equations and their applications, series solutions, systems of first-order equations, vector spaces and dimension, linear transformations, and eigenvalues. Units: 6.

Prerequisite: MATH 160, or MATH 150 and consent of instructor

MATH 217: ***Applied Statistical Methods***
A second course in statistics that covers analyses needed to solve more complicated data-driven problems. Time permitting, topics include multiple regression, analysis of variance, categorical data analysis, nonparametric tests, bootstrap methods, and permutation tests. Class meetings are a mixture of lecture, discussion, and use of statistical software to investigate real data. Units: 6.

Prerequisite: AP examination credit in statistics or MATH 107

MATH 220: ***Applied Combinatorics***
An introduction to logic, proofs by mathematical induction, and elementary combinatorics. Additional topics include recurrence relations, generating functions, and the principle of inclusion-exclusion. Units: 6.

Prerequisite: MATH 150

MATH 223: ***Quantitative Decision-Making***
The students will learn how to develop formal, quantitative approaches to structuring difficult problems, particularly those problems involving probabilistic factors. We will develop and practice the steps of defining a problem, gathering data, formulating a model, performing numerical calculations, evaluating numerical information, refining the model, analyzing the model's alternatives, and communicating the results. Units: 6.

Also listed as Economics 223

Prerequisite: Sophomore standing

MATH 240: ***Probability***
An introduction to probability and its applications. Topics will include combinatorial and axiomatic probability, conditional probability and Bayes' Theorem, random variables, expectation and variance, discrete and continuous probability distributions, joint and conditional distributions, and limit laws. Units: 6.

Prerequisite: MATH 160, or MATH 150 and consent of instructor

MATH 300: ***Foundations of Algebra***
An introduction to the rigorous study of mathematics. Topics include elementary theory of sets and mappings, number theory, equivalence relations, finite groups, homomorphisms, quotient groups, and rings. Units: 6.

Prerequisite: MATH 210, 220, or 240

MATH 310: ***Foundations of Analysis***
A study of the concepts that underlie mathematical analysis: the completeness of the real numbers, convergence, continuity, derivatives, integrals, infinite series, and, if time permits, an introduction to metric spaces or Fourier series. Units: 6.

Prerequisite: MATH 300

MATH 390: ***Tutorial Studies in Mathematics***
Advanced work in mathematics on topics not covered in regular offerings. Units: Variable.

Prerequisite: Counter Registration Required.

MATH 391: ***Directed Study in Mathematics***
Directed study follows a syllabus set primarily by the instructor to meet the needs or interests of an individual student or small group of students. The main goal of directed study is knowledge or skill acquisition, not research or creative work. Units: Variable.

Prerequisite: Counter Registration Required.

MATH 399: ***Independent Study in Mathematics***
Guided independent study of an advanced topic in undergraduate mathematics or supervised work on an undergraduate research project, generally culminating in a final presentation and/or paper. Units: Variable.

Prerequisite: Counter Registration Required.

MATH 400: ***Partial Differential Equations***
A survey of techniques used in modeling physical systems, with particular emphasis on partial differential equations and methods used to attack problems that do not have clean or simple solutions. Topics include techniques for solving partial differential equations exactly, the Fourier transform, perturbation theory, variational methods, Monte Carlo techniques, and finite difference schemes. Units: 6.

Prerequisite: MATH 300 or consent of instructor

MATH 410: ***Linear Algebra***
A study of vector spaces, linear transformations, and their representations. The focus will be on algebraic and coordinate-free methods, and topics will include dimension, dual spaces, determinants, canonical forms, inner product spaces, and the spectral theorem. Units: 6.

Prerequisite: MATH 300

MATH 420: ***Numerical Analysis***
Computer approximated (numerical) solutions to a variety of problems with an emphasis on error analysis. Interpolation, evaluation of polynomials and series, solution of linear and non-linear equations, eigenvectors, quadrature (integration), and differential equations. Units: 6.

Prerequisite: MATH 300 and CMSC 110 or CMSC 150

MATH 430: ***Statistical Modeling***
An exploration of methods to select, fit, evaluate and compare statistical models, while also providing an introduction to statistical inference. Lectures will develop the necessary theory for regression models while maintaining the focus on applications. Students will complete regular assignments as well as a midterm and final exam. Units: 6.

Prerequisite: MATH 240

MATH 435: ***Optimization***
The study of local and global maximums and minimums of function, given various sorts of constraints. Linear problems and the simplex algorithm, general non-linear problems and the Kuhn-Tucker conditions, convex problems. Perturbation of problem parameters and duality. Applications to a wide variety of fields, including economics, game theory, and operations research. Units: 6.

Prerequisite: MATH 310

MATH 440: *Probability Theory*
The mathematics of chance: probability, discrete and continuous random variables and their distributions, moments, jointly distributed random variables, conditional distributions, the Central Limit Theorem, and weak and strong convergence. Units: 6.

Prerequisite: MATH 310

MATH 445: *Mathematical Statistics*
Development of the mathematical theory of statistics and its application to the real world. The course will focus on the principles of estimation and testing from both the frequentist and Bayesian perspectives. Resampling methods (permutation tests and bootstrap intervals) will also be explored. Units: 6.

Prerequisite: MATH 310 and MATH 440

MATH 525: *Graph Theory*
A survey of graph theory that balances the abstract theory of graphs with a wide variety of algorithms and applications to “real world” problems. Topics include trees, Euler tours and Hamilton cycles, matchings, colorings, directed graphs, and networks. Units: 6.

Prerequisite: MATH 300

MATH 530: *Topics in Geometry*
The axiomatic development of euclidean and non-euclidean geometry, including the historical and philosophical issues raised by the “non-euclidean revolution.” Additional topics, such as projective or differential geometry and convexity, may be included. Units: 6.

Prerequisite: MATH 300

MATH 535: *Complex Analysis*
An introduction to functions of a complex variable, the Cauchy-Riemann equations, conformal mappings, Cauchy’s theorem, Cauchy’s integral formula, Taylor and Laurent series, and a sampling, as time and interest permit, of the corollaries to Cauchy’s theorem. Units: 6.

Prerequisite: MATH 310

MATH 545: *Rings and Fields*
Modern algebra with topics selected from group theory, ring theory, field theory, classical geometric construction problems, and Galois theory. Emphasis on the use of mathematical abstraction to illuminate underlying relationships and structure. Units: 6.

Prerequisite: MATH 300

MATH 550: *Topics in Analysis*
Selected topics in analysis covering a wide variety of spaces and leading to applications of classical importance. In recent years, topics have included fixed point theory, inverse and implicit function theorems, abstract theory of differential equations, Lebesgue measure and integration, Fourier series and transforms. Units: 6.

Prerequisite: MATH 310

MATH 555

A study of interconnections between abstract algebra (especially finite group theory) and combinatorics (especially graph theory). Topics will include classical results (such as the matrix-tree theorem), as well as recent subjects and advances (such as the abelian sandpile model and the Riemann-Roch theorem for graphs). Units: 6.

Prerequisite: MATH 300

MATH 560: *Topology*
A study of metric and topological spaces, including continuity, compactness, connectedness, product and quotient spaces. Additional topics may include Zorn's Lemma, separation properties, surfaces, the fundamental group, and fixed point theorems. Units: 6.

Prerequisite: MATH 310

MATH 565: *Number Theory*
A study of the integers, including unique factorization, congruences, and quadratic reciprocity. Other topics may include finite fields, higher reciprocity laws, and algebraic number theory. Units: 6.

Prerequisite: MATH 300

MATH 590: *Tutorial Studies in Mathematics*
Advanced work in mathematics on topics not covered in regular offerings. Units: Variable.

Prerequisite: Counter Registration Required.

MATH 591: *Directed Study in Mathematics*
Directed study follows a syllabus set primarily by the instructor to meet the needs or interests of an individual student or small group of students. The main goal of directed study is knowledge or skill acquisition, not research or creative work. Units: Variable.

Prerequisite: Counter Registration Required.

MATH 599: ***Independent Study in Mathematics***
Guided independent study of an advanced topic in undergraduate mathematics or supervised work on an undergraduate research project, generally culminating in a final presentation and/or paper. Units: Variable.

Prerequisite: Counter Registration Required.

MATH 600: ***History of Mathematics***
A study of the history of mathematics from the ancient Greeks through the present, emphasizing the role of mathematics in scientific advances, the work of great mathematicians, and the modern branching of the subject into a multitude of specialties. Units: 6.

Prerequisite: MATH 310

MATH 690: ***Tutorial Studies in Mathematics***
Advanced work in mathematics on topics not covered in regular offerings. Units: Variable.

Prerequisite: Counter Registration Required.

MATH 691: ***Directed Study in Mathematics***
Directed study follows a syllabus set primarily by the instructor to meet the needs or interests of an individual student or small group of students. The main goal of directed study is knowledge or skill acquisition, not research or creative work. Units: Variable.

Prerequisite: Counter Registration Required.

MATH 699: ***Independent Study in Mathematics***
Guided independent study of an advanced topic in undergraduate mathematics or supervised work on an undergraduate research project, generally culminating in a final presentation and/or paper. Units: Variable.

Prerequisite: Counter Registration Required.

Professor: Peregrine (Anthropology)

Associate professors: Rico (History), Rinehart (Art and Art History), Sedlock (Biology)

Assistant professors: Dix (Library, university archivist), Fleshman (Chemistry), Tilghman* (Art and Art History), Zinsli (Art and Art History, director and curator of the Wriston Art Center Galleries)

*On leave Term III

Introduction

As centers of research and education, and as repositories for cultural heritage, museums play an important role in our society. The museum studies interdisciplinary area provides students with a structure through which to learn about museums as a complement to both their major and the liberal arts as a whole. In addition, museums and related institutions provide career opportunities that take full advantage of a liberal arts degree. Museum professionals must be able to gain expertise in diverse areas, they must enjoy both independent research and interaction with the public, they must be both creative and analytical, and they must be able to operate within (and even to run) complex and often under-funded organizations.

The museum studies interdisciplinary area is designed to introduce students to the historical and theoretical foundations of museums and other preservation and research institutions, as well as to provide them with the practical skills and knowledge needed to work in such institutions. It is intended to be a supplement to a major in any area. This IA will have a clear use for students in such fields as anthropology, art, art history, natural sciences, and history, but students across the divisions will find the interdisciplinary area useful if they have an interest in pursuing a career in the museum field.

Required for the interdisciplinary area in museum studies

1. Two core courses:
    a. ANTH 222: *Historic Preservation Theory and Practice*
    b. ARHI 315: *Introduction to the Art Museum*
2. Three additional six-unit courses with significant museum studies content, selected in consultation with museum studies faculty. See the following list for suggested courses that would fulfill this requirement. Students are strongly encouraged to take at least one course that emphasizes visual analysis.
3. At least one from:
    a. Six units of ANTH 422: *Archaeological Collections Management*
    b. Six units of independent study working in the Wriston Art Gallery or the University Archives
    c. A six-unit internship at a museum, historic site, or similar institution, from an appropriate academic department

COURSES

ANTH 220: *Research Methods in Archaeology*
Presents the research process in archaeology and offers an overview of essential data-collection and analysis techniques, including site survey and excavation, settlement pattern analysis, lithic analysis, and ceramic analysis. Students will take part in field research. Units: 6.

Also listed as Environmental Studies 260

Prerequisite: ANTH 120

ANTH 222: *Historic Preservation Theory and Practice*
Historic preservation endeavors to identify and conserve historic objects, properties, and landscapes. It has become a focal task for many anthropologists today. This course introduces students to the basic theory of historic preservation, the laws guiding practice, and the techniques used by historic preservation professionals. Units: 6.

ANTH 322: *Archaeology of North America*
An introduction to the ancient peoples of North America from the initial colonists to the peoples who encountered European colonists some 13,000 years later. Special emphasis is given to the ancient inhabitants of the Great Lakes region. Units: 6.

Prerequisite: ANTH 120

ANTH 326: *Bizarrchaeology*
Much of the public's interest in archaeology focuses on "mysteries" of the past or allegedly "unexplainable" phenomena. Since the past is largely impossible to know, it is easy to uncritically fill it with products of the imagination rather than products of ancient peoples. This course examines some of these "imaginary" pasts and the practice of creating them. Units: 6.

Prerequisite: ANTH 120

ANTH 328: *Ethics in Archaeology: Who owns the past?*
An exploration of ethical and legal concerns surrounding archaeology: the ownership and treatment of archaeological remains and relations between archaeologists and descendent communities. Topics include the ethics and legality of collecting looting, and the antiquities market; archaeology and nationalism; repatriation of skeletons and artifacts; and professional responsibilities of archaeologists. Units: 6.

Also listed as Art History 325, Classics 368

Prerequisite: Sophomore standing and ANTH 120, an ARHI course (preferably ancient to Renaissance), or consent of instructor

ANTH 350: *Indians of North America*
A cultural study of the Indians of North America, including examination of the impact of European ideas and technology on Indian societies. Emphasis on environmental adaptations, levels of social and cultural complexity, problems of historical interpretation, and the methods and theories of ethnology and their applications to North American cultures. Units: 6.

Also listed as Ethnic Studies 330

Prerequisite: ANTH 110

ANTH 500: *Topics in Anthropology*
An examination of a particular topic in contemporary anthropology. The specific topic investigated changes each year. Students are expected to carry out independent research on the topic, either through a review of relevant literature or through field or laboratory work.

Topic for Fall 2016: Anthropology of Migrants and Refugees: This course focuses on social groups of migrants and refugees who voluntarily or involuntarily leave their country and cultures of origin, while considering the global processes of displacement. It examines how migrants and refugees experience displacement and its impact on core concepts of culture such as enculturation, assimilation, adaptation, acculturation, and notions of cultural identity and citizenship. It also examines the phenomenon of displacement as a demographic dimension of globalization—high levels of movement of peoples across national boundaries, an increase in the number of countries affected by migrants and refugees, and the increase in number of multiethnic and multicultural societies.

Topic for Winter 2017: Disability and Culture: Disability is a social and lived category fundamental to human experience. This advanced seminar draws from experiential, reflexive, phenomenological, and critical approaches in cultural and medical anthropology to cross-culturally explore the subjectivities of perceived physical and mental disabilities in both local and global worlds. Topics will include: autism, learning disabilities, bipolar disorder, schizophrenia, chronic pain, d/Deaf culture, and other categories of social impairment.

Topic for Spring 2017: Natives and Newcomers in Northeast Wisconsin: This course examines the American Indian cultures of Northeast Wisconsin during the late prehistoric and early historic periods, focusing on the time of first contact between Indians and Europeans. After a survey of American Indian cultures in the region, the course explores the impacts of European contact on both the natives and the newcomers, and considers how those impacts continue to resonate today. The fields of archaeology, ethnohistory, ethnography, and museum studies will all be engaged.

Units: 6.

Prerequisite: Junior standing and at least two courses in anthropology or consent of instructor

ANTH 520: *Topics in Archaeology*
An examination of a particular topic in contemporary archaeological research. The specific topic investigated changes each year. Students are expected to carry out independent research on the topic, either through a review of relevant literature or through field or laboratory work.

*Topic for Spring 2017: The Neolithic Revolution**:*** Neolithization, the shift from hunting and gathering or foraging to agriculture and animal husbandry, which began ca. 10,000 years ago, was the last major change in humankind's subsistence economy. The shift had significant ramifications in all areas of culture (economic, social, political, religious, and linguistic). It also was caused by and led to great changes in the environment, and perhaps even in our DNA. The seminar will investigate these changes and the different mechanisms and models of Neolithization in different parts of the world.

Units: 6.

Prerequisite: ANTH 120 and junior standing or consent of instructor

ARHI 204: *Roman Art*
A study of the art and architecture of the Etruscans and the Romans to the end of the Roman empire. Topics include the funerary arts of the Etruscans, the art and archaeology of Pompeii and Herculaneum, developments in imperial portraiture and historical relief, technological innovations in architecture, and the beginnings of Christian art. Units: 6.

Also listed as Classics 350

Prerequisite: ARHI 100 or sophomore standing

ARHI 211: *Splendor & Power: Byzantine Art*
Surveys the art and architecture of the Byzantine Empire, including mosaics, metalwork, icons, manuscripts, textiles, and other arts. Emphasizes the transition from classical Roman society, the patronage of Byzantine political figures, the profound importance of religion for the arts, and international contacts, especially with western Europe and the Islamic world. Units: 6.

Prerequisite: ARHI 100 or sophomore standing

ARHI 240: *19th-Century Art: From Romanticism to Post-Impressionism*
A study of the development of 19th-century European art that traces the emergence of movements such as Romanticism, Realism, and Impressionism. Readings and class discussion consider how political instability, industrialization, imperialism, and the growth of popular culture influenced production, style, and presentation of painting and sculpture. Units: 6.

Prerequisite: ARHI 102 or sophomore standing

ARHI 244: *American Art*
An examination of American art, 1776-1940. This course considers the growth of landscape, genre, and history painting, as well as portraiture, in the context of changing ideas about nationalism, class, race, and gender. Architecture and sculpture are also discussed in terms of how visual culture shaped early ideas about nationhood. Units: 6.

Prerequisite: ARHI 102 or sophomore standing

ARHI 246: *19th-Century Art, Design, and Society in Britain*
In the 19th century, Britain was at the height of her imperial and industrial powers, with a burgeoning middle class with increased spending power. Against this background, this course examines the painting (including Turner, Constable, the Pre-Raphaelites, the High Victorians), architecture, furniture, and interiors of the period, utilizing the wealth of examples in London's museums, galleries, and buildings. *Offered at the London Centre.* Units: 6.

Prerequisite: Must be attending the Lawrence London Centre.

ARHI 270: *Latin American Visual Art (in English)*
The course introduces the cultures of Latin America through a survey of its major movements and artists from the early 19th century to the present. Image-based lectures will be accompanied by discussion of visual and thematically related texts (*i.e.,* biographies, letters, scholarly articles) and carefully selected fragments of videos. Taught in English. Units: 6.

Also listed as Spanish 426

ARHI 275: *Latin American Visual Art*
The course introduces the cultures of Latin America through a survey of its major movements and artists from the early 19th century to the present. Image-based lectures will be accompanied by discussion of visual and thematically related texts (i.e., biographies, letters, scholarly articles) and carefully selected fragments of videos. Units: 6.

Also listed as Spanish 425

Prerequisite: One 300-level course in Spanish or consent of instructor

ARHI 315: *Introduction to the Art Museum: History, Issues, and Practices*
Introduction to art museums and exhibitions as objects of critical inquiry, and to issues and practices in the art museum field. Topics will include: history and evolution of collecting and display; museum exhibitions and knowledge formation; collection practices and ethics; exhibition theory and design; controversies, institutional critique, and the artist-as-curator. Units: 6.

Also listed as Ethnic Studies 315

Prerequisite: Sophomore standing

ARHI 320: *Contemporary Art*
A study of art since 1960. Students will examine art works and the theories and strategies that have informed their production. Topics include: gender and ethnicity, new materials and processes, site-specific and time-based works, and alternative venues and approaches toward exhibition. Units: 6.

Prerequisite: ARHI 102, ARHI 242, or consent of instructor

ARHI 400: *Topics in Ancient Art*
An examination of a particular topic in ancient art history. Students are expected to carry out independent research. The topic will change periodically. Course may be repeated with the consent of the instructor. Units: 6.

Also listed as Classics 540

Prerequisite: One 200- or 300-level course in art history, one course in classics, or consent of the instructor.

ARHI 420: *Topics in Medieval and Renaissance Art*
An examination of a particular topic in medieval or Renaissance art history. The topic will change periodically. Course may be repeated when the topic is different. Students are expected to carry out an independent research project that will serve as preparation for ARHI 680.
Units: 6.

Prerequisite: One 200- or 300-level course in art history, or consent of the instructor

ARHI 440: *Topics in Modern and Contemporary Art*
An examination of a particular topic in modern or contemporary art history. The topic will change periodically. Course may be repeated when topic is different. Students are expected to carry out an independent research project that will serve as preparation for ARHI 680.

Topic for Winter 2017: The Artist's City

Cities are dynamic centers of artistic, political, and social action. This seminar explores architectural design, depictions of cities, and art activism from the nineteenth century to today to consider how artists have experienced and acted within the metropolis and what it might mean to belong to a community.

Units: 6.

Prerequisite: One 200- or 300-level course in art history, or consent of instructor

ARHI 480: *Topics in Art History*
An examination of a particular topic in art history that does not fit the chronological format of the other 400-level topics seminars in art history. Course may be repeated when topic is different. Students are expected to carry out an independent research project that will serve as preparation for ARHI 680. Units: 6.

Prerequisite: One 200- or 300-level course in art history or consent of instructor

ARHI 660: *Methods of Art History*
This course will examine the theories and methods practiced in art history. It will concentrate on key texts, from antiquity to the present, relating to the history and criticism of art and visual culture. Readings will include authors and texts that have come to define the discipline, and more recent authors who have begun to challenge those defining texts. Units: 6.

Prerequisite: Junior standing and three courses in ARHI numbered 200 or above, or consent of instructor

BIOL 103: *Biotechnology and Society*
An examination of basic biological principles underlying current biotechnology in the fields of human genetics and genetic engineering. Discussion of methods of basic scientific research, the impact of technology on society, and ethical problems in human and agricultural genetics. Credit not applicable to biology major. Weekly laboratories will introduce basic experimental methodology and procedures. Units: 6.

BIOL 230: *General Ecology*
An introduction to the interactions between organisms and the environment, exploring the role of physical, chemical, and biotic processes, including human activities, in determining the structure and function of populations, communities, and ecosystems. Topics include resource availability, competition, predation, symbiosis, and natural and anthropogenic disturbances such as disease, biological invasions, pollution, and climate change. Lecture and laboratory. Units: 6.

Also listed as Environmental Studies 220

BIOL 650: *Biology Senior Capstone*
Senior capstone in which students will benefit from direct input and feedback on their scientific writing and oral presentation skills as they complete senior experience projects and papers. Successful completion of BIOL 650 includes participation in BioFest, a symposium of biology senior experience projects during spring term. Units: 1 OR 5.

Prerequisite: Major in biology or biochemistry, or in neuroscience with departmental approval; and senior class standing or departmental approval

CHEM 108: *The Chemistry of Art*
A study of the chemistry underlying topics of interest to artists and art historians. Topics may include: papermaking; pigments, dyes, and binders; photography; glass and ceramics; metals; and printmaking. The course is designed for all students. Combined lecture and laboratory. Units: 6.

CHEM 210: *Analytical Chemistry*
A course in the quantitative description of chemical equilibria in solution (acid-base, complexation, redox, solubility) using classical, separation, electrochemical, and spectrochemical methods of analysis. This course covers methods of quantification, statistics, and data analysis as applied to modern chemistry. Students will have the opportunity to individually design projects. Three lectures and two laboratory periods per week. Units: 6.

Also listed as Environmental Studies 250

Prerequisite: CHEM 116, placement exam, or consent of instructor

ECON 450: *Economics of the Firm*
Even in a “market” economy, the preponderance of economic activity is carried out through firms and other organizations. The course examines economic theories of the firm, and explores some of the canonical questions, such as why are there firms, how the separation of ownership and control of a firm shapes decision making, what determines the boundary between organizations and markets (*e.g.*, make-or-buy decisions), what types of firms are most innovative, and how new technologies affect organizational structure. Units: 6.

Prerequisite: ECON 300 or GOVT 271

EDST 180: *Psychology of Learning*
An investigation of how people learn. This course examines learning theories (*e.g.,* behavioral, humanistic, cognitive, constructivist) and their implications for the educational process in schools. Other topics include learning and the brain, the nature of expertise, the design of learning environments, and approaches to instruction that promote meaningful learning. Practicum of 20 hours required. Units: 6.

Also listed as Psychology 180

EDST 450: *Topics in Education Studies*
This seminar explores issues in contemporary education. Topics vary by term and focus on controversies or innovations in educational systems, practices, and policy or in the relations between school and society. May be repeated when topic is different. Units: 6.

Prerequisite: Sophomore standing and one course in education studies or instructor approval

ENST 300: *Symposium on Environmental Topics*
The heart of this course is an annual symposium organized around a well-defined topic with both scientific and policy components — *e.g.,* nuclear waste disposal, global warming. Each year, two or three nationally recognized experts on the selected topic are brought to campus. In the weeks before a visit by one of the major speakers, students, together with environmental studies faculty, read and discuss papers suggested by the speaker. The speakers meet with students in the seminar following their public lecture, providing students with an opportunity to interact directly with scientists and policy makers at the forefront of environmental issues.

Topic for Fall 2016: Environmental Challenges of Africa

In this symposium, students will learn about the environmental challenges facing African countries and peoples. While a "challenge" is similar to a "problem" in that the existence of one suggests an unmet need or even perhaps a crisis, the definition of a challenge is different. A problem can be defined but not solved, while a challenge, once defined, cries out for some method of meeting it. Thus, in this course, we will examine major environmental challenges facing Africa and then consider different ways of meeting them. Possible topics for projects include the following: water scarcity, deforestation, desertification, mining/natural resource exploitation, wildlife conservation, urban pollution, e-waste, population issues, land use (including agriculture).

Topic for Spring 2017: Urban Agriculture

An exploration of the urban agriculture movement including readings, guest speakers, field trips, and hands-on learning on our own urban farm (aka SLUG). Class is discussion based with a group final project and 5hrs of service learning per week expected.

Units: 6.

Prerequisite: ENST 150, sophomore standing

GEOL 210: *History of the Earth and Life*
A study of the physical, chemical, and organic evolution of the Earth since its origin 4.5 billion years ago, with emphasis on times of change and crisis. The course also examines the evolution of ideas about Earth's history, illustrating how science and culture are inherently entangled. Units: 6.

Also listed as Environmental Studies 230

Prerequisite: GEOL 110

GEOL 240: ***Chemistry of the Earth: Low-Temperature Environments***
An introduction to the geochemical processes at the Earth's surface. Emphasis is placed on how chemical processes such as thermodynamics, phase equilibria, and oxidation-reduction reactions shape the Earth surface and near-surface environments. Units: 6.

Also listed as Environmental Studies 240

Prerequisite: GEOL 110 and CHEM 115; concurrent enrollment in GEOL 245

GEOL 245: ***Mineralogical Analysis***
This course serves as an introduction to mineralogical analyses. Students will utilize a variety of analytical techniques including Polarized Light Microscopy, X-ray diffraction, and Scanning Electron Microscopy to study crystallography and mineral chemistry. Students will use these tools to analyze a variety of geological samples including rocks, soils, and sediments. Intended to be taken simultaneously with GEOL 240. Units: 3.

Prerequisite: Concurrent enrollment in GEOL 240/ENST 240

GEOL 250: ***Chemistry of the Earth: High-Temperature Environments***
Introduction to the chemical processes that form igneous and metamorphic rocks, with emphasis on how mineralogical, chemical, and isotopic clues can be used to gather information about Earth's early history and its inaccessible interior. One lab per week. Units: 6.

Prerequisite: GEOL 110 and CHEM 116; GEOL 240 and GEOL 245

HIST 101: ***Introduction to Historical Methods***
An introduction to the practical skills of doing history aimed at freshmen and sophomores planning to major in history and others seriously interested in learning how to navigate the waters of historical study. Emphasis is on acquiring the techniques current historians use to research into the past, making sense of their findings, and presenting them to others in a variety of media. Using materials appropriate to a theme that changes from year to year, students will discover how to do a thorough bibliographical search of all major genres of historical works, to find and interpret primary sources, and master the basic historical essay. Units: 6.

HIST 385: ***History of the Book***
To provide an introduction to the interdisciplinary field of Book History, which should help students think more critically about the impact of material culture on intellectual activity. The course will be taught as a speaking intensive seminar, which means that students will frequently be responsible for presenting reading material and leading discussion in the first half of class. Units: 6.

Also listed as English 527

Prerequisite: Junior standing or consent of the instructor.

PHYS 107: *Physics of Music*
Explores the relationship between physics and music, covering such topics as vibrations, waves, interference, resonance, wave forms, scales and temperament, physics of musical instruments, characteristics of auditoriums, impact of electronics. Weekly laboratory. Units: 6.

PHYS 112: *Energy Technology, Society, and the Environment*
Explores energy production, storage, and usage as they are currently practiced. Certain emerging technologies will also be addressed. Environmental and socio-economic impact will be discussed in the context of limitations imposed by the laws of physics. Units: 6.

Also listed as Environmental Studies 115

PHYS 216: *Apocalypses: The Earth, The Solar System, and the Universe*
This course explores the questions of endings—of the Universe, Solar System, Earth and Life—and how these can be addressed through the methods of astronomy, physics, and geology. Topics considered include environmental and planetary catastrophes, the late evolution of the Earth and the Sun, and the cosmological fate of the Universe. Apocalypses is intended as a bookend to the Origins course (PHYS 212/BIOL 212/GEOL 215). Units: 6.

Also listed as Geology 216

Prerequisite: Introductory course in any two different natural sciences; at least one intermediate course in a natural science; sophomore standing

ART 240: *New Media in Art*
An introduction to new media within a fine art context. Digital photography, experimental video, sound, photo book design, and blogging are covered as students use the Internet as a venue for presenting projects. The evolution of technology, new media theory, contemporary art discourse, and visual culture are examined through projects, readings, lectures, demonstrations, discussions, critiques, and visiting artist presentations. Mac-based. When scheduled on Tuesday-Thursday, class will dismiss early for University Convocations. Units: 6.

Also listed as Film Studies 240

Prerequisite: ART 100 or ART 110

ART 245: *InterArts: New Media Projects*
Digital media are used to explore the relationship between art and knowledge. Lectures, discussions, readings, and critiques will investigate contemporary art practices and interdisciplinarity. Conceptual-development, planning and production will be covered as students work individually or collaboratively on video, performance, installation, and web projects. Mac-based. When scheduled on Tuesday-Thursday, class will dismiss early for University Convocations. Units: 6.

Also listed as Film Studies 245

Prerequisite: ART 100 or ART 110, or consent of instructor

ART 600: Studio Art Senior Seminar
Intended to serve as a capstone experience for students in studio art, this course is designed to complement and work in conjunction with the student's preparations for the Senior Exhibition. It will cover the practical concerns relevant to working as a professional artist along with current issues pertinent to the contemporary art world. When scheduled on Tuesday-Thursday, class will dismiss early for University Convocations. Units: 6.

Prerequisite: Senior standing and declared major in studio art or consent of the instructor

Professors: Anthony, K. Bozeman (Frank C. Shattuck Professorship in Music), S. Jordheim, Kautsky, Niblock, Richeson, Stannard

Associate professors: Bell, Biringer, Daniel, DeCorsey, S. George, Gu, Keelan, Koestner, Leigh-Post, Mast, McQuinn, Metcalf, Michelic, Miller, Mizrahi, Padilla, Spears, Srinivasan, Swan, Urness, Woodruff (director of opera studies)

Assistant professors: Albright, Arau, Bates, Ceballos, Downing, Dupere, Encarnacion (director of jazz studies), Lesser, Sieck

Visiting assistant professors: Cole, Gates

Instructors: Benson, Boeckman, J. Bozeman, DiBella, Erickson, S. McCardell, Paek, Rath, Truax, Van De Loo, Wilson

Lecturers: Adnyana, Bester, Boncher, Buchman (Academy of Music), Carrothers, Darling, Dempster (string pedagogy), M. Grine (Academy of Music), Handford, A. Jordheim (voice teacher), S. Jordheim, Korb, S. McCardell, Peplin, Pertl (Academy of Music, instructor of harp), Planet, Scheinberg, Turner, Walby (Academy of Music), Wysock

Artist in residence: Duesing

Introduction

Students in the Bachelor of Arts degree program may major or minor in music (see below). The Conservatory of Music section of this catalog lists courses for all programs in music. Opportunities for the study of music and for participation in Lawrence University ensembles are available to qualified university students regardless of major.

Required for the music major

90 units in music, to include:

1. Music theory: 30 units:
    a. MUTH 151, 161, and 171 or MUTH 201, 211, and 221
    b. MUTH 152, 162, and 172 or MUTH 202, 212, and 222
    c. MUTH 251, 261, and 271
    d. MUTH 252, 262, and 272
    e. MUTH 301, 311, and 321
2. Musicology: 18 units
    a. MUCO 201, 202 (12 units)
    b. 6 units in courses numbered 400 or above
3. Performance:
    a. 18 units minimum of applied individual instruction. 6 consecutive terms of study are required.
    b. 5 units: MURP 271, 272, 273, 274, 275 for students whose primary instrument is voice.
    c. Students must complete a qualifying examination.
    d. Students must participate in either individual or ensemble performance study in each term in which they are in residence on the Appleton campus.

4. Ensemble: 6 units minimum of ensemble performance study. A maximum of 9 units of ensemble performance study may apply to the major.
5. Keyboard skills: 3 units MURP 201, 202, 203 or 2 units MURP 301, 302 or demonstrated proficiency.
6. Additional electives in music to total 90 units
7. An approved lecture, lecture/recital, or senior project must be presented during the last three terms of study at Lawrence.

Please refer to the Conservatory Handbook and departmental handbooks for other regulations and information on the major in music. In addition to the 90 units in music, students must complete 126 units in disciplines other than music, including all requirements for the B.A. degree (see “Degree and General Education Requirements”).

Required for the music minor

1. Music theory: 18 units
    a. MUTH 151, 161, and 171 or MUTH 201, 211, and 221
    b. MUTH 152, 162, and 172 or MUTH 202, 212, and 222
    c. MUTH 251, 261, and 271
2. Musicology: 12 units: MUCO 201, 202
3. Performance: MUIN (Applied Individual Instruction) 9 units and 3 terms of study
4. Ensemble: MUEN (Ensemble Performance Study): 3 units and 3 terms participation
5. Keyboard skills: 3 units: MURP 201, 202, 203 or 2 units: MURP 301, 302 or demonstrated proficiency
6. C average or higher in the minor

Senior Experience in music

Candidates for the Bachelor of Arts with a major in music are required to present a lecture, lecture/recital, recital, or senior project during the last three terms at Lawrence. Students in this program are encouraged to consult their advisers early in the junior year. If a recital is performed, it is subject to the regulations administered by individual applied areas as described above. For other projects, a proposal must be submitted and approved by the B.A. in Music Committee.

The following are guidelines to apply to the other projects that must be approved by the B.A. in Music Committee.

1. The proposal for the project should be submitted in writing.
2. The initial proposal should be submitted no later than week 8 of the term prior to the one during which the project will be completed.
3. The project proposal should state in specific detail exactly what the project entails and exactly what the student will do to complete it. The proposal should also briefly indicate how such a project builds on the student’s prior experiences at Lawrence, and why it may be a logical conclusion to his or her music major.

4. In general, this project should not simply comprise work the student has done for any course, but instead it should involve some work done beyond and outside of the prescribed curriculum for the music major. In some instances, work done for an elective independent study (e.g., not one used to satisfy a curricular requirement) may be acceptable.
5. Final approval of the proposal should be obtained by the end of the term prior to the one during which the project will be completed.
6. All projects must include some formally written component. This may, in some instances, simply serve as a relatively brief context for projects that do not essentially comprise written work (e.g., recordings, radio or television broadcasts, films or videos, multi-media installations, manufacture of musical instruments, etc.).
7. Though interdisciplinary projects are encouraged, the theory, history, or practice of music still should be a major focus of all acceptable proposals. For example, “the effects of performance anxiety on the human digestive system” would be a biology project, and would not be acceptable; on the other hand, “effective strategies for coping with performance anxiety” could be perfectly acceptable (even if it deals largely with discussions of what one should or should not ingest prior to a performance).
8. Once the project has been completed, a Lawrence Conservatory faculty member should certify that the project has met a minimum satisfactory standard of quality.

Other opportunities

All courses in music may be elected by any qualified Lawrence student. Ensembles are open to university students by audition. Private instruction (Applied Music Individual Instruction) is available by permission of the instructor, based on audition or interview and faculty schedules. A fee for private lessons and the use of practice facilities is charged to non-music majors as follows:

- 1/2 hour per week: $300 per term
- 1 hour per week: $600 per term

A student may drop private instruction prior to the end of the second week of the term. A refund may be obtained for the remainder of the term, provided the registrar and the conservatory office are officially notified of the change in registration. Refunds are not provided after the second week of the term.

Introduction

The interdisciplinary major in the natural sciences enables students to construct science majors around subject areas that bridge two or more disciplines in the natural sciences, leading to graduate work and/or careers in many of the rapidly growing interdisciplinary fields developing along interfaces between the traditional natural sciences.

The interdisciplinary major in the natural sciences requires a primary concentration in biology, chemistry, geology, or physics and a secondary concentration in another of these sciences. Students interested in this major should seek advice from the department of primary interest in order to design a major consistent with both their interests and the requirements of the major. Previous interdisciplinary combinations of biology and chemistry have been replaced by the biochemistry major.

Requirements for the interdisciplinary major in the natural sciences in a primary discipline and a secondary discipline

1. Introductory requirement: An introductory sequence in physics and two additional introductory sequences chosen from those in biology, chemistry and geology so that sequences in both the primary and the secondary disciplines are included. The introductory sequences are:
    - Biology: BIOL 130, 150 and 170
    - Chemistry: CHEM 115 and 116 or equivalent
    - Geology: GEOL 110 (any section) and Geology 210
    - Physics: PHYS 151 and 160 or, with the permission of both the primary and the secondary departments, PHYS 141 and 151
2. Intermediate/advanced requirement: At least ten six-unit courses in the sciences (biology, chemistry, geology, physics) numbered 200 or above, with at least five in the primary discipline and at least three in the secondary discipline. More specific course and/or laboratory requirements may apply in specific departments.
3. Participation in a *Senior Experience* as defined by the department of the primary discipline.

Professor: Hetzler (Psychology)

Associate professor: Wall (Biology, chair)

Assistant professors: Hilt (Psychology), Humphries (Biology), Piasecki* (Biology)

*On leave Term II

Introduction

The field of neuroscience uses an interdisciplinary approach to study the brain and nervous system. Humans and animals rely on the nervous system in order to process environmental stimuli, integrate this information, and produce an adaptive response (motor, hormonal, behavioral). A response may be as straightforward as a knee reflex or as complicated as understanding Plato.

The fields of biology, chemistry, and psychology provide much of the core knowledge needed to pursue study in neuroscience and the major will prepare students for graduate study in neuroscience or allied health areas. However, knowledge from neuroscience may inform creative and scholarly endeavors in many areas including literature, music, and art. Therefore, it is an advantage for a neuroscience major to be in a liberal arts setting that can provide exposure to a wide spectrum of interests.

Required for the neuroscience major

1. The following core courses:
    a. BIOL 130: *Integrative Biology: Cells to Organisms*
    b. BIOL 150: *Integrative Biology: Organisms to Ecosystems*
    c. BIOL 242: *Comparative Physiology*
    d. BIOL 340/PSYC 580: *Topics in Neuroscience*
    e. CHEM 116: *Principles of Chemistry*
    f. PSYC 350: *Psychopharmacology and Behavior*
    g. PSYC 360: *Brain and Behavior I*
    h. PSYC 420: *Clinical and Affective Neuroscience*
2. Two courses from the following group:
    - BIOL 325: *Cell Biology*
    - BIOL 354: *Molecular Biology*
    - BIOL 444 or CHEM 340: *Biochemistry*
    - BIOL 453: *Developmental Biology*
3. Two courses from the following group:
    - BIOL 200: *Animal Behavior*
    - BIOL 240: *Morphogenesis of the Vertebrates*
    - PSYC 290: *Developmental Psychopathology*
    - PSYC 370: *Perception*
    - PSYC 380: *Learning and Conditioning*

4. A statistics-based class from one of the following:
    - BIOL 170: *Experimental Design and Analysis*
    - MATH 107 or 117: *Elementary Statistics*
    - MATH 207: *Introduction to Probability and Statistics*
5. *Senior Experience*: Students majoring in neuroscience will work closely with neuroscience program faculty to develop a *Senior Experience.* Students may develop a *Senior Experience* from the psychology senior capstone, biology senior capstone, or a neuroscience independent study. Departmental and instructor approval are required to take a senior capstone.

Required for the neuroscience minor

1. The following core courses:
    a. BIOL 130: *Integrative Biology: Cells to Organisms*
    b. BIOL 150: *Integrative Biology: Organisms to Ecosystems*
    c. BIOL 242: *Comparative Physiology*
    d. *BIOL 340/PSYC 580: *Topics in Neuroscience*
    e. CHEM 116: *Principles of Chemistry*
    f. PSYC 360: *Brain and Behavior I*
    g. PSYC 420: *Clinical and Affective Neuroscience*
2. A statistics-based class from one of the following:
    - BIOL 170: *Experimental Design and Analysis*
    - MATH 107 or 117: *Elementary Statistics*
    - MATH 207: *Introduction to Probability and Statistics*

*Pre-requisite for BIOL 340/PSYC 580 will be either:

- BIOL 242 and one PSYC course
- PSYC 360 and one BIOL course
  or
- consent of the instructor

COURSES

BIOL 130: ***Integrative Biology: Cells to Organisms***
An exploration of fundamental cellular processes in an evolutionary context including homeostasis, cell cycle, gene expression, energy transformation, inheritance, and multi-cellular development. Experimental approaches will be emphasized. Lecture and laboratory. Units: 6.

BIOL 150: ***Integrative Biology: Organisms to Ecosystems***
Development, morphology, physiology, and ecology of plants, animals, fungi and unicellular organisms will be compared in evolutionary context. Phylogenic relationships, ecological interactions, and ecosystem processes will be explored. Lecture and laboratory. Units: 6.

Prerequisite: BIOL 130 or departmental examination

BIOL 170: ***Integrative Biology: Experimental Design and Statistics***
An introduction to experimental and sampling design in the fields of biology and biochemistry, as well as methods of data analysis and interpretation. The connection between statistical analysis and experimental design will be emphasized. Topics include descriptive, exploratory, and confirmatory statistical analyses. Lecture and computer laboratory. Units: 6.

Prerequisite: BIOL 150 or consent of instructor

BIOL 200: ***Animal Behavior***
A lecture and field-study course examining the principles and problems of animal behavior. Subjects include orientation, feeding, locomotion, communication, escape in time and space, biological rhythms, mate choice, and aspects of social behavior, examined from evolutionary, ontogenetic, physiological, ecological, and ethological perspectives. Lecture and laboratory. Units: 6.

Also listed as Environmental Studies 210

Prerequisite: BIOL 150

BIOL 240: ***Morphogenesis of the Vertebrates***
An integrated lecture and laboratory course that undertakes the study of the structure and function of vertebrate organ systems through examination of morphology. Vertebrate ontogeny, phylogeny, and anatomy are addressed. Units: 6.

Prerequisite: BIOL 150

BIOL 242: *Comparative Physiology*
A comparative study of the variety of solutions and adaptations diverse animals can make to similar problems — obtaining and transporting oxygen, maintaining water and salt balance, utilizing food, movement, and nervous and hormonal integration. Lecture and laboratory. Units: 6.

Prerequisite: BIOL 150

BIOL 325: *Cell Biology*
Survey of the structure and function of eukaryotic cells, the basic functional unit of life. Correlation of cellular structures including organelles, proteins, and membranes with functions such as cellular communication, division, transport, movement, and secretory pathways will be analyzed. Lecture and laboratory. Units: 6.

Prerequisite: One of BIOL 260, BIOL 354, BIOL 444, or concurrent enrollment or consent of instructor

BIOL 340: *Topics in Neuroscience*
A study of the nervous system from the perspectives of psychology and biology. Topics vary year to year and may include glial cells, neural development, and the evolution of nervous systems and neurotransmitter systems. Lecture only. May be repeated when topic is different.

Topic for Spring 2017: The Mindful Brain

Mindfulness meditation involves paying attention, on purpose and without judgment. With roots in Eastern philosophy, it has been applied to the treatment of various physical and mental conditions in contemporary Western medicine and psychotherapy. This course will explore research on how mindfulness meditation changes the brain.

Units: 6.

Also listed as Psychology 580

Prerequisite: CHEM 116, BIOL 150, and one course in psychology; or PSYC 360 and one course in biology; or consent of instructor

BIOL 354: *Molecular Biology*
An interdisciplinary examination of regulatory mechanisms leading to differential gene expression. Main topics include transcription, translation, gene and protein structure, and modern genomics. The application of current molecular techniques is emphasized throughout the course. Laboratory work is experimental in approach. Lecture and laboratory. Units: 6.

Prerequisite: BIOL 130 and CHEM 115

BIOL 444: *Biochemistry I*
An introduction to the study of biological processes at the molecular level with emphases on protein structure and function, enzyme mechanism and kinetics, fundamentals of physical biochemistry, and the chemistry of biological molecules, including carbohydrates, lipids, and nucleic acids. Units: 6.

Also listed as Chemistry 340

Prerequisite: CHEM 250 or concurrent enrollment, or consent of instructor

BIOL 453: *Developmental Biology*
An experimental approach to animal development with laboratory and lecture emphasis on molecular and cellular processes of embryogenesis. Includes discussions of pattern formation, differentiation, cell interactions, gametogenesis and fertilization. Lecture and laboratory. Units: 6.

Prerequisite: BIOL 150; and one of the following (or concurrent enrollment): BIOL 354, BIOL 444/CHEM 340, BIOL 260, or BIOL 325

CHEM 115: *Principles of Chemistry: Structure and Reactivity*
Introduction to the basic principles of chemistry, emphasizing structures of chemical species (atoms, ions, and molecules), stoichiometry, the relationships between structure and reactivity, basic chemical models (gas laws, *e. g.*) and laboratory skills. This course will serve primarily to prepare students who have not had any previous (high school) coursework in chemistry for CHEM 116. Three lectures and one laboratory session each week. Students with high school chemistry should normally take 116 instead of this course. See the chemistry department's web page for placement examination information. Units: 6.

Prerequisite: Placement examination

CHEM 116: *Principles of Chemistry: Energetics and Dynamics*
Introduction to the study of chemistry, for students who have taken high school chemistry or CHEM 115, emphasizing structural and quantitative models of chemical behavior. Topics include bonding, thermochemistry, equilibrium, kinetics, and related applications. Three lectures and one laboratory per week. Enrollment is determined by placement examination for students who have not completed CHEM 115. See the chemistry department's web page for placement examination information. Units: 6.

Prerequisite: CHEM 115 or placement examination

CHEM 250: *Organic Chemistry I*
A study of the relationship between structure and function in organic compounds. Basic topics such as molecular orbital theory, conformational equilibria, stereochemistry, and nucleophilic substitution are covered. Students also learn to use instrumental analysis (NMR, IR, GC-MS) to identify and characterize compounds. One four-hour laboratory per week. Units: 6.

Prerequisite: CHEM 116 or 119 or consent of instructor

CHEM 252: *Organic Chemistry II*
A study of organic reactions and their mechanisms. The focus of the class is synthesis, both in the concrete sense of building molecules and in the abstract sense of pulling together disparate concepts to solve problems. Case studies from the polymer and pharmaceutical industries underline the relevance of the discipline to everyday life. One four-hour laboratory per week. Units: 6.

Prerequisite: CHEM 250

CHEM 340: *Biochemistry I*
An introduction to the study of biological processes at the molecular level with emphases on protein structure and function, enzyme mechanism and kinetics, fundamentals of physical biochemistry, and the chemistry of biological molecules, including carbohydrates, lipids, and nucleic acids. Units: 6.

Also listed as Biology 444

Prerequisite: CHEM 250 or concurrent enrollment, or consent of instructor

MATH 107: *Elementary Statistics*
For students in all disciplines. Provides the background needed to evaluate statistical arguments found in newspapers, magazines, reports, and journals and the logic and techniques necessary to perform responsible elementary statistical analysis. Topics include basic data analysis, one-variable regression, experimental and sampling design, random variables, sampling distributions, and inference (confidence intervals and significance testing). This course may not be taken on a Satisfactory/Unsatisfactory basis. Units: 6.

Prerequisite: Sophomore standing.

PSYC 290: *Developmental Psychopathology*
Using developmental psychopathology theory, this course involves the examination of psychological disorders in children and adolescents. The course emphasizes the complex interplay of biological and psychological factors over the course of development that lead to different outcomes. Several topics are covered including ADHD, anxiety, autism, conduct disorder, eating disorder, depression, and self-harm. Units: 6.

Prerequisite: PSYC 100 or sophomore standing

PSYC 350: *Psychopharmacology and Behavior*
An interdisciplinary examination of the ways in which behaviorally active drugs exert their effects, drawing on research in pharmacology, psychology, biochemistry, anatomy, and neurophysiology. Provides an understanding and appreciation of the role of behaviorally active drugs in people's lives, today and in the past. Units: 6.

Prerequisite: Sophomore standing; at least one prior biology course recommended

PSYC 360: *Brain and Behavior I*
An introduction to the structure and function of the nervous system and its relationship to behavior. Topics include cellular physiology, neuroanatomy, sensory processes, motor control, and neuropharmacology. No laboratory. Units: 6.

Prerequisite: Sophomore standing; at least one biology course recommended

PSYC 370: *Perception*
An introduction to the physiological and psychological processes by which we receive, transform, and use the information from the world acquired through our senses. Special emphasis on visual and auditory perception to allow a more in-depth study of two perceptual systems and to provide information useful to those interested in the visual arts and music. Units: 6.

Prerequisite: PSYC 100 or sophomore standing

PSYC 380: *Learning and Conditioning*
An investigation of the basic principles of learning, including classical conditioning, operant conditioning, punishment, biological constraints on learning, and behavior modification. One laboratory per week involving animal learning experiments. Units: 6.

Prerequisite: PSYC 100 and sophomore standing, or consent of instructor; PSYC 280 and 281 recommended

PSYC 420: *Clinical and Affective Neuroscience*
This course focuses on advanced topics in neuroscience involving emotion. We will explore emerging knowledge of the brain's involvement in emotional behaviors, including physiological and psychological states. Course topics include: neural plasticity, human neuroscience methods, emotions, and pathophysiology of affective disorders. Units: 6.

Prerequisite: PSYC 350 or PSYC 360

PSYC 580: *Topics in Neuroscience*
A study of the nervous system from the perspectives of psychology and biology. Topics vary year to year and may include glial cells, neural development, and the evolution of nervous systems and neurotransmitter systems. Lecture only. May be repeated when topic is different.

Topic for Spring 2017: The Mindful Brain

Mindfulness meditation involves paying attention, on purpose and without judgment. With roots in Eastern philosophy, it has been applied to the treatment of various physical and mental conditions in contemporary Western medicine and psychotherapy. This course will explore research on how mindfulness meditation changes the brain.

Units: 6.

Also listed as Biology 340

Prerequisite: CHEM 116, BIOL 150 and one course in psychology; or PSYC 360 and one course in biology; or consent of instructor

Professors: Dreher (Lee Claflin-Robert S. Ingraham Professorship in Philosophy), Ryckman (chair)

Associate professor: Boleyn-Fitzgerald (Edward F. Mielke Professorship in Ethics in Medicine, Science, and Society)

Assistant professors: Armstrong, Phelan

Visiting assistant professor: Albrecht (Visiting Assistant Professor of Philosophy & Uihlein Fellow of Ethics)

Introduction

Courses in philosophy develop skills for reading and thinking analytically and critically, and for arguing cogently. In addition, they provide students with invaluable insights into many of the intellectual issues confronting Western civilization.

Students tend to find that taking two or three philosophy courses significantly enhances the quality of their work in their own fields. We urge students to discuss the relationship between philosophy and other disciplines with any member of the philosophy department and with their own major advisors.

Philosophy department faculty members will gladly discuss with majors and potential majors the specific ways in which their work can best prepare them for careers in academe, business, government, law, and medicine, among others.

Note that, with the consent of the instructor, students may take an intermediate course in philosophy without having taken an introductory course. (Intermediate courses are numbered 200 through 440. Courses numbered above 440 are advanced courses.)

The philosophy major

Students are introduced to philosophy through a study of logic or through a course in which substantive problems are raised by an examination of selected writings of important philosophers. Students may continue their study through a variety of courses in the history of philosophy, in the systematic study of traditional problem areas within philosophy, and in the philosophical examination of other disciplines.

The historical courses enable students to become familiar with the thinking of the most influential philosophers in our tradition and with the historical contexts in which they worked. The systematic courses encourage students to confront contemporary statements of central philosophical questions and to investigate some of the more promising answers to them. The courses engaged in the philosophical examination of other areas encourage students to bring methods of philosophical analysis to bear on the methods and presuppositions of other areas of inquiry.

Required for the philosophy major

1. PHIL 150 or 420 (Majors are strongly encouraged to satisfy this requirement early in their careers.)
2. At least two core courses in the history of philosophy (from PHIL 200, 210, 220, 227, 230, 275)
3. One course in epistemology (from PHIL 300, 305, 330, 332, 405)
4. One course in metaphysics (from PHIL 310, 340, 400, 410)
5. One course in ethics (from PHIL 280, 320, 325, 347, 350, 360, 365, 370, 375, 380, 385, 430, 440)
6. PHIL 600
7. Four additional six-unit courses in philosophy, or a second major and two additional six-unit courses in philosophy.
    a. Two of these additional courses may be numbered 149 or below.
    b. Philosophy majors who do not prefer a second major may, in consultation with their advisor and subject to the approval of the Department of Philosophy, substitute selected courses not offered by the department for no more than two of the four additional courses.
8. One Philosophy Dimensions of Diversity c (This course may also satisfy one of the above requirements.)

Required for the philosophy minor

1. Six six-unit courses in philosophy
    a. At least four courses numbered 250 or above
    b. At least two must be in the history of philosophy (PHIL 200, 210, 220, 230, 240)
2. Students pursuing a minor in philosophy are encouraged to choose a member of the philosophy department as an informal advisor.
3. A C average in the minor is required.

Senior Experience in philosophy

The Department of Philosophy's *Senior Experience* is PHIL 600: *Studies in Philosophy*. This is an advanced seminar (the topic for which varies from year to year) in which students critically analyze each other's original research.

COURSES

PHIL 100: ***Introduction to Philosophy: Problems***
An introduction to philosophical analysis and intensive study of selected philosophical classics. Topics include the existence of God, the problem of evil, problems of knowledge, the relationship between mind and body, free will, determinism, and moral obligation. Recommended for freshmen and sophomores. Units: 6.

Prerequisite: Recommended for freshmen and sophomores

PHIL 105: ***Introduction to Cognitive Science***
An introduction to the interdisciplinary study of how the mind works. Topics include: the nature of perception; what human language reveals about the mind; the basis of morality and altruism; how sexual selection has shaped human psychology; and the cognitive science of religious and spiritual belief. We will discuss tools, theories, and assumptions from philosophy, psychology, computer science, linguistics, anthropology, behavioral economics, and neuroscience. Units: 6.

PHIL 110: ***Business Ethics***
An introduction to ethical issues that arise in the practice of business. Topics include professional virtues, regulation, employer and employee rights, and social responsibility. Students are required to complete a community service project as part of this course. Units: 6.

Prerequisite: Recommended for freshmen and sophomores

PHIL 115: ***Food Ethics***
Eating has become a complicated activity. We will examine some of the hard ethical questions facing policymakers and individuals: How should government regulate our food choices? When, if ever, is it ethical to eat animals? Are there any moral reasons to favor local food producers? Is gluttony a moral fault? Units: 6.

PHIL 120: ***Applied Ethics: Introduction to Biomedical Ethics***
The course will examine moral dilemmas created or intensified by recent advances in medical technology and study ways of analyzing those dilemmas to make them more tractable. We will focus on examples such as euthanasia and the right to die, abortion, behavior modification, allocation of scarce medical resources, *in vitro* fertilization, genetic screening and engineering, and human experimentation. Units: 6.

Also listed as Biomedical Ethics 120

Prerequisite: Recommended for freshmen and sophomores

PHIL 125: ***Critical Thinking***
This introduction to argumentation focuses on how to identify arguments, their structure, and their strengths and weaknesses. We examine historical texts, newspapers, legal cases, political debates and blogs to explore what distinguishes good reasoning from bad inference. Units: 6.

PHIL 130: ***Meditation and Virtue: Contemplative and Analytic Perspectives on Character***
This course focuses on different theories of the good and of the virtues that lead to a good life. It covers a variety of readings that discuss the good and the good life and also critically examines a variety of meditations designed to cultivate moral virtues. Requirements for the class include writing two papers and undertaking a daily meditation practice. Units: 6.

Prerequisite: Recommended for freshmen and sophomores

PHIL 140: ***Introduction to Philosophy: Knowing and Valuing***
Is there a plausible distinction between (real!) knowing and (mere!) opinion? Can we make any warranted claims about how humans might best lead meaningful lives? We will carefully analyze the responses to such questions offered by Plato and by two 20th-century philosophers.
Units: 6.

Prerequisite: Recommended for freshmen and sophomores

PHIL 150: ***Symbolic Logic***
Formal study of the notions of validity, consistency, and equivalence in the languages of sentential logic and predicate logic, plus an introduction to semantics for these languages.
Units: 6.

Prerequisite: Recommended for freshmen and sophomores

PHIL 191: ***Directed Study in Philosophy***
Directed study follows a syllabus set primarily by the instructor to meet the needs or interests of an individual student or small group of students. The main goal of directed study is knowledge or skill acquisition, not research or creative work. Units: Variable.

Prerequisite: Counter Registration Required.

PHIL 200: ***History of Philosophy: Plato and Aristotle***
A survey of ancient Greek philosophical theories of the cosmos, justice, and the principles and purpose of human inquiry through the works of Plato and Aristotle. Units: 6.

Prerequisite: One course in philosophy, sophomore standing, or consent of instructor

PHIL 210: ***History of Philosophy: Descartes, Locke, and Leibniz***
We will explore some exciting developments of the 16th and 17th centuries. Specifically, we will look at how the study of metaphysics, epistemology, and the mind, were transformed by the scientific revolution. The works of three thinkers will serve as our primary window in to this era: French philosopher and mathematician, Rene Descartes(1596-1650); English philosopher and physician, John Locke (1632-1704); and German philosopher and mathematician, Gottfried Leibniz (1646-1716). But we will also read excerpts from some other prominent figures of this era, including Thomas Hobbes, Princess Elisabeth of Bohemia, Nicolas Malebranche, and David Hume. Units: 6.

Prerequisite: One course in philosophy, sophomore standing, or consent of instructor

PHIL 220: ***History of Philosophy: Berkeley, Hume, Kant, and Mill***
An examination of selected works of 18th- and 19th-century philosophers. Epistemology, metaphysics, and ethics are emphasized. Units: 6.

Prerequisite: One course in philosophy, sophomore standing, or consent of the instructor.

PHIL 227: ***History of Philosophy: New Narratives from 17th and 18th Century Women Philosophers***
An introduction to philosophical texts by women authors in Early Modern Europe, including Émilie Du Chatelet, Princess Elisabeth of Bohemia, Christine de Pizan, Margaret Cavendish, Mary Astell and Anne Conway. We will consider the import of these texts on controversial topics of the time: new scientific methods, gender equality, political rule, the nature of mind and body, religious authority and morality. Lecture/discussion with written assignments. Units: 6.

Prerequisite: One course in philosophy or sophomore standing

PHIL 230: ***History of Philosophy: Early Analytic Philosophy***
An examination of the early 20th-century works of G. E. Moore and Bertrand Russell against the background of the then-dominant Hegelian Idealism. Units: 6.

Prerequisite: One course in philosophy, sophomore standing, or consent of instructor

PHIL 240: ***History of Philosophy: The American Pragmatists***
An examination of the attempts by pragmatists such as C. S. Peirce, William James, and John Dewey to reconceptualize “traditional” issues in Western philosophy. Units: 6.

Prerequisite: One course in philosophy, sophomore standing, or consent of instructor

PHIL 260: *Feminism and Philosophy*
A consideration of the contribution of feminism to a range of subjects of philosophical inquiry, including: the philosophy of mind, ethics and the history of philosophy. Units: 6.

Also listed as Gender Studies 261

Prerequisite: One course in philosophy, sophomore standing, or consent of instructor

PHIL 275: *Existentialism*
An introduction to existentialist philosophy, with emphasis on its development throughout the 19th and 20th centuries in the Continental tradition of philosophy. This course pays special attention to such existentialist themes as the possibility of meaninglessness, the necessity of first-personal experience, and authenticity. Units: 6.

Prerequisite: Sophomore standing, one previous course in philosophy, or consent of instructor

PHIL 280: *Women and Friendship*
An introduction to philosophical theories of friendship, with emphasis on feminist responses. This course examines historical and contemporary accounts of the value of friends and the role they play in our self-development, as well as moral accounts of the special obligations friendships involve. This course can be counted as the equivalent of GEST 280. Units: 6.

Prerequisite: Sophomore standing, one previous course in philosophy, or consent of instructor

PHIL 300: *Epistemology*
An examination of some basic questions concerning the nature and extent of human knowledge, focusing on the topics of skepticism, justification, certainty, the *a priori* and the *a posteriori,* and analyses of knowledge. Units: 6.

Prerequisite: One course in philosophy, junior standing, or consent of instructor

PHIL 305: *Experimental Philosophy*
An introduction to experimental philosophy. The course will examine the ways in which experimental techniques can be applied to problems in epistemology, metaphysics, philosophy of language, ethics, and other subfields of philosophy. Special attention will be paid to the question of whether experimental research is a legitimate methodology for philosophy. Units: 6.

Prerequisite: One course in philosophy, junior standing, or consent of instructor

PHIL 310: *Metaphysics*
An examination of some central philosophical questions about reality, such as: What basic kinds of things are there? Is truth always and only relative to a conceptual scheme? What is the nature of necessity and possibility? What is the nature of change over time? Units: 6.

Prerequisite: One course in philosophy, junior standing, or consent of instructor

PHIL 315: *Science Fiction and Philosophy*
What can alternative science fiction worlds and speculative futures reveal about the nature of reality and our own condition? In answering this question we will engage philosophical puzzles inspired by science fiction in various forms: short stories, novels, television series and movies. Topics may include time travel, robot intelligence and consciousness, scientific knowledge, morality, political power, free will and personal identity. Lecture/discussion. Units: 6.

Prerequisite: One course in philosophy or junior standing, or consent of instructor

PHIL 320: *Ethics*
An examination of theories about how we should live. Issues include the role of rights, duties, and virtues in decision making, the scope of morality, the limits of our obligations to others, and the foundations of morality. Units: 6.

Prerequisite: One course in philosophy, junior standing, or consent of instructor

PHIL 325: *Metaethics*
An examination of the nature of ethical properties and ethical judgments. Are facts and values completely independent? Are goodness and badness objective properties? What does the persistence of moral disagreement tell us about the nature of ethics? Units: 6.

Prerequisite: One course in philosophy, junior standing, or consent of instructor

PHIL 330: *Philosophy of Science*
We will examine some important philosophical questions surrounding science. They will include (1) What is a science; and what is the relation between different sciences? (2) What is it to explain a phenomenon or confirm a hypothesis? (3) Do the explanatory posits of a science—such as quarks and strings—actually exist? (4) Are there scientific laws? We will explore some of the more plausible answers to such questions. Readings will include selections from a variety of contemporary and 20th century philosophical texts. Units: 6.

Prerequisite: One course in philosophy, junior standing, or consent of instructor

PHIL 332: *The Ethics of Religious Beliefs*
What kinds of justifications are available for religious beliefs, including theistic beliefs about God? We will consider whether religious beliefs can be justified through rational argument, how science and morality might bolster or undermine religious beliefs, the role of faith in securing belief, and how reasons for belief influence religious tolerance. Ultimately, can it be morally wrong to hold such beliefs on insufficient evidence? Seminar with written assignments. Units: 6.

Prerequisite: One course in philosophy or junior standing, or consent of instructor

PHIL 340: *Philosophy of Art*
An examination of major theories of the essence of art, of the major 20th-century critique of the thesis that art has an essence, and of recent attempts to analyze art in light of the critique. Units: 6.

Prerequisite: One course in philosophy, junior standing, or consent of instructor

PHIL 347: *Valuing Art: The Philosophy and Psychology of Aesthetic Appreciation*
How and why do we value art? Is there an objective standard of taste or is taste relative? How does and aesthetic property--such as beauty--differ from other properties of art--such as being made of stone? What are the roles of emotion and evolution in aesthetic response? These and other questions will be considered in this discussion-oriented class. Appropriate for those interested in philosophy, art history or cognitive science. Units: 6.

Prerequisite: One course in philosophy or sophomore standing, or consent of instructor

PHIL 350: *Political Philosophy*
A seminar examining one topic in political philosophy, typically either distributive justice or war. If the topic is distributive justice, the focus is on different accounts of the just distribution of social benefits and burdens. Issues include the right to health care and other social goods, as well as accounts of the ideals of equality, liberty, and community. If the topic is war, the focus is on political and moral dilemmas of warfare. Issues include war crimes, nuclear deterrence, the status of non-combatants, the use of economic sanctions, and terrorism. Units: 6.

Prerequisite: One course in philosophy, junior standing, or consent of instructor

PHIL 355: *Race and Social Justice*
This seminar focuses on race-based social injustices and considers what institutional changes are necessary to overcome racial inequity. How do current social and legal practices perpetuate racism? Possible topic include the concept of race, the value of race-based solidarity, affirmative action, racial segregation and racial profiling. Students will write papers in which they present their own philosophical arguments. Units: 6.

PHIL 360: *Environmental Ethics*
An examination of some ethical assumptions that might figure in discussions of environmental policy by economists, legal experts, philosophers, and policy scientists. Units: 6.

Also listed as Environmental Studies 360

Prerequisite: One course in economics or environmental studies or government or philosophy; or junior standing

PHIL 365: *Compassion and Other Virtues*
We will explore philosophical writings that analyze the nature and significance of compassion, forgiveness, gratitude, and other virtues. This course has a meditation component, as we will also explore meditations designed to cultivate the virtues that we cover in our readings. By approaching the topics with both philosophical analysis and contemplative methods, we will aim at a more thorough understanding than we could accomplish by only using one method. Units: 6.

Prerequisite: One course in philosophy, junior standing, or consent of instructor

PHIL 370: *Advanced Studies in Bioethics*
A seminar examining one particular issue or set of issues in bioethics. Units: 6.

Also listed as Biomedical Ethics 370

Prerequisite: PHIL 120 or two courses in philosophy

PHIL 375: *Philosophy of Sex and Love*
This course uses feminist theories to explore philosophical questions concerning sex and love. How do gender norms affect our sexual desires and the power dynamics in loving relationships? How responsible are we for our sexual preferences and loving attitudes? How do we relate ethically to lovers and those we love? Units: 6.

Prerequisite: One course in philosophy, sophomore standing, or consent of instructor

PHIL 380: *Ethics of Technology*
This course focuses on ethical issues that arise from the development of new technology. Specific topics may include artificial intelligence, information technologies, human enhancement, transhumanism, transgenesis, ectogenesis, nanoethics, and neuroethics. Units: 6.

Also listed as Biomedical Ethics 380

Prerequisite: One course in philosophy, junior standing, or consent of the instructor

PHIL 385: *Value Theory*
This course focuses on theories of the good and related philosophical issues. Questions that we will explore include: What is happiness? How are happiness and satisfaction related? Can we measure happiness or well-being? Is virtue valuable in itself? Units: 6.

Prerequisite: One course in philosophy, junior standing, or consent of instructor

PHIL 390: *Tutorial Studies in Philosophy*
Senior majors undertaking honors projects should elect one or more terms. Units: Variable.

Prerequisite: Counter Registration Required.

PHIL 391: *Directed Study in Philosophy*
Directed study follows a syllabus set primarily by the instructor to meet the needs or interests of an individual student or small group of students. The main goal of directed study is knowledge or skill acquisition, not research or creative work. Units: Variable.

Prerequisite: Counter Registration Required.

PHIL 399: *Independent Study in Philosophy*
Advanced students of philosophy may elect one or more terms. Units: Variable.

Prerequisite: Counter Registration Required.

PHIL 400: *Philosophy of Language*
An examination of major theories of meaning, reference, and cognitive content and an attempt to understand how language functions to relate “internal” psychological states to things in the “external” world. Contemporary philosophers are emphasized. Units: 6.

Also listed as Linguistics 400

Prerequisite: One course in philosophy, junior standing, or consent of instructor; PHIL 150 recommended

PHIL 405: *How to Do Things With Words*
An examination of major and cutting edge topics in the philosophy of language and linguistics. Where do word meanings come from? How can one word mean different things in different contexts? How do we promise or make commitments? Why do slurs hurt and jokes amuse? What is the nature of metaphor? Where does the border between what words mean and what speakers mean with words lie? These and other questions will be considered. Appropriate for students with an interest in philosophy, linguistics, or cognitive science. Units: 6.

Also listed as Linguistics 405

Prerequisite: One course in philosophy, junior standing, or consent of the instructor

PHIL 410: *Philosophy of Mind*
What is the relationship between the mind and the body? What is the nature of conscious experience? How do mental states represent states of the world? Is our common sense conception of mental states and processes compatible with the methods and assumptions of cognitive science? These and other questions in the philosophy of mind will be considered. Units: 6.

Prerequisite: One course in philosophy, PSYC 340, junior standing, or consent of instructor

PHIL 420: *Topics in Logic*
An investigation of topics selected from among the following: consistency and completeness theorems for both sentential and predicate logic, Gödel's Incompleteness Theorem, logical paradoxes (Russell's Paradox, the Liar Paradox, and Newcomb's Paradox), and modal-tense logic and its formal semantics. Units: 6.

Also listed as Linguistics 420

Prerequisite: PHIL 150 or consent of instructor

PHIL 430: *Philosophy of Law*
An exploration of questions such as: To what extent may a decision in a legal controversy be deemed uniquely correct (as contrasted with an exercise of the judge's discretion)? What purposes and assumptions underlie branches of the law such as criminal law or torts? What are the functions of precedent? What are the various relationships between morality and the law? Units: 6.

Prerequisite: One course in philosophy, junior standing, or consent of instructor

PHIL 440: *Morality, Rationality, and Self-Interest*
If acting morally conflicts with my long-term self-interest, what is it rational for me to do? Why be moral? Units: 6.

Prerequisite: One course in philosophy, junior standing, or consent of instructor

PHIL 448: *Enlightenment Selves*
An interdisciplinary investigation of key concepts of identity and the emotions as understood during the Enlightenment. Students examine philosophical and literary texts to uncover how seventeenth and eighteenth century people conceived of their mental and emotional existence, and how these historical conceptions still influence contemporary theories of mind and self. Units: 6.

Also listed as English 448

Prerequisite: One course in either English or philosophy, or junior standing, or consent of instructor

PHIL 590: *Tutorial Studies in Philosophy*
Senior majors undertaking honors projects should elect one or more terms. Units: Variable.

Prerequisite: Counter Registration Required.

PHIL 591: *Directed Study in Philosophy*
Directed study follows a syllabus set primarily by the instructor to meet the needs or interests of an individual student or small group of students. The main goal of directed study is knowledge or skill acquisition, not research or creative work. Units: Variable.

Prerequisite: Counter Registration Required.

PHIL 599: *Independent Study in Philosophy*
Advanced students of philosophy may elect one or more terms. Units: Variable.

Prerequisite: Counter Registration Required.

PHIL 600: *Studies in Philosophy*
Specific topics for the year will be published as classes are scheduled.

Topic for Spring 2017: Truth

An examination of both various theories of truth and proposed solutions to the Liar Paradox.

Units: 6.

Prerequisite: Three courses in philosophy or consent of instructor

PHIL 690: *Tutorial Studies in Philosophy*
Senior majors undertaking honors projects should elect one or more terms. Units: Variable.

Prerequisite: Counter Registration Required.

PHIL 691: *Directed Study in Philosophy*
Directed study follows a syllabus set primarily by the instructor to meet the needs or interests of an individual student or small group of students. The main goal of directed study is knowledge or skill acquisition, not research or creative work. Units: Variable.

Prerequisite: Counter Registration Required.

PHIL 699: *Independent Study in Philosophy*
Advanced students of philosophy may elect one or more terms. Units: Variable.

Prerequisite: Counter Registration Required.

Professors: Brandenberger (Alice G. Chapman Emeritus Professorship in Physics), Cook (Philetus E. Sawyer Emeritus Professorship in Science), Stoneking

Associate professors: Collett, Martin (chair), Pickett*

Visiting assistant professors: Chamberlin, Wagner

*On leave Terms I, II, III

Introduction

Physics represents an inquiry, both theoretical and experimental, into the nature of the physical universe. The theoretical approach involves constructing and exploring abstract models of nature, while the experimental approach involves investigations of physical systems that provide avenues for evaluating theories and for suggesting new theories. Taken together, theory and experiment aim at the construction of a single, compact, and far-reaching conceptual framework that accounts for all properties of the physical universe.

The physics curriculum at Lawrence is structured to help the student develop a firm grasp of the important theories and a secure competence in contemporary experimental techniques. Requirements for the major reflect this structure. On the theoretical side, the major moves from a general survey to more detailed intermediate courses to advanced electives, culminating in a theoretical Senior Experience project. On the experimental side, the major moves from a study of standard techniques of data analysis to an intermediate laboratory in electronics to a project-oriented advanced laboratory, possibly culminating in an experimental Senior Experience project. Throughout the curriculum, contemporary computational approaches to problems in physics play a significant role alongside the traditional approaches.

Prospective engineers will find that a major in physics automatically fulfills nearly all of the requirements for Lawrence's 3-2 engineering program.

Students who have strong secondary interests in biology, chemistry, or geology may construct majors involving physics and one of the other three natural sciences, using the interdisciplinary major in the natural sciences.

In addition, a minor in physics offers an opportunity for those who wish to supplement a major in another discipline with a significant exposure to physics.

Required for the physics major

1. PHYS 220, 225, 230, 310, 320 and 330
2. Two additional six-unit courses chosen from PHYS 340 and above, excluding directed study, tutorial, and independent study courses taken as part of the *Senior Experience* or for other reasons.
3. *Senior Experience* in physics

Physics majors without advanced placement should start with PHYS 141, 151 and 160. Majors who do not intend to pursue graduate study in physics may petition the department to substitute appropriate upper-level offerings in other departments for up to two of the required physics electives.

The following program is typical:

- Freshman: PHYS 151, 160; MATH 140, 150, 160
- Sophomore: PHYS 220, 225, 230; MATH 210
- Junior: PHYS 310, 320, 330; physics electives
- Senior: PHYS 699: *Independent Study in Physics*, PHYS 650: *Senior Seminar in Physics*; physics electives

Additional courses in mathematics, chemistry, computer science biology, and geology are often elected. The prospective major should consult early and regularly with the faculty in the department.

Required for the interdisciplinary major in the natural sciences in physics and a secondary discipline

1. PHYS 151 and 160
2. Any two of the following, chosen to include the secondary discipline:
    - BIOL 130, 150 and 170
    - CHEM 115 and 116 or equivalent
    - GEOL 110 (any section) and GEOL 210
3. At least 10 six-unit courses in the sciences (biology, chemistry, geology, physics) numbered 200 or above, with at least five in physics and at least three in the secondary discipline. The five courses in physics must include PHYS 225, 230, 310, and 330.

Required for the physics minor

1. PHYS 151 and 160
2. PHYS 225
3. Three additional six-unit courses in physics, at least two of which must be chosen from physics courses numbered 220 and above, excluding independent studies and capstone courses, and no more than one of which can be chosen from PHYS 103–115 and PHYS 205.
4. C average in the minor

A student pursuing a minor in physics must consult with a member of the department early and often to plan and monitor progress in the minor.

Opportunities for non-majors

The physics curriculum offers non-majors the opportunity to take one or more terms of physics as part of their liberal education. Although every course is open to all suitably prepared students, PHYS 107, 110, 112, 115, 141, 151, 160, and 220 have traditionally attracted non-majors.

The laboratory science general education requirement

The following courses in the physics department satisfy the university's degree requirement of one laboratory course in natural science: PHYS 107, 110, 141, 151, 160, 220, 330, 340.

Graduate school

Majors preparing for graduate school in physics will probably take more courses in physics than the required minimum. PHYS 425, 430, 440, and 460 are recommended for all such students. Other departmental offerings (PHYS 340, 500-570) are appropriate for students with particular interests in the topics of those courses. All students contemplating graduate studies in physics should undertake at least one term of independent study/research in the senior year and/or seek opportunities at Lawrence or elsewhere for full-time research during the summer after the junior year. Students contemplating graduate studies in physics should discuss their plans early and often with members of the department.

Certification for secondary teaching in physics

Majors seeking certification to teach physics at the secondary level should read the section of this catalog on teacher certification and consult early and often with members of the Department of Education. Physics majors who plan to teach physics at the secondary level may petition the department to substitute physics courses numbered below 199 for the two required physics electives.

Recommended courses outside the department

Courses in mathematics, chemistry, and computer science are frequently elected to support a major in physics, but courses in geology, biology, economics, philosophy, anthropology, and other areas have occasionally been chosen by physics majors whose post-graduation objectives have an interdisciplinary dimension. With departmental approval, up to two upper-level courses in other departments may be substituted for required physics electives.

Advanced placement

Students with strong backgrounds should seek advanced placement and credit, normally by submitting scores on the Physics Advanced Placement Examination of the Educational Testing Service. Advanced placement without credit is awarded to students who submit satisfactory evidence that they both understand most of PHYS 141 or 151 and are able to remedy weaknesses on their own initiative.

International and off-campus study

The Associated Colleges of the Midwest program at Oak Ridge National Laboratory is available to majors in physics. Further, with careful advance planning, physics majors at Lawrence can arrange to be off campus for a term—typically the Winter or Spring Term of the junior year—without jeopardizing progress in the major. Thus, physics majors can participate in off-campus programs, even if those programs contain no scientific components. The Lawrence London Centre, among others, has been a popular destination for physics majors.

Course numbering

Courses of general interest requiring minimal or no prerequisite are numbered 107-115. The introductory courses, 141, 151, and 160, require elementary calculus. PHYS 141 introduces ideas in calculus together with concepts in physics. The calculus introduced in PHYS 141 will not replace any mathematics prerequisites in courses numbered 160 and higher. Intermediate courses are numbered between 200 and 300 and typically list calculus and differential equations as prerequisites. Advanced courses, many of which list one or more intermediate courses as prerequisites, are intended for juniors and seniors and are numbered above 300. Tutorial studies in physics and independent study in physics also are offered.

Senior Experience in physics

The *Senior Experience* in the Department of Physics consists of an independent investigation tailored to the individual student's goals in physics. The process consists of a formal project proposal to the department followed by one or two six-unit independent study courses under faculty supervision and culminating in a capstone thesis paper.

All seniors will participate in a two-unit senior seminar, PHYS 650, in which they present their work orally. Students with double majors or degrees may propose initiatives that span multiple departments but both departments must approve such proposals before the project goes forward

COURSES

PHYS 107: *Physics of Music*
Explores the relationship between physics and music, covering such topics as vibrations, waves, interference, resonance, wave forms, scales and temperament, physics of musical instruments, characteristics of auditoriums, impact of electronics. Weekly laboratory. Units: 6.

PHYS 110: *Topics in Astronomy*
Treats selected topics in astronomy and cosmology: the solar system, stellar evolution and death, black holes, galaxies, the big bang theory of the early universe. Astronomical observations are interpreted in light of known physical laws to form a comprehensible picture of the universe. Units: 6.

PHYS 112: *Energy Technology, Society, and the Environment*
Explores energy production, storage, and usage as they are currently practiced. Certain emerging technologies will also be addressed. Environmental and socio-economic impact will be discussed in the context of limitations imposed by the laws of physics. Units: 6.

Also listed as Environmental Studies 115

PHYS 115: *Aspects of Physics*
Treats topics selected for the non-scientist who wants one term of physics. In recent years, the course has sometimes focused on the nature of time and relativity. Physics 115 is not intended to serve as a general introduction to physics, as are Physics 141, 151, and 160, and does not supply an adequate background for intermediate or advanced courses. Units: 6.

PHYS 141: *Principles of Classical, Relativistic, and Quantum Mechanics*
A calculus-based introduction to fundamental concepts in mechanics, from Galileo and Newton through relativity and quantum mechanics. Weekly laboratories emphasize the acquisition, reduction and interpretation of experimental data and the keeping of complete records. Explicit instruction in calculus will be provided. Units: 6.

Prerequisite: None, but calculus is recommended.

PHYS 151: *Principles of Classical Physics*
A continuation of Physics 141. Physics 151 offers a brief review of mechanics, and covers electricity, magnetism, circuits, waves, optics and thermal physics. Weekly laboratories emphasize the acquisition, reduction, and interpretation of experimental data and the keeping of complete records. Units: 6.

Prerequisite: PHYS 141, or one year of high school physics and MATH 140.

PHYS 160: *Principles of Modern Physics*
Treats basic ideas developed since 1900: quantum aspects of nature, special relativity, elementary wave mechanics, atomic and nuclear structure, fundamental particles. Weekly laboratory. Units: 6.

Prerequisite: PHYS 151 and MATH 150

PHYS 191: *Directed Study in Physics*
Directed study follows a syllabus set primarily by the instructor to meet the needs or interests of an individual student or small group of students. The main goal of directed study is knowledge or skill acquisition, not research or creative work. Units: Variable.

Prerequisite: Counter Registration Required.

PHYS 215: *Newtonian Lit: Chronicles of a Clockwork Universe*
Newtonian Lit is a course that investigates the connections between the literature and science of the Enlightenment, particularly with respect to contemporary notions of space and time. Students will analyze important texts from the fields of English and Physics, notably Laurence Sterne's *The Life and Opinions of Tristram Shandy, Gentleman* and Isaac Newton's *Principia*. Units: 6.

Also listed as English 410

Prerequisite: ENG 150 or its equivalent, plus any introductory course in the natural sciences (e.g., PHYS 141), plus sophomore standing or consent of instructor

PHYS 216: *Apocalypses: The Earth, The Solar System, and the Universe*
This course explores the questions of endings—of the Universe, Solar System, Earth and Life—and how these can be addressed through the methods of astronomy, physics, and geology. Topics considered include environmental and planetary catastrophes, the late evolution of the Earth and the Sun, and the cosmological fate of the Universe. Apocalypses is intended as a bookend to the Origins course (PHYS 212/BIOL 212/GEOL 215). Units: 6.

Also listed as Geology 216

Prerequisite: Introductory course in any two different natural sciences; at least one intermediate course in a natural science; sophomore standing

PHYS 220: *Physical Electronics*
A laboratory course covering analysis, construction, and testing of circuits used in present-day experimental research. Strict adherence to standard laboratory practice required. Two laboratories and one lecture per week. *Note:* To register, you must sign up with instructor. Units: 6.

Prerequisite: PHYS 151 and MATH 130 or 140

PHYS 225: *Computational Mechanics*
Introduces symbolic and numerical computation through examples drawn mainly from classical mechanics but also from classical electromagnetism and quantum mechanics. This course emphasizes computer-based approaches to graphical visualization, the solution of ordinary differential equations, the evaluation of integrals, and the finding of roots, eigenvalues, and eigenvectors. Units: 6.

Prerequisite: PHYS 151 and MATH 210

PHYS 230: *Electricity and Magnetism*
Develops and explores charge and current densities, particle motions, electrostatics, magnetostatics, induction, Maxwell's equations, electromagnetic waves, responses of matter. Units: 6.

Prerequisite: PHYS 225 and MATH 210

PHYS 310: *Quantum Mechanics*
Develops the theoretical framework used to describe microscopic phenomena: wave-particle duality, wave functions, states and observables, Schrödinger equation, uncertainty relations, bound states, quantum scattering, angular momentum, spin, and stationary and time-dependent perturbation theories. Units: 6.

Prerequisite: PHYS 225, MATH 210, and some exposure to quantum mechanics (e.g. PHYS 160, CHEM 470)

PHYS 320: *Thermal Physics*
Treats elementary statistical mechanics, Bose-Einstein and Fermi-Dirac statistics, kinetic theory, and classical thermodynamics. Units: 6.

Prerequisite: PHYS 160 and 225 and MATH 210

PHYS 330: *Advanced Laboratory*
Independent work on experiments selected from the following areas: optical, Mössbauer, alpha, beta, gamma ray, and x-ray spectroscopy; optical double resonance; magnetic resonance; vacuum techniques; solid-state physics; laser physics; nuclear physics. Three laboratories weekly; no lectures. Units: 6.

Prerequisite: PHYS 160, 220 and 225; PHYS 310 recommended

PHYS 340: *Optics*
Treats geometrical optics, interference, diffraction, polarization, and various other topics in classical and contemporary optics. Units: 6.

Prerequisite: PHYS 160 and PHYS 225 or 230

PHYS 350: ***Physics on Your Feet I***
This is the first part of a two-course sequence in which approaches to a wide variety of problems in all major areas of physics are discussed. Special emphasis is placed on quickly identifying relevant fundamental principles and make order of magnitude estimates. Units: 2.

Prerequisite: PHYS 225, 230 and 310

PHYS 351: ***Physics on Your Feet II***
This is the second part of a two-course sequence in which approaches to a wide variety of problems in all major areas of physics are discussed. Special emphasis is placed on quickly identifying relevant fundamental principles and make order of magnitude estimates. Units: 2.

Prerequisite: PHYS 225, 230 and 310.

PHYS 390: ***Tutorial Studies in Physics***
Readings of texts and/or current literature to study a topic not covered in regular offerings. Topics must be carefully defined and a bibliography assembled before permission to enroll is granted. Units: Variable.

Prerequisite: Counter Registration Required.

PHYS 391: ***Directed Study in Physics***
Directed study follows a syllabus set primarily by the instructor to meet the needs or interests of an individual student or small group of students. The main goal of directed study is knowledge or skill acquisition, not research or creative work. Units: Variable.

Prerequisite: Counter Registration Required.

PHYS 399: ***Independent Study in Physics***
Theoretical or experimental independent study. A written proposal must be submitted to the department at least one term before enrolling. Recent independent studies have been undertaken in fluid mechanics, general relativity, atomic systems coupled to electromagnetic fields, phase transitions in liquid crystals, plasma physics, and robotics. Units: Variable.

Prerequisite: Counter Registration Required.

PHYS 425: ***Advanced Mechanics & Computational Physics***
Treats various topics selected from: mechanics of rigid bodies, Lagrangian and Hamiltonian formulations, variational principles, fluids, classical scattering, relativistic mechanics, and theory of small vibrations. In addition to analytic approaches, computational methods to solving problems are emphasized, such as finite difference and finite element methods for solving partial differential equations as well as graphical visualization techniques. Units: 6.

Prerequisite: PHYS 225

PHYS 430: *Advanced Electricity and Magnetism*
Treats several topics selected from: multipole expansions, radiation from accelerated charges, solutions to Laplace's equations, retarded potentials, wave guides, modern optics, and electron physics. Units: 6.

Prerequisite: PHYS 230 and MATH 210

PHYS 440: *Mathematical Methods of Physics*
Treats several topics selected from: Fourier series and transforms, partial differential equations, special functions, numerical methods, matrix methods, calculus of variations. Units: 6.

Prerequisite: PHYS 225 and MATH 210

PHYS 460: *Advanced Modern Physics*
Treats quantum mechanically various topics selected from atomic and nuclear physics. This course will concentrate on properties of atoms and nuclei, atomic and nuclear structure, the deuteron, nucleon-nucleon scattering, nuclear models, and nuclear decay. Six supplemental laboratory exercises that focus on laser spectroscopy will be arranged. Units: 6.

Prerequisite: PHYS 310 and MATH 210

PHYS 500: *Special Topics in Physics*
Treats selected topics, such as relativity, fundamental particles, fluid mechanics, and surface physics that vary according to the interests of students and staff.

Topic for Spring 2017: General Relativity

General relativity is one of the greatest triumphs of the human mind. This course treats topics such as black holes, gravitational waves, and the evolution of the universe. Units: 6.

Prerequisite: MATH 210 and PHYS 230; or MATH 210, MATH 310, and PHYS 151

PHYS 530: *Solid State Physics*
Explores the fundamental properties of crystalline solids from an experimental perspective. Experimental investigations using scanning probe microscopy and x-ray diffraction introduce the topics of crystal structures and the reciprocal lattice, phonons, and the quantum theory of electronic band structure. Insights from experiments will guide theoretical development. Units: 6.

Prerequisite: PHYS 310

PHYS 560: *Topics in Astrophysics*
Treats selected topics in astrophysics and cosmology, such as orbital mechanics, stellar structure and evolution, galactic dynamics, the origin and evolution of the Universe. Units: 6.

Prerequisite: PHYS 225 and PHYS 230

PHYS 570: *Biological Physics*
Develops and explores the physical principles underlying biological systems, with a particular emphasis on building quantitative models. Applies fundamental topics including thermodynamics, fluid dynamics, elasticity, and electrostatics to model molecular and cellular phenomena such as gene expression, virus assembly, DNA bending and stretching, and nerve impulses. Units: 6.

Also listed as Biology 570

Prerequisite: PHYS 151, and one of PHYS 230, CHEM 252, CHEM 340, or BIOL 354

PHYS 590: *Tutorial Studies in Physics*
Readings of texts and/or current literature to study a topic not covered in regular offerings. Topics must be carefully defined and a bibliography assembled before permission to enroll is granted. Units: Variable.

Prerequisite: Counter Registration Required.

PHYS 591: *Directed Study in Physics*
Directed study follows a syllabus set primarily by the instructor to meet the needs or interests of an individual student or small group of students. The main goal of directed study is knowledge or skill acquisition, not research or creative work. Units: Variable.

Prerequisite: Counter Registration Required.

PHYS 599: *Independent Study in Physics*
Theoretical or experimental independent study. A written proposal must be submitted to the department at least one term before enrolling. Recent independent studies have been undertaken in fluid mechanics, general relativity, atomic systems coupled to electromagnetic fields, phase transitions in liquid crystals, plasma physics, and robotics. Units: Variable.

Prerequisite: Counter Registration Required.

PHYS 650: *Senior Seminar in Physics*
This course is a weekly seminar during which physics majors in their final year work on and deliver oral presentations based on their senior experience study projects. Units: 2.

Prerequisite: Limited to physics majors in their final year who have completed (or are currently conducting) a senior experience independent study project

PHYS 690: *Tutorial Studies in Physics*
Readings of texts and/or current literature to study a topic not covered in regular offerings. Topics must be carefully defined and a bibliography assembled before permission to enroll is granted. Units: Variable.

Prerequisite: Counter Registration Required.

PHYS 691: ***Directed Study in Physics***
Directed study follows a syllabus set primarily by the instructor to meet the needs or interests of an individual student or small group of students. The main goal of directed study is knowledge or skill acquisition, not research or creative work. Units: Variable.

Prerequisite: Counter Registration Required.

PHYS 699: ***Independent Study in Physics***
Theoretical, experimental and/or computational independent study. Projects undertaken in satisfaction of the senior experience requirement in physics use this designation. A written proposal must be submitted to the department at least one term before enrolling.
Units: Variable.

Prerequisite: Counter Registration Required.

Professors: Glick (Henry Merritt Wriston Professorship in the Social Sciences, chair Term I), Gottfried, Haines* (chair Terms II and III), Hetzler, Metalsky**

Associate professor: Ansfield

Assistant professor: Hilt

Lecturer: Senzaki

*On leave Term I; **On leave Term II

Introduction

Psychology is the science of mind and behavior. The psychology curriculum is well balanced to represent the breadth of the core areas of psychology (clinical, cognitive, developmental, health, neuroscience, personality, and social psychology) and provide opportunity for the in-depth study of specific topics (e.g., psychopharmacology, music, language, psychopathology, adolescent development, prejudice, emotion). Research, through which psychological theories are developed and tested, is emphasized throughout the curriculum.

Required for the psychology major

1. PSYC 100, 280, 281, and MATH 107 or 207†
2. Two courses from Group I and two courses from Group II:
    a. Group I: PSYC 240, 250 or 290, 260 or 265, 245 or 270
    b. Group II: PSYC 340 or 380, 350 or 360, 370
3. One of the following advanced courses in psychology requiring a literature review, which should be taken before PSYC 610: PSYC 335, 420, 460, 480, 530, 540, 560, 570, 575, or 580.
4. PSYC 610: *Senior Capstone*
5. Another six units in psychology (Any six units, which may be accrued over more than one term)
6. One of the courses must have a lab (viz., PSYC 265, 335, 340, 355, 380, 530).
7. C average in the major

†For students also majoring in anthropology, ANTH 207 can fulfill the MATH 107 or 207 requirement; for students also majoring in biology or neuroscience, BIOL 170 can fulfill the MATH 107 or 207 requirement.

Structure and goals of the major curriculum

Requirements for the psychology major are structured so that students gain a broad knowledge of psychology while also completing a core course sequence that systematically develops skills relevant to understanding and producing psychological advances.

The core courses begin with *Principles of Psychology* (PSYC 100), typically taken in the freshman year, a broad introduction to psychological science that provides a framework (of key theories, terminology, methods, and findings in the core areas of psychology) on which all later courses build. Majors are encouraged to take *Statistics* (MATH 107) and the two-term *Research Methods in Psychology* (PSYC 280 and 281) sequence in the sophomore year and certainly no later than the junior year. The methods sequence teaches students to think like research psychologists, from “what constitutes a worthwhile and testable hypothesis?,” to designing, running, analyzing, and reporting an original empirical project. In the junior year, students select an advanced course in which they not only explore a topic in greater depth, but also learn how to write a synthetic, integrative, and critical review of a research area. The skills developed throughout the core courses are brought together in *Senior Capstone* (PSYC 610), in which each student chooses his or her own topic to explore, culminating in a project that is presented both in a senior thesis and a public oral presentation. The project may involve a critical review of past theory and research, a proposal for an original empirical study, an original empirical study report, a theory development paper, or a paper that integrates a student’s applied work with its wider scholarly context.

Together, the core courses are aimed at systematically developing key skills related to general learning outcomes, including the abilities to: think critically (e.g., construct a thesis, supported by appropriate arguments and evidence), write and communicate effectively, synthesize current knowledge, and test novel hypotheses.

To ensure that majors are also exposed to the breadth of psychological science, they must also complete two courses in the cognitive/experimental/biological areas of psychology as well as two courses in the developmental/health/social/clinical areas of psychology.

Majors should complete *Research Methods* before taking laboratory courses numbered 335 or above or courses numbered 380 or above. Concurrent enrollment in MATH 107 with PSYC 280: *Research Methods I* is preferred. Alternatively, MATH 107 or 207 may be taken prior to *Research Methods I*.

Research opportunities

Majors complete empirical research projects in *Research Methods*, but are also encouraged to do so in laboratory and topics courses, and in close collaboration with faculty members in independent study. Students have access to the department’s extensive laboratory facilities for research in neuroscience, acoustical analysis, child development, animal and human learning, social, personality, and clinical psychology. We highly recommend that students who wish to pursue honors projects or empirical projects for PSYC 610 begin them in their junior year.

Applied opportunities

Several opportunities to receive course credit for work within applied settings (e.g., working in a clinical setting in the community) are regularly available—see PSYC 451. Other practica that similarly combine academic and applied components may be arranged. This includes various opportunities for placement at non-profit human services programs in the local community. For information on such practica, contact career services (920-832-6561), Beth Haines (920-832-6708), or Lori Hilt (920-832-7050).

Required for the psychology minor

1. PSYC 100 and MATH 107 or 207†
2. One course from Group I and one course from Group II:
    a. Group I: PSYC 240, 245, 250, 260, 265, 270, 290
    b. Group II: PSYC 340, 350, 360, 370, 380
3. An additional 12 units in psychology, including 6 units from a course numbered 300 or higher (not including 610).
4. One course must have a lab (viz., PSYC 265, 280/281††, 335, 340, 355, 380, 530).
5. C average in the minor

† For students also majoring in anthropology, ANTH 207 can fulfill the MATH 107 or 207 requirement; for students also majoring in biology or neuroscience, BIOL 170 can fulfill the MATH 107 or 207 requirement.

††Must complete both terms of PSYC 280, 281 to meet this lab requirement.

Preparation for graduate school

The major program prepares students well for graduate study in psychology or related fields. Students interested in graduate study should consider conducting research with a faculty member, consider taking PSYC 480, and fully utilize career services and alumni who have gone to graduate school. Names and contact information for alumni can be obtained through the alumni and constituency engagement office. For those who pursue other careers, the research skills learned by majors are widely applicable. Students who are interested in the major program or curious about what kind of career opportunities exist in the field of psychology are urged to visit career services for more information. Students interested in mental health careers should pay particular attention to the department's clinical psychology sequence: PSYC 250 or 290, PSYC 335 or 355, and PSYC 451. Students are encouraged, but not required, to take PSYC 335 or 355 and PSYC 451 (*Field Experience in Clinical Psychology*) in consecutive terms. PSYC 451 allows students to gain supervised practical experience at a local mental health facility. Students interested in graduate study should speak to their advisors and take a topics course related to their area of interest.

Off-campus study

See urban studies.

Advanced placement

Students who score 4 or better on the Psychology Advanced Placement Examination of the College Entrance Examination Board are given credit for PSYC 100 (which fulfills one of the major requirements). Students who plan to major in psychology and place out of PSYC 100 are advised to take one or two courses in Group I during their freshman year. A score of 4 or better in AP Statistics can substitute for the MATH 107 requirement.

Senior Experience in psychology

In the Psychology department's senior capstone (PSYC 610), small groups of students meet in independent seminar sections supervised by a faculty mentor. Sections meet to discuss common readings, provide constructive criticism of each other's work, and to allow students to present work in progress. Discussions, papers, and presentations enhance students' abilities to conceptualize important questions within the context of the discipline, formulate ways to answer those questions, and present ideas clearly and cogently in both written and oral form. Students pursue their project over the academic term, culminating in a senior thesis and a public senior oral presentation.

The centerpiece of the capstone experience is an original senior project, allowing students to pursue their own interests in depth, encouraging autonomy and creativity. In consultation with the faculty mentor, students will choose one of the following types of papers: a critical review of past theory and research, an original empirical study report, a theory development paper, or a paper that integrates a student's applied work (e.g., in an internship) with its wider scholarly context. Students pursuing double degrees, double majors, and education certification are strongly encouraged to consult with their advisors and relevant department chairs to plan and negotiate their overall *Senior Experience* as early as possible, especially if they are interested in pursuing an interdisciplinary capstone that integrates their interests in both majors, or combines their student teaching with a project in their major.

COURSES

PSYC 100: *Principles of Psychology*
An introduction to the science of mind and behavior with an emphasis on empirical approaches. Includes a survey of the contributions to our understanding of behavior by research and theory in the various topical areas of psychology and careful consideration of continuities between those topical areas. Units: 6.

PSYC 180: *Psychology of Learning*
An investigation of how people learn. This course examines learning theories (*e.g.,* behavioral, humanistic, cognitive, constructivist) and their implications for the educational process in schools. Other topics include learning and the brain, the nature of expertise, the design of learning environments, and approaches to instruction that promote meaningful learning. Practicum of 20 hours required. Units: 6.

Also listed as Education Studies 180

PSYC 191: *Directed Study in Psychology*
Directed study follows a syllabus set primarily by the instructor to meet the needs or interests of an individual student or small group of students. The main goal of directed study is knowledge or skill acquisition, not research or creative work. Units: Variable.

Prerequisite: Counter Registration Required.

PSYC 195: *Practicum in Psychology*
Practica include a wide variety of fieldwork opportunities in psychology. For example, students might do applied work in the areas of domestic violence, mental health treatment, family legal services, victim assistance, developmental disabilities, human resources, or school psychology. Practica can be done during the academic year (at local placements or on campus) or during the summer. The academic component of the internship includes readings related to the substance of the internship, discussions with the faculty supervisor, and a written report appropriate to the discipline. Course grades are based on this academic work. Units: Variable.

Prerequisite: Counter Registration Required.

PSYC 220: *The Holocaust*
An examination of the social psychological dimensions of the Holocaust. Topics include social psychological and cultural origins of the Holocaust (including the role of Christian anti-Semitism); social psychological aspects of Nazi ideology; and understanding perpetrators, victims, and bystanders. Units: 6.

Prerequisite: Sophomore standing

PSYC 230: *Psychology of Music*
A scientific approach to questions about musical structure and its effect on human behavior and mental experience. Topics include the physical characteristics of sound that specify pitch, loudness, and timbre; the perception of melody and rhythm; the universality of musical structures; the psychology of musical ability and performance; and the effect of music on emotions. Ability to read music and familiarity with the basics of music theory recommended. Units: 6.

Prerequisite: PSYC 100 or sophomore standing; ability to read music and familiarity with the basics of music theory recommended

PSYC 245: *Health Psychology*
This course explores the link between mind and body from various psychological perspectives such as social, clinical, and psychobiological. We will survey the role of stress, emotion, self-regulation, and individual differences as predictors of health and illness. We also will examine assessment, diagnostic, treatment, and ethical issues in psychophysiological disorders. Units: 6.

Also listed as Biomedical Ethics 245

Prerequisite: PSYC 100 or sophomore standing

PSYC 250: *Psychopathology*
A study of the major mental disorders. Theory and research into the origins of each disorder are examined from a variety of perspectives (psychoanalytic, biological, cognitive, behavioral, and humanistic). Units: 6.

Prerequisite: PSYC 100 or sophomore standing

PSYC 255: *Topics in Psychology*
Topics courses will explore a particular topic in psychology at the intermediate level. Topics will vary with each offering of the course. Different offerings of the course may be taken for credit with the instructor's consent. Units: 6.

Prerequisite: PSYC 100 or sophomore standing.

PSYC 260: *Developmental Psychology*
A study of the development of behavior and mental processes from conception through middle childhood. Topics include prenatal development, attachment, children’s language skills, social and cognitive development. A variety of theoretical perspectives are covered. Units: 6.

Prerequisite: PSYC 100 or sophomore standing

PSYC 265: *Developmental Psychology (with laboratory)*
Identical in content to Psychology 260, but requiring a weekly three-hour laboratory that involves systematic work with infants and children to learn assessment techniques and experimental methodologies for the study of development. Units: 6.

Prerequisite: PSYC 100 or sophomore standing

PSYC 270: *Social Psychology*
A psychological approach to the study of individuals in a social context. Research and theories concerning personality, emotion, cognition, and perception are used to understand such topics as self-identity, perception of others, prejudice, social influence, and personal relationships. Units: 6.

Prerequisite: PSYC 100 or sophomore standing

PSYC 280: *Research Methods I*
The first course in a two-term sequence designed to introduce psychology majors to the principles of research design, data collection, data analysis, and research report writing. This term focuses on philosophy of science, the role of theory in research, and research design. Students design an empirical project to be executed during *Research Methods II*. Sequence should be taken in the sophomore year and in consecutive terms. Units: 6.

Prerequisite: Sophomore standing and previous or concurrent enrollment in either MATH 107 or MATH 207

PSYC 281: *Research Methods II*
The second course in a two-term sequence for psychology majors (see Psychology 280). This term focuses on the execution of empirical research projects, analysis of data, inferential and advanced correlational statistics, and interpretation of results. Students complete an empirical project. Sequence should be taken in the sophomore year and in consecutive terms. Units: 6.

Prerequisite: PSYC 280

PSYC 285: *Cross-Cultural Psychology*
An examination of the intricate connections between cultural experiences and psychological processes. Topics include cultural contributions to development and socialization, identity and personality, morality and religion, emotions, and interpersonal relationships. Emphasis will be placed on developing an understanding of cultural and cross-cultural research methods and critical interpretation of research results. Units: 6.

Prerequisite: PSYC 100 or sophomore standing

PSYC 290: *Developmental Psychopathology*
Using developmental psychopathology theory, this course involves the examination of psychological disorders in children and adolescents. The course emphasizes the complex interplay of biological and psychological factors over the course of development that lead to different outcomes. Several topics are covered including ADHD, anxiety, autism, conduct disorder, eating disorder, depression, and self-harm. Units: 6.

Prerequisite: PSYC 100 or sophomore standing

PSYC 310: *Psychology of Gender*
An examination of theory and research on gender identity, gender roles, discrimination, and gender similarities and differences. Topics include gender stereotypes, gender identity development, sexual orientation, sex education, as well as intersections of gender with other aspects of identity. Units: 6.

Also listed as Gender Studies 270

Prerequisite: Sophomore standing

PSYC 335: *Clinical Psychology with Lab*
This course focuses on the assessment and treatment of mental disorders. Each of the major approaches to conducting psychotherapy (e.g., psychodynamic, cognitive, behavioral, humanistic, etc.) is examined. Students also start developing their clinical assessment skills. Units: 6.

Prerequisite: PSYC 250 or PSYC 290 and sophomore standing

PSYC 340: *Cognitive Psychology*
An investigation of the mental processes involved in the acquisition, organization, and use of knowledge. Information-processing and other approaches are used to study pattern recognition, attention, memory, imagery, problem-solving, and related topics. One laboratory per week involving class demonstrations and experiments. Units: 6.

Prerequisite: PSYC 100 or sophomore standing

PSYC 350: *Psychopharmacology and Behavior*
An interdisciplinary examination of the ways in which behaviorally active drugs exert their effects, drawing on research in pharmacology, psychology, biochemistry, anatomy, and neurophysiology. Provides an understanding and appreciation of the role of behaviorally active drugs in people’s lives, today and in the past. Units: 6.

Prerequisite: Sophomore standing; at least one prior biology course recommended

PSYC 355: *Child Clinical Psychology*
This course focuses on major approaches to psychotherapy with children and adolescents. Students will learn techniques for assessment and diagnosis and learn about empirically supported treatments for children and adolescents with mental disorders. A weekly lab will focus on developing clinical skills to work with children and families. Units: 6.

Prerequisite: PSYC 250 or PSYC 290 and sophomore standing, or consent of instructor

PSYC 360: *Brain and Behavior I*
An introduction to the structure and function of the nervous system and its relationship to behavior. Topics include cellular physiology, neuroanatomy, sensory processes, motor control, and neuropharmacology. No laboratory. Units: 6.

Prerequisite: Sophomore standing; at least one biology course recommended

PSYC 370: *Perception*
An introduction to the physiological and psychological processes by which we receive, transform, and use the information from the world acquired through our senses. Special emphasis on visual and auditory perception to allow a more in-depth study of two perceptual systems and to provide information useful to those interested in the visual arts and music. Units: 6.

Prerequisite: PSYC 100 or sophomore standing

PSYC 375: *Introduction to Phonetics*
An introduction to the science of speech sounds, focusing on descriptive and experimental studies of articulation and speech acoustics. Laboratory demonstrations of speech production, acoustical analysis, and speech synthesis are combined with lecture/demonstrations to relate phonetics research to theories of phonology and language acquisition. Units: 6.

Also listed as Linguistics 370

Prerequisite: LING 150, PSYC 340, or consent of instructor

PSYC 380: *Learning and Conditioning*
An investigation of the basic principles of learning, including classical conditioning, operant conditioning, punishment, biological constraints on learning, and behavior modification. One laboratory per week involving animal learning experiments. Units: 6.

Prerequisite: PSYC 100 and sophomore standing, or consent of instructor; PSYC 280 and 281 recommended

PSYC 381: ***Learning and Conditioning***
This course is identical in content to PSYC 380, but it has no laboratory. An investigation of the basic principles of learning, including classical conditioning, operant conditioning, punishment, biological constraints on learning, and behavior modification. Units: 6.

Prerequisite: PSYC 100 and sophomore standing, or consent of instructor

PSYC 390: ***Tutorial Studies in Psychology***
Advanced study arranged and carried out under the direction of an instructor. Units: Variable.

Prerequisite: Counter Registration Required.

PSYC 391: ***Directed Study in Psychology***
Directed study follows a syllabus set primarily by the instructor to meet the needs or interests of an individual student or small group of students. The main goal of directed study is knowledge or skill acquisition, not research or creative work. Units: Variable.

Prerequisite: Counter Registration Required.

PSYC 395: ***Practicum in Psychology***
Practica include a wide variety of fieldwork opportunities in psychology. For example, students might do applied work in the areas of domestic violence, mental health treatment, family legal services, victim assistance, developmental disabilities, human resources, or school psychology. Practica can be done during the academic year (at local placements or on campus) or during the summer. The academic component of the internship includes readings related to the substance of the internship, discussions with the faculty supervisor, and a written report appropriate to the discipline. Course grades are based on this academic work. Units: Variable.

Prerequisite: Counter Registration Required.

PSYC 399: ***Independent Study in Psychology***
Advanced research, arranged in consultation with the department. Students considering an honors project should register for this course, for one or more terms. Units: Variable.

Prerequisite: Counter Registration Required.

PSYC 420: ***Clinical and Affective Neuroscience***
This course focuses on advanced topics in neuroscience involving emotion. We will explore emerging knowledge of the brain's involvement in emotional behaviors, including physiological and psychological states. Course topics include: neural plasticity, human neuroscience methods, emotions, and pathophysiology of affective disorders. Units: 6.

Prerequisite: PSYC 350 or PSYC 360

PSYC 451: ***Field Experience in Clinical Psychology***
Practical experience working in clinical settings in the local community. Students spend 10 hours per week at assigned settings, attend regular class, and complete complementary readings. Applications must be submitted by the end of the fifth week the term that immediately precedes the term in which the course it taught. Units: 6.

Prerequisite: Junior standing as a psychology major, PSYC 250 or PSYC 290, PSYC 335 or PSYC 355, and consent of instructor

PSYC 460: ***Adolescent Psychology***
An examination of development during the years between the onset of puberty and early adulthood. Topics include theories of adolescence, achievement motivation, identity formation, gender and sexuality, and family and peer relations. Units: 6.

Prerequisite: PSYC 260 or 265

PSYC 480: ***Historical Origins and Contemporary Viewpoints of Psychology***
A survey of the origins of modern psychology, examining the influence of various philosophical perspectives and the transition to current scientific approaches. Works by authors of historical significance and current trends in psychological theory and practice are read and evaluated. Units: 6.

Prerequisite: Junior standing and at least one course in psychology, or consent of instructor

PSYC 525: ***Brain and Behavior II (no lab)***
This course is identical in content to PSYC 530, but it has no laboratory. An examination of the interrelationships between the brain and behavior. Topics include sleep, language, motivation, emotions, learning, and mental disorders. Units: 6.

Prerequisite: PSYC 360

PSYC 535: ***Workshops and Mini-courses in Psychology***
These workshops and mini-courses are designed to cover specialized topics within Psychology either emerging as important research areas or are advanced techniques used to address questions in Psychology. Units: Variable.

PSYC 540: ***Topics in the Psychology of Language***
An examination of the nature and structure of language, integrating knowledge from linguistics, psychology, neurophysiology, and sociology. Focus on the psychological theories and experimental evidence about language production and perception. Units: 6.

Also listed as Linguistics 450

Prerequisite: PSYC 340, LING 150, or consent of instructor

PSYC 545: *Gesture Studies*
Gesture studies is an interdisciplinary field that examines the use of the hands and other parts of the body in communication and cognition. In this seminar we discuss studies of gesture types, universals, and variations; gesture development; gesture production and perception; relations of gesture to thought and language (spoken and signed); and functions of gesture in human interaction, problem-solving, and learning. Units: 6.

Also listed as Education Studies 545, Linguistics 545

Prerequisite: One course in linguistics or psychology, or consent of the instructor

PSYC 560: *Topics in Gender and Social Development*
This seminar examines social development in childhood and adolescence. A variety of issues will be explored including achievement motivation, attachment, and parenting. Special emphasis is given to the topics of gender identity, gender roles, sex education, and sexual orientation.

Topic for Winter 2017: Gender and Social Development

Special emphasis is given to the development of gender identity, gender roles, and sexual orientation. Other topics include sex education, parenting, and LGBT youth risk and resilience.

Units: 6.

Also listed as Gender Studies 560

Prerequisite: PSYC 260 or 265, or PSYC 310, or consent of instructor

PSYC 570: *Topics in Prejudice*
Examination of the psychology of prejudice. Readings and discussions cover general theories of prejudice as well as the dynamics of specific types of prejudice (*e.g.,* racism, sexism). The specific areas covered may shift from year to year.

Topic for Fall 2016: Sex and Sexism

Examines social psychological theories and research on how gender affects social interaction, especially how heterosexual attraction shapes and maintains traditional sexist attitudes, subtle biases, and continued gender inequality. Requires in-depth critiques of published studies; intended for junior or senior psychology majors who have completed the Research Methods in Psychology sequence.

Units: 6.

Also listed as Gender Studies 570

Prerequisite: PSYC 270 and 281, or consent of instructor

PSYC 580: *Topics in Neuroscience*
A study of the nervous system from the perspectives of psychology and biology. Topics vary year to year and may include glial cells, neural development, and the evolution of nervous systems and neurotransmitter systems. Lecture only. May be repeated when topic is different.

Topic for Spring 2017: The Mindful Brain

Mindfulness meditation involves paying attention, on purpose and without judgment. With roots in Eastern philosophy, it has been applied to the treatment of various physical and mental conditions in contemporary Western medicine and psychotherapy. This course will explore research on how mindfulness meditation changes the brain.

Units: 6.

Also listed as Biology 340

Prerequisite: CHEM 116, BIOL 150 and one course in psychology; or PSYC 360 and one course in biology; or consent of instructor

PSYC 590: *Tutorial Studies in Psychology*
Advanced study arranged and carried out under the direction of an instructor. Units: Variable.

Prerequisite: Counter Registration Required.

PSYC 591: *Directed Study in Psychology*
Directed study follows a syllabus set primarily by the instructor to meet the needs or interests of an individual student or small group of students. The main goal of directed study is knowledge or skill acquisition, not research or creative work. Units: Variable.

Prerequisite: Counter Registration Required.

PSYC 595: *Practicum in Psychology*
Practica include a wide variety of fieldwork opportunities in psychology. For example, students might do applied work in the areas of domestic violence, mental health treatment, family legal services, victim assistance, developmental disabilities, human resources, or school psychology. Practica can be done during the academic year (at local placements or on campus) or during the summer. The academic component of the internship includes readings related to the substance of the internship, discussions with the faculty supervisor, and a written report appropriate to the discipline. Course grades are based on this academic work. Units: Variable.

Prerequisite: Counter Registration Required.

PSYC 599: *Independent Study in Psychology*
Advanced research, arranged in consultation with the department. Students considering an honors project should register for this course, for one or more terms. Units: Variable.

Prerequisite: Counter Registration Required.

PSYC 610: ***Senior Capstone I***
Required for senior psychology majors. Section meetings focus on discussions of readings related to section topics and to student projects. Students will complete a substantial written senior thesis based on an original empirical project, applied work, or critical review of established research and theory. Students will publicly present their work in senior presentations. Units: 6.

Prerequisite: Senior standing and declared major in psychology

PSYC 690: ***Tutorial Studies in Psychology***
Advanced study arranged and carried out under the direction of an instructor. Units: Variable.

Prerequisite: Counter Registration Required.

PSYC 691: ***Directed Study in Psychology***
Directed study follows a syllabus set primarily by the instructor to meet the needs or interests of an individual student or small group of students. The main goal of directed study is knowledge or skill acquisition, not research or creative work. Units: Variable.

Prerequisite: Counter Registration Required.

PSYC 695: ***Practicum in Psychology***
Practica include a wide variety of fieldwork opportunities in psychology. For example, students might do applied work in the areas of domestic violence, mental health treatment, family legal services, victim assistance, developmental disabilities, human resources, or school psychology. Practica can be done during the academic year (at local placements or on campus) or during the summer. The academic component of the internship includes readings related to the substance of the internship, discussions with the faculty supervisor, and a written report appropriate to the discipline. Course grades are based on this academic work. Units: Variable.

Prerequisite: Counter Registration Required.

PSYC 699: ***Independent Study in Psychology***
Advanced research, arranged in consultation with the department. Students considering an honors project should register for this course, for one or more terms. Units: Variable.

Prerequisite: Counter Registration Required.

Professor: Carr

Associate professors: Smith (chair), Vorenkamp

Assistant professor: Kassor

Post-doctoral fellow: Rubin (Postdoctoral Fellow in Religious Studies)

Introduction

Courses in Christianity, Buddhism, and Islam form the core offerings in the department. Students examine cultural and social expressions of those religions (sacred texts, rituals, instances of ecstasy and enthusiasm, reflective writings, institutions) at a particular period, over time, and in relation to broader historical, philosophical, and ethical issues. In addition, a number of elective courses are offered that focus on a particular theme, issue, or tradition not covered in the core offerings. Such courses include *Gandhi*, *Rationality and Religious Beliefs* and Hebrew Prophets and *Religion of Ancient Egypt*.

Required for the religious studies major

The major in RLST comprises the following courses:

1. RLST 100: *Introduction to Religious Studies*
2. Three 200 level courses on religious traditions (Hinduism, Buddhism, Christianity, Islam, Judaism, Ancient Egypt)
3. Two 300-level theory courses (*Rationality and Religious Belief, Cities of Faith and Power, Nietzsche/Freud*, and *Religion and Global Systems*)
4. One 500-level seminar course
5. RLST 610: *Senior Projects*
6. Two electives

Independent studies/tutorials can be used to fulfill only the elective requirements.

For graduation majors must complete a senior capstone project, which includes taking the *Senior Projects* course and presenting at the RLST symposium at the end of spring term of their senior year.

Required for the religious studies minor

The minor in religious studies is intended to enable students in related fields to concentrate on the religious tradition connected to their area of interest. Requiring both the introductory course and at least one course outside that tradition ensures that religious studies minors will also develop some expertise in the overall study of religion. The minor requires a minimum of five courses (30 units), to include:

1. RLST 100: *Introduction to Religious Studies*
2. Two courses (12 units) in one of the following areas: Buddhism, Islam, Christianity
3. A seminar-level course (6 units)
4. One additional six-unit course outside the chosen area
5. A C average in the minor is also required.

Graduate school

Students considering graduate work in religious studies should note that completion of a graduate degree typically requires demonstrated proficiency in at least one modern foreign language (normally French or German) as well as one or more additional languages (depending on the area of concentration). College work leading toward graduate study should be planned with these requirements in mind.

Senior Experience in religious studies

The Department of Religious Studies' *Senior Experience* is a one-term senior seminar (usually taught in the Spring Term) that examines approaches to the study of religion selected from a school of thought or a more eclectic group of authors. Additionally, students are required to participate in an informal departmental colloquium, in which student work is presented and discussed by majors, minors, and faculty. Students pursuing double majors, double degrees, and education certification are strongly encouraged to consult with their advisors and relevant departments to plan and negotiate their overall *Senior Experience* as early as possible, especially if they are interested in pursuing an interdisciplinary capstone that integrates their interests in both majors, or combines their student teaching with a project in their major.

COURSES

RLST 100: *Introduction to Religious Studies*

An introduction to the academic study of religion exploring cross-culturally some of the fundamental ways in which people experience and understand religion. Questions addressed include: What is religion? What are the basic forms of religious life? What connections exist among self-identity, the sacred, and society? How do those connections help to establish meaning and values in human existence? How is religious knowledge possible? Readings include primary religious texts and critical reflections on religion. Intended primarily for freshmen and sophomores or students with no prior work in the religious studies department. Units: 6.

RLST 150: *Introduction to the Hebrew Bible*

The purpose of this course is to survey the various genres of the Hebrew Bible, including narrative, law, poetry, historiography and prophecy. The main focus of the course will be a close reading of primary texts in order to familiarize students with major themes and scholarly debates. All readings are in English. Units: 6.

RLST 191: *Directed Study in Religious Studies*

Directed study follows a syllabus set primarily by the instructor to meet the needs or interests of an individual student or small group of students. The main goal of directed study is knowledge or skill acquisition, not research or creative work. Units: Variable.

Prerequisite: Counter Registration Required.

RLST 205: *Religion and the Biosphere*
A look at how humans have made sense of existing in the biosphere. We will examine views on the nature of life in religious traditions like ancient Egypt and Jainism as well as early philosophical accounts. The second half will involve a close reading of Charles Darwin and reflection on resources offered by religious traditions to respond to the "sixth extinction." Lecture/discussion with written assignments and journaling on the coming of spring. Units: 6.

Prerequisite: Sophomore standing

RLST 210: *Hinduism*
A survey of the religious and philosophical elements that constitute the broad system of beliefs known as Hinduism. Emphasis is placed on intellectual history, but dominant patterns of ritual and religious experience are also covered. Readings include primary texts and associated commentaries. Units: 6.

RLST 215: *Buddhism in India and Tibet*
An introductory survey of Buddhist thought and practice in India and Tibet. The historical development of key Buddhist concepts and schools is emphasized. Readings include translations of Buddhist canonical works. Units: 6.

RLST 225: *Introduction to Judaism: Canon, Thought, Practice*
The oldest monotheistic religion, studied through its classic texts (including the Bible, Talmud, Maimonides, the Zohar and much more). Readings of the modern era will highlight the shift from a religion to a national/ethnic identity. In addition, key terms of the Jewish cycle of life will be introduced. Units: 6.

Also listed as Ethnic Studies 224

RLST 226: *Religion in Indonesia*
This course will study the religious traditions of Indonesia. We will concentrate on the island of Java and the history of the dominant Islamic faith, but we will also examine the Hindu, Buddhist, and Christian traditions in Indonesia and the form of civil religion known as Pancasila. Not open to students who have previously received, or need to receive credit for RLST 526. Units: 6.

RLST 227: *Religion in South Asia*
What do religious texts instruct, and what do people do with those instructions? This lecture/discussion course examines the relationships between religious traditions in India, Nepal, and Bhutan as understood through texts and as enacted in everyday life. Through texts, film, comic books and art, we will explore the origins and development of Hinduism, Jainism and Buddhism in light of political change, modernization and globalization. Units: 6.

RLST 235: *The Israeli-Palestinian Conflict: Founding Myths and Contemporary Realities*
This course will examine key events in the Israeli-Palestinian conflict with special attention to the religious context, including themes such as sacred space, holy war, martyrdom, and messianism. These will be discussed in the context of 1948 and 1967 wars, Jewish settlers, the rise of Hamas, and Christian evangelism. Units: 6.

RLST 236: *The Arabic Novel and the Taboo*
An introduction to contemporary novels from the Middle East and North Africa that explores how Arab writers deal with religious, social, political and sexual taboos in their artistic works as well as issues of censorship and confiscation of literary productions. Lecture with group presentations, class discussions and a final analytical paper. Units: 6.

RLST 240: *Islam*
An introduction to Islam. Students will study primary sources beginning with the Quran and ending with a contemporary Muslim writer. Attention will be focussed on both the theological development of Islam and its lived experience as witnessed through the arts and architecture. Units: 6.

RLST 245: *Apple, Google, Facebook*
Our current relation to technology and information feels new, yet it fits with the cultural and religious transformations pointed to in Robert Bellah's classic *Habits of the Heart*. The innovation exemplified by the three corporations in the title is changing notions of religiosity and our understanding of religious traditions. Units: 6.

Prerequisite: Sophomore standing

RLST 246: *Gender and Body in Jewish Literature*
This course will explore representations of gender and body in Jewish literature from the ancient period to contemporary times. Issues will include Jewish law, the image of god, constructions of masculinity and femininity in the jewish tradition, and female heroines. Units: 6.

Prerequisite: Sophomore standing

RLST 260: *Christianity through the 15th Century*
An examination of the major developments in Christian thought and practice from its origin to the late Middle Ages. Topics include the formation of doctrine in the early church, Christian heresies, the cult of martyrs, the development of the monastic tradition, and the rise of the papacy. Units: 6.

RLST 265: *Arabian Nights*
The Arabian Nights, or 1001 Nights, with its imaginative stories provides a unique glimpse of popular Islam in the medieval period. In addition, its appropriations by the West allows for a study of later perceptions of the Middle East and Islam. Units: 6.

RLST 270: *Christianity in the Modern World*
A selective study of Christian history from the Reformation to the present. Special attention paid to the impact of modernity (*e.g.*, the rise of science, the development of the historical critical method, religious pluralism, secularization) on Christian belief. Units: 6.

RLST 290: *Religion in Ancient Egypt: Pyramids, Wisdom, and Eternal Life*
We will examine the religious tradition of Egypt as it developed in the old, middle, and new kingdoms. Ideas about eternal life as detailed in the Pyramid Texts and embodied in the Pyramids will be closely studied, along with the tradition of wisdom literature. Units: 6.

Prerequisite: Sophomore standing or consent of instructor

RLST 295: *The Jew as Metaphor*
This course will explore the representation of the Jew in literature, philosophy, and the social sciences. Readings will include writers such as Hegel, Marx, T.S. Eliot, Wagner, and Philip Roth. In each case the Jew functions as a metaphor that allows thinkers to articulate their own ideas about history, nationalism, culture, and religion. Units: 6.

Prerequisite: Sophomore standing

RLST 305: *Atheism*
An examination of selected works from the so-called "New Atheism" movement. Modern thinkers like Dawkins and Hitchens have forcefully attacked the history, psychology, sociology, economics and ethics of religious belief. This course will utilize their works to investigate questions such as "Is religious belief unhealthy? Immature? Dangerous?" Units: 6.

Prerequisite: Sophomore standing

RLST 306: *Nietzsche and Freud*
A critical analysis of selected works of Nietzsche and Freud, focusing in particular on their psychological models of the self and their connections to their analyses of religion. No prior knowledge of either thinker is presumed. Units: 6.

RLST 316: *Greek-Islamic Philosophical Tradition*
After covering relevant fundamentals in Greek philosophy (Aristotle and Plato), we will proceed to later philosophers, both Greek (the Neoplatonists) and Islamic (Ibn Sina, Suhrawardi), whose work inherits the same methods and questions, our special focus will be questions about philosophical method, the soul, and mystical experience. Units: 6.

Also listed as Classics 315

Prerequisite: Sophomore standing

RLST 330: *Rationality and Religious Belief*
An examination of the range of views on the relationship between reason and religion, focusing in particular on theistic belief. Questions addressed include: Can God's existence be proven? Is faith different from ordinary belief? Does mystical experience provide adequate grounds for religious belief? Units: 6.

Prerequisite: Sophomore standing

RLST 335: *Cairo: Islam in Context*
An examination of the place of Islam within medieval and modern Cairo. We will read historical and creative texts in order to better understand how this religion and social system constructed what we know as Cairo. Units: 6.

Prerequisite: RLST 240 or consent of instructor

RLST 336: *Religion and Global Systems*
This course will investigate how religious traditions shape the values and culture of nations and other large-scale groups. We will read theorists such as Karl Marx, Max Weber, Emile Durkheim, Robert Bellah, Mary Douglas, and Olivier Roy with an eye toward works that emphasize the global impact of religion. Units: 6.

RLST 343: *New England Puritan Poetry*
A study of New England Puritan poetry in the context of new world spiritual aspirations and anxieties. Readings will include sections of Martin Luther's writings and Perry Miller's and others' criticism, as well as the poems of Anne Bradstreet, Edward Taylor, Michael Wigglesworth, and other minor and post-Puritan poets. Units: 6.

Also listed as English 443

Prerequisite: Sophomore standing

RLST 350: *Gandhi*
An examination of the life, times, and thought of Mohandas Gandhi, emphasizing the religious concept of *satyagraha* (holding fast to the truth) and the philosophy of non-violence as the central precepts in his effort to transform Indian society and ultimately of his global influences. Units: 6.

Prerequisite: Sophomore standing

RLST 355: *Quran*
An examination of the Quran in its historical context, which will include reading of pre-Islamic poetry and the earliest biographical traditions about Muhammad. We will read the work of recent historians like Fred Donner and Patricia Crone who have offered revisionist views of the earliest Islamic community. Units: 6.

Prerequisite: RLST 240

RLST 365: *Faith and Power in Mediterranean Cities*
This course examines the complex histories of buildings and urban landscapes around the Mediterranean, emphasizing how religious and political structures transformed them from the Classical world, through Christian and Islamic empires, and down to modern nation states. The city of Istanbul will be a central focus, though case studies from other cities will be introduced. Units: 6.

Also listed as Art History 335

Prerequisite: Sophomore standing

RLST 390: *Tutorial Studies in Religious Studies*
Advanced research, arranged and carried out under the direction of an instructor.
Units: Variable.

Prerequisite: Counter Registration Required.

RLST 391: *Directed Study in Religious Studies*
Directed study follows a syllabus set primarily by the instructor to meet the needs or interests of an individual student or small group of students. The main goal of directed study is knowledge or skill acquisition, not research or creative work. Units: Variable.

Prerequisite: Counter Registration Required.

RLST 399: *Independent Study in Religious Studies*
Advanced research, arranged in consultation with the department. Students planning an honors project should register for this course, for one or more terms. Units: Variable.

Prerequisite: Counter Registration Required.

RLST 400: *Themes in Modern Western Religious Thought*
A critical survey of one or more of the distinctive themes in the religious thought of the West since the Reformation.

Topic for Fall 2016: Religion, Self-deception and Alienation

An exploration of the dynamic between religion (understood here primarily as belief in God), self-deception (believing something one “knows,” on some level, to be false), and alienation (estrangement from the self). Focusing primarily on five thinkers, we will ask two primary questions: Is religion an instance of self-deception or a remedy for it? Is religion the product and/or source of alienation or does it offer a positive alternative to it?

Units: 6.

Prerequisite: Sophomore standing

RLST 450: *Classic Texts in Religious Studies*
This course will focus on reading a classic text related to the field of religious studies. The work chosen could be related to the philosophy or sociology of religion or have theological or historical importance within a specific religious tradition. May be repeated when topic is different. Units: 3.

RLST 500: *Seminar: Kierkegaard*
Intensive study of the works of the Danish philosopher/theologian considered to be the father of Existentialism. Concentration on Kierkegaard's view of the self and its relation to his stages of existence, with particular attention to his view of faith. Some consideration to the historical context of his thought and his influence on 20th-century theology and philosophy. Units: 6.

Prerequisite: Junior standing or consent of the instructor.

RLST 505: *Seminar: The Bible's Earliest Interpreters*
This course will survey the reception, interpretation and adaptation of the biblical text in late antiquity by Jews, Christians, Gnostics, and others. Units: 6.

Prerequisite: Sophomore standing and one course in religious studies, or consent of instructor

RLST 510: *Seminar: Zen Buddhism*
Zen Buddhism is perhaps the most widely known form of Buddhism in the West and also the most widely misunderstood. This course provides a detailed look at the history and doctrines of Zen Buddhism in China and Japan. Combining the use of original source materials (in translation) with an emphasis on intellectual history, the course covers specific doctrines that have differentiated the major schools of Zen. Units: 6.

Also listed as East Asian Studies 510

Prerequisite: RLST 220 or RLST 216

RLST 515: *Sacred Mountains of Asia*
This course explores Asian sacred mountains from a religious and cultural perspective, focusing on the connections between traditions, following these traditions from their earliest sources to the modern period where they begin to interact with nationalism and modern recreation. This course is designed for upper-level East Asian Studies majors, Environmental Studies majors, and Religious Studies majors who are interested in the intersection between geography, religion, culture, and conservation. Units: 6.

Also listed as East Asian Studies 515

Prerequisite: Sophomore standing; EAST 140, EAST 150, or RLST 216, or consent of instructor

RLST 525: *Conversion Narratives*
This course will explore literary, philosophical and autobiographical texts dealing with conversion. While we will be focusing primarily on conversions to and from Judaism--primarily in the modern era--we will cover excerpts from Augustine's *Confessions* and St. Paul's *Letters*. Units: 6.

Prerequisite: Sophomore standing

RLST 526: *Religion in Indonesia*
This course will study the religious traditions of Indonesia. We will concentrate on the island of Java and the history of the dominant Islamic faith, but we will also examine the Hindu, Buddhist, and Christian traditions in Indonesia and the form of civil religion known as Pancasila. Students will also meet once a week to read sections of Clifford Geertz's classic *The Religion of Java* and also complete a seminar paper. Not open to students who have previously received credit for RLST 226. Units: 6.

RLST 535: *Buddhist Philosophy: What is Real and How Do We Know?*
An examination of the relationship between two principal schools of later (Mahāyāna) Buddhism and their concepts of emptiness. The Madhyamaka school views all things as devoid of independent, inherently existing essences, while the Yogācāra school believes that nothing is truly separate from the mind. We will consider fundamental texts in both traditions as they relate to metaphysics epistemology and the self. Seminar with papers. Units: 6.

Prerequisite: One course in religious studies

RLST 560: *Seminar: The Problem of Evil*
An examination of one of the classic problems of philosophy of religion; the course will examine both traditional theistic analyses of the problem (is the existence of an omni-god incompatible with the existence of evil?) as well as more recent, non-theistic analyses of evil as a social phenomenon. Units: 6.

Prerequisite: RLST 330 or consent of instructor

RLST 580: *Seminar: Islam and Globalization*
This class offers both an introduction to theories of globalization and examines how Islam has interacted over the last generation with stresses related to globalization. Readings will include works by Edward Said, Oliver Roy, V.S. Naipaul, Abdellah Hammoudi, Orphan Pmuk and Colin Thubron. Units: 6.

Prerequisite: RLST 240

RLST 590: *Tutorial Studies in Religious Studies*
Advanced research, arranged and carried out under the direction of an instructor.
Units: Variable.

Prerequisite: Counter Registration Required.

RLST 591: *Directed Study in Religious Studies*
Directed study follows a syllabus set primarily by the instructor to meet the needs or interests of an individual student or small group of students. The main goal of directed study is knowledge or skill acquisition, not research or creative work. Units: Variable.

Prerequisite: Counter Registration Required.

RLST 599: *Independent Study in Religious Studies*
Advanced research, arranged in consultation with the department. Students planning an honors project should register for this course, for one or more terms. Units: Variable.

Prerequisite: Counter Registration Required.

RLST 610: *Senior Projects*
The goal of this class is to give advanced RLST students (juniors or seniors) space to write a paper or finish a senior capstone. We will discuss the challenges of research and the use of sources. Reading will consist of contemporary academic articles designed to highlight styles of argument. Units: 6.

Prerequisite: Junior standing

RLST 690: *Tutorial Studies in Religious Studies*
Advanced research, arranged and carried out under the direction of an instructor.
Units: Variable.

Prerequisite: Counter Registration Required.

RLST 691: *Directed Study in Religious Studies*
Directed study follows a syllabus set primarily by the instructor to meet the needs or interests of an individual student or small group of students. The main goal of directed study is knowledge or skill acquisition, not research or creative work. Units: Variable.

Prerequisite: Counter Registration Required.

RLST 699: *Independent Study in Religious Studies*
Advanced research, arranged in consultation with the department. Students planning an honors project should register for this course, for one or more terms. Units: Variable.

Prerequisite: Counter Registration Required.

Associate professor: Thomas (chair)

Assistant professor: Kononova

Instructor: Krizenesky

Introduction

Lawrence offers a major in Russian studies, a major in Russian language and literature, and a minor in Russian. Requirements for each program are outlined below.

Russian is one of the world's most important and widely spoken languages. Knowledge of the Russian language helps broaden students' career opportunities and options in a variety of fields, including business and government service. Students who achieve a high level of language proficiency may wish to pursue internship opportunities available as a result of Lawrence's connections with Appleton's sister city in Russia.

In addition, Russian culture, music, art, and literature are extraordinarily rich. While the culture may be best appreciated by those who know the language, those who have no knowledge of Russian can also find much of value and interest in the study of Russian culture.

Students taking Russian at the beginning and intermediate levels concentrate on acquiring skills in speaking, listening comprehension, reading, and writing. Majors are strongly encouraged to spend a term studying in Russia. Back on campus, upper-level courses and tutorials enable students to improve their critical and analytical skills, learn more about Russia's rich literary and cultural traditions, and gain additional speaking practice. At all levels, students have the opportunity to work with tutors who are native speakers and to take advantage of extracurricular activities, such as weekly Russian Table, film showings, and immersion weekends.

Culture and literature courses taught in translation are designed not only for those studying Russian but for all students. These courses have no prerequisites, and they fulfill a number of general education requirements.

Required for the Russian studies major

1. First-year: RUSS 101, 102, 201 (or the equivalent)
2. Second-year: RUSS 211, 212, 250
3. Two courses in literature and culture, 300-level or above
4. Two courses in history
5. One course that allows students to understand Russia in a larger context, either by studying the literature or history of a neighboring country or countries or by placing Russia in a broader political and economic context as an important participant in international affairs. Consult faculty for approval of specific courses.
6. A senior-level independent study that results in the completion of a substantial research paper. Students with sufficiently advanced Russian language skills are encouraged to use some Russian language sources in conducting their research. Topics for this capstone experience are to be derived from work done in one of the following courses: RUSS 300, 305, 330, 335; HIST 315, 320, 325; GOVT 330. Other topics could be approved through consultation with program faculty.

In addition to the requirements listed above, majors are encouraged to further strengthen their Russian-language skills either by taking RUSS 280, 281 and 287 or by studying in Russia and/or in an intensive summer language program offered in the U.S.

Students with prior background in Russian who place out of the first-year sequence are required to complete additional language study for the major.

Required for the Russian language and literature major

1. First-year: RUSS 101, 102, 201 (or the equivalent)
2. Second-year: RUSS 211, 212, 250
3. Two courses in Russian literature taught in translation, level 300 or above
4. Two courses in Russian literature, taught in the original, level 300 or above
5. A senior-level independent study that results in the completion of a substantial research paper. Students would be required to analyze some work or works of Russian literature, to be read in the original.

In addition to the requirements listed above, majors are strongly encouraged to further strengthen their Russian language skills by studying in Russia and/or in an intensive summer language program offered in the U.S.

Students with prior background in Russian who place out of the first-year sequence are required to complete additional language study for the major.

Required for the Russian minor

1. First-year: RUSS 101, 102, 201 (or the equivalent)
2. Second-year: RUSS 211, 212, 250
3. Two courses in Russian literature, culture, or history, 300-level or above
4. C average in the minor

International and off-campus study

After two years of language study on campus, majors are strongly encouraged to spend a term studying in Russia. Study abroad provides an unparalleled opportunity to make gains in language proficiency and to become familiar with Russian life and culture.

Most Russian majors and minors who choose to study abroad do so through the Lawrence affiliated Bardy-Smolny exchange. This Bard College program partners with Smolny College in St. Petersburg to offer students a comprehensive Russian as a Second Language program in combination with Russian-taught elective courses. The elective courses are integrative and taken with Russian students who are regular degree-seeking students at Smolny.

Students are also encouraged to participate in intensive summer language programs offered in the United States, especially immediately prior to spending a fall term in Russia.

Senior Experience in Russian

The Russian department's *Senior Experience* consists of a senior-level independent study that further develops work done in another course.

The independent study is intended to help students prepare their capstone project, normally a research paper that makes use of some Russian-language source material. In addition, students will submit a portfolio in the second week of their final term. The portfolio consists of a list of courses and brief statement in which students evaluate their development as Russian majors.

In addition to a copy of the capstone project and the Russian language portfolio, the senior portfolio should contain four course papers, including at least one from a history course and one from a literature course. The complete portfolio will be reviewed and approved or returned for revisions before the end of the term.

Students who are pursuing a double major or teaching certification should work with all concerned departments to assess the feasibility of an interdisciplinary capstone.

COURSES

RUSS 101: *Beginning Russian I*
The first course of a three-term sequence. Once students learn the alphabet and pronunciation, they acquire a basis for speaking, understanding, reading, and writing spoken Russian. Cultural information is incorporated throughout the course. Units: 6.

RUSS 102: *Beginning Russian II*
Continued practice in speaking, reading, writing, and listening comprehension. Cultural information is incorporated throughout the course. Units: 6.

Prerequisite: RUSS 101 or consent of instructor

RUSS 150: *Popular Culture in Contemporary Russia (in English)*
This course, which deals with contemporary popular culture in Russia since 1991, will use the prism of television, film, popular literature, rock music, graphic novels, rave culture, tatoos and spectator sports to focus on such issues as ethnic conflict, sexual identity, gender, nationalism, anti-Semitism, racism, religious diversity and intolerance, Russia's relationship with the West, and the burden of/nostalgia for the Soviet past. The purpose of the course is two-fold: to familiarize students with contemporary Russia through its popular culture and to encourage cross-cultural comparisons on the ways in which American popular culture represents contemporary social issues. Taught in English. Units: 6.

RUSS 191: *Directed Study in Russian*
Directed study follows a syllabus set primarily by the instructor to meet the needs or interests of an individual student or small group of students. The main goal of directed study is knowledge or skill acquisition, not research or creative work. Units: Variable.

Prerequisite: Counter Registration Required.

RUSS 195: *Internship in Russian*
An opportunity for students to apply their Russian language skills in business, government, and the non-profit sector on the regional, national, and international levels. Arranged in collaboration with and supervised by a member of the department. Includes discussion, report, and/or portfolio. Advance consultation and application required. Credit may be given for internships completed during a period of study abroad. Units: 3.

Prerequisite: Counter Registration Required.

RUSS 201: *Intermediate Beginning Russian*
Students acquire a wider range of linguistic structures, which enables them to start speaking, reading, and writing on a higher level. Units: 6.

Prerequisite: RUSS 102 or consent of instructor

RUSS 211: ***Intermediate Russian I***
Grammar review and introduction of more complex grammatical concepts. Students read some authentic literary texts. Cultural information is presented through texts and audio-visual/computer materials. Units: 6.

Prerequisite: RUSS 201 or consent of instructor

RUSS 212: ***Intermediate Russian II***
A continuation of Russian 211. More exposure to literary texts, along with newspaper articles. Video clips continue to improve students' listening comprehension skills and cultural knowledge. Units: 6.

Prerequisite: RUSS 211 or consent of instructor

RUSS 250: ***Advanced Intermediate Russian***
A continuation of Russian 212. More intensive reading, writing, and conversational practice to provide a transition to study abroad. Units: 6.

Prerequisite: RUSS 212

RUSS 260: ***The Long Novel (in English)***
A comparative study of nineteenth century Europoean realism, with readings taken from a variety of national traditions. Authors studied may include Dickens, Flaubert, and Dostoevsky. Collaborative teaching of each text will expose participants to a wide range of critical and pedagogical methods. With instructor approval students may also register for an additional tutorial (3 units) in which we will read and discuss important theoretical works on the history of the novel form. Units: 6.

Also listed as English 245

Prerequisite: Sophomore standing

RUSS 270: ***Post-Soviet Film (in English)***
This course will focus on the works of seminal filmmakers in the post-Soviet period. Through the prism of post-Soviet films students will be introduced to contemporary Russian culture and to the issues explored within these cinematic narratives: national identity, gender relations, role of the arts in a post-Soviet society, and the re-examination of Russia's historical and cultural past. Taught in English. Units: 6.

Also listed as Film Studies 270

RUSS 280: *Topics in Russian Through Fiction and Poetry*
This course advances skills in reading, understanding, writing, and speaking Russian, with materials from the rich traditions of Russian literary culture. Readings include fiction, plays, and poetry. Conducted in Russian, with frequent writing and grammar assignments, in-class presentations, and occasional translation exercises. May be repeated for credit when topic is different.

Topic for Fall 2016: Contemporary Women's Writings

In this course we will read and discuss selected short stories by contemporary Russian female writers (Victoria Tokareva, Dina Rubina, Liudmila Petrushevskaia). Topics include family and marriage, choice of a career and lifestyle, identity crisis, and personal growth. Through regular readings, class discussions, and writing assignments students will enrich their vocabulary and advance their Russian skills.

Units: 6.

Prerequisite: RUSS 250 or consent of instructor

RUSS 281: *Topics in Russian Through Nonfiction*
This seminar-style course will allow advanced students an opportunity to further develop their proficiency. Materials include memoirs, journalism, and historical texts. Conducted in Russian, with frequent writing and grammar assignments, in-class presentations, and occasional translation exercises. It will prepare students to do more advanced research in Russian, either here at Lawrence or abroad. May be repeated for credit when topic is different.

Topic for Spring 2017: Readings in Russian Pre-Petrine History

The readings for this course are structured around Benjamin Rifkin's textbook *Advanced Russian Through History*. We will concentrate on the historical period stretching from Kievan Rus' to the end of the seventeenth century (the period before Peter the Great's westernizing reforms). Readings will be supplemented with visual materials (art, crafts, and movies). Additional readings will introduce the students to the usage of historical memory in contemporary Russian political discourse and in discussions about national identity.

Units: 6.

Prerequisite: RUSS 250 or consent of instructor

RUSS 287: *Topics in Russian Through Film*
This course will examine topics in Russian film. Topics may include specific genres (*e.g.*, the sad comedy), the work of a director or tradition, films important for a specific historical moment (*e.g.*, *The Thaw* or *World War Two*), or films devoted to a specific theme. Students will expand their Russian vocabulary, improve fluency, increase speaking confidence and gain cultural knowledge by viewing Russian films and analyzing the psychology of the characters. Throughout this course, students will be introduced to the practice of reading the filmic text using three structuring lenses: 1) history, 2) formal and generic elements, and 3) film criticism. May be repeated when topic is different.

Topic for Winter 2017: Love, Sex and Family in Late Soviet and Post-Soviet Film

In this course, we will discuss topics of love, sex, and family as they are presented in a few late Soviet and post-Soviet films (*e.g., Autumn Marathon, Adam's Rib*, etc.). Students will advance their listening, speaking, and writing skills and enrich their knowledge of vocabulary and grammar through regular writing assignments and in-class exercises and discussions.

Units: 6.

Also listed as Film Studies 287

Prerequisite: RUSS 250 or consent of instructor

RUSS 300: *Russia's Golden Age: 19th-Century Literature in Translation*
The texts studied in this course are thematically unified by their examination of romantic and sexual relationships, many of which are limited by social restrictions. Some works will be studied in conjunction with film versions. No knowledge of Russian required. Offered every other year. Units: 6.

RUSS 305: *Repression and Resistance in Soviet and Post-Soviet Literature in Translation*
Survey of Soviet and post-Soviet literature from 1920 to the present. Course will explore ways in which writers responded to, helped shape, and reacted against the Soviet system. Works will be set in historical and cultural context. No knowledge of Russian required. Offered every other year. Units: 6.

RUSS 306: *Russia on Stage: Three Centuries of Russian Theater*
This course introduces students to the rich theatrical tradition of Russia. The readings for the course span over two centuries, starting from the social comedies of the late eighteenth century to the contemporary "New Drama" and documentary theater. The plays are situated within the larger historical and political context of Imperial, Soviet and post-Soviet Russia. Lecture/discussion. Taught in English. Units: 6.

Also listed as Theatre Arts 306

RUSS 307: *Men in the Storm of History*
Narratives of WW I and the Russian Revolution. Comparisons, where applicable, with American writers influential in Russian letters. Works of Blok, Babel, Sholoxov, Pasternak, Hemingway, and Faulkner. Units: 6.

RUSS 308: *Dostoevsky, Tolstoy, and Their World (in English)*
This course explores the works, thought, and impact of two of the most profoundly important writers of the nineteenth century, Fyodor Dostoevsky and Lev Tolstoy. Possible topics include "Crimes and Punishments," "History and Narrative," and "In the Writer's Laboratory." Taught in English. Russian majors and minors may participate in a two-unit tutorial in which discussions and some course readings will be in Russian. Units: 6.

RUSS 310: *Russia's Erotic Utopia*
This course examines Russia's complex debate over the nature of sexuality, decadence, morality and mortality. Themes include the moral nature of procreation, lust, murder, and resurrection. Readings include Dostoevsky, Tolstoy, Platonov, and Nabokov, as well as film, opera, paintings, and a television mini series. In English. Units: 6.

RUSS 312: *The Russian Nabokov*
This course examines Nabokov's Russian works in the context of the Russian literary tradition. We will read poems, stories, a play, and three novels by Nabokov, as well as a sampling of the pre-revolutionary, Soviet, and émigré works upon which he drew. In English. Units: 6.

RUSS 314: *Chekhov (in English)*
The course focusses on the work, world, and influence of Anton Chekhov. Topics may include "Chekhov and the Russian Short Story," "Chekhov and Modern Russian Drama," "Chekhov on the Silver Screen," and "Chekhov and the West." Taught in English. Russian majors and minors may participate in a two-unit tutorial in which discussions and some course readings will be in Russian. Units: 6.

RUSS 320: *Topics in Russian Film (in English)*
This course explores facets of the development of Russian film in its historical and cultural context. Topics may include: "The Golden Age of Soviet Film," "The Cinema of Tarkovsky," and "Film as Propaganda." Taught in English. Russian majors and minors may participate in a two-unit tutorial in which discussions and some course readings will be in Russian. Units: 6.

Also listed as Film Studies 320

RUSS 321: ***Animal, Human, Machine: Explorations of Humanity in Russian Culture***
This course will focus on explorations of human nature and utopian visions of an ideal humanity within the context of Russian culture and literature. Texts will include literary works from both nineteenth and twentieth centuries by such authors as Tolstoy, Dostoevsky, Chekhov, Bulgakov, Platonov and Zoshchenko. In addition, students will read articles and essays in the fields of Russian psychology and philosophy. Readings and discussion will be in English. Units: 6.

RUSS 323: ***Topics in Russian History and Culture (in English)***
An interdisciplinary course examining the relationship between politics and culture in Russia since the 18th century through the close analysis of a specific historical theme. Emphasis is placed on reading and discussing literary texts, historical primary sources, and, where applicable, watching films. Possible themes include: Power and Culture in the Russian Revolution, 1900-1936; The Soviet 1960s; and The Agony of Populism: Terrorism and Literature in Russia's Nineteenth Century. Not open to students who have previously received, or need to receive credit for HIST 423. (G&C) Units: 6.

Also listed as History 323

Prerequisite: Sophomore standing and one course in Russian language, literature, or history

RUSS 335: ***Through the Eyes of Women: Women and Gender in Russian Culture (in English)***
An interdisciplinary survey course that examines femininity, womanhood and identity in Imperial, Soviet and Post-Soviet Russia. Materials include works of fiction, non-fiction, and film. No knowledge of Russian required. Units: 6.

RUSS 340: ***Russian TV Talk***
Students watch, analyze, and discuss freshly archived Russian television news. Students will increase knowledge of journalistic vocabulary and reporting styles, and develop an understanding of Russian perspectives on national and international events. May be repeated for credit. Units: 2.

Prerequisite: RUSS 250 or consent of instructor

RUSS 354: ***History of Russian and Soviet Film***
This course will introduce the student to the rich and varied tradition of Russian and Soviet cinema from the Pre-Revolutionary period to the present. Works by major filmmakers will be viewed and discussed in the context of the culture, economy, society, and politics of the time. Taught in English. Units: 6.

Also listed as History 354, Film Studies 354

Prerequisite: Sophomore standing

RUSS 361: ***Survey of 19th- and 20th-Century Russian Prose***
Primary goals are to read, discuss, and analyze selected short stories and novel excerpts by some of Russia's major writers. Units: 6.

Prerequisite: Two years of college Russian

RUSS 362: ***Survey of 19th- and 20th-Century Russian Poetry***
Primary goals are to read, analyze, and discuss lyric poems by some of Russia's major poets. Units: 6.

Prerequisite: Two years of college Russian

RUSS 363: ***Survey of 19th- and 20th-Century Russian Drama***
Primary goals are to read, discuss, and analyze several plays. Units: 6.

Prerequisite: Two years of college Russian

RUSS 390: ***Tutorial Studies in Russian***
Advanced work, in Russian, arranged and carried out in consultation with the faculty. Topics depend on the student's interest, the instructor, and the subject. Tutorials are not substitutes for courses offered elsewhere in the curriculum. Units: Variable.

Prerequisite: Counter Registration Required.

RUSS 391: ***Directed Study in Russian***
Directed study follows a syllabus set primarily by the instructor to meet the needs or interests of an individual student or small group of students. The main goal of directed study is knowledge or skill acquisition, not research or creative work. Units: Variable.

Prerequisite: Counter Registration Required.

RUSS 395: ***Internship in Russian***
An opportunity for students to apply their Russian language skills in business, government, and the non-profit sector on the regional, national, and international levels. Arranged in collaboration with and supervised by a member of the department. Includes discussion, report, and/or portfolio. Advance consultation and application required. Credit may be given for internships completed during a period of study abroad. Units: 3.

Prerequisite: Counter Registration Required.

RUSS 399: ***Independent Study in Russian***
Individualized advanced research carried out in consultation with a faculty member. Students considering an honors project in their senior year should register for an upper-level independent study for one or more terms. Units: Variable.

Prerequisite: Counter Registration Required.

RUSS 590: *Tutorial Studies in Russian*
Advanced work, in Russian, arranged and carried out in consultation with the faculty. Topics depend on the student's interest, the instructor, and the subject. Tutorials are not substitutes for courses offered elsewhere in the curriculum. Units: Variable.

Prerequisite: Counter Registration Required.

RUSS 591: *Directed Study in Russian*
Directed study follows a syllabus set primarily by the instructor to meet the needs or interests of an individual student or small group of students. The main goal of directed study is knowledge or skill acquisition, not research or creative work. Units: Variable.

Prerequisite: Counter Registration Required.

RUSS 595: *Internship in Russian*
An opportunity for students to apply their Russian language skills in business, government, and the non-profit sector on the regional, national, and international levels. Arranged in collaboration with and supervised by a member of the department. Includes discussion, report, and/or portfolio. Advance consultation and application required. Credit may be given for internships completed during a period of study abroad. Units: 3.

Prerequisite: Counter Registration Required.

RUSS 599: *Independent Study in Russian*
Individualized advanced research carried out in consultation with a faculty member. Students considering an honors project in their senior year should register for an upper-level independent study for one or more terms. Units: Variable.

Prerequisite: Counter Registration Required.

RUSS 650: *Senior Seminar*
This seminar is for advanced students to finish a senior capstone. Seniors meet with the instructor early in Fall Term to discuss individual projects and plan a research agenda. In the Winter Term seminar, students read and discuss contemporary academic articles to highlight styles of argument. The rest of the seminar involves writing workshops, presentations of individual research and discussions of specific scholarly methods. Units: 6.

Prerequisite: Declared majors with senior standing

RUSS 690: *Tutorial Studies in Russian*
Advanced work, in Russian, arranged and carried out in consultation with the faculty. Topics depend on the student's interest, the instructor, and the subject. Tutorials are not substitutes for courses offered elsewhere in the curriculum. Units: Variable.

Prerequisite: Counter Registration Required.

RUSS 691: ***Directed Study in Russian***
Directed study follows a syllabus set primarily by the instructor to meet the needs or interests of an individual student or small group of students. The main goal of directed study is knowledge or skill acquisition, not research or creative work. Units: Variable.

Prerequisite: Counter Registration Required.

RUSS 695: ***Internship in Russian***
An opportunity for students to apply their Russian language skills in business, government, and the non-profit sector on the regional, national, and international levels. Arranged in collaboration with and supervised by a member of the department. Includes discussion, report, and/or portfolio. Advance consultation and application required. Credit may be given for internships completed during a period of study abroad. Units: 3.

Prerequisite: Counter Registration Required.

RUSS 699: ***Independent Study in Russian***
Individualized advanced research carried out in consultation with a faculty member. Students considering an honors project in their senior year should register for an upper-level independent study for one or more terms. Units: Variable.

Prerequisite: Counter Registration Required

Professors: Fares, Vilches

Associate professors: Allan, Tapia (chair)

Assistant professors: Jimenez-Anglada, Seguin

Instructors: Baker, Herrera, Palomino

Introduction

Offerings in the Spanish department include a wide range of courses on the Spanish language and the cultures and literatures of Spain, Latin America, and the Latino population of the United States. All readings, audiovisual materials, class discussions, and written work are in Spanish, unless specified otherwise. At the advanced level (SPAN 300, 400, 500), students examine significant linguistic and cultural topics through an integrated and interdisciplinary curriculum. The rigorous academic work involves intensive reading, writing, discussing, and presenting in Spanish about each subject. The Spanish program prepares students for successful careers in education, government, health, business, advertising, communications, and a variety of positions in the global marketplace. Some alumni pursue graduate study in the humanities, law, medicine, psychology, international relations, public policy, and social work, among other fields. Spanish is already the second language of business in the United States. The intercultural competence, communicative expertise in several languages, and critical thinking skills developed by Spanish majors prepares them for fruitful careers and develops their awareness as global citizens.

Goals

Students who graduate with a major in Spanish acquire the following skills and knowledge:

- Advanced communicative ability in Spanish
- Deep knowledge of different Spanish-speaking cultures through their literatures, visual arts, films, and other cultural artifacts
- The capability to establish connections with additional bodies of knowledge, cultures, and peoples
- The ability to make comparisons between Spanish and their native language, as well as between various Spanish-speaking cultures and their own
- In short, the capacity to communicate expertly and participate critically in multilingual communities

These goals represent what are known as the 5c's in national standards, which Spanish majors attain through the study of Latin American, Peninsular, and US Latino cultures, literatures, cinema, arts, and other forms of contemporary media. This program of study requires an appropriately high competency in the Spanish language. To this end, all class discussions, assignments, and examinations are conducted in Spanish, except where specified.

Placement

All students who will take Spanish at Lawrence are required to take a placement examination. Students will be placed in courses according to their score in the placement test. At the course level of 300 and above, students should be mindful of the prerequisites to take a particular course and need to consult with a Spanish instructor before registering for the course. At whatever level students place, they should plan to begin their study of Spanish in the freshman year.

Meeting the language competency general education requirement

As part of its general education requirements, Lawrence requires all students to attain competency in a language other than English at the minimum level equivalent to three college terms of study (i.e. equivalent to successful completion of SPAN 201). Students can satisfy this requirement with one of the following options:

- Passing a SPAN 200-level class. Beginners can take SPAN 101, 102 and 201 in sequence (or the 18-unit intensive summer course, SPAN 200). Students must follow the recommendation accompanying your online placement score.
- Taking a written and oral competency examination in Spanish. Contact the Spanish department for scheduling this exam.
- A score equivalent to the second-year level on the CLEP examination in Spanish (63 and above). A CLEP score at the one-year level of competency is sufficient for Bachelor of Music students (52-63).
- A score of 630 or higher on the SAT Subject Spanish or Spanish with Listening exam.
- A score of 4 or 5 on the Advanced Placement (AP) examination in Spanish Language and Culture exam. Credit equivalent to one 6-unit course at the SPAN 202 level.
- A score of 4 or 5 on the Advanced Placement (AP) examination in Spanish Literature. Credit equivalent to one 6-unit course at the SPAN 300 level and it fulfills one course requirement toward the Spanish major or minor.
- A score of 6 or higher on the Spanish International Baccalaureate Examination at the advanced level. Carries credit equivalent to one 6-unit course at the SPAN 202 level.
- Providing documented proof (e.g., high school diploma) that the student’s high school program was conducted in Spanish. This option satisfies the language requirement but carries no academic credit.

Note: Lawrence University does not conduct the AP, IB, SAT II, or CLEP examinations. They can be taken at authorized test centers on a fee basis.

Required for the Spanish major

1. Ten standard courses (or a minimum of 60 units) including one 300-level course, one 400-level course, four 500-level courses, and four electives. These can include a second 300-level course. The remaining electives must be taken at the 400-level and above. They may include up to six units of internship and up to six units from approved courses outside the department, chosen from the following offerings:
    - ARHI 230: *Baroque Art*
    - ARHI 270/271: *Latin American Visual Art*
    - EDUC 563: *Foreign Language Methods*
    - HIST 155: *Gender in Latin American History 1490-1800*
    - HIST 178: *Colonial Latin American History*
    - HIST 179: *Modern Latin American History*
    - HIST 260: *Culture and Power in Renaissance Europe*
    - HIST 261: *Rebellion and Discipline in Reformation Europe*
    - HIST 371: *The Rise and Fall of American Empires*
    - HIST 374: *Visions of the Conquest*
    - HIST 378: *Ethnicity in Latin America*
    - HIST 422: *Revolt and Revolution in Latin America*
    - LING 150: *Introduction to Linguistics*
    - ENG 150: *Literary Analysis*
2. Approval of the completed *Senior Experience*: Spanish Multimedia Portfolio.
3. A grade average of C is required for the major. At least four of the advanced Spanish courses (400-level and up) must be taken on the Appleton campus.

Required for the Spanish minor

1. Six standard courses (or a minimum of 36 units) including one 300-level course, one 400-level course, two 500-level courses, and two electives. These can include a second 300-level course. The remaining electives must be taken at the 400-level and above. They may include up to six units of internship or up to six units from approved courses outside the department.
2. A grade average of C is required for the minor. At least three of the advanced Spanish courses must be taken on the Appleton campus.

Teaching certification

The Spanish department offers a course of study that prepares its majors to teach Spanish at the elementary and secondary level. Students interested in becoming licensed to teach Spanish, K-12, should plan to complete the major and should consult with the education department about certification requirements.

Study abroad

The Spanish department strongly advises majors and minors to participate in off-campus programs in Latin America or Spain to fulfill program requirements and complement departmental offerings. Non-majors with sufficient linguistic preparation are also encouraged to participate. Off-campus offerings include other disciplines in addition to Spanish, such as biology, psychology, government, economics, history, art history, music history, etc. Please contact the specific department and the director of international programs for information on credit transfer toward non-Spanish requirements.

Numbering

Courses numbered 101-201 are primarily language and general culture courses. They introduce students to the most important linguistic skills until they reach an intermediate level of competency. Any SPAN 200-level class satisfies the general education requirement in language competency. SPAN 202 is a gateway course to the major but it does not count as one of the requirements. It provides intensive practice in the linguistic and analytic skills that students will need to succeed in subsequent classes. Courses numbered in the 300s provide communicative and intellectual development through the study of specific knowledge areas (literature, film, news media, linguistics). The 400-level courses provide more advanced exploration of cultural, socio-political, artistic, filmic, and literary topics. Courses at the 500-level are seminars for advanced majors that delve into specific and sophisticated academic topics pertinent to our faculty's fields of research and expertise. Students are expected to participate fluently in high-level academic discussions and produce superior scholarly work appropriate for this last stage in their education.

Tutorial studies and independent projects can be pursued in courses numbered in the 390s and 590s, subject to faculty availability and approval by the chair of the department. Some internships are eligible to become a 595 course, subject to approval by the chair of the department and the availability of a faculty supervisor who will evaluate the corresponding academic project.

The one-unit capstone course (699) allow students to connect, reflect on, and expertly demonstrate all the areas of knowledge and proficiency studied and achieved in the major.

Native and advanced heritage speakers of Spanish are strongly encouraged to take the online placement exam and take Spanish courses at the 300 level and up. Less advanced heritage speakers may place in the 100-200-level courses with instructor's approval.

Note: The department does not offer DS/Tutorials/IS below the 300-level.

Senior Experience in Spanish

The Spanish department's *Senior Experience* consists of a multimedia portfolio that provides measurable evidence of the desired intellectual qualities, academic knowledge, cultural competence, and linguistic skills required of Spanish majors. The portfolio is a requirement for completion of the major. It presents a collection of evidence that demonstrates a student's attainment of the learning goals established by the program. The portfolio also serves as a measure of students' steady progress towards those goals by allowing comparisons between early and recent academic work, so that students can gauge their improvement and focus on the development of specific skills. Students are encouraged to provide a title for their portfolio that is appropriate and descriptive of its content.

Students pursuing double majors, double degrees, and education certification are strongly encouraged to consult with their advisors and department chairs to plan their senior experiences as early as possible, especially if they are interested in pursuing an interdisciplinary capstone.

Spanish majors are required to submit their multimedia portfolio in the required format to the Spanish department by the third Friday of their final term at Lawrence. Spanish faculty members will assess the portfolio and communicate the outcome of their evaluation to the students by the seventh week of the term. Unapproved portfolios must be revised and resubmitted before the last day of classes in order for students to graduate.

The portfolio must include the following components:

1. A cover letter*, in Spanish, which will specify the following:
    a. An individualized portfolio theme
    b. A description of the content of the portfolio
    c. A reflective statement (in Spanish) of at least two pages, in which the student:
        i. Evaluates his/her development during the years as Spanish majors
        ii. Justifies the selection of materials for the portfolio
        iii. Links the samples to their interests
        iv. Reflects on the improvement gained throughout their careers at Lawrence

**This part of the portfolio is expected to be error-free*

2. A list of the courses completed for the major.
3. A minimum of 15 pages written in Spanish from 3 different courses of the student's choice at the 300-level and above. One of the three samples must be in the condition in which it was originally submitted and also revised, while the other two must be revised and thoroughly edited in order to reflect the student's current level of proficiency.
4. Two spoken samples (two-minutes each) prepared and recorded independently by the student in a computer lab.
    a. Audio sample 1: A reading of a text in Spanish

b. Audio sample 2: A presentation with the recommended multimedia software (see Moodle site). This presentation must be about an off-campus experience such as a study abroad, internship or immersion program away from the Appleton campus (at a Spanish-speaking location or internship assignment). It should include no fewer than 5 student-taken photos, accompanied by a recorded, voice-over commentary in Spanish done by the student. Students will use their own visuals (photos or short video clips). No copyrighted or third-party visual materials (e.g., photos from commercial guidebooks, or other people's photos from Flickr or Facebook) may be used as part of the project. After the presentation is submitted and approved, it will become part of a rotating showcase of students' experiences made available to on- and off- campus communities through departmental or Senior Experience websites.

The entire portfolio must be presented in electronic format through the required channels. Students should familiarize themselves with these departmental requirements at the time of declaring the major.

Important: Students must register to take an Independent Study (SPAN 699) for one (1) unit (S/U) with their assigned faculty evaluator during the term when they will submit their portfolio.

COURSES

SPAN 101: *Beginning Spanish*
An introduction to the Spanish five language skills (understanding, speaking, reading, writing and culture) through task-based classroom instruction and individual lab practice. This course may not be taken on a Satisfactory/Unsatisfactory basis. Units: 6.

SPAN 102: *Beginning Spanish*
A continuation of Spanish 101 with intensive practice in the Spanish five language skills (understanding, speaking, reading, writing and culture) through task-based classroom instruction and individual lab practice. This course may not be taken on a Satisfactory/Unsatisfactory basis. Units: 6.

Prerequisite: SPAN 101, its equivalent, or consent of instructor

SPAN 191: *Directed Study in Spanish*
An individual or small-group study directed towards the acquisition of knowledge or specific skills, not research or creative work. Directed studies are not a substitute for existing courses but opportunities to pursue pertinent introductory topics that clearly fall under the field of expertise of a faculty member in the department. Units: Variable.

Prerequisite: Counter Registration Required.

SPAN 195: *Internship*
An opportunity for students to apply their Spanish language and culture skills in business, government and the non-profit sector. National or international internships are coordinated between the Office of Career Services and the Spanish faculty who acts as supervisor. In order to earn academic credit, internships must meet the required guidelines and receive prior approval from the Spanish chairperson. Credit requirements may include readings, discussions, and a report and/or portfolio. The faculty supervisor determines the submission calendar for internship-related assignments. Units: Variable.

Prerequisite: Counter Registration Required.

SPAN 200: *Intensive Spanish 1, 2, and 3*
A concentrated six-week Spanish class encompassing from the beginning to the intermediate level. The course provides intensive practice of the five language skills (understanding, speaking, reading, writing and culture) through task-based classroom instruction and guided lab practice. Selected readings, written assignments and discussions serve to further develop linguistic and analytical skills. Completion of this course is the equivalent of SPAN 101, 102, and 201. Offered in the summer term only. This course may not be taken on a Satisfactory/Unsatisfactory basis. Units: 18.

Prerequisite: A non-refundable deposit is required for registration.

SPAN 201: *Intermediate Spanish*
A continuation of Spanish 102. This intermediate course provides intensive practice in the Spanish five language skills (understanding, speaking, reading, writing and culture) through task-based classroom instruction and individual lab practice. Selected readings, written assignments and discussions serve to further develop linguistic and analytic skills in Spanish at the intermediate level. This course may not be taken on a Satisfactory/Unsatisfactory basis. Units: 6.

Prerequisite: SPAN 102, its equivalent, or consent of instructor

SPAN 202: *Intermediate Spanish*
A bridge between intermediate and advanced Spanish courses. The class provides comprehensive practice of all language skills with emphasis on achieving control of most structures, considerable breadth of vocabulary, and appropriate communicative competence. Selected readings, written assignments and discussions serve to further develop the linguistic and analytic skills needed for advanced study in Spanish. Units: 6.

Prerequisite: SPAN 201, its equivalent, or consent of instructor

SPAN 316: *Gender, Politics, and Current Events in Spain*
A critical analysis and discussion of recent and current events in Spain with a focus on issues of gender and sexuality, immigration, and nationalism. Students study and present on topics that affect Spanish society today by reading, watching and listening to a variety of media sources, articles and theoretical readings. Units: 6.

Also listed as Gender Studies 412

Prerequisite: One 300-level Spanish course, its equivalent, or consent of instructor

SPAN 320: *Introduction to Literary Texts*
An introduction to the critical analysis of texts that represent various periods, genres and authors in Latin American and Spanish literature. Readings of texts and theory, class discussions and composition tasks prepare students for other advanced courses in the Spanish program. Units: 6.

Prerequisite: SPAN 202, its equivalent, or consent of instructor. Not open to native speakers of Spanish

SPAN 326: *Narrative Writing in Spanish*
A course on writing in Spanish focused on narrative non-fiction, especially journalism and memoir. The course will be organized in a workshop-style, where students will share and critically engage with their peers' writing. Readings will include contemporary journalism from Latin American and Spain. The course will build toward a final project in which students will write their own work of narrative journalism or memoir. Units: 6.

Prerequisite: SPAN 202

SPAN 340: *Spanish Phonetics*
Spanish Phonetics will immerse students in the pronunciation and general phonetics of the Spanish language as it is spoken in Spain and Latin America. The course will help students to perfect their accent in Spanish and make them aware of the different accents of spoken Spanish. It also will serve Conservatory of Music students who desire to practice their diction in Spanish. Taught in Spanish. Course does not count towards the humanities general education requirement for B.A. and B.A./B.Mus. students. Not open to native speakers of Spanish.
Units: 6.

Also listed as Linguistics 375

Prerequisite: SPAN 202, its equivalent, or consent of instructor; not open to native speakers of Spanish

SPAN 345: *Advanced Grammar Studies*
In-depth study of grammar, syntax, and composition that builds on concepts learned in the intermediate courses. Problem areas, particularly at the advanced level of the language, are studied systematically. Course does not count towards the humanities general education requirement for B.A. and B.A./B.Mus. students. Units: 6.

Also listed as Linguistics 374

Prerequisite: SPAN 202, its equivalent, or consent of the instructor

SPAN 390: *Tutorial Studies in Spanish*
Topic of study will be determined by the student's interest and the availability of a faculty member who has the necessary expertise. Tutorials are not substitutes for courses but opportunities to pursue topics suggested by courses. Units: Variable.

Prerequisite: Counter Registration Required.

SPAN 391: *Directed Study in Spanish*
An individual or small-group study directed towards the acquisition of knowledge or specific skills, not research or creative work. Directed studies are not a substitute for existing courses but opportunities to pursue pertinent topics that clearly fall under the field of expertise of a faculty member in the department. Units: Variable.

Prerequisite: Counter Registration Required.

SPAN 395: *Internship*
An opportunity for students to apply their Spanish language and culture skills in business, government and the non-profit sector. National or international internships are coordinated between the Office of Career Services and the Spanish faculty who acts as supervisor. In order to earn academic credit, internships must meet the required guidelines and receive prior approval from the Spanish chairperson. Credit requirements may include readings, discussions, and a report and/or portfolio. The faculty supervisor determines the submission calendar for internship-related assignments. Units: Variable.

Prerequisite: Counter Registration Required.

SPAN 399: *Independent Study in Spanish*
An independent and thorough investigation of a topic of the student's choice, carried out in consultation with an instructor. The Spanish department chair must approve all independent studies in Spanish in advance. Units: Variable.

Prerequisite: Counter Registration Required.

SPAN 400: *Latin American Civilization and Culture*
A broad introduction to the culture of the Latin American continent and its relations to North American culture. The course presents Latin American civilization, history, economic and political situation, and diverse culture. Emphasis is placed on high cultural manifestations such as art and literature, as well as on the everyday habits of the people. Recommended for students who plan to participate in one of our study-abroad programs in Latin America. Units: 6.

Also listed as Ethnic Studies 480

Prerequisite: One 300-level Spanish course, its equivalent, or consent of instructor

SPAN 406: *Cultures of the Caribbean*
An introduction to the literature and art of the Hispanophone Caribbean. Reading works ranging from the nineteenth century to the present, we will study how the culture of the Caribbean has chronicled and been shaped by the forces of slavery, capitalism and imperialism. Units: 6.

Prerequisite: One 300-level Spanish course or consent of the instructor

SPAN 410: *Gender, Politics, and Current Events in Latin America*
A critical analysis of current events in Latin America with a focus on gender and political issues. Through films, magazine articles, fiction, and selected radio and television broadcasts from Latin America, students will study major events that relate and give expression to the cultural mores of Latin Americans within the realm of gender and politics. The course allows students to continue to develop their oral communication skills in the target language and, with a wide range of topics and interests, to work toward an understanding of gender issues and political events that have shaped and transformed Latin America. Units: 6.

Also listed as Gender Studies 410

Prerequisite: One 300-level Spanish course, its equivalent, or consent of instructor

SPAN 420: *Comedia: Theory and Performance*
An introduction to the major playwrights of early modern Spain and Latin America. Readings include plays, interludes, contemporary dramatic theory, and historical accounts of performance practices. Discussion topics include the ethics of theatrical performance, the construction of gender on stage, and the place of the *comedia* in the emergent empire. Units: 6.

Prerequisite: One 300-level course in Spanish, its equivalent, or consent of instructor

SPAN 425: *Latin American Visual Art*
The course introduces the cultures of Latin America through a survey of its major movements and artists from the early 19th century to the present. Image-based lectures will be accompanied by discussion of visual and thematically related texts (i.e., biographies, letters, scholarly articles) and carefully selected fragments of videos. Units: 6.

Also listed as Art History 275

Prerequisite: One 300-level course in Spanish or consent of instructor

SPAN 426: *Latin American Visual Art (in English)*
The course introduces the cultures of Latin America through a survey of its major movements and artists from the early 19th century to the present. Image-based lectures will be accompanied by discussion of visual and thematically related texts (*i.e.,* biographies, letters, scholarly articles) and carefully selected fragments of videos. Taught in English. Units: 6.

Also listed as Art History 270

SPAN 430: *Introduction to Film*
An introduction to the critical analysis of Latin American and Spanish film. Selected films represent various countries, genres and directors from Latin America and Spain. Readings of relevant film theory, class discussions and composition tasks prepare students for other advances courses in the Spanish program. Units: 6.

Also listed as Theatre Arts 352, Film Studies 330

Prerequisite: SPAN 202, its equivalent, or consent of instructor; not open to native speakers of Spanish.

SPAN 466: *Latin@ Studies (in English)*
This course covers the main cultural issues in Latin@ communities. It concentrates on the Latin@s of the United States, the definitions of these communities, and their cultural expressions. Through theoretical materials as well as literature, film, historical documents, testimony, etc., this course addresses a variety of subjects related to Latin@ culture. Taught in English. Units: 6.

Also listed as Ethnic Studies 583

Prerequisite: One 300-level Spanish course, its equivalent, or consent of instructor

SPAN 470: ***Visions of Conquest***
This course explores the diverse accounts of the Spanish conquest of Latin America presented in contemporary historical writings and European and indigenous cultural artifacts. This course is held concurently with HIST 274. Lectures and discussions are in English, but reading and writing assignments are in Spanish. Students who wish to work only in English should register for HIST 374. Units: 6.

Prerequisite: One 300-level Spanish course or consent of instructor

SPAN 510: ***Survey of Peninsular Spanish I: Medieval, Renaissance, and Baroque***
An introduction to Medieval, Renaissance, and Baroque Spanish literature, culture, and society. Reading and discussion of poetry, prose, and theatre from Spain in their historical and cultural contexts. Introduction to basic concepts of literary theory. Texts, discussion, and written assignments in Spanish. Additional materials such as films and paintings may be used for class discussions in order to contextualize readings. Units: 6.

Prerequisite: One 400-level Spanish course, its equivalent, or consent of instructor

SPAN 512: ***The (En)Gendering of Modern Spain: Gender and National Narratives from Romanticsm to the Avant-garde***
A thematic analysis of Spanish literature and selected visual art from the Romantic period to the 1936 civil war. The course focuses on the connection between various artistic representations of gender and their (re)production or defiance of national narratives. Readings include works by renowned authors like Emilia Pardo Bazan and Federico Garcia Lorca, as well as avant-garde films and paintings by Luis Buñuel, Salvador Dali and Pablo Picasso. Units: 6.

Prerequisite: One course in Spanish at the 400-level

SPAN 513: ***Translation in Context: the Theory, History, and Practice of Spanish Translation***
This course surveys the theory, history and practice of Spanish translation. In it, students acquire the knowledge and basic skills required for translation between Spanish and English while becoming acquainted with the history of translation. Course readings introduce relevant philosophical and political debates. Units: 6.

Prerequisite: One 500-level or two 400-level courses or consent of instructor

SPAN 520: ***Survey of Latin American Literature I***
A study of texts from Pre-Columbian and Spanish-speaking cultures from the 15th to 19th centuries, the period of “discovery writing” of Spanish colonies in Latin America, focusing on development and elaboration of genres and on the search for cultural and political emancipation from Spain. Units: 6.

Prerequisite: One 400-level Spanish course, its equivalent, or consent of instructor

SPAN 521: ***Survey of Latin American Literature II***: A study of major Latin American writers and literary movements from the period of Independence (ca. 1810) to the 20th century. Units: 6.

Prerequisite: One 400-level Spanish course, its equivalent, or consent of instructor

SPAN 535: *Topics in Literature and Culture*
Topics for special study in Spanish of Peninsular and Latin American literatures and cultures. Topics in this series vary from year to year, according to students' and instructor's needs and interests. The course may be repeated with consent of the instructor, if the topic has changed. Taught in Spanish.

Topic for Spring 2017: Jorge luis Borges

A sustained inquiry on Borges' literary works in historical and cultural context. The course will explore Borges' essays, poems, and short stories, and their multidisciplinary resonances, from film and visual arts to physics and linguistics, among others. In Spanish.: *Topic for Spring 2017: Reading the Border--Gender, Texts, and Performance*

A critical exploration on cultural and textual representations of the Central American-Mexico-U.S. borders and migration. While paying close attention to gender, race and ethnicity, students will examine and discuss the period from the mid-1980s until contemporary times, a period tempered by the events of 9/11. In Spanish.

Units: 6.

Prerequisite: One 400-level Spanish course, its equivalent, or consent of instructor

SPAN 550: ***Cervantes: Don Quijote***: Close reading and discussion of *Don Quijote,* Parts I and II. Attention is given to the social and political context of the work. Units: 6.

Prerequisite: One 400-level Spanish course, its equivalent, or consent of instructor

SPAN 577: *Space as Text*
A critical analysis of the role of space and borders in contemporary literature. We will examine the critical theory on the topic and apply those insights to texts mainly from or about Latin American and the Atlantic regions. We will include spatial representations from the visual arts and films. Units: 6.

Prerequisite: One 400-level course in Spanish or consent of instructor

SPAN 580: ***Dis(re)membering the Nation: Contemporary Film & Fiction of Spain and Latin America***
A thematic analysis of film and fiction produced in the late and post-dictatorial context of Spain and several Latin American countries. The course studies the cultural processes of historical memory, collective trauma, oblivion, and questioning of national narratives in selected works from the past four decades. Readings include Manuel Puig's *Kiss of the Spider Woman*, Ariel Dorfman's *Death and the Maiden*, and Carmen Martin Gaite's *The Back Room*, as well as films by Lucrecia Martel, Victor Erice, Pablo Larrain, and Guillermo del Toro, among others. Units: 6.

Also listed as Film Studies 580

Prerequisite: One 400-level course in Spanish or consent of instructor

SPAN 585: ***Latin American Urban Cultures - Buenos Aires***
Urban cultures express the transformations of a globalized world. Taking the Buenos Aires case as its focus, the course analyzes the cultural production from, of, and about the city, from multiple perspectives, in order to achieve an understanding of the issues facing Latin American urban spaces in the 21st century. Units: 6.

Prerequisite: One 400-level Spanish course, its equivalent, or consent of instructor

SPAN 590: ***Tutorial Studies in Spanish***
Topic of study will be determined by the student's interest and the availability of a faculty member who has the necessary expertise. Tutorials are not substitutes for courses but opportunities to pursue topics suggested by courses. Units: Variable.

Prerequisite: Counter Registration Required.

SPAN 591: ***Directed Study in Spanish***
An individual or small-group study directed towards the acquisition of knowledge or specific skills, not research or creative work. Directed studies are not a substitute for existing courses but opportunities to pursue pertinent advanced topics that clearly fall under the field of expertise of a faculty member in the department. Units: Variable.

Prerequisite: Counter Registration Required.

SPAN 595: ***Internship***
An opportunity for students to apply their Spanish language and culture skills in business, government and the non-profit sector. National or international internships are coordinated between the Office of Career Services and the Spanish faculty who acts as supervisor. In order to earn academic credit, internships must meet the required guidelines and receive prior approval from the Spanish chairperson. Credit requirements may include readings, discussions, and a report and/or portfolio. The faculty supervisor determines the submission calendar for internship-related assignments. Units: Variable.

Prerequisite: Counter Registration Required.

SPAN 599: ***Independent Study in Spanish***
An independent and thorough investigation of a topic of the student's choice, carried out in consultation with a faculty member. The Spanish department chair must approve all independent studies in Spanish in advance. Units: Variable.

Prerequisite: Counter Registration Required.

SPAN 690: ***Tutorial Studies in Spanish***
Topic of study will be determined by the student’s interest and the availability of a faculty member who has the necessary expertise. Tutorials are not substitutes for courses but opportunities to pursue topics suggested by courses. Units: Variable.

Prerequisite: Counter Registration Required.

SPAN 691: ***Directed Study in Spanish***
An individual or small-group study directed towards the acquisition of knowledge or specific skills, not research or creative work. Directed studies are not a substitute for existing courses but opportunities to pursue pertinent and highly advanced topics that clearly fall under the field of expertise of a faculty member in the department. Units: Variable.

Prerequisite: Counter Registration Required.

SPAN 695: ***Internship***
An opportunity for students to apply their Spanish language and culture skills in business, government and the non-profit sector. National or international internships are coordinated between the Office of Career Services and the Spanish faculty who acts as supervisor. In order to earn academic credit, internships must meet the required guidelines and receive prior approval from the Spanish chairperson. Credit requirements may include readings, discussions, and a report and/or portfolio. The faculty supervisor determines the submission calendar for internship-related assignments. Units: Variable.

Prerequisite: Counter Registration Required.

SPAN 699: ***Independent Study in Spanish***
An independent and thorough investigation of a topic of the student's choice, carried out in consultation with a faculty member. The Spanish department chair must approve all independent studies in Spanish in advance. Units: Variable.

Prerequisite: Counter Registration Required.

Professor: Troy (J. Thomas and Julie E. Hurvis Professorship in Theatre and Drama, chair)

Associate professor: Privatt* (James G. and Elthel M. Barber Professor of Theatre and Drama)

Assistant professor: Pitts

Lecturers: Kopischke (costume shop supervisor), Rodero (lecturer of dance (D-Term)), Sherkow (technical director and facilities manager)

Artist in residence: Loewen

*On leave Term II

Introduction

Since 1930, the Department of Theatre Arts, provides an environment of academic exploration and production experiences in the innovative and collaborative tradition of theatre making throughout history. A broad knowledge of theater history and its literary heritage combines with the mastery of skills in performance, design, and production leading to clear and nuanced expression from our stages. Our close relationship with the Conservatory of Music benefits their opera offerings, as they support various aspects of our musical and play production. Our faculty instills a professional standard in each main stage production as we constantly encourage students to integrate their whole education at each stage of development as young artists and scholars. If students engage in our brand of serious and joyful theatre-making in close collaboration with their peers and faculty mentors, they will be ready to enter the profession or graduate training with the best our discipline offers. Our decades long tradition of senior projects provides a platform where students mark their development with research, performances, and production designs that rise to the level of enthusiastic young professionals. We are equally pleased when our graduates bring the skills and methods they learn in our department to other professions. As life-long learners, the passion for theatre they explored during their years with us will inspire them to contribute as audience members and supporters of the theatre community.

Because the study of dramatic art requires a grounding in the study of production methods, past and present, and must be intimately connected to and supported by the study of theatre history and dramatic literature of various periods, the department has developed a core curriculum in those areas.

Additionally, students are invited to further explore an area of concentration or to continue a generalist's study of dramatic art. Areas of concentration include performance; design and technical theatre; and dramatic theory, history, and literature. We expect our majors to contribute to each area of the curriculum, to integrate their whole liberal arts exploration into their theatre studies, and to consistently participate in production—on stage, backstage, and in dramaturgical preparation.

Typically, majors complete most of their studies in the core curriculum early in their junior year. At that time, students begin to work toward a finalizing senior project in that area. The senior project is required of all majors and is designed to exhibit the student's strengths in the area in which he or she hopes to continue studies or seek employment. Students anticipating graduate study in an area of concentration should consult with their advisor to ensure that their auditions, résumés, or portfolio presentations are appropriately prepared. In addition, students are strongly encouraged to participate in one or more off-campus programs, such as the Lawrence London Centre, the Gaiety School of Acting in Dublin or the ACM Chicago Arts Program, to deepen their understanding of the various areas of concentration prior to designing their senior projects. Students hoping to become certified as secondary-school teachers of theatre should consult with an advisor in the Department of Education to ensure that they have completed the necessary courses for that certification. Additional details about certification are contained on the education department's website.

Core curriculum—required of all theatre arts majors

1. THAR 187: *Acting I*
2. THAR 135: *Stagecraft* or THAR 137: *Costume Crafts and Technology*
3. THAR 212: *Theatre Traditions I: Greeks through the 18th Century*
4. THAR 224: *Theatre Traditions II: Romanticism through the Present*
5. THAR 231: *Introduction to Design for the Theatre*
6. THAR 327: *Playscript Analysis*
7. Six terms of participation in either THAR 355: *Theatre Production Laboratory* or THAR 357: *Musical Theatre Production Laboratory*. Normally granted at one unit per term of participation.
8. Three additional courses (18 units) in a focus area or courses across focus areas to continue a generalist approach. No more than twelve (12) units of tutorials may be counted in the theatre arts major.
9. Senior project including enrollment in THAR 687 (1 unit)

Performance

Additional courses in performance study include *Acting II*, *Play Directing*, and 12 additional units in performance-related courses, including voice and dance.

Design and technical theatre

Additional production-related courses include *Costume Design*, *Set Design*, or *Lighting Design*, *Advanced Design Studio*, and courses in theater technology.

Dramatic theory, history and literature

Dramatic Theory and Criticism and an additional course in theatre history are required. Then students will take an additional 12 units of dramatic literature in the Departments of Theatre Arts or English or in a language department. We urge students who intend to pursue graduate studies in this area to continue their language studies to the level of advanced proficiency.

Required for the theatre arts minor

1. THAR 111: *Introduction to the Theatre*
2. THAR 135: *Stagecraft* or THAR 137: *Costume Crafts and Technology*
3. THAR 187: *Acting I*
4. THAR 212 or 224: *Theatre Traditions*
5. THAR 327: *Playscript Analysis*
6. THAR 477: *Acting II* or THAR 231: *Introduction to Design for Theatre*
7. An additional course in performance, design, or theatre history/literature
8. THAR 355 or 357: *Theatre Production Laboratory* (3 terms of participation, normally granted at one unit per term of participation)
9. C average in the minor

Senior Experience in theatre arts

The required senior project is a cumulative project that reflects each student's specific interests, and the wide range of activity in our department. While majors often begin the planning process for their senior project with their advisor during sophomore year, proposals to the department are due at the end of Winter Term junior year. A wide variety of options are available as valid senior projects. They include:

- Creating a major acting role and documenting your efforts
- Directing a one-act play (up to 70 minutes, department pays for license and scripts)
- Set, lighting, costume, or sound design for a main stage or senior project production
- Technical direction or stage management for a production
- Creating and teaching curriculum for primary or secondary students in cooperation with Appleton area schools
- Writing a play and producing an initial reading of it for a general audience. Preparation for an initial reading consists of 2–3 rehearsals. In performance stage directions are read and actors present from music stands.
- Scholarly activities such as writing on an aspect of theatre history for presentation or publication.
- Present a staged reading of a play. Preparation for staged-readings usually consist of 4–6 rehearsals. In performance actors should be at music stands and occasionally use key props and/or costume accessories to clarify action. Lighting is general. We encourage the use of sounds elements to establish setting, set mood, and clarify action.

PROPOSALS FOR PROJECTS MUST ADDRESS THE FOLLOWING:

1. The requirements and challenges of the project including impact on and intersection with the department's ongoing activity
2. The course and production work and internship experiences that have prepared you to successfully complete the project
3. The scholarly, artistic, and personal goals you hope to achieve with your project
4. Request for space including preferred term and special production needs

As theatre is a collaborative art form, the senior project is often a shared experience with other seniors; the department encourages groups of rising seniors to propose joint efforts.

The department welcomes project proposals involving shared experiences with other departments. The senior project can be tailored to fit the needs of a student seeking secondary certification.

COURSES

THAR 110: *Dance Appreciation*
How do you define dance? Where is dance found? How does dance affect you? As we explore this line of inquiry, we will touch on topics such as dance history, theory, culture and documentation. Drawing from a variety of somatic practices and our collaborative experience, we will physically sample approaches to dance and practice noticing dance in our lives. Units: 3.

Also listed as Dance 110

THAR 111: *Introduction to the Theatre*
A survey of the traditions of dramatic form and the contributing arts of the theatre presented in historical context. Students read representative playscripts and attend performances. *Also offered at the London Centre.* Units: 6.

THAR 132: *Ensemble Thinking*
Ensemble Thinking is a system of physical, improvisational, group exercises that provides organizing lenses through which we observe and participate in movement and performance. Using this technique, we will develop awareness and listening skills for relating to others, build a common language, and practice collaboratively creating dances. Through embodied studio investigations, this course introduces students to dance composition. Units: 3.

Also listed as Dance 132

THAR 134: *Contact Improvisation*
Contact Improvisation is a partnering dance form that explores movement possibilities created when two or more individual bodies are touching and/or sharing weight, balance or support. The practice of Contact Improvisation encourages the development of self-responsibility, awareness, clear physical communication and a strong, versatile body. This is a rigorous dance lab in which we will experiment with action, physics and listening. Units: 3.

Also listed as Dance 134

THAR 135: *Stagecraft*
An introduction to the technical aspects of theatre production. Laboratory experience in scenic construction and rigging, painting, lighting, sound, backstage organization, and management. In addition to regular class meeting times, there is a lab component that gives students hands-on application of technical and theatre design. Units: 6.

THAR 136: *Embodied Creative Practice*
This is a course designed to build your creative muscle. In the supportive community of this class, we will access your individual story, writing, drawing, movement and voice to create and perform for each other every class meeting. Employing diverse performance techniques and referencing various readings, we will discover and craft our unique inspirations, directions, and experience. Units: 3.

Also listed as Dance 136

THAR 137: *Costume Crafts and Technology*
An introduction to the technical aspects of costume creation and production for the theatre. Course includes hands-on experience in costume construction, cutting, draping, millinery, and other costume crafts. Practicum in the costume shop in support of current productions is required. In addition to regular class meeting times, there is a lab component that gives students hands-on application of technical and theatre design. Units: 6.

THAR 138: *Articulating the Solo Body*
Based in ReWire/Dancing States and other contemporary techniques, this course will build a movement foundation for the solo dancing body. In the studio, we will work with clarity, speed, and precision to develop a versatile and conscious dancer. We will also explore topics such as performance, intention, and habits while dancing. Units: 3.

Also listed as Dance 138

THAR 143: *Movement for the Theatre*: *Fundamentals of Movement*
Movement for the Theatre introduces students to the basic movement and gestural vocabulary of the dance discipline and promotes a fundamental understanding of how dance and movement serve as one of the contributing arts to the theatre. In each section, emphasis will be placed on basic technique, historical context, and their relationship to common theatre, musical, and opera production practices. Recommended for students who wish to participate in theatre, opera, and musical productions. Only 6 units of *Movement for the Theatre* (any type) can count toward the theatre arts major. Units: 3.

THAR 145: *Movement for the Theatre*: *Ballet*
Movement for the Theatre introduces students to the basic movement and gestural vocabulary of the dance discipline and promotes a fundamental understanding of how dance and movement serve as one of the contributing arts to the theatre. In each section, emphasis will be placed on basic technique, historical context, and their relationship to common theatre, musical, and opera production practices. Recommended for students who wish to participate in theatre, opera, and musical productions. Only 6 units of *Movement for the Theatre* (any type) can count toward the theatre arts major. Units: 3.

THAR 147: *Movement for the Theatre*: *Modern Dance*
Movement for the Theatre introduces students to the basic movement and gestural vocabulary of the dance discipline and promotes a fundamental understanding of how dance and movement serve as one of the contributing arts to the theatre. In each section, emphasis will be placed on basic technique, historical context, and their relationship to common theatre, musical, and opera production practices. Recommended for students who wish to participate in theatre, opera, and musical productions. Only 6 units of *Movement for the Theatre* (any type) can count toward the theatre arts major. Units: 3.

THAR 149: *Movement for the Theatre*: *Social Dance*
Movement for the Theatre introduces students to the basic movement and gestural vocabulary of the dance discipline and promotes a fundamental understanding of how dance and movement serve as one of the contributing arts to the theatre. In each section, emphasis will be placed on basic technique, historical context, and their relationship to common theatre, musical, and opera production practices. Recommended for students who wish to participate in theatre, opera, and musical productions. Only 6 units of *Movement for the Theatre* (any type) can count toward the theatre arts major. Units: 3.

THAR 161: *Stage Make-Up*
A hands-on course offering experience in the proper design and application of stage make-up for students interested in theatre or music-theatre performance. Practicum in stage makeup in support of current productions is required. In addition to regular class meeting times, there is a lab component that gives students hands-on application of technical and theatre design. Units: 3.

THAR 170: *Shakespeare London*
Students will study several plays by William Shakespeare selected from among the current offerings by the Royal Shakespeare and other companies. Discussions will address the plays themselves, production techniques, and the audiences to whom they appeal. Students are required to attend performances of the plays under study. *Offered at the London Centre.* Units: 6.

Also listed as English 170

Prerequisite: Must be attending Lawrence London Centre

THAR 187: *Acting I*
We present a demystified, participatory approach to the craft of acting. Using the methods of Viola Spolin, students master the fundamental concepts of Stanislavsky and explore acting tools in the traditions of Grotowski and Meisner. Units: 6.

Prerequisite: Freshman or sophomore standing or consent of instructor

THAR 191: *Directed Study in Theatre Arts*
Directed study follows a syllabus set primarily by the instructor to meet the needs or interests of an individual student or small group of students. The main goal of directed study is knowledge or skill acquisition, not research or creative work. Units: Variable.

Prerequisite: Counter Registration Required.

THAR 195: *Internship in Theatre Arts*
An opportunity for students to apply their theatre skills in business and the non-profit sector on the regional, national, and international levels. Arranged in collaboration with and supervised by a member of the department. Includes readings, discussion, report, and/or portfolio. Advance consultation and application required. Units: Variable.

Prerequisite: Counter Registration Required

THAR 211: *Introduction to London Theatre*
Introduction to a critical approach to theatrical performance. Students read play scripts before attending a wide range of plays in a variety of performance spaces in London, working towards a developed understanding of dramatic form. Study of literary and theatrical conventions is designed to enhance students' critical sophistication. Units: 6.

Prerequisite: Open to students attending the London Centre only

THAR 212: *Theatre Traditions I*: *Greeks Through the 18th Century*
A survey of theatre in its cultural context from its Greek origins through the 18th century. Extensive readings from the dramatic literature of each period supplement the study of the physical theatre and production practices. Units: 6.

Prerequisite: Sophomore standing or consent of instructor

THAR 220: *Topics in Movement/Performance*
Topics in this series vary from year to year. May be repeated when topic is different.

Topic for Spring 2017: Musicians in Movement

Units: 3.

Also listed as Dance 220

THAR 224: *Theatre Traditions II*: *Romanticism Through the Present*
A survey of theatre in its cultural context from Romanticism through the present day. Extensive readings from the dramatic literature of each period illustrate the ideas, aesthetic values, and staging innovations that led to the theatre of the 21st century. Units: 6.

Prerequisite: Sophomore standing or consent of instructor

THAR 229: *Performance of Literature*
A study of the principles involved in the oral performance of different forms of literature. Class involves practical platform training and experience with interpretive analysis and presentation. Units: 6.

THAR 231: *Introduction to Design for the Theatre*
A survey covering all aspects of visual design for the theatre. Emphasis on the necessary techniques of drafting, painting, and modelmaking, with attention to aesthetic and practical problems of theatre design. In addition to regular class meeting times, there is a lab component that gives students hands-on application of technical and theatre design. Units: 6.

THAR 237: *Reconstructing Costume History*: *A Hands-On Costume History Survey*
A survey of the evolution of clothing in Western Civilization as it reflects historical events and social culture from Ancient Greece to the Elizabethan England. Hands-on patterning and draping provides an immersive experience as we explore period silhouettes and techniques unique to each period. We will also explore representative plays and theatrical conventions from each period. Practicum in the costume shop in support of current productions is required. Units: 6.

Prerequisite: THAR 137

THAR 255: *Start-Up Theatre*
Open to students from theatre, economics, and other students interested in entrepreneurship in the performing arts. Topics change each year. May be repeated when topic is different up to 6 total units. Units: Variable.

Also listed as Innovation & Entrepreneurship 255, Economics 255

Prerequisite: Sophomore standing

THAR 276: *Greek Drama*
A study of selected dramas such as Aeschylus' *Prometheus Bound,* the *Agamemnon* and *Antigone* of Sophocles, and Euripides' *Bacchae* and *Medea.* Units: 6.

Also listed as Classics 465

Prerequisite: CLAS 225 or its equivalent

THAR 279: *Fringe Theatre in London*
This course will attempt to define Fringe Theatre (a movement started in 1968) and to categorize its main elements. The class shall attend a wide variety of plays and venues and come to an understanding of how the fringe has changed over the years. Discussions will address production techniques, the plays themselves, the audiences to whom they appeal, and to what extent the fringe is still an important theatrical force. Students are required to attend performances of the plays under study. *Offered at the London Centre.* Units: 6.

Prerequisite: Sophomore standing Must be attending Lawrence London Centre

THAR 306: *Russia on Stage*: *Three Centuries of Russian Theater*
This course introduces students to the rich theatrical tradition of Russia. The readings for the course span over two centuries, starting from the social comedies of the late eighteenth century to the contemporary "New Drama" and documentary theater. The plays are situated within the larger historical and political context of Imperial, Soviet and post-Soviet Russia. Lecture/discussion. Taught in English. Units: 6.

Also listed as Russian 306

THAR 310: *Alexander Technique I*
The Alexander Movement Technique (AMT) is an educational method for finding easier use of self in daily activity. The technique offers us insight into our own mental processes and perceptions of our body's structure, and allows us to replace faulty habits with coordinated movement. Units: 3.

Prerequisite: Instructor approval is required. The instructor will talk with each student about the hands-on aspects of the technique and the code of ethics that governs the work.

THAR 327: *Playscript Analysis*
The playscript is a blueprint for a construction that uses the media of space, time, color, speech, and action to reflect from the stage images of what it means to be human. This course will explore both technical and creative ways to decipher the play text. Units: 6.

Prerequisite: Sophomore standing Recommended sophomore or junior year Recommended to be taken before THAR 527

THAR 340: *Musical Theatre Production Overview*
This course is designed to equip the future educator with a basic understanding of the various details and responsibilities involved in mounting a musical theatre production. Topics include: choosing a musical, rehearsal schedules, the audition process, costumes and makeup, stage direction and blocking, lighting and sound, advertising, budget, and problems in the "pit." This course will be offered every other year. Units: 3.

Also listed as Music Education and Pedagogy 340

THAR 351: *Film in Germany (in English)*
This course selects from 90 years of filmmaking in Germany. Films range from expressionism to Nazi propaganda and from escapist comedies to avant garde art. Learning to “read” German films critically also means finding out how to understand movies from Hollywood and beyond. Possible topics include “From Caligari to Hitler,” “German Literature as Film,” and “What Makes Lola Run.” Taught in English. German majors and minors may participate in a two-unit tutorial in which discussions and some course readings will be in German. Units: 6.

Also listed as Film Studies 357, German 357

THAR 352: *Introduction to Film*
An introduction to the critical analysis of Latin American and Spanish film. Selected films represent various countries, genres and directors from Latin America and Spain. Readings of relevant film theory, class discussions and composition tasks prepare students for other advances courses in the Spanish program. Units: 6.

Also listed as Spanish 430, Film Studies 330

Prerequisite: SPAN 202, its equivalent, or consent of instructor; not open to native speakers of Spanish.

THAR 355: *Theatre Production Laboratory*
Practicum in theatre production. May be taken for one or more terms; six terms required of theatre arts majors, three terms required of minors. May be taken by any student involved in theatre production. May be repeated for credit. Units: 1.

THAR 357: *Musical Theatre Production Laboratory*
Practicum in musical theatre. May be taken for one or more terms; can be used in partial fulfillment of the six terms of Theatre Arts 355 required of all theatre arts majors or the three terms of Theatre Arts 355 required of all theatre arts minors. May be repeated for credit. Units: 1.

THAR 362: *Acting for Singers 1*
An opera/song performance course that develops the fundamental tools to create on stage. This term concentrates on basic acting techniques beginning with spoken word and then transferring those skills to intoned speech (song.) These building blocks include understanding and breaking down a script, navigating the stage and movement on it, creating and motivating character choices, response to your fellow performers, honesty on-stage, concentration, imagination and commitment to the script, the environment and your character. Units: 3.

Also listed as Music Repertoire-Perf Study 361

THAR 364: *Acting for Singers 2*
An opera/song performance course that develops the fundamental tools to create on stage. This term concentrates on expanding the techniques from the previous term and on developing a stronger sense of ensemble work. Viewpoints and Theatrical Composition will be the main thrust of the exploration, using the current song and aria repertoire of the individual student. Units: 3.

Also listed as Music Repertoire-Perf Study 362

Prerequisite: MURP 361 or equivalent

THAR 377: *Technologies in Theatre Production*
Theatre designers execute their vision of the dramatic world by exploring the available technologies of the theatre. This course examines modern technological protocol for theatre production. Topics will include: safety and efficacy for lighting, sound, special effects. Units: 6.

Prerequisite: THAR 135 or consent of instructor

THAR 387: *Let Us Arise*: *Ireland's Deep Time*
Taking a dramaturgical and geographical approach to explore a deep sense of place, we will use the lens of culture (drama, poetry, fiction, music, film, history and visual arts) to investigate the variegated quality of Ireland's land and its people. Units: 6.

Also listed as Environmental Studies 387

Prerequisite: Sophomore standing and ENST 150, ENST 151, or THAR 327

THAR 390: *Tutorial Studies in Theatre Arts*
Advanced work, arranged and carried out in consultation with an instructor. Units: Variable.

Prerequisite: Counter Registration Required.

THAR 391: *Directed Study in Theatre Arts*
Directed study follows a syllabus set primarily by the instructor to meet the needs or interests of an individual student or small group of students. The main goal of directed study is knowledge or skill acquisition, not research or creative work. Units: Variable.

Prerequisite: Counter Registration Required.

THAR 395: *Internship in Theatre Arts*
An opportunity for students to apply their theatre skills in business and the non-profit sector on the regional, national, and international levels. Arranged in collaboration with and supervised by a member of the department. Includes readings, discussion, report, and/or portfolio. Advance consultation and application required. Units: Variable.

Prerequisite: Counter Registration Required

THAR 399: *Independent Study in Theatre Arts*
Advanced work in directing, design, performance, or criticism, arranged in consultation with department. Units: Variable.

Prerequisite: Counter Registration Required.

THAR 423: *History of American Dramatic Literature*
A study of American theatre in its cultural context from its colonial beginnings to the present. Extensive readings of the works of principal playwrights. Units: 6.

Prerequisite: Sophomore standing or consent of instructor

THAR 425: *Advance of the American Musical*
A study of this uniquely American theatrical form as it develops in response to our culture throughout the 20th century and into the 21st. Ability to read music helpful, but not required. Units: 6.

Also listed as Musicology 160

Prerequisite: Sophomore standing or consent of instructor

THAR 427: *Playwrighting*
Students will employ the vocabulary and dramaturgical insight we explored in Playscript Analysis to the task of writing for the stage. We will examine important plays in the one-act repertory while each student drafts a 25-40-minute play. Units: 6.

Prerequisite: THAR 327

THAR 432: *Shakespeare*
An introduction to Shakespeare's plays and their literary, historical, and theatrical context. Units: 6.

Also listed as English 425

Prerequisite: Junior standing, ENG 230, or consent of instructor

THAR 434: *Restoration and 18th-Century Comedy*
A study of English comedies as reflections of changing taste and thought in the period 1660-1800. Authors include Wycherley, Etherege, Congreve, Farquhar, Steele, Fielding, Goldsmith, and Sheridan. Units: 6.

Also listed as English 445

Prerequisite: Junior standing, ENG 230, or consent of instructor

THAR 436: *Renaissance Drama*
A study of eight to ten plays from the early modern period, excluding Shakespeare. Readings include Marlowe, Jonson, Middleton and Webster. Units: 6.

Also listed as English 435

Prerequisite: Junior standing, ENG 230, or consent of instructor

THAR 440: *Modern Drama*
Studies in some of the major playwrights in Europe, England, and America from the time of Ibsen to the present. Units: 6.

Also listed as English 490

Prerequisite: Junior standing, an intermediate course in English, or consent of instructor

THAR 477: *Acting II*
Continued, in-depth study of the elements covered in Theatre Arts 187 with added monologue, scenic work, and an introduction to acting Shakespeare. The department expects that students who take this course have had extensive performance experience between *Acting I* and *Acting II*. Units: 6.

Prerequisite: THDR/THAR 187 or consent of instructor

THAR 479: *Styles of Acting*
Study of the acting of a particular period or style, based on the techniques acquired in Theatre Arts 187. Units: 6.

Prerequisite: THDR/THAR 187 or consent of instructor

THAR 527: *Play Directing*
Examination of and practice in fundamental directing methods and techniques. In this course we focus on the directing tradition of Alexander Dean. Units: 6.

Prerequisite: THDR/THAR 187 or consent of instructor

THAR 541: *Seminar in Technical Theatre*
A seminar focusing on specialized technical areas of the theatre. Content varies to fit the availability of the technical staff. May be repeated as content changes. Units: Variable.

Prerequisite: THDR/THAR 135, 231 or consent of instructor

THAR 551: *Costume Design*
The theory and practice of costume design for the stage, focusing on period style and presentation technique. Laboratory responsibility in the costume shop required as part of course. Units: 6.

Prerequisite: THDR/THAR 231 or consent of instructor

THAR 553: *Stage Lighting*
A study of basic lighting theory, design, and technique that enables students to assume responsibility, with knowledge and precision, for designing and executing lighting plots. Laboratory responsibility on lighting crews required as part of course. Units: 6.

Prerequisite: THDR/THAR 231 or consent of instructor

THAR 555: *Set Design*
A study of the role of the set designer in a theatrical production from the conceptual through the production phase. Emphasis on values of concept, inventive scenic solutions, and creative research as applied to a number of different dramatic styles. Laboratory responsibility in the scenic studio required as part of course. Units: 6.

Prerequisite: THDR/THAR 231 or consent of instructor

THAR 557: *Sound for the Stage*
An examination of the aesthetic and practical applications of sound creation and reinforcement as involved in all contemporary theatre performance. Laboratory experience on a sound crew is a required part of the course. Units: 6.

Prerequisite: THDR/THAR 135 or 231 or consent of instructor

THAR 573: *Computing in Stage Design and Production*
A study of the range of areas wherein computing supports the efforts of the contemporary designer, including CAD, modeling, rendering, and animation applications. The course involves hands-on laboratory work in computing. Units: 6.

Prerequisite: THDR/THAR 135 or 231 or consent of instructor

THAR 581: *Advanced Design Studio*
Advanced Design Studio provides emerging designers and intensive learning environment where they explore their unique voice as theatrical designers and gain practical design knowledge through individual mentoring. Units: 6.

Prerequisite: One of the following: THAR 551, 553, 555, or 557

THAR 590: ***Tutorial Studies in Theatre Arts***
Advanced work, arranged and carried out in consultation with an instructor. Units: Variable.

Prerequisite: Counter Registration Required.

THAR 591: ***Directed Study in Theatre Arts***
Directed study follows a syllabus set primarily by the instructor to meet the needs or interests of an individual student or small group of students. The main goal of directed study is knowledge or skill acquisition, not research or creative work. Units: Variable.

Prerequisite: Counter Registration Required.

THAR 595: ***Internship in Theatre Arts***
An opportunity for students to apply their theatre skills in business and the non-profit sector on the regional, national, and international levels. Arranged in collaboration with and supervised by a member of the department. Includes readings, discussion, report, and/or portfolio. Advance consultation and application required. Units: Variable.

Prerequisite: Counter Registration Required

THAR 599: ***Independent Study in Theatre Arts***
Advanced work in directing, design, performance, or criticism, arranged in consultation with department. Units: Variable.

Prerequisite: Counter Registration Required.

THAR 687: ***Senior Experience***
Students enroll in this course during the term they complete their Senior Experience and self-assessment. Projects are discussed with the academic advisor and proposed using the senior theatre projects Moodle page. Units: 1.

Prerequisite: Senior standing

THAR 690: ***Tutorial Studies in Theatre Arts***
Advanced work, arranged and carried out in consultation with an instructor. Units: Variable.

Prerequisite: Counter Registration Required.

THAR 691: ***Directed Study in Theatre Arts***
Directed study follows a syllabus set primarily by the instructor to meet the needs or interests of an individual student or small group of students. The main goal of directed study is knowledge or skill acquisition, not research or creative work. Units: Variable.

Prerequisite: Counter Registration Required.

THAR 695: ***Internship in Theatre Arts***
An opportunity for students to apply their theatre skills in business and the non-profit sector on the regional, national, and international levels. Arranged in collaboration with and supervised by a member of the department. Includes readings, discussion, report, and/or portfolio. Advance consultation and application required. Units: Variable.

Prerequisite: Counter Registration Required

THAR 699: ***Independent Study in Theatre Arts***
Advanced work in directing, design, performance, or criticism, arranged in consultation with department. Units: Variable.

Prerequisite: Counter Registration Required

Introduction

University courses deal with subjects of interest and importance that are outside the purview of any given department. Usually interdisciplinary, university courses call upon students and faculty to integrate ideas from sometimes disparate fields of knowledge. Alternatively, they provide opportunity for faculty members to present material of specific scholarly interest or expertise. Students from all disciplines may enroll in university courses.

COURSES

UNIC 101: *Beginning Italian I*

Students enrolled in this course will learn the basic skills of speaking and communicating, reading, and writing in the Italian language. Italian culture will be emphasized throughout the term. Audio-visual materials and computer-assisted programs will be available to students as part of the course. Units: 6.

UNIC 102: *Beginning Italian II*

Students enrolled in this course will continue learning the skills of speaking and communicating, reading, and writing in the Italian language. Italian culture will be emphasized. Compositions will aid students in further developing their skills in the Italian language. Audio-visual materials and computer-assisted programs will be available to students as part of the course. Units: 6.

Prerequisite: UNIC 101 or consent of instructor

UNIC 103: *Introduction to Liberal Learning for International Students*

This course provides an introduction to learning in the liberal arts tradition at Lawrence University, with a special focus on the challenges faced by international, non-native speakers of English. The specific works and topics may vary each year, but will be representative of the courses typically encountered by first-year students. In addition, the course will focus on the aspects of academic language and culture that often present hurdles for international students. Units: 3.

Prerequisite: Student must be a participant in the Summer Institute for International Students

UNIC 104: *Introduction to Liberal Learning*

An introduction to the rigorous tradition of liberal learning at Lawrence University, this course includes two components: a seminar emphasizing close reading of works in various disciplines, classroom discussion and writing thesis-driven essays; and a study of topics in a particular academic discipline through lecture-based instruction, assigned reading and discussion. Units: 3.

Prerequisite: Must be a participant in the Freshman Academic Institute

UNIC 110: *ESL: Freshman Studies I (Waseda)*
A modified version of *Freshman Studies* 100 designed for CESA students with limited English proficiency. *Enrollment limited to students in the Waseda Visiting Student program.* Units: 6.

Prerequisite: Open only to students in the Waseda Visiting Student program

UNIC 115: *ESL: English for Academic Purposes I*
This course will offer non-native speakers of English the opportunity to further develop key academic language skills including: writing and structuring academic essays, discussion strategies, listening and note-taking skills, reading and vocabulary development. Additional language concerns will be addressed as needed. Units: 3.

UNIC 116: *ESL: English for Academic Purposes II*
A continuation of *English for Academic Purposes I*, this course gives non-native speakers of English additional experience developing written and oral academic language skills and understanding the conventions of American academic culture. Students will improve their ability to effectively express complex ideas in English with ease, accuracy and fluency. Units: 3.

UNIC 117: *Investigating Academic Success: Cognitive and Affective Theories in Practice*
This course is designed to introduce students to cognitive and affective theories that can positively impact success in a university environment. Integration of current theory and evidence-based research allows students to study and apply effective strategies applicable to their own academic lives. Units: 3.

UNIC 121: *Beginning Arabic I*
An introduction to Modern Standard Arabic. After students learn the alphabet and the sound system, they will get acquainted with the basic skills of speaking, understanding, reading and writing Modern Standard Arabic. The course includes a strong cultural component, with such items as films and music. Not open to students who have completed UNIC 123. Units: 6.

UNIC 122: *Beginning Arabic II*
A continuation of *Beginning Arabic I*. Students will continue working on the ability to perceive and produce the sounds out of which Arabic words are made, with further practice in the basic language skills. Particular emphasis will be placed on the cultural component. Not open to students who have completed UNIC 123 or UNIC 223. Units: 6.

Prerequisite: UNIC 121

UNIC 123: *Intensive Beginning Arabic*
In this course students will undertake intensive study of Modern Standard Arabic, including some colloquial expressions. Students will be introduced to basic language skills: speaking listening, reading, writing, and culture. The primary goal of this course is to enable students to communicate about everyday situations in Modern Standard Arabic, both orally and in writing. Not open to students who have already completed UNIC 121 or UNIC 122. Units: 6.

UNIC 130: *Public-Speaking Practicum*
Emphasizes theory, skills, and practice of presentational speaking relative to a variety of forms of communication (including ceremonial, persuasive, and impromptu speaking; intercultural communication; use of PowerPoint; and podcasts). This course will assist students in developing their academic and professional communication skills through hands-on practice, classroom activities, self-assessments, and review of others' speeches. Units: 3.

UNIC 140: *Personal Sustainability*
This course offers a broad, holistic examination and reflection of the effects of lifestyle, wellness, and health promotion on the individual and society. The goal will be to discuss and research current wellness topics and examine ways to improve personal well-being. Units: 3.

Prerequisite: Sophomore standing or consent of instructor

UNIC 145: *Introduction to Digital Cultures*
This course interrogates the nature of digital media and examines the ways in which new information technologies are affecting everyday life, culture, institutions, groups, and identity. As such, our goal will be to map the current Internet cultures and introduce students to various online technologies and platforms. Units: 6.

UNIC 155: *Introduction to Science and Technology Studies*
Through a variety of texts, in-class discussions, and written and oral assignments, students will develop a critical appreciation of science and technology not simply as objective endeavors governed by rationality, truth and efficiency, but rather as contested and politically embedded endeavors whose trajectory depends upon the influence of multiple users, competing ideologies, and unique historical and social circumstances. Units: 6.

UNIC 160: *The Practice of Community in Appleton*
The diverse human communities in which we participate are defined by shared location, history, identity, employment, or interests. This course explores the idea and practice of community using written works, films, and other resources in combination with field trips to and guest speakers from the community surrounding campus. Units: 6.

Prerequisite: Limited to students with freshman class standing; consent of instructor required for sophomores, juniors, and seniors

UNIC 170: *Leadership & Service*
This course will focus on the complex relationship between leadership and service. Designed for students with significant volunteer or community service experience, the course will look at the role of leadership and the development of leadership skills as an outcome of participation via service in human communities. In this seminar course, students will analyze and discuss readings, films, and lectures on leadership by guest speakers. Units: 3.

Prerequisite: Previous volunteer or community service experience

UNIC 201: ***Intermediate Transitional Italian***
Review of the basic skills of speaking and communicating, reading, and writing in the Italian language. Additional selected texts and compositions will reinforce previously learned material. Italian culture will be emphasized. Audio-visual and computer-assisted programs will be available to students as part of the course. Units: 6.

Prerequisite: UNIC 102 or consent of instructor

UNIC 203: ***British Crime Fiction***
The course will offer a survey of the development of crime fiction in Britain from the mid-nineteenth century to the pre sent. Taught as a lecture/discussion class, it will also attempt to exploit the London setting to provide a physical context for some of the work under scrutiny. Students will be able to develop their analytical and writing skills, and should expect to achieve a good grasp of the characteristics of genre fiction; they should also be able to recognize the contribution that a study of these popular forms can make to developing a broader understanding of the values and concerns of the society within which they arise. Units: 6.

Prerequisite: Must be attending the Lawrence London Centre. Sophomore standing

UNIC 206: ***ESL: English in the American University (Waseda)***
An introduction to academic English at the university level designed for students with limited English proficiency. Students work to develop English proficiency in speaking, listening, reading, and writing through the exploration of different academic disciplines. *Enrollment limited to students in the Waseda Visiting Student program*. Units: 6.

Prerequisite: Open only to students in the Waseda Visiting Student program

UNIC 207: ***ESL: Speaking and Listening (Waseda)***
This course focuses on developing speaking and listening skills in English. May be taken for 3 or 6 units. *Enrollment limited to students in the Waseda Visiting Student program.* Units: 3 OR 6.

UNIC 208: ***ESL: Advanced Communicative English***
This course focuses on developing increased communicative competence in English as a second language. In addition, it introduces some of the components of communication and the conventions of discourse in English. *Enrollment limited to students in the Waseda Visiting Student program.* Units: 6.

UNIC 209: ***ESL: Experiential Language Learning (Waseda)***
Development of English language proficiency in a specialized field of study. Students design and complete projects based on intensive exploration of a specific English-speaking environment, such as a university course or a community volunteer site. The course may be repeated if based on the exploration of a different and progressively more challenging language-learning environment. *Enrollment limited to students in the Waseda Visiting Student program.* Units: Variable.

Prerequisite: Open only to students in the Waseda Visiting Student program

UNIC 210: ***Prize Fiction***
A comparative study of recent winners of the American Pulitzer and British Booker Prizes in fiction. Authors read may include Smiley, Ondaatje, Shaara, Trevor, Lively, Coetzee, and Proulx. Lecture and discussion. Units: 6.

UNIC 211: ***Introduction to American Society I (Waseda)***
An introduction to life in America and to academic life at an American university for foreign-exchange students. Students will explore American values, attitudes, and patterns of behavior through formal study, structured observation and interviews of Americans, and through the analysis of their everyday living and studying at Lawrence. *Enrollment limited to students in the Waseda Visiting Student program.* Units: 2.

Prerequisite: Open only to students in the Waseda Visiting Student program

UNIC 212: ***Introduction to American Society II (Waseda)***
An introduction to life in America and to academic life at an American university for foreign-exchange students. Students will explore American values, attitudes, and patterns of behavior through formal study, structured observation and interviews of Americans, and through the analysis of their everyday living and studying at Lawrence. *Enrollment limited to students in the Waseda Visiting Student program.* Units: 1.

Prerequisite: Open only to students in the Waseda Visiting Student program

UNIC 213: ***Introduction to American Society III (Waseda)***
An introduction to life in America and to academic life at an American university for foreign-exchange students. Students will explore American values, attitudes, and patterns of behavior through formal study, structured observation and interviews of Americans, and through the analysis of their everyday living and studying at Lawrence. *Enrollment limited to students in the Waseda Visiting Student program.* Units: 1.

Prerequisite: Open only to students in the Waseda Visiting Student program

UNIC 214: *ESL: Through American Fiction (Waseda)*
Through close reading and analysis of American fiction, visiting students in the Waseda program will continue to develop their English language proficiency and their understanding of American culture. *Enrollment limited to students in the Waseda Visiting Student program.* Units: 6.

UNIC 215: *ESL: Through World Literature (Waseda)*
Waseda students will develop reading comprehension and conversational skills through the discussion of stories, poems, and novels. *Enrollment limited to students in the Waseda Visiting Student program.* Units: 6.

UNIC 220: *The Ethical Lyricists*
A study of contemporary life as represented in lyric poetry. Readings will include lyrics by Zbigniew Herbert, Philip Larkin, Adrienne Rich, and others. Lecture and discussion. Units: 6.

UNIC 221: *Intermediate Arabic I*
In this course, students will acquire new and more complex linguistic structures and be exposed to a wider range of written and oral texts, so that they may start speaking, reading and writing at a higher level. Selected newspaper articles and short stories will be introduced. The cultural component will be particularly emphasized. Not open to students who have completed UNIC 223. Units: 6.

Prerequisite: UNIC 122

UNIC 223: *Intensive Early Intermediate Arabic*
Building on the work done in *Intensive Beginning Arabic*, this course will keep strengthening students' knowledge of Modern Standard Arabic. Using Arabic as the only means of communication, students will continue their study of Arabic grammar and syntax and their discovery of Arab culture through newspaper articles, literary texts and contemporary cinematographic productions in the target language. Not open to students who have already completed UNIC 122 or UNIC 221. Units: 6.

Prerequisite: UNIC 123

UNIC 260: *British Life and Culture*
This compulsory course utilizes visiting speakers, site visits, small group fieldwork and short research projects to introduce students to contemporary life in London and the United Kingdom. Site visits usually include the Museum of London, Imperial War Museum, London Mosque, and a football match. Speakers have included religious leaders representing several different traditions and a homeless couple, among others. The course is designed so that the majority of work takes place during the single class meeting, allowing students the possibility of pursuing up to three elective courses. Units: 3.

Prerequisite: Must be attending the Lawrence London Center

UNIC 262: *"The Fields Beneath": Discovering London's Histories*
This interdisciplinary course aims to give students a thorough grounding in the chronology of London's development from Roman settlement on the periphery of Empire to 21st-century "World City." The use of contemporary literary and visual sources will serve both to develop students' historical imagination and to enable them critically to examine the concepts involved in the discipline of history itself. Alongside this historical approach, a theoretical examination of specific themes and topics will be used to explore the nature of "the town as palimpsest," a layered structure in which the past is never entirely obliterated by what succeeds it. Examples of such themes and topics might include, *inter alia,* religious observance, theatrical presentation, immigration, commerce, domestic life, and government. *Offered at the London Centre.* Units: 6.

Prerequisite: Must be attending the Lawrence London Centre.

UNIC 264: *London Internship*
Students in the internship program participate in this seminar meeting once per week and building upon the field study, lectures, and discussions in the British Life and Culture course. Students are expected to maintain a journal with substantial entries each week that critically reflect on their experiences from intercultural, cross-cultural, social, ethical, organizational, and interpersonal perspectives. Students are also required to complete short reflective essays and a final internship essay interrogating their experiences in terms of the course readings, class discussions in the seminar and the British Life and Culture course, and the broader issue of how a liberal arts-informed perspective frames one's experience in the workplace. Units: 6.

Prerequisite: Must be attending the Lawrence London Centre.

UNIC 300: *Internship: Journalism and the Liberal Arts*
Intensive study, under the direction of a faculty member, of topics related to a student's work on *The Lawrentian* and other local publications or media outlets. Expectations include regular meetings with a faculty member, outside reading, and a final project or paper. Units: 3.

UNIC 315: *Topics in Civic Engagement and Service Learning*
This course will focus on civic engagement through experiential learning. Modes of instruction may involve readings, discussion, field trips, guest lecturers, and service activities. Students will work on a project or projects that address an issue in the local community, in partnership with nonprofit agencies, community members, and local governments. Specific projects will vary each term the course is offered. May be repeated when topic is different. Units: Variable.

UNIC 345: *Topics in New Media Studies*
An in-depth examination of a topic in new media studies and emerging technologies. Presentations, lectures, and discussions will interrogate issues relevant to the critique of new media. Students will carry out independent research and detailed analysis.

Units: 6.

Prerequisite: UNIC 145, ART 245, or sophomore standing

UNIC 370: ***Academic Research and Academic Culture***
This course will help students who are involved in a research project, developing a senior experience, or pursuing an honors project, to locate, understand, and evaluate published academic resources in relevant fields, and expand their familiarity with the work of the academy beyond the classroom. Units: 1 OR 2.

Prerequisite: Sophomore standing

Professors: Anthony, K. Bozeman (Frank C. Shattuck Professorship in Music), S. Jordheim*, Kautsky, Leigh-Post, Niblock, Richeson, Stannard

Associate professors: Bell, Biringer**, Ceballos*, Daniel, DeCorsey, Downing*, George, Gu, Keelan, Koestner, Mast, McQuinn, Metcalf, Michelic, Miller, Mizrahi, Padilla, Sieck, Spears*, Srinivasan, Swan, Urness, Woodruff (director of opera studies)

Assistant professors: Albright, Arau, Bates, Dupere, Encarnacion (director of jazz studies), Lesser

Visiting assistant professors: Cole, Gates, Scheinberg

Instructors: Benson, Boeckman, J. Bozeman, DiBella, Erickson, S. McCardell, Paek, Rath (bassoon), Truax, Turner, Van De Loo, Wilson

Lecturers: Adnyana, Bester, Boncher, Buchman (Academy of Music), Carrothers, Darling, Dempster (string pedagogy), M. Grine (Academy of Music), Handford, A. Jordheim (voice teacher), S. Jordheim, Korb, S. McCardell, Peplin, Pertl (Academy of Music, instructor of harp), Planet, Walby (Academy of Music), Wysock

Artist in residence: Duesing

*On leave Term I; **On leave Terms II, III

Introduction

Music has been a prominent feature of life at Lawrence University since its founding in 1847; the first Bachelor of Music degree was conferred in 1892. Today, the Conservatory curriculum affords students a unique blend of professional education in music and a liberal education, a combination that has produced outstanding composers, performers, scholars and educators. Conservatory students are active in the academic and extracurricular life of the college, and college students avail themselves of the rich opportunities for music study and appreciation in the Conservatory. The Conservatory is an accredited institutional member of the National Association of Schools of Music.

Four separate courses of study lead to a degree in music: the Bachelor of Music degree with majors in performance, music education, music composition or music theory; the five-year program that combines the Bachelor of Music degree with a Bachelor of Arts degree in a major other than music; and the Bachelor of Arts degree with a major in music (Please see the Bachelor of Arts degree requirements and the major and minor in music). All degrees in music offer the possibility of a student-designed major. Students interested in a student-designed major should consult the associate dean of the Conservatory.

General information

All students are expected to be familiar with the policies and procedures set forth in departmental handbooks and guidelines and the Conservatory Student Handbook, all of which contain important information about recitals and departmental examinations and other rules governing student academic life within the conservatory.

Students who wish to pursue two music majors must petition the Conservatory Committee on Administration.

Studio assignments and course placement will be determined upon matriculation. Students are expected to meet with their faculty advisors on a regular basis to discuss progress and course selections. Regular consultation with faculty advisors is essential for students who wish to attend an off-campus program or are planning to complete both the Bachelor of Music and Bachelor of Arts degrees.

Students must consult their studio teachers in regard to all public performances, including appearances not scheduled by Lawrence University. Conservatory rehearsals and performances take precedence in the case of a conflict with external activities. Students may not teach on campus unless employed by the Lawrence Academy of Music.

Bachelor of Music degree

The Bachelor of Music is a professional degree. Courses in music represent approximately two-thirds of the curriculum, while one-third is devoted to *Freshman Studies* and general education requirements.

In addition to academic policies and regulations, students in the Conservatory are subject to policies and procedures detailed in Conservatory department guidelines and the Conservatory Student Handbook.

Admission to the degree

An entrance audition is required of all applicants for admission to the Bachelor of Music degree. Bachelor of Arts students who wish to become Bachelor of Music students must petition the Conservatory Committee on Administration for admission. Bachelor of Music students who wish to become Bachelor of Arts students must petition the University Faculty Subcommittee on Administration for acceptance into the Bachelor of Arts degree program. Such changes are not normally allowed before the end of the freshman year nor later than the beginning of the junior year.

Degree requirements

1. Completion of a minimum of 216 units. The following music courses are used in the computation of the degree grade-point average but are excluded from the total of 216 units required for the degree: MURP 201, 202, 203, 301, 302 and MUTH 161, 162, 171, 172.
2. Of the 216 units required to complete the degree, a student must present:
    a. a minimum of 144 units in music
    b. a minimum of 60 units in courses other than music
    c. no more than 18 units in ESL courses
    d. no more than 12 units from academic internships

The additional 12 units may be selected from any department.

3. In the freshman year, 12 units of *Freshman Studies*
4. Completion of the general education requirements:
    a. 6 units selected from courses designated as writing intensive
    b. International diversity. One of the following:
        i. 6 units selected from courses designated as either emphasizing global and comparative perspectives on the world or focusing on areas outside Europe and the United States
        ii. 12 units selected from courses numbered below 200 in a single language other than English. The language competency requirement may be satisfied in other ways described under “Academic procedures and regulations.”
        iii. Participation for one term in a Lawrence or affiliated off-campus study program held outside the United States

Note: While some music courses may satisfy general education requirements, a minimum of 60 units in courses other than music is required for the degree.

5. Completion of music core requirements:
    a. Music theory
        i. MUTH 151, 161, 171 or MUTH 201, 211, 221
        ii. MUTH 152, 162, 172 or MUTH 202, 212, 222
        iii. MUTH 251, 261, and 271
        iv. MUTH 252, 262, and 272
        v. MUTH 301, 311, and 321
    b. Musicology
        i. MUCO 201 and 202
        ii. 12 units selected from courses in musicology numbered 400 or above
    c. Keyboard skills: MURP 201, 202, 203 or MURP 301, 302
    d. Applied music individual instruction as specified under requirements for the major and areas of emphasis

   e. Ensemble study: a minimum of 12 units. Students are required to participate in an ensemble every term in which they are attending classes on the Appleton campus. Requirements for specific types of ensemble study (MUEN) are specified under requirements for majors and areas of emphasis.
6. Completion of a major in music—performance, music education, theory/composition or student-designed—including all course and non-course requirements, such as recitals, qualifying examinations, etc.
7. An academic record that meets the following standards:
   a. A 2.000 grade-point average in all Lawrence courses
   b. A 2.000 grade-point average in the music major (all music courses and non-music courses required for the major) unless otherwise specified under the major requirements
8. Completion of required terms and units in residence as specified by the residence requirements.

STIPULATIONS PERTAINING TO THE GENERAL EDUCATION REQUIREMENTS
A single course may be used to satisfy both requirement a. (writing intensive) and b. (international diversity) above. Credits granted pursuant to university policy for advanced placement or for transfer work may be used to fulfill general education requirement (see also “Evaluation of credit for transfer students” in the “Academic procedures and regulations” section).

The major in performance

Piano

1. Piano performance: 54 units
    a. A minimum of 54 units in MUIN 301
    b. Presentation of a half recital during junior year and a full recital during senior year
2. Supporting courses for the major: 18 units
    a. MURP 451, 452: *Literature of the Piano I, II* (12 units)
    b. MUEP 301, 302: *Piano Pedagogy I, II* (6 units)
3. Keyboard skills: MURP 301, 302: *Functional Skills for Keyboard Majors I, II*
4. Ensemble: 12 units
    a. 3 units in major ensemble
    b. 3 units in chamber music
    c. 6 units in MUEN 250: *Supervised Accompanying*

Organ

1. Organ performance: 54 units
    a. A minimum of 54 units in MUIN 302
    b. Presentation of a half recital during junior year and a full recital during senior year
2. Supporting courses for the major: 9 units
    a. MURP 390: Tutorial *Survey of Organ Literature, Design, Pedagogy and Performance Practice* (3 units)
    b. Keyboard skills: MURP 301, 302: *Functional Skills for Keyboard Majors*
    c. MUEP 380: *Conducting Principles* (6 units)
3. MUCA/MUCO/MUTH: 6 units from courses numbered 300 or above beyond degree requirements
4. Ensemble: 12 units
    a. 3 units in major ensemble
    b. 3 units in chamber music
    c. 6 units in major ensemble, chamber music, or supervised accompanying

Harpsichord

1. Harpsichord performance: 54 units
    a. A minimum of 54 units in MUIN 319
    b. Presentation of a half recital during junior year and a full recital during senior year
2. Supporting courses for the major: 7 units
    a. MURP 390: Tutorial *Harpsichord Accompaniment* (1 unit)
    b. Keyboard skills: MURP 301, 302: *Functional Skills for Keyboard Majors I, II*
    c. MUEP 380: *Conducting Principles* (6 units)
    d. MUEP 390: Tutorial *Harpsichord Pedagogy* (1 unit)
3. MUCA/MUCO/MUTH: 6 units from courses numbered 300 or above beyond degree requirements
4. Ensemble: 12 units

    a. 3 units in major ensemble
    b. 3 units in chamber music
    c. 6 units in major ensemble, chamber music, or supervised accompanying
5. General education: French or German must be taken to fulfill the international diversity requirement

Voice

1. Voice performance: 54 units
    a. A minimum of 54 units in MUIN 303
    b. Presentation of a half recital during junior year and a full recital during senior year
2. Supporting courses for the major: 22 units
    a. MURP 271, 272, 273, 274, 275, 276: *vocal diction and technique series* (6 units)
    b. MURP 455: *Vocal Literature* (3 units)
    c. MUEP 371, 372: *Vocal Science & Pedagogy I, II* (4 units)
    d. MUEP 380: *Conducting Principles* (6 units)
    e. MURP 361, 362: *Acting for Singers 1, 2* (6 units)
3. Ensemble: 18 units
    a. 6 units in MUEN 272/275
    b. 6 additional units in a major choral ensemble
    c. 6 units in opera theatre
4. General education:
    a. 12 units each of courses taught in two of the following languages (or placement at the intermediate level): French, German, or Italian. Must be taken for a grade.
    b. 2 units selected from: THAR 355: *Theatre Production*, THAR 357: *Musical Theatre Production*

Strings: violin, viola, violoncello, doublebass

1. String performance: 60 units
    a. A minimum of 60 units in MUIN 304, 305, 306, or 307
    b. Presentation of a half recital during junior year and a full recital during senior year
2. Pedagogy: One course selected from MUEP 245, 250, 252, 333, or 334 (1–3 units)
3. Conducting: MUEP 380: *Conducting Principles* (6 units)
4. MUCA/MUCO/MUTH: 6 units from courses numbered 300 or above beyond degree requirements
5. Ensemble: 18 units
    a. 12 units in MUEN 290: *Symphony Orchestra*
    b. Chamber music: 6 units, 3 units of which must be completed after the student has passed the qualifying examination for the major

Classical guitar

1. Guitar performance: 60 units
    a. A minimum of 60 units in MUIN 308
    b. Presentation of a half recital during junior year and a full recital during senior year
2. Supporting courses for the major: 9 units
    a. MURP 315: *Fretboard Harmony for the Classical Guitarist* (1 unit)
    b. MUEP 304: *Guitar Pedagogy* (1 unit)
    c. MURP 317: *History and Literature of the Guitar* (1 unit)
    d. MUEP 380: *Conducting Principles* (6 units)
3. MUCA/MUCO/MUTH: 6 units from courses numbered 300 or above beyond degree requirements
4. Ensemble: 12 units
    a. 3 units in major ensemble,
    b. 3 units in chamber music, and
    c. 6 units in major ensemble or chamber music

Winds: flute, oboe, clarinet, saxophone, bassoon, horn, trumpet, trombone, euphonium, tuba

1. Wind performance: 60 units
    a. A minimum of 60 units in MUIN 309, 310, 311, 312, 313, 314, 315, 316, 317, or 318
    b. Presentation of a half recital during junior year and a full recital during senior year
2. Pedagogy: One course selected from MUEP 245, 259, 260, or 261 (3 units)
3. Conducting: MUEP 380: *Conducting Principles* (6 units)
4. MUCA/MUCO/MUTH: 6 units from courses numbered 300 or above beyond degree requirements
5. Ensemble: 15 units
    a. 6 units in MUEN 285: *Wind Ensemble*, 3 units of which must be taken after the student has passed the qualifying examination for the major
    b. 6 units in a major instrumental ensemble
    c. 3 units of chamber music

Percussion

1. Percussion performance: 54 units
    a. A minimum of 54 units in MUIN 320
    b. Presentation of a half recital during junior year and a full recital during senior year
2. Pedagogy: MUEP 245: *Instrumental Pedagogy* (3 units)
3. Conducting: MUEP 380: *Conducting Principles* (6 units)
4. MUCA/MUCO/MUTH: 6 units from courses numbered 300 or above beyond degree requirements
5. Ensemble: 16 units
    a. 12 units in a major instrumental ensemble, including
        i. 3 units in MUEN 285: *Wind Ensemble*
        ii. 3 units in MUEN 290: *Symphony Orchestra* (A minimum of 3 units in MUEN 285 or MUEN 290 must be completed after the student has passed the qualifying examination for the major)
    b. 4 units of MUEN 230: *Percussion Ensemble* (one term each year for four years)

Senior Experience in music performance

The required senior recital is considered the standard *Senior Experience* for students in the performance major. Students have the option of proposing enhancements to the senior recital or alternative performance projects as their *Senior Experience* with the approval of the applied teacher, advisor, and department chair. Alternative *Senior Experience* projects do not replace the senior recital requirement.

Emphasis in jazz and improvisational music

Admission to the Bachelor of Music performance major with an emphasis in jazz and improvisational music may be granted to a limited number of students upon completion of qualifying examinations and with the approval of a candidate selection committee. For detailed information on admission and scheduling of requirements, students are referred to the chair of the jazz and improvisational music department.

Note: Before admission to the jazz emphasis, Bachelor of Music performance candidates are required to study with the respective classical applied instructors but may elect added applied study with the respective jazz applied instructor. After admission to the jazz emphasis, candidates are required to study with the respective jazz applied instructors but may elect to continue with the respective classical instructor.

1. Performance: 54 units
    a. 36 units of applied individual instruction (MUIN) in piano, strings, winds, or percussion numbered 301-320 during the freshman and sophomore years (before admission to the jazz emphasis)
    b. 18 units of MUIN 329 after admission to the jazz emphasis (candidates may elect more than 18 units)
    c. Presentation of a half recital during junior year and a full recital during senior year

2. Supporting courses for the emphasis:
    a. MUTH 240: *Jazz Theory and Aural Training* (3 units)
    b. MUCA 220, 221: *Jazz Improvisation I, II* (6 units)
    c. MUCA 230: *Small Group Jazz Composition and Arranging* (3 units)
    d. MUCA 330: *Large Ensemble Jazz Composition and Arranging* (3 units)
    e. MUCA 530: *Advance Jazz Writing Skills* (3 units)
    f. MUIN 329: *Jazz Studies* - one term of applied individual study in jazz piano (3 units)
    g. MUCO 455: *Jazz History* (6 units)
    h. MUEP 305: *Jazz Pedagogy* (1 unit)
    i. MUEP 120: *Basic Audio Recording* (1 unit)
3. Piano majors must complete either MURP 451 and 452: *Literature of the Piano I and II* or MUEP 301 and 302: *Piano Pedagogy I and II*
4. Ensemble: completion of the requirement must include:
    a. 5 terms of MUEN 248: *Jazz Small Group Studies* after admission to the jazz emphasis (5 units)
    b. 6 terms of MUEN 295: *Jazz Ensemble* or MUEN 293: *Jazz Band*, after admission to the jazz emphasis (6 units)
    c. Additional ensembles, specific to primary instrument, as follows:
        - Winds/Percussion: 6 terms wind ensemble/symphonic band; 3 terms chamber music
        - Strings: 9 terms symphony orchestra (3 terms required participation after admission to the emphasis in jazz studies); 3 terms chamber music
        - Piano: 3 terms symphony orchestra, wind ensemble, symphonic band, concert choir, women's choir, or chorale; 3 terms supervised accompanying
        - Guitar: 3 terms symphony orchestra, wind ensemble, symphonic band, concert choir, women's choir, chorale, or chamber music
5. Required projects:
    a. *DownBeat* Magazine Student Music Awards Application: By December 31 of the senior year, all candidates are required to submit an application and compact-disc recording (a minimum of 10 minutes or 3 selections) for the Jazz Soloist category in the annual*DownBeat* Magazine Student Music Awards. Repertoire will be chosen by the coordinator of jazz performance practice in consultation with the applied jazz studio teacher.
    b. Assembly of self-promotional CD and/or web site: Over the course of the candidate's two years in the jazz emphasis, a media project documenting the student's jazz performances, compositions, arrangements, and teaching/pedagogical demonstrations must be assembled. Candidates may choose to create an audio CD, audio/visual DVD, or personal web site containing a minimum of 30 minutes of recorded work by the candidate. The selected project(s) must be presented to the jazz and improvisational music faculty before the conclusion of the final term of study.

c. Jazz Small Group Coaching: All candidates will direct or co-direct a jazz small group for a minimum of one term after admission to the emphasis in jazz studies (one 60-minute rehearsal per week). Each candidate must submit (in writing to the jazz faculty) a repertoire list and rehearsal plan for the term by the end of the third week. Each candidate must arrange for one group rehearsal observation by a jazz faculty member before the mid-term reading period.
d. Jazz Big Band Conducting: All candidates will conduct designated rehearsals and sectionals of Jazz Band or Jazz Workshop after admission to the emphasis in jazz studies.
e. Jazz "Tune of the Week" Tutoring: All admitted jazz emphasis candidates will serve as co-tutors for jazz "Tune of the Week" study/rehearsal sessions once each term. Tutors will organize and lead a single session (2–3 hours in duration, time and date TBA) at the end of each term for freshmen and sophomores contemplating admission to the jazz emphasis. Each session will serve as an "organized jam session" covering the 10 "Tune of the Week" selections assigned in each given term.

Note: Before admission to the jazz emphasis, Bachelor of Music performance candidates are required to study with the respective classical applied instructors but may elect added applied study with the respective jazz applied instructor. After admission to the jazz emphasis, candidates are required to study with the respective jazz applied instructors but may elect to continue with the respective classical instructor.

Senior Experience in music—jazz emphasis

The senior recital and media project (assembly of a self-promotional CD and/or personal web site) are designated as the official *Senior Experiences* for jazz emphasis candidates in both performance and composition and arranging. Students have the option of proposing enhancements to this *Senior Experience* with the approval of the applied teacher, advisor, and department chair.

Over the course of the candidate's two years in the jazz emphasis, a media project documenting the student's jazz performances, compositions, arrangements, and teaching/pedagogical demonstrations will be assembled. Candidates may choose to create an audio CD, audio/visual DVD, or personal web site containing a minimum of 30 minutes of recorded work by the candidate. The selected project(s) must be presented to the jazz and improvisational music faculty before the conclusion of the final term of study.

Emphasis in collaborative piano

In addition to all requirements for the major in piano performance, the following are required:

1. Supporting courses for the emphasis: 12 units
    a. MURP 420: *Piano Accompaniment: Vocal* (3 units)
    b. MURP 425: *Piano Accompaniment: Instrumental* (3 units)
    c. MURP 420 or 425—repetition of one course (3 units)
    d. MURP 272 *English Singing Diction* (1 unit); must be fulfilled before requirement 1.e. below
    e. Two of the following in a language not used to satisfy requirement 3: general education language requirement below (2 units):
        - MURP 273 *Italian and Latin Singing Diction*
        - MURP 274 *German Singing Diction*
        - MURP 275 *French Singing Diction*
    f. One term of the supervised accompanying requirement must be fulfilled with Opera Scenes.
2. Recitals: in addition to required solo degree recitals, accompany one half vocal recital and one half instrumental recital; must be prepared under supervision of keyboard faculty member(s) through registration in an accompanying class, supervised accompanying, or chamber music.
3. General education: completion of the degree requirements must include 12 units of one of the following (or placement at the intermediate level): French, German, or Italian, taken for a grade.

Minor in pedagogy

Keyboard

1. MUEP 301, 302, 303: *Piano Pedagogy I, II, III* (9 units)
2. Two of the following (6 units total):
    - MUEP 502: *Early Advanced Piano Pedagogy*
    - MUEP 503: *Group Piano Pedagogy*
    - MUEP 505: *Internship in Piano Pedagogy*
3. MUEP 581, 582: *Student Teaching in Piano I, II* (6 units)
4. MURP 451, 452: *Literature of the Piano I, II* (12 units)
5. Completion of the general education requirement must include PSYC 260: *Developmental Psychology* or PSYC 340: *Cognitive Psychology* (6 units)
6. Presentation of a half recital.
7. Students must participate in individual performance study in each term in which they are in residence on the Appleton campus.

Voice

1. MUEP 371, 372: *Voice Science and Pedagogy I, II* (4 units)
2. MUEP 373: *The Brain, Music, and Optimal Performance* (3 units)
3. MUEP 395: *Internship in Music Pedagogy* (3 units)
4. Additional Guided Independent Study in Historic Pedagogy, Acoustics, and/or Body/Mind Research (3 units)
5. MURP 223: *Educators' Keyboard Skills* (1 unit)
6. Completion of the general education requirement must include one of the following (6 units):
    - PSYC 180: *Psychology of Learning*
    - PSYC 260: *Developmental Psychology*
    - PSYC 340: *Cognitive Psychology*
7. Students must participate in individual performance study in each term in which they are in residence on the Appleton campus.

Strings

1. MUEP 245: *Instrumental Pedagogy* (3 units)
2. MUEP 345: *Applied Instrumental Pedagogy* (3 units)
3. MUEP 331, 332: *String Techniques I, II* (6 units)
4. MUEP 395: *Internship in Music Pedagogy* (3 units)
5. Completion of the general education requirements must include one of the following (6 units):
    - EDST 180: *Psychology of Learning*
    - PSYC 260: *Developmental Psychology*
    - PSYC 340: *Cognitive Psychology*
    - EDST 350: *Ethnicity, Cultural Diversity, and Education*
    - EDST 440: *Sociology of Education*

6. Students must participate in individual performance study in each term in which they are in residence on the Appleton campus.

Brass

1. MUEP 245: *Instrumental Pedagogy* (3 units)
2. MUEP 345: *Applied Instrumental Pedagogy* (3 units)
3. MUEP 310: *Brass Techniques* (3 units)
4. MUEP 259: *Brass Pedagogy* (3 units)
5. MUEP 395: *Internship in Music Pedagogy* (3 units)
6. Completion of the general education requirements must include one of the following (6 units):
    - EDST 180: *Psychology of Learning*
    - PSYC 260: *Developmental Psychology*
    - PSYC 340: *Cognitive Psychology*
    - EDST 350: *Ethnicity, Cultural Diversity, and Education*
    - EDST 440: *Sociology of Education*
7. Students must participate in individual performance study in each term in which they are in residence on the Appleton campus.

Percussion

1. MUEP 245: *Instrumental Pedagogy* (3 units)
2. MUEP 345: *Applied Instrumental Pedagogy* (3 units)
3. MUEP 315: *Percussion Techniques* (3 units)
4. MUEP 390: *Tutorial in Music Pedagogy-Percussion* (3 units)
5. MUEP 395: *Internship in Music Pedagogy* (3 units)
6. Completion of the general education requirements must include one of the following (6 units):
    - EDST 180: *Psychology of Learning*
    - PSYC 260: *Developmental Psychology*
    - PSYC 340: *Cognitive Psychology*
    - EDST 350: *Ethnicity, Cultural Diversity, and Education*
    - EDST 440: *Sociology of Education*
7. Students must participate in individual performance study in each term in which they are in residence on the Appleton campus.

Woodwinds

1. MUEP 245: *Instrumental Pedagogy* (3 units)
2. MUEP 345: *Applied Instrumental Pedagogy* (3 units)
3. MUEP 321, 322: *Woodwind Techniques I, II* (6 units)
4. MUEP 395: *Internship in Music Pedagogy* (3 units)
5. Completion of the general education requirements must include one of the following (6 units):
    - EDST 180: *Psychology of Learning*
    - PSYC 260: *Developmental Psychology*
    - PSYC 340: *Cognitive Psychology*
    - EDST 350: *Ethnicity, Cultural Diversity, and Education*
    - EDST 440: *Sociology of Education*
6. Students must participate in individual performance study in each term in which they are in residence on the Appleton campus.

The major in music education

The Bachelor of Music degree with a major in music education is subject to revision. It is the student's responsibility to confirm requirements with the chair of the music education department. A cumulative GPA of 2.75 is required for certification in music. To be admitted to the teacher education program, candidates for certification must pass Praxis I: Pre-Professional Skills Test (PPST) in reading, writing, and mathematics. Before they may student teach, candidates for certification must pass Praxis II: Subject Assessment/Specialty Area Test for each subject in which they intend to be licensed. Students seeking licensure should also consult the Music Education Student Teaching Handbook for further information and requirements.

Students in the Bachelor of Music degree program may qualify for a 13th term tuition waiver for student teaching, paying only a registration fee ($1,283). Students must have completed all graduation requirements except student teaching; this term must immediately follow the 12th term. For students in the five-year double degree program, a 16th term of student teaching is available under the same policy; this term must immediately follow the 15th term.

Common requirements for the major in music education

In addition to degree requirements and those of specific areas below, the following are required of all music education majors:

1. Education: 21 units
    a. EDST 180: *Psychology of Learning* (6 units)
    b. EDST 440: *Sociology of Education* (6 units)
    c. EDST 350: *Ethnicity, Cultural Diversity, and Education* (6 units)
    d. EDUC 431: *Educating All Learners - Music* (3 units)
2. Music education: 9 units
    a. MUEP 201: *Introduction to Music Education* (3 units)
    b. MUEP 380: *Conducting Principles* (6 units)
3. Student teaching: 21 units
    a. MUEP 660: *Advanced Methods in Teaching Music* (3 units)
    b. MUEP 680: *Student Teaching* (18 units)
4. Performance: 36 units
    a. Minimum of 36 units in applied individual instruction, required every term in which the student is in residence on the Appleton campus with the exception of the student-teaching semester
    b. Presentation of a half recital during the junior or senior year
5. Non-music courses, which must include the following:
    a. 6 units of biological science or ANTH 140 and 6 units of physical science; or 6 units of BIOL 103, BIOL 230, or ENST 150
    b. 6 units in mathematics
    c. A total of 60 units in courses other than music
6. Participation in a major ensemble is required every term in residence on the Appleton campus, as specified in the following requirements for each track: general, choral/general, instrumental, and instrumental/general.

7. Completion of major requirements for one of the areas as outlined below.

Senior Experience in music education

Student teaching is the culminating experience for students in music education. This experience places Lawrence seniors in schools for a period of 18 weeks. During this time, student teachers work closely with a mentor teacher at the secondary and/or elementary level to gain the professional knowledge and skills that will prepare them for state certification licensure in Wisconsin. A variety of projects, tasks, and events comprise the student teaching *Senior Experience* at Lawrence. As they work with their mentor teacher, students observe classroom teaching as they prepare to take responsibility for planning and executing classes, rehearsals and lessons under the expert guidance of master teachers.

In addition to working with a mentor teacher in the schools, students also work with Lawrence faculty during student teaching, both as mentors and in a weekly seminar meeting. Seminar topics include examination of practical issues related to the classroom, (such as classroom management, lesson planning and execution, and working with young learners), broad matters related to functioning professionally in schools and the profession (licensure, administration, and community), and philosophical issues. One of the mechanisms for facilitating discourse in the seminar is the videotape that student teachers bring in to the seminar. These brief episodes facilitate group discussion of their concerns, questions, and wonderments while providing a glimpse into their distinct student teaching environment.

During student teaching, students engage the complete range of their Lawrence studies, including but not limited to the musical, pedagogical and technical coursework in the program. One of the culminating products of the student teaching experience is the creation of an electronic portfolio that includes lesson plans, philosophical statement, résumé, assessments, audio and video examples of their teaching, demonstrating the range and scope of the student's experiences and documenting that the student has met Lawrence's teacher education standards.

General music

In addition to degree requirements and common requirements for all music education majors (above), the following are required for the general music emphasis:

1. Music education and pedagogy: 28-30 units
    a. MUEP 371 and 372: *Voice Science & Pedagogy I, II* (4 units) or MUEP 231 and 232: *Vocal Proficiency and Pedagogy I, II* (2 units). Students whose principal performance instrument is other than voice must complete MUEP 231 and 232.
    b. MUEP 240, 350: *General Music Methods* (12 units)
    c. MUEP 336: *Guitar and Recorder for the Music Educator* (1 unit)
    d. MUEP 340/THAR 340: *Musical Theatre Production Overview* (1 unit)
    e. MUEP 402: *Choral Techniques I* (6 units)
    f. MUEP 307: *Orchestration for the Music Educator* (1 unit)

2. Keyboard skills: MURP 223: *Educators' Keyboard Skills* (1 unit) in addition to degree requirement in keyboard skills
3. MURP 271, 272, 273, 274, 275 for students whose primary instrument is voice
4. Ensemble: 12 units. Participation in major ensemble required every term in residence on the Appleton campus. The requirement is based on the student's principal instrument, as follows:
    a. Voice and keyboard:
        i. 9 units in a major choral ensemble
        ii. 3 units in any major ensemble
    b. Winds and percussion:
        i. 6 units in Wind Ensemble or Symphonic Band
        ii. 3 units in any major choral ensemble
        iii. 3 units in any major ensemble.
    c. Strings:
        i. 6 units in Symphony Orchestra
        ii. 3 units in any major choral ensemble
        iii. 3 units in any major ensemble

Note: B.Mus. students earning this major should expect to attend Lawrence for four and one-half years; double degree students earning this major should expect to attend Lawrence for five and one-half years.

Choral/general

In addition to degree requirements and common requirements for all music education majors (top), the following are required for the choral/general emphasis:

1. Music education and pedagogy: 34-36 units
    a. MUEP 371 and 372: *Voice Science & Pedagogy I, II* (4 units) or MUEP 231 and 232: *Vocal Proficiency and Pedagogy I, II* (2 units).
    b. (Students whose principal performance instrument is other than voice must complete MUEP 231 and 232.)
    c. MUEP 240, 350: *General Music Methods* (12 units)
    d. MUEP 307: *Orchestration for the Music Educator* (1 unit)
    e. MUEP 336: *Guitar and Recorder for the Music Educator* (1 unit)
    f. MUEP 340/THAR 340: *Musical Theatre Production Overview* (1 unit)
    g. MUEP 402: *Choral Techniques I* (6 units)
    h. MUEP 442: *Choral Techniques II* (6 units)
2. Keyboard skills: MURP 223: *Educators' Keyboard Skills* (1 unit) in addition to degree requirement in keyboard skills
3. Performance: 5-6 units
    a. MURP 271, 272, 273, 274, 275 for students whose primary instrument is voice
    b. A minimum of 2 terms of MUIN 303 for students whose primary instrument is other than voice and satisfactory completion of the vocal proficiency examination

4. Ensemble: 12 units in a major choral ensemble. Participation in major ensemble required every term in residence on the Appleton campus.

Note: B.Mus. students earning this major should expect to attend Lawrence for four and one-half years; double degree students earning this major should expect to attend Lawrence for five and one-half years.

Instrumental

In addition to degree requirements and common requirements for all music education majors (top), the following are required for the instrumental emphasis:

1. Music education and pedagogy: 33 units
    a. MUEP 230: *Voice for Instrumental Music Educators* (1 units)
    b. One of the following: MUEP 305: Jazz Pedagogy (1 unit), MUEP 333 *String Pedagogy: Pedagogues and Methods* (1 unit), or MUEP 334 *String Pedagogy: Editing Orchestral String Parts* (1 unit)
    c. MUEP 401: *Instrumental Methods and Rehearsal Techniques I* (6 units)
    d. MUEP 451: *Instrumental Methods and Rehearsal Techniques II* (6 units)
    e. MUEP 307: *Orchestration for the Music Educator* (1 unit)
    f. MUEP 310: *Brass Techniques* (3 units)
    g. MUEP 315: *Percussion Techniques* (3 units)
    h. MUEP 321, 322: *Woodwind Techniques I, II* (6 units)
    i. MUEP 331, 332: *String Techniques I, II* (6 units)
2. Ensemble: 12 units
    a. Winds and percussion:
        i. 9 units in MUEN 285: *Wind Ensemble* or MUEN 287: *Symphonic Band*
        ii. an additional 3 units in any major ensemble
    b. Strings:
        i. 9 units in MUEN 290: *Symphony Orchestra*
        ii. 3 additional units in any major ensemble

Note: B.Mus. students earning this major should expect to attend Lawrence for four and one-half years; double degree students earning this major should expect to attend Lawrence for five and one-half years.

Instrumental/general

In addition to degree requirements and common requirements for all music education majors (top), the following are required for the instrumental/general emphasis:

1. Music education and pedagogy: 50 units
    a. One of the following: MUEP 305: *Jazz Pedagogy* (1 unit), MUEP 333 *String Pedagogy: Pedagogues and Methods* (1 unit), or MUEP 334 *String Pedagogy: Editing Orchestral String Parts* (1 unit)
    b. MUEP 231, 232: *Vocal Proficiency and Pedagogy I, II* (2 units)
    c. MUEP 240, 350: *General Music Methods* (12 units)

   d. MUEP 336: *Guitar and Recorder for the Music Educator* (1 unit)
   e. MUEP 401: *Instrumental Methods and Rehearsal Techniques I* (6 units)
   f. MUEP 451: *Instrumental Methods and Rehearsal Techniques II* (6 units)
   g. MUEP 307: *Orchestration for the Music Educator* (1 unit)
   h. MUEP 310: *Brass Techniques* (3 units)
   i. MUEP 315: *Percussion Techniques* (3 units)
   j. MUEP 321, 322: *Woodwind Techniques* (6 units)
   k. MUEP 331, 332: *String Techniques* (6 units)
2. Keyboard skills:
   a. MURP 223: *Educators' Keyboard Skills* (1 unit) in addition to degree requirements in keyboard skills.
3. Ensemble: 12 units. Participation in major ensemble required every term in residence on the Appleton campus. The requirement is based on the student's primary instrument, as follows:
   a. Winds and percussion:
      i. 6 units in Wind Ensemble or Symphonic Band
      ii. 3 units in any major choral ensemble
      iii. 3 additional units in any major ensemble
   b. Strings:
      i. 6 units in Symphony Orchestra
      ii. 3 units in any major choral ensemble
      iii. 3 units in any major ensemble

Note: B.Mus. students earning this major should expect to attend Lawrence for four and one-half years; double degree students earning this major should expect to attend Lawrence for five and one-half years.

The major in composition

1. Music composition: 45 units
    a. MUCA 100: *Fundamentals of Composition* (6 units)
    b. MUCA 345: *Composition* (27 units; 9 terms, 3 units per term)
    c. MUCA 300: *Techniques of the Contemporary Composer* (6 units)
    d. MUCA 400: *Topics in Electronic Music* (6 units)
2. Music theory in addition to the core courses required for the B.Mus. degree: 12 units
    a. One course in counterpoint (6 units), either:
        - MUTH 400: *Renaissance Counterpoint* (6 units) or
        - MUTH 401: *Counterpoint in the Style of J.S. Bach I* (6 units)
    b. One course in analysis (6 units) selected from the following:
        - MUTH 421: *Theory and Analysis of Music from 1900-1945* (6 units)
        - MUTH 422: *Theory and Analysis of Music since 1945* (6 units)
        - MUTH 550: *Topics in Music Theory and Analysis* (6 units); topic must concern music composed since 1900
3. Orchestration: MUCA 411, 412: *Orchestration I, II* (12 units)
4. Conducting: MUEP 380: *Conducting Principles* (6 units)
5. Performance: A minimum of 18 units in applied individual instruction
6. Ensemble: 12 units
    a. 3 units in major ensemble
    b. 3 units in chamber music
    c. 6 units in major ensemble or chamber music

The qualifying examination in composition

The qualifying examination in composition comprises a portfolio of compositions that is submitted to and adjudicated by a committee of composition faculty members. The examination must be completed no later than the end of the first term of the sophomore year.

Senior Experience in composition

For students majoring in composition, the *Senior Experience* consists of a recital of original compositions and a portfolio of scores and recordings of works composed while at Lawrence. The composition recital, which is normally held during the winter or spring term of the senior year, must include approximately 35–40 minutes of original music composed while at Lawrence (e.g., 5 to 6 works for various chamber ensembles, possibly including a solo work or two), showing variety in musical style, compositional technique, and artistic conception. The compositions should represent the student's finest work at Lawrence, and they should be prepared, rehearsed, and performed at the highest possible level.

The student, in consultation with his or her principal composition instructor, is responsible for all aspects of production (assembling personnel, preparation of scores and parts, preparation of the concert program and program notes, organizing rehearsals, and, where appropriate, coaching). The senior portfolio consists of professional-quality scores prepared by the student along with recordings of works performed at Lawrence, and must be submitted by the end of the tenth week of the term in which the senior recital occurs.

The senior recital and portfolio is not normally subject to consideration for honors in independent study. Students wishing to undertake an honors project distinct from the senior recital may do so, but the honors project may not substitute for the senior recital and portfolio.

Emphasis in jazz and improvisational music

Admission to the Bachelor of Music in composition with an emphasis in jazz and improvisational music may be granted to a limited number of students upon successful completion of qualifying examinations and with the approval of a candidate selection committee. For detailed information on admission and scheduling of requirements, students are referred to the chair of the jazz and improvisational music department.:

Specific courses required for the emphasis are as follows:

1. Music theory in addition to the core courses required for the B.Mus. degree (6 units):
    a) MUTH 421: *Theory and Analysis of Music from 1900-1945* (6 units)
    b) MUTH 422: *Theory and Analysis of Music since 1945* (6 units)
2. Music composition and arranging
    a) MUCA 230: *Small Group Jazz Composition and Arranging* (3 units)
    b) MUCA 330: *Large Ensemble Jazz Composition and Arranging* (3 units)
    c) MUCA 411: *Orchestration I* (6 units)
    d) MUCA 530: *Advanced Jazz Writing Skills* (3 units)
    e) MUCA 530: *Advanced Jazz Composition* (9 units at 3 units per term)
    f) MUCA 300: *Techniques of the Contemporary Composer* (6 units)
    g) 6 units from MUCA 345: *Composition*
3. Supporting courses for the emphasis:
    a) MUCA 220, 221: *Jazz Improvisation I, II* (6 units)
    b) MUTH 240: *Jazz Theory and Aural Training* (3 units)
    c) MUIN 329: *Jazz Studies* - one term of applied individual study in jazz piano (3 units)
    d) MUCO 455: *Jazz History* (3 units)
    e) MUEP 305: *Jazz Pedagogy* (1 unit)
    f) MUEP 120: *Basic Audio Recording* (1 unit)
4. Performance: A minimum of 24 units in applied individual instruction and 6 terms on the major instrument or voice
5. Ensemble: Completion of the requirement must include:
    a) 3 terms of MUEN 248: *Jazz Small Group Studies*, after admission to jazz emphasis (3 units)

b) 3 terms of MUEN 295: *Jazz Ensemble* or MUEN 293: *Jazz Band*, after admission to the jazz emphasis (3 units)
c) Additional ensembles, specific to primary instrument, as follows:
    - Winds/Percussion: 6 terms wind ensemble/ symphonic band; 3 terms chamber music
    - Strings: 9 terms symphony orchestra (3 terms required participation after admission to the emphasis in jazz studies); 3 terms chamber music
    - Piano: 3 terms symphony orchestra, wind ensemble, symphonic band, concert choir, women's choir, or chorale; 3 terms supervised accompanying
    - Guitar: 3 terms symphony orchestra, wind ensemble, symphonic band, concert choir, women's choir, chorale, or chamber music
    - Voice: 6 terms concert choir or women's choir

6. Required projects:
    a) Recitals: Half recital (30 minutes maximum stage time) during junior year, full recital (60 minutes maximum stage time) during senior year.
    b) *DownBeat* Magazine Student Music Awards Application: By December 31 of the senior year, all candidates are required to submit an application and CD recording (a minimum of 10 minutes or 3 selections) for the Jazz Soloist category in the annual *DownBeat*Magazine Student Music Awards. Repertoire will be chosen by the coordinator of jazz performance practice in consultation with the applied jazz studio teacher
    c) Assembly of self-promotional CD and/or web site: Over the course of the candidate's two years in the jazz emphasis, a media project documenting the student's jazz performances, compositions, arrangements, and teaching/pedagogical demonstrations must be assembled. Candidates may choose to create an audio CD, audio/visual DVD, or personal web site containing a minimum of 30 minutes of recorded work by the candidate. The selected project(s) must be presented to the jazz and improvisational music faculty before the conclusion of the final term of study.
    d) Jazz Small Group Coaching: All candidates will direct or co-direct a jazz small group for a minimum of one term after admission to the emphasis in jazz studies (one 60-minute rehearsal per week). Each candidate must submit (in writing to the jazz faculty) a repertoire list and rehearsal plan for the term by the end of the third week. Each candidate must arrange for one group rehearsal observation by a jazz faculty member before the mid-term reading period.
    e) Jazz Big Band Conducting: All candidates will conduct designated rehearsals and sectionals of Jazz Band or Jazz Workshop after admission to the emphasis in jazz studies.
    f) Jazz "Tune of the Week" Tutoring: All admitted jazz emphasis candidates will serve as co-tutors for jazz "Tune of the Week" study/rehearsal sessions once each term. Tutors will organize and lead a single session (2–3 hours in duration, time and date TBA) at the end of each term for freshmen and sophomores

contemplating admission to the jazz emphasis. Each session will serve as an "organized jam session" covering the 10 "Tune of the Week" selections assigned in each given term.

Note: Before admission to the jazz emphasis, students are required to study with the respective classical applied instructors but may elect added applied study with the respective jazz applied instructor. After admission to the jazz emphasis, candidates are required to study with the respective jazz applied instructors but may elect to continue applied study with the respective classical instructor.

The major in music theory

1. Music theory in addition to the core courses required for the B.Mus. degree: 42 units
    a. Two courses in counterpoint (12 units), either:
        - MUTH 400: *Renaissance Counterpoint* (6 units) and MUTH 401: *Counterpoint in the Style of J.S. Bach I* (6 units), or
        - MUTH 401: *Counterpoint in the Style of J.S. Bach I* (6 units) and MUTH 402: *Counterpoint in the Style of J.S. Bach II* (6 units)
    b. Two 400-level courses in theory and analysis (12 units):

i. MUTH 421: *Theory and Analysis of Music from 1900-1945* (6 units)

ii. MUTH 422: *Theory and Analysis of Music since 1945* (6 units)

    c. MUTH 520: *Schenkerian Analysis* (6 units)
    d. Two different iterations of MUTH 550: *Topics in Music Theory and Analysis* (12 units)
2. Music composition and arranging (12 units):
    a. MUCA 100: *Fundamentals of Composition* (6 units)
    b. Two terms of MUCA 345: *Composition* (6 units; 3 units per term)
3. Any two of the following courses: (12 units)
    - ANTH 531/LING 531: *Semiotics*
    - EDST 545/LING 545/PSYC 545: *Gesture Studies*
    - LING 470: *Cognitive Linguistics*
    - MUCO 411: *Aesthetics of Music*
    - PHYS 107: *Physics of Music*
    - PSYC 230: *Psychology of Music*
4. Performance: A minimum of 24 units in applied individual instruction
5. Ensemble: 12 units
    . 3 units in major ensemble
    a. 3 units in chamber music
    b. 6 units in major ensemble or chamber music
6. Language: 6 units in languages other than English taken from courses numbered 200 or above (German is strongly encouraged because of its prevalence in music theoretical scholarship)
7. Required project: One public performance of a work for small ensemble that the student has composed in MUCA 345: *Composition* and rehearsed and prepared under faculty supervision.

Senior Experience in music theory

The topic of the *Senior Experience* in music theory will arise from the student's encounter, in upper-level courses, with advanced theoretical and analytical concepts, methods, and techniques. Topics may take one of the following forms, subject to approval by the music theory faculty:

1. an original essay, of substantive length and publishable quality, on a theoretical or analytic topic
2. a critical exegesis of a monograph by a contemporary or historical music theorist or of a series of interrelated essays
3. a lecture-recital
4. a software application for music theory pedagogy or analysis

Ensemble performance study

Note: A maximum of 12 units of major ensemble may apply toward the Bachelor of Music degree, except when required by the major. Major ensembles are Concert Choir, Cantala Women's Choir, Viking Chorale, Music Theatre, Wind Ensemble, Symphonic Band, Symphony Orchestra, Jazz Ensemble and Jazz Band.

Students may not register for ensemble study by using Voyager; registration will be handled by ensemble directors at the beginning of each term.

Bachelor of Arts/Bachelor of Music double-degree program

Professional study in music and study in the liberal arts may be combined in a five-year program leading to both Bachelor of Music and Bachelor of Arts degrees, the latter with a major other than music. Both degrees are awarded at the conclusion of the five-year program. Interested students should discuss this possibility with their advisors as early as possible.

Approximately half of the curriculum is devoted to the study of music—completion of the music core and requirements for a major in performance, music education or theory/composition. The other half of the curriculum mirrors that of the Bachelor of Arts program, emphasizing breadth of study central to a liberal arts education, focused study in the college major and elective study to complement other work or explore other fields of interest.

Certain majors in the Bachelor of Arts degree program (for example, some laboratory sciences) may be difficult to combine with the Bachelor of Music degree program into a five-year double-degree program, especially if the student's objective is to maintain serious options for graduate or professional work in both areas after graduation. Such combinations may require that course overloads be taken to complete minimum requirements in each major in a timely and satisfactory manner. Early and regular consultation with advisors in both the college and the conservatory is imperative. Further, students who seek certification for purposes of teaching a subject other than music are urged to see the associate dean of the Conservatory.

In addition to academic policies and regulations, students in the conservatory are subject to policies and procedures detailed in Conservatory department guidelines and the Conservatory Student Handbook.

Requirements for the five-year Bachelor of Arts/Bachelor of Music Degrees

1. Completion of a minimum of 15 terms of study and 270 units. Of the 270 units required, a student must present:
    a. a minimum of 144 units in music, exclusive of MURP 201, 202, 203, 301, 302 and MUTH 161, 162, 171, 172
    b. a minimum of 114 units selected from courses other than music
    c. no more than 42 units from courses in education
    d. no more than 18 units in ESL courses
    e. a minimum of 72 units from courses numbered 200 and above
    f. no more than 90 units from a single department outside of music, except that in the art department a student may present no more than 126 units, no more than 90 of which may be in art and no more than 90 of which may be in art history
    g. no more than 12 units from academic internships
2. In the freshman year, 12 units of *Freshman Studies*.

3. Completion of the general education requirements:
    a. Distribution, in order to gain exposure to a range of disciplines, subjects, and perspectives within the liberal arts:
        i. 6 units selected from departments and courses listed within the division of humanities. All courses in the humanities taught in English will count toward this requirement. Humanities courses taught in a language other than English and numbered 300 and above also will count toward this requirement, except as noted in the course catalog.
        ii. 6 units selected from departments and courses listed within the division of fine arts
        iii. 6 units selected from departments and courses listed within the division of social sciences
        iv. 6 units selected from laboratory courses in biology, chemistry, geology or physics in the division of natural sciences
    b. Diversity, in order to prepare students for a more global world and a more diverse America:
        i. 6 units selected from courses designated as either emphasizing global and comparative perspectives on the world or focusing on areas outside Europe and the United States
        ii. 6 units selected from courses designated as focusing on dimensions of diversity, such as race, ethnicity and gender, that are of particular importance in understanding contemporary society in the United States
    c. Competency, in order to improve and reinforce those fundamental abilities central to a liberal arts education:
        i. 6 units selected from courses designated as writing intensive or 6 units selected from courses designated as speaking intensive
        ii. 6 units selected from courses designated as emphasizing mathematical reasoning or quantitative analysis
        iii. 6 units in a language other than English taken from courses numbered 200 or above and taught primarily in a language other than English. The language competency requirement may be satisfied in other ways described under “Academic procedures and regulations.”
4. Completion of a college major—departmental, interdisciplinary or student-designed—exclusive of music, including all course and non-course requirements, such as departmental examinations, research projects and presentations, portfolios, etc. Students are required to declare a major by the beginning of the junior year.

5. Completion of music core requirements:
    a. Music Theory
        i. MUTH 151, 161, 171 or MUTH 201, 211, 221
        ii. MUTH 152, 162, 172 or MUTH 202, 212, 222
        iii. MUTH 251, 261, and 271
        iv. MUTH 252, 262, and 272
        v. MUTH 301, 311, and 321
    b. Musicology
        i. MUCO 201 and 202
        ii. 12 units selected from courses in musicology numbered 400 or above
    c. Keyboard skills: MURP 201, 202, 203 or MURP 301, 302
    d. Applied music individual instruction as specified under requirements for the major and areas of emphasis
    e. Ensemble study: a minimum of 12 units. Students are required to participate in an ensemble every term in which they are attending classes on the Appleton campus. Requirements for specific types of ensemble study (MUEN) are specified under requirements for majors and areas of emphasis.
    f. Completion of a major in music—performance, music education, theory/composition, or student-designed—including all course and non-course requirements, such as recitals, qualifying examinations, etc.
    g. Completion of a designated *Senior Experience* course or activity within the chosen majors for each degree.
    h. An academic record that meets the following standards:
        i. A 2.000 grade-point average in all Lawrence courses
        ii. A 2.000 grade-point average in the music major (all music courses and non-music courses required for the major) unless otherwise specified under the major requirements
    i. Completion of required terms and units in residence as specified by the university residence requirements.

STIPULATIONS PERTAINING TO THE GENERAL EDUCATION REQUIREMENTS
Qualified courses may count toward the requirements in any two of the categories above (distribution, diversity and competency). Some courses may meet two requirements within a category. No single course can be used to fulfill more than two requirements. Credits granted pursuant to university policy for examinations (Lawrence Advanced Placement (AP), International Baccalaureate (IB) or A-levels) may be used as appropriate to fulfill diversity or competency requirements only.

COURSES—Music composition and arranging

MUCA 100: *Fundamentals of Composition*
An introduction to the craft of music composition open to students with some background in music. Taught as a small class, the course will introduce basic compositional techniques to students with limited background in composition. Individualized compositional projects will be complemented by group listening and analysis. Units: 6.

MUCA 110: *Introduction to Electronic Music*
Through hands-on composition-based projects, the course explores electronic and computer music in the context of the contemporary art music tradition as well as various popular idioms. Topics include digital audio sampling and editing, digital signal processing, sound synthesis, MIDI sequencing, and multi-track sound mixing. Discussions engage the integral role of technology in shaping our musical culture as well as the history of electronic music. Units: 6.

MUCA 191: *Directed Study in Music Composition and Arranging*
Directed study follows a syllabus set primarily by the instructor to meet the needs or interests of an individual student or small group of students. The main goal of directed study is knowledge or skill acquisition, not research or creative work. Units: Variable.

Prerequisite: Counter Registration Required

MUCA 195: *Internship in Music Composition and Arranging*
An experience-based project in music developed in consultation with a designated supervisor and a conservatory faculty member, comprising a work component and an academic component. The academic component of the internship, carried out under the supervision of the faculty member, may include readings related to the substance of the internship, discussions with the faculty member, and a written report or other culminating project appropriate to the discipline. Units: Variable.

Prerequisite: Counter Registration Required

MUCA 210: *Improvisation*
An introduction to improvisation for students in all music disciplines. Exploration of the concepts of improvisation in the varied settings of ethnic/world music, jazz, and contemporary classical music. Units: 3.

MUCA 220: *Jazz Improvisation I*
An introduction to the fundamentals of jazz improvisation. Exploration of jazz repertoire through scale/chord/mode associations, rhythmic and linear development, and solo transcription/analysis. Units: 3.

Prerequisite: MUTH 240

MUCA 221: ***Jazz Improvisation II***
Continued exploration of jazz repertoire using more complex forms and progressions, intermediate linear concepts, and solo transcription/analysis. Units: 3.

Prerequisite: MUCA 220

MUCA 230: ***Small Group Jazz Composition and Arranging***
Fundamentals of notation, orchestration, rhythmic embellishment, melodic development, jazz harmony, vertical sonorities, basic forms, and 2-5 part densities for jazz small groups. Units: 3.

MUCA 300: ***Techniques of the Contemporary Composer***
Development of the craft of the contemporary composer through selected topics in pitch, rhythm, and form. The course comprises analysis of major compositional techniques of contemporary music in tandem with directed assignments in composition. Units: 6.

Prerequisite: Two terms of MUCA 345 or consent of instructor

MUCA 330: ***Large Ensemble Jazz Composition and Arranging***
Scoring techniques for the jazz big band and expanded chamber jazz ensembles. Focus upon melodic, harmonic, rhythmic, textual, and formal variation in the large jazz ensemble format. Units: 3.

Prerequisite: MUCA 230 or consent of instructor

MUCA 345: ***Composition***
Private instruction in music composition. Units: 3.

Prerequisite: MUCA 100 and MUTH 251

MUCA 390: ***Tutorial Studies in Music Composition and Arranging***
Units: Variable.

Prerequisite: Counter Registration Required.

MUCA 391: ***Directed Study in Music Composition and Arranging***
Directed study follows a syllabus set primarily by the instructor to meet the needs or interests of an individual student or small group of students. The main goal of directed study is knowledge or skill acquisition, not research or creative work. Units: Variable.

Prerequisite: Counter Registration Required

MUCA 395: *Internship in Music Composition and Arranging*
An experience-based project in music developed in consultation with a designated supervisor and a conservatory faculty member, comprising a work component and an academic component. The academic component of the internship, carried out under the supervision of the faculty member, may include readings related to the substance of the internship, discussions with the faculty member, and a written report or other culminating project appropriate to the discipline. Units: Variable.

Prerequisite: Counter Registration Required

MUCA 399: *Independent Study in Music Composition and Arranging*
Students considering an honors project should register for independent study for one or more terms. Units: Variable.

MUCA 400: *Topics in Music Composition*
Selected topics in contemporary music, intended for theory/composition majors and other students interested in music composition. Units: Variable.

Prerequisite: MUTH 301

MUCA 411: *Orchestration I*
Capabilities and uses of strings, woodwinds and horn; notational practices; scoring for chamber orchestra. Units: 6.

Prerequisite: MUTH 251

MUCA 412: *Orchestration II*
Capabilities and uses of brass, percussion and harp; advanced orchestration techniques; scoring for wind ensemble and full symphony orchestra. Units: 6.

Prerequisite: MUCA 411

MUCA 530: *Advanced Jazz Writing Skills*
A continuation of MUCA 230 and MUCA 330 that focuses upon special recital, concert, recording, and honors projects in jazz composition. May be repeated for credit. Units: 3.

Prerequisite: MUCA 330 and admission to the emphasis in jazz, or consent of instructor

MUCA 590: *Tutorial Studies in Music Composition and Arranging*
Units: Variable.

Prerequisite: Counter Registration Required.

MUCA 591: ***Directed Study in Music Composition and Arranging***
Directed study follows a syllabus set primarily by the instructor to meet the needs or interests of an individual student or small group of students. The main goal of directed study is knowledge or skill acquisition, not research or creative work. Units: Variable.

Prerequisite: Counter Registration Required

MUCA 595: ***Internship in Music Composition and Arranging***
An experience-based project in music developed in consultation with a designated supervisor and a conservatory faculty member, comprising a work component and an academic component. The academic component of the internship, carried out under the supervision of the faculty member, may include readings related to the substance of the internship, discussions with the faculty member, and a written report or other culminating project appropriate to the discipline. Units: Variable.

Prerequisite: Counter Registration Required

MUCA 599: ***Independent Study in Music Composition and Arranging***
Students considering an honors project should register for independent study for one or more terms. Units: Variable.

Prerequisite: Counter Registration Required.

MUCA 690: ***Tutorial Studies in Music Composition and Arranging***
Units: Variable.

Prerequisite: Counter Registration Required.

MUCA 691: ***Directed Study in Composition and Arranging***
Directed study follows a syllabus set primarily by the instructor to meet the needs or interests of an individual student or small group of students. The main goal of directed study is knowledge or skill acquisition, not research or creative work. Units: Variable.

Prerequisite: Counter Registration Required

MUCA 695: ***Internship in Music Composition and Arranging***
An experience-based project in music developed in consultation with a designated supervisor and a conservatory faculty member, comprising a work component and an academic component. The academic component of the internship, carried out under the supervision of the faculty member, may include readings related to the substance of the internship, discussions with the faculty member, and a written report or other culminating project appropriate to the discipline. Units: Variable.

Prerequisite: Counter Registration Required

MUCA 699: ***Independent Study in Music Composition and Arranging***
Students considering an honors project should register for independent study for one or more terms. Units: Variable.

Prerequisite: Counter Registration Required.

COURSES—Dance

MUDA 110: *Dance Appreciation*
How do you define dance? Where is dance found? How does dance affect you? As we explore this line of inquiry, we will touch on topics such as dance history, theory, culture and documentation. Drawing from a variety of somatic practices and our collaborative experience, we will physically sample approaches to dance and practice noticing dance in our lives. Units: 3.

Also listed as Theatre Arts 110

MUDA 132: *Ensemble Thinking*
Ensemble Thinking is a system of physical, improvisational, group exercises that provides organizing lenses through which we observe and participate in movement and performance. Using this technique, we will develop awareness and listening skills for relating to others, build a common language, and practice collaboratively creating dances. Through embodied studio investigations, this course introduces students to dance composition. Units: 3.

Also listed as Theatre Arts 132

MUDA 134: *Contact Improvisation*
Contact Improvisation is a partnering dance form that explores movement possibilites created when two or more individual bodies are touching and/or sharing weight, balance or support. The practice of Contact Improvisation encourages the development of self-responsibility, awareness, clear physical communication and a strong, versitile body. This is a rigorous dance lab in which we will experiment with action, physics and listening. Units: 3.

Also listed as Theatre Arts 134

MUDA 136: *Embodied Creative Practice*
This is a course designed to build your creative muscle. In the supportive community of this class, we will access your individual story, writing, drawing, movement and voice to create and perform for each other every class meeting. Employing diverse performance techniques and referencing various readings, we will discover and craft our unique inspirations, directions, and experience. Units: 3.

Also listed as Theatre Arts 136

MUDA 138: *Articulating the Solo Body*
Based in ReWire/Dancing States and other contemporary techniques, this course will build a movement foundation for the solo dancing body. In the studio, we will work with clarity, speed, and precision to develop a versatile and conscious dancer. We will also explore topics such as performance, intention, and habits while dancing. Units: 3.

Also listed as Theatre Arts 138

MUDA 191: *Directed Study in Dance*
Directed study follows a syllabus set primarily by the instructor to meet the needs or interests of an individual student or small group of students. The main goal of directed study is knowledge or skill acquisition, not research or creative work. Units: Variable.

MUDA 220: *Topics in Movement/Performance*
Topics in this series vary from year to year. May be repeated when topic is different.

Topic for Spring 2017: Musicians in Movement

Units: 3.

Also listed as Theatre Arts 220

MUDA 390: *Tutorial in Dance*
A tutorial is a student-driven course of study undertaken by an individual student or a small group of students in collaboration with one or more faculty members from the department. The primary goal of a tutorial is the expansion, refinement, and synthesis of knowledge through in-depth exploration of a specific topic. A tutorial may be arranged with an instructor in accordance with the guidelines contained in the course catalog and any departmental requirements.
Units: Variable.

MUDA 391: *Directed Study in Dance*
Directed study follows a syllabus set primarily by the instructor to meet the needs or interests of an individual student or small group of students. The main goal of directed study is knowledge or skill acquisition, not research or creative work. Units: Variable.

MUDA 399: *Independent Study in Dance*
An independent study is largely student-directed work in scholarship or creative activity supervised by a member of an academic department. An independent study may be arranged with an instructor in accordance with the guidelines contained in the course catalog and any departmental requirements. Units: Variable.

MUDA 590: *Tutorial in Dance*
A tutorial is a student-driven course of study undertaken by an individual student or a small group of students in collaboration with one or more faculty members from the department. The primary goal of a tutorial is the expansion, refinement, and synthesis of knowledge through in-depth exploration of a specific topic. A tutorial may be arranged with an instructor in accordance with the guidelines contained in the course catalog and any departmental requirements.
Units: Variable.

MUDA 591: ***Directed Study in Dance***
Directed study follows a syllabus set primarily by the instructor to meet the needs or interests of an individual student or small group of students. The main goal of directed study is knowledge or skill acquisition, not research or creative work. Units: Variable.

MUDA 599: ***Independent Study in Dance***
An independent study is largely student-directed work in scholarship or creative activity supervised by a member of an academic department. An independent study may be arranged with an instructor in accordance with the guidelines contained in the course catalog and any departmental requirements. Units: Variable.

MUDA 690: ***Tutorial in Dance***
A tutorial is a student-driven course of study undertaken by an individual student or a small group of students in collaboration with one or more faculty members from the department. The primary goal of a tutorial is the expansion, refinement, and synthesis of knowledge through in-depth exploration of a specific topic. A tutorial may be arranged with an instructor in accordance with the guidelines contained in the course catalog and any departmental requirements. Units: Variable.

MUDA 691: ***Directed Study in Dance***
Directed study follows a syllabus set primarily by the instructor to meet the needs or interests of an individual student or small group of students. The main goal of directed study is knowledge or skill acquisition, not research or creative work. Units: Variable.

MUDA 699: ***Independent Study in Dance***
An independent study is largely student-directed work in scholarship or creative activity supervised by a member of an academic department. An independent study may be arranged with an instructor in accordance with the guidelines contained in the course catalog and any departmental requirements. Units: Variable.

COURSES—Music education and pedagogy

MUEP 120: ***Basic Audio Recording***
Fundamentals of audio recording, providing a basic knowledge of essential recording theory, skills, and techniques. Units: 1.

MUEP 191: ***Directed Study in Music Education and Pedagogy***
Directed study follows a syllabus set primarily by the instructor to meet the needs or interests of an individual student or small group of students. The main goal of directed study is knowledge or skill acquisition, not research or creative work. Units: Variable.

Prerequisite: Counter Registration Required

MUEP 195: ***Internship in Music Pedagogy***
An experience-based project in music developed in consultation with a designated supervisor and a conservatory faculty member, comprising a work component and an academic component. The academic component of the internship, carried out under the supervision of the faculty member, may include readings related to the substance of the internship, discussions with the faculty member, and a written report or other culminating project appropriate to the discipline. Units: Variable.

Prerequisite: Counter Registration Required

MUEP 201: ***Introduction to Music Education***
An introduction to the philosophy of music education and the principles of learning theory and pedagogy, and improvisation as applied to the private lesson, instrumental and choral ensembles, and the general music classroom. In addition, the course includes observation of experienced teachers, in-class teaching, and improvisation. Units: 3.

MUEP 230: ***Voice for Instrumental Music Educators***
An introduction to singing technique, voice use, and health. Consists of lectures and private lessons. Units: 1.

Prerequisite: Sophomore standing

MUEP 231: ***Vocal Proficiency and Pedagogy I, II***
An introduction to and practicum on the basics of vocal technique and pedagogy. Emphasis on techniques of breathing, phonation, and vowel formation and the building of resonance and range. Two-term sequence, taken in conjunction with MUEN 270 (students may elect to substitute MUEN 275 or MUEN 272, by audition). 1 unit per term. Units: 1.

Prerequisite: Sophomore standing

MUEP 232: ***Vocal Proficiency and Pedagogy I, II***
An introduction to and practicum on the basics of vocal technique and pedagogy. Emphasis on techniques of breathing, phonation, and vowel formation and the building of resonance and range. Two-term sequence, taken in conjunction with MUEN 270 (students may elect to substitute MUEN 275 or MUEN 272, by audition). 1 unit per term. Units: 1.

MUEP 240: ***General Music Methods I***
An examination of various approaches to designing music instruction for general music environments. The course provides future teachers with strategies and learning theories for improving large group teaching and motivating all learners to succeed. Instructional skills and evaluation techniques needed for classroom application in diverse school settings will be addressed. Units: 6.

Prerequisite: Prior completion or concurrent enrollment in MUEP 231, MUEP 336, and MURP 223, or consent of instructor

MUEP 245: ***Instrumental Pedagogy***
An introduction to individualized instrumental instruction. Directed reading and discussion concerning instrumental technique and pedagogy, learning theory, and lesson planning. Includes supervised teaching of private lessons and observation of experienced teachers. May be repeated for credit. Units: 3.

Prerequisite: Sophomore standing and consent of instructor

MUEP 252: ***Cello Pedagogy***
An introduction to cello teaching. Directed reading and discussion concerning technique and pedagogy, learning theory, and lesson planning. Includes supervised teaching of private lessons and observation of experienced teachers. Units: 3.

MUEP 259: ***Brass Pedagogy***
An introduction to individualized brass instrument instruction. Directed reading and discussion concerning wind instrument technique and pedagogy, learning theory, and lesson planning. Units: 3.

Prerequisite: Successful completion of performance qualifying exam

MUEP 261: ***Flute Pedagogy***
An introduction to teaching the flute. Directed reading and discussion concerning technique and pedagogy, learning theory, and lesson planning. Includes supervised teaching of private lessons and observation of experienced teachers. Units: 3.

Prerequisite: Sophomore standing

MUEP 280: *The Entrepreneurial Musician*
A broad introduction to entrepreneurship for musicians, dancers, thespians, visual artists, and other interested students. This course aspires to give students the tools and the mindset to become agents of innovative, entrepreneurial change, social entrepreneurs or entrepreneurial artists. After presenting a social science view of entrepreneurship, the course will feature faculty from a variety of disciplines as well as visiting entrepreneurs. This is a project-oriented course with extensive speaking that will challenge convention, push you to new realms of creative thought, and stretch the boundaries of collaborative learning. Are you ready to unleash the power of the liberal arts? Units: 6.

Also listed as Innovation & Entrepreneurship 280

MUEP 301: *Piano Pedagogy I*
An introduction to piano teaching. Study of learning process and teaching methods and materials. Work with lesson and curriculum planning and instructional techniques for both groups and individuals, from average-age beginners through intermediate-level students. Required observation of experienced teachers and supervised teaching. Units: 3.

Prerequisite: Sophomore standing or consent of instructor

MUEP 302: *Piano Pedagogy II*
An introduction to piano teaching. Study of learning process and teaching methods and materials. Work with lesson and curriculum planning and instructional techniques for both groups and individuals, from average-age beginners through intermediate-level students. Required observation of experienced teachers and supervised teaching. Units: 3.

Prerequisite: MUEP 301

MUEP 303: *Piano Pedagogy III*
An introduction to piano teaching. Study of learning process and teaching methods and materials. Work with lesson and curriculum planning and instructional techniques for both groups and individuals, from average-age beginners through intermediate-level students. Required observation of experienced teachers and supervised teaching. Units: 3.

Prerequisite: MUEP 302

MUEP 304: *Guitar Pedagogy*
An introduction to class guitar and individual guitar instruction. Includes reading and discussion, lesson and curriculum planning, observation of experienced teachers and a survey of pedagogical materials. Units: 1.

Prerequisite: Sophomore standing

MUEP 305: *Jazz Pedagogy*
Structured to prepare teachers of elementary, middle school, and high school students. Jazz education philosophies, teaching improvisation/aural skills/interaction, fostering composition/arranging in the school program, small group development, large ensemble rehearsal techniques, repertoire/ programming, and public presentation. Units: 1.

Prerequisite: Junior standing or consent of instructor

MUEP 307: *Orchestration for the Music Educator*
An overview of woodwind, brass, string, and percussion instrument families, with discussion of solutions to common problems encountered when dealing with these instruments. Units: 1.

Prerequisite: MUTH 301

MUEP 310: *Brass Techniques*
An introduction to the teaching of brass instruments, with emphasis on teaching principles and their application to school music. Theoretical and practical playing knowledge of all brass instruments required. Discussion and evaluation of method, materials, and literature. Units: 3.

Prerequisite: Sophomore standing

MUEP 315: *Percussion Techniques*
An introduction to the teaching of percussion instruments, with emphasis on teaching principles and their application to school music. Theoretical and practical playing knowledge of all percussion instruments required. Required observation, discussion, and evaluation of method, materials, and literature. Units: 3.

Prerequisite: Sophomore standing

MUEP 321: *Woodwind Techniques I*
A study of the woodwind instruments, with emphasis on teaching principles and their application to school music. Laboratory fee. Units: 3.

Prerequisite: Sophomore standing

MUEP 322: *Woodwind Techniques II*
A study of the woodwind instruments, with emphasis on teaching principles and their application to school music. Laboratory fee. Units: 3.

Prerequisite: MUEP 321 or consent of instructor.

MUEP 331: ***String Techniques I***
Class instruction in all bowed string instruments, with emphasis on teaching principles and their application to string classes in elementary and secondary schools. Units: 3.

Prerequisite: Sophomore standing; recommended that string majors take this course during the sophomore year

MUEP 332: ***String Techniques II***
Class instruction in all bowed string instruments, with emphasis on teaching principles and their application to string classes in elementary and secondary schools. Units: 3.

Prerequisite: MUEP 331 or consent of instructor.

MUEP 333: ***String Pedagogy: Pedagogues & Methods***
A concentrated course encompassing a wide range of pedagogical approaches and principles involved in teaching and playing the violin, viola, cello, and double bass. Topics include the study of major pedagogues, including Galamian, Suzuki, Rolland, and others. Offered even years only. Units: 1.

MUEP 334: ***String Pedagogy: Editing Orchestral String Parts***
A study of orchestral bowing principles and string finger logic to yield musical results. Has application to string majors, secondary string players, conductors, composers, and music educators. Offered odd years only. Units: 1.

MUEP 336: ***Guitar and Recorder Techniques for the Music Educator***
Beginning guitar and recorder instruction providing practical application of basic performance techniques to the elementary music classroom for the purpose of teaching. Units: 1.

MUEP 340: ***Musical Theatre Production Overview***
This course is designed to equip future educators with a basic understanding of the various details and responsibilities involved in mounting a musical theatre production. Topics include: choosing a musical, rehearsal schedules, finances, stage direction/blocking, lighting, sound, choreography, and pit orchestra. Offered every other year, fall term (even years). Units: 3.

Also listed as Theatre Arts 340

Prerequisite: Sophomore standing

MUEP 345: *Applied Instrumental Pedagogy*
Application of teaching strategies, learning theory, and lesson planning to private lesson instruction. Directed teaching and discussion of journal articles and texts addressing issues relevant to studio teaching. Students enrolled in the course are assigned a student from outside the university and teach an observed private lesson each week. May be repeated for credit. Units: 3.

Prerequisite: MUEP 201 or MUEP 245

MUEP 350: *General Music Methods II*
This course is designed to develop pedagogical competencies necessary for teaching general music in grades pre-K to 12. This course will strengthen understanding of culturally relevant pedagogy, Kodaly, Orff, and Dalcroze methodologies through solfège, improvisation, theory and movement. A practicum at a diverse area school is a key feature of this course. Units: 6.

Prerequisite: MUEP 232, MUEP 240, MUEP 336 and MURP 223

MUEP 370: *General Music Practicum*
A pre-student-teaching opportunity to integrate coursework in general music with practical teaching experience in grades K-12. Two and one-half hours of teaching per week with weekly conferences with instructor. Teaching hours will count toward the 100 practicum hours required prior to student teaching. Units: 3.

Prerequisite: MUEP 232, MUEP 335, MUEP 350, and MURP 212; or consent of instructor

MUEP 371: *Voice Science and Pedagogy I*
An introduction to the science and pedagogy of singing, emphasizing the physiology and pedagogy of respiration for singing, the voice source, vocal acoustics, and registration. The application of voice science to pedagogy, issues of pedagogical philosophy and psychology, vocal line, vocal vibrato, and vocal hygiene also are introduced. 3 units awarded upon completion of MUEP 372. Units: 3.

Prerequisite: Junior standing or consent of instructor; credit awarded upon completion of MUEP 372

MUEP 372: *Voice Science and Pedagogy II*
A continuation of MUEP 371. Supervised student teaching with weekly lab discussions on issues arising from the teaching experience. Units: 1.

Prerequisite: MUEP 371

MUEP 373: ***The Brain, Music and Optimal Performance***
The course will highlight how sensory and motor systems function from the practical perspective of neural anatomy and how we, through the application of cognitive psychology and perceptual-motor skills may optimize our performance in an ideal performing state. Required for the vocal pedagogy minor, but relevant for both vocal and instrumental majors. Units: 3.

Prerequisite: Junior standing

MUEP 380: ***Conducting Principles***
An introduction to choral and instrumental conducting: baton and rehearsal techniques, and score-reading (utilizing aural and keyboard skills). Lab required. Units: 6.

Prerequisite: Sophomore standing, MUTH 301 and BKS

MUEP 390: ***Tutorial in Music Pedagogy***
Units: Variable.

Prerequisite: Counter Registration Required.

MUEP 391: ***Directed Study in Music Education and Pedagogy***
Directed study follows a syllabus set primarily by the instructor to meet the needs or interests of an individual student or small group of students. The main goal of directed study is knowledge or skill acquisition, not research or creative work. Units: Variable.

Prerequisite: Counter Registration Required

MUEP 395: ***Internship in Music Pedagogy***
An experience-based project in music developed in consultation with a designated supervisor and a conservatory faculty member, comprising a work component and an academic component. The academic component of the internship, carried out under the supervision of the faculty member, may include readings related to the substance of the internship, discussions with the faculty member, and a written report or other culminating project appropriate to the discipline. Units: Variable.

Prerequisite: Counter Registration Required

MUEP 399: ***Independent Study in Music Pedagogy***
Students considering an honors project should register for independent study for one or more terms. Units: Variable.

MUEP 401: ***Instrumental Methods and Rehearsal Techniques I***
Principles, procedures, and philosophy for organizing, administering, and teaching in orchestra and band programs at the elementary, middle, and senior high levels. Synthesis and expansion of music and education courses previously taken by music education students. Development of a practical yet comprehensive method for teaching instrumental music. Units: 6.

Prerequisite: Junior standing and MUEP 380

MUEP 402: ***Choral Techniques, Rehearsal Procedures, and Repertoire I***
A study of rehearsal techniques, repertoire, and good singing habits as they relate to choral ensemble and general music programs. Laboratory experience in local junior and senior high schools. Units: 6.

Prerequisite: MUEP 370 or consent of instructor

MUEP 451: ***Instrumental Methods and Rehearsal Techniques II***
A continuation of instrumental conducting studies; rehearsal technique; aural, vocal, and written score analysis; and improvisation. Specific topics pertinent to the student's emphasis addressed. Required participation in instrumental lab. Units: 6.

Prerequisite: MUEP 401

MUEP 452: ***Choral Techniques, Rehearsal Procedures and Repertoire II***
Students will continue to develop their skills as addressed in MUEP 402. Includes more intensive formal score analysis, lesson planning, vocal modeling, and listening. Students will begin to develop inner hearing, demonstrate an ability to play and sing the score, refine rehearsal efficiency, and demonstrate effective nonverbal skills as well while conducting. Students will also teach in a high school or middle school choral classroom. Units: 6.

Prerequisite: MUEP 402 Corequisite: MUEP 307

MUEP 502: ***Early Advanced Piano Pedagogy***
A course in how to teach the advancing pianist, with a survey of piano literature for the pre-college student. Readings on style, technique, form, and practice techniques. Required observation of conservatory piano faculty. Units: 3.

Prerequisite: MUEP 303

MUEP 503: ***Group Piano Pedagogy***
Study of different types of group teaching situations: in the schools, independent studios, different age and special-interest groups, repertoire classes. Techniques for teaching in the electronic piano laboratory. Units: 3.

Prerequisite: MUEP 303

MUEP 505: ***Internship in Piano Pedagogy***
Internship in independent studio teaching. Opportunity to integrate coursework in piano pedagogy with practical experience in an independent piano studio. Exploration of the business and professional aspects of establishing an independent teaching studio. Studio placement must be approved by instructor. Units: 3.

Prerequisite: MUEP 581

MUEP 581: ***Student Teaching in Piano I***
Supervised teaching in the Lawrence Academy of Music. Includes weekly conferences with the pedagogy instructor. Units: 3.

Prerequisite: MUEP 303

MUEP 582: ***Student Teaching in Piano II***
Supervised teaching in the Lawrence Academy of Music. Includes weekly conferences with the pedagogy instructor. Units: 3.

Prerequisite: MUEP 581

MUEP 590: ***Tutorial in Music Pedagogy***
Units: Variable.

Prerequisite: Counter Registration Required.

MUEP 591: ***Directed Study in Music Education and Pedagogy***
Directed study follows a syllabus set primarily by the instructor to meet the needs or interests of an individual student or small group of students. The main goal of directed study is knowledge or skill acquisition, not research or creative work. Units: Variable.

Prerequisite: Counter Registration Required

MUEP 595: ***Internship in Music Pedagogy***
An experience-based project in music developed in consultation with a designated supervisor and a conservatory faculty member, comprising a work component and an academic component. The academic component of the internship, carried out under the supervision of the faculty member, may include readings related to the substance of the internship, discussions with the faculty member, and a written report or other culminating project appropriate to the discipline. Units: Variable.

Prerequisite: Counter Registration Required

MUEP 599: ***Independent Study in Music Pedagogy***
Students considering an honors project should register for independent study for one or more terms. Units: Variable.

Prerequisite: Counter Registration Required.

MUEP 660: ***Advanced Methods in Teaching Music***
The seminar will engage students in critical reflection upon their teaching experience. Concrete and theoretical problems having to do with teaching and learning will be explored (*e.g.,* classroom management, assessment of pupil performance, curriculum design, instructional methods), as will issues having to do with educational policy and school organization. Units: 3.

Prerequisite: Concurrent enrollment in MUEP 680 or consent of the instructor

MUEP 680: ***Student Teaching***
Student teaching is a full-day, full-semester (18-week) experience combining observation with practice teaching in K-12 schools within a 45-mile radius of campus. Concurrent registration in MUEP 660 Advanced Methods in Teaching Music is required. Units: 18.

Prerequisite: Senior standing and admission to student teaching program; contact department chair about specific prerequisites and co-requisites

MUEP 685: ***International Student Teaching***
This is an overseas student teaching option in music. After nine weeks of student teaching in the greater Fox Valley, students will be placed in one of 16 countries to complete the student teaching practicum. International student teaching is available during 13th term. For students in the five-year double-degree program, a 16th term of student teaching is available under the same policy. Students must have been admitted to the student teaching program and have met all requirements for domestic student teaching. Contact the department chair for additional admission and fee requirements. Units: 18.

Prerequisite: Senior standing and admission to student teaching program; contact the music education department chair about specific prerequisites, co-requisites, admission and fee requirements

MUEP 690: ***Tutorial in Music Pedagogy***
Units: Variable.

Prerequisite: Counter Registration Required.

MUEP 691: ***Directed Study in Music Education and Pedagogy***
Directed study follows a syllabus set primarily by the instructor to meet the needs or interests of an individual student or small group of students. The main goal of directed study is knowledge or skill acquisition, not research or creative work. Units: Variable.

Prerequisite: Counter Registration Required

MUEP 695: ***Internship in Music Pedagogy***
An experience-based project in music developed in consultation with a designated supervisor and a conservatory faculty member, comprising a work component and an academic component. The academic component of the internship, carried out under the supervision of the faculty member, may include readings related to the substance of the internship, discussions with the faculty member, and a written report or other culminating project appropriate to the discipline. Units: Variable.

Prerequisite: Counter Registration Required

MUEP 699: ***Independent Study in Music Pedagogy***
Students considering an honors project should register for independent study for one or more terms. Units: Variable.

Prerequisite: Counter Registration Required.

COURSES—Music ensemble performance

MUEN 212: *Hybrid Vocal Ensemble*
This ensemble, comprised of 8-16 SATB singers, will explore a wide variety of vocal works from all eras and genres of music and assist in building skills in various styles of improvisation while exploring and experiencing the deep connections between disparate musical genres. Particular emphasis will be placed on vocal jazz, early music, world music and newly composed works. Units: 1.

Prerequisite: Registration occurs through the ensemble request process in Voyager. An audition may be required.

MUEN 217: Bassoon Ensemble
Open to all students by audition. May be repeated for credit. Units: 1.

Prerequisite: Registration occurs through the ensemble request process in Voyager. An audition may be required.

MUEN 220: *Brass Ensemble*
Open to all students by audition. May be repeated for credit. Units: 1.

Prerequisite: Registration occurs through the ensemble request process in Voyager. An audition may be required.

MUEN 224: *Horn Ensemble*
Open to all students by audition. May be repeated for credit. Units: 1.

Prerequisite: Registration occurs through the ensemble request process in Voyager. An audition may be required.

MUEN 225: *Trombone Ensemble*
Open to all students by audition. May be repeated for credit. Units: 1.

Prerequisite: Registration occurs through the ensemble request process in Voyager. An audition may be required.

MUEN 230: *Percussion Ensemble*
Open to all students by audition. Performance of contemporary percussion chamber music, including music written specifically for mallet ensembles. May be repeated for credit. Units: 1.

Prerequisite: Registration occurs through the ensemble request process in Voyager. An audition may be required.

MUEN 235: *Improvisation Group*
Solo and group improvisation without stylistic boundaries. Membership determined by audition. May be repeated for credit. Units: 1.

Prerequisite: Registration occurs through the ensemble request process in Voyager. An audition may be required.

MUEN 237: *Post-modern Opera Performance*
A collaborative ensemble environment utilizing improvisation, devised theatre techniques, and extended vocal and performing techniques, with an invited performance at the end of the term. Units: 1.

Prerequisite: MURP 361 Registration occurs through the ensemble request process in Voyager. An audition may be required.

MUEN 245: *Chamber Music*
A study of ensemble playing through repertoire selected according to the interests and capability of the students. A maximum of 6 units, beyond departmental requirements, may apply to degree requirements. May be repeated for credit. Units: 1.

Prerequisite: Registration occurs through the ensemble request process in Voyager. An audition may be required.

MUEN 248: *Jazz Small Group Studies*
Year-long study and performance of jazz small group repertoire for ensembles chosen by audition. A maximum of 6 units of jazz small group (chamber) music, beyond departmental requirements, may apply to degree requirements. May be repeated for credit. Units: 1.

Prerequisite: Registration occurs through the ensemble request process in Voyager. An audition may be required.

MUEN 250: *Supervised Accompanying*
Supervised accompanying in a voice or instrumental studio. To include attendance at lessons as determined by the supervising teacher and at least two hours of rehearsal weekly. Repertoire must be approved by both the pianist's applied teacher and the other studio teacher involved. May be repeated for credit. Units: 1.

Prerequisite: Consent of instructor and students applied teacher. Supervised Accompanying Permission Form is required to register. Counter Registration Required.

MUEN 270: *Viking Chorale*
Introductory choral experience open to all students of the university. May be repeated for credit. Units: 1.

Prerequisite: Registration occurs through the ensemble request process in Voyager. An audition may be required.

MUEN 272: *Cantala Women's Choir*
An advanced women's ensemble that studies and performs music of all historical periods. Open to all women of the university by audition. May be repeated for credit. Units: 1.

Prerequisite: Registration occurs through the ensemble request process in Voyager. An audition may be required.

MUEN 275: *Lawrence Concert Choir*
An advanced choral ensemble that studies and performs music of all historical periods. Open to all students of the university by audition. May be repeated for credit. Units: 1.

Prerequisite: Registration occurs through the ensemble request process in Voyager. An audition may be required.

MUEN 281: *Opera Workshop*
Preparation for the singing actor. Theatre games; improvisation; character research and analysis; elements of style. Culminates in "showcase" presentation. May be repeated for credit. Units: 1.

Prerequisite: MUEN 280 Registration occurs through the ensemble request process in Voyager. An audition may be required.

MUEN 282: *Mainstage Opera Preparation*
Experience in musical and dramatic aspects of performance, especially preparation of character, language, and music from the selected production. May be repeated for credit. Units: 1.

Prerequisite: Registration occurs through the ensemble request process in Voyager. An audition may be required.

MUEN 283: *Mainstage Opera Performance*
Final preparation and performance of an operatic or music theatre production. May be repeated for credit. Units: 1.

Prerequisite: Registration occurs through the ensemble request process in Voyager. An audition may be required.

MUEN 284: *Opera Scenes*
Performance practice for the singing actor. Role preparation including musical/linguistic coaching; character analysis; blocking; staged performance. May be repeated for credit. Units: 1.

Prerequisite: Registration occurs through the ensemble request process in Voyager. An audition may be required.

MUEN 285: *Wind Ensemble*
A select group chosen by audition. Emphasis on wind repertoire with one player per part. May be repeated for credit. Units: 1.

Prerequisite: Registration occurs through the ensemble request process in Voyager. An audition may be required.

MUEN 286: *Wind Ensemble/Symphonic Band—Percussion*
Membership determined by audition. May be repeated for credit. Units: 1.

Prerequisite: Registration occurs through the ensemble request process in Voyager. An audition may be required.

MUEN 287: *Symphonic Band*
Study and performance of music written for concert or symphonic band. Membership determined by audition. *Note:* Although students may participate in both Wind Ensemble and Symphonic Band and receive credit for both, only 1 unit of this participation per term may apply toward satisfying degree requirements. May be repeated for credit. Units: 1.

Prerequisite: Registration occurs through the ensemble request process in Voyager. An audition may be required.

MUEN 290: *Symphony Orchestra*
Membership determined by audition. May be repeated for credit. Units: 1.

Prerequisite: Registration occurs through the ensemble request process in Voyager. An audition may be required.

MUEN 293: *Jazz Band*
Membership determined by audition. May be repeated for credit. Units: 1.

Prerequisite: Registration occurs through the ensemble request process in Voyager. An audition may be required.

MUEN 295: *Jazz Ensemble*
Membership determined by audition. May be repeated for credit. Units: 1.

Prerequisite: Registration occurs through the ensemble request process in Voyager. An audition may be required.

MUEN 297: *Jazz Workshop*
Membership determined by audition. May be repeated for credit. Units: 1.

Prerequisite: Registration occurs through the ensemble request process in Voyager. An audition may be required.

MUEN 430: ***Advanced Saxophone Quartet Studies***
Year-long study and performance of advanced saxophone quartet repertoire for an ensemble chosen by audition. A maximum of 6 units of chamber music, beyond departmental requirements, may apply to degree requirements. May be repeated for credit. Units: 1.

Prerequisite: Consent of instructor and students applied teacher Registration occurs through the ensemble request process in Voyager. An audition may be required.

COURSES—Musicology

MUCO 100: ***Introduction to Music Literature***
Lectures and guided listening for the non-music major, introducing musical materials, basic musical concepts, and a variety of styles and types of music. Consideration of the place of music in society, past and present. Does not satisfy course requirements for any music major. Units: 6.

MUCO 110: ***Topics in Musicology for the Non-Major***
An exploration of a musicological topic that is more narrowly focused than or lies outside the scope of the Introduction to Music Literature course. May be repeated when topic is different. Does not satisfy course requirements for any music major.

Topic for Spring 2017: Big Works, Big Questions

Focusing on a small number of major works drawn from the canon of Western classical music, this course provides an introduction to the big questions and methodologies that are central to the discipline of music history. Students will have the opportunity to study in depth a series of fascinating, complex, thought-provoking works (symphonies, operas, and ballets) by composers including Bach, Mozart, Mahler, Stravinsky, Shostakovich, and Copland. This course is for non-majors; no previous musical experience is expected.

Units: Variable.

MUCO 120: ***Introduction to Jazz History***
An exploration of the musical development and cultural impact of jazz from its origins to the present for students not majoring in music. Lectures, films, and readings provide historical details. Does not satisfy course requirements for any music major. Units: 6.

MUCO 131: ***The Grand Tour: Musical Taste and Manners in Europe 1600–1750***
A study of music in the Baroque period, its social and historical context and relationship to other arts. The course explores the depth and variety of 17th and 18th century musical life and follows a broad range of interests to suit both music majors and non-specialists. Museum visits and weekly concerts, with accompanying lectures; demonstrations by performers active in the field of historical performance practice; and readings on form, style, and the lives of composers. The course is general in scope, and no prior musical knowledge is expected. Does not satisfy course requirements for any music major. Not open to students who have previously recieved, or need to receive credit for MUCO 431.*Offered at the London Centre.* Units: 6.

Prerequisite: Must be attending the Lawrence London Centre.

MUCO 133: ***Perspectives on Genius: The life and musical impact of Beethoven***
Ludwig van Beethoven, arguably one of the most famous composers of all time, is a compelling and fascinating figure in classical music. He occupies a central position as the architect of musical Romanticism and his influence continues today. In additions to studying his music from the perspective of his own time, we will discuss his extraordinary creative personality and the reception of his music by subsequent composers and listeners. A number of concerts and outside visits will be organized, and students will be encoursaged to attend relevant performances in London, for which they will be prepared in class. The course will be general in scope, and no prior musical knowledge will be expected. The course does not satisfy requirements for any music major. Not open to students who have received or need to receive credit for MUCO 433. Units: 6.

Prerequisite: Must be attending the Lawrence London Centre

MUCO 135: ***The British Musical Renaissance: Elgar, Vaughan Williams, and Britten***
An introduction to British music in the first three-quarters of the 20th century. In addition to studying major works by Elgar, Vaughan Williams, and Britten, students will explore the social and political currents as they impinged on musical life in Britain. A number of concerts and outside visits will be organized, and students will be encouraged to attend relevant performances in London, for which they will be prepared in class. The course will be general in scope, and no prior musical knowledge will be expected. Does not satisfy course requirements for any music major. Not open to students who have previously received, or need to receive credit for MUCO 435. *Offered at the London Centre.* Units: 6.

Prerequisite: Must be attending the Lawrence London Centre.

MUCO 160: ***Advance of the American Musical***
A study of this uniquely American theatrical form as it develops in response to our culture throughout the 20th century and into the 21st. Ability to read music helpful, but not required. Units: 6.

Also listed as Theatre Arts 425

Prerequisite: Sophomore standing or consent of instructor

MUCO 191: ***Directed Study in Musicology***
Directed study follows a syllabus set primarily by the instructor to meet the needs or interests of an individual student or small group of students. The main goal of directed study is knowledge or skill acquisition, not research or creative work. Units: Variable.

Prerequisite: Counter Registration Required

MUCO 195: *Internship in Musicology*
An experience-based project in music developed in consultation with a designated supervisor and a conservatory faculty member, comprising a work component and an academic component. The academic component of the internship, carried out under the supervision of the faculty member, may include readings related to the substance of the internship, discussions with the faculty member, and a written report or other culminating project appropriate to the discipline. Units: Variable.

Prerequisite: Counter Registration Required

MUCO 201: *Western Music History I*
This course will explore changing musical styles, practices, functions, and meanings in social and historical contexts from the medieval era through the middle of the 18th century – and investigate the very practice of doing history as a process fueled by changing values. Music majors are encouraged to enroll during the sophomore year. Units: 6.

Prerequisite: MUTH 251

MUCO 202: *Western Music History II*
This course will explore changing musical styles, practices, functions, and meanings in social and historical contexts from the middle of the 18th century to the present – and investigate the very practice of doing history as a process fueled by changing values. Music majors are encouraged to enroll during the sophomore year. Units: 6.

Prerequisite: MUCO 201

MUCO 210: *Topics in Musicology for the Non-Major*
This course will enable non-music majors to engage with the discipline of music history. May be repeated when topic is different. Does not satisfy course requirements for any music major.

Topic for Fall 2016: Popular Music 1954-1979--The Rise of Rock and Roll

Growing out of the need for the young generation to have a voice separate from the influence of their parents, Rock-and-Roll will be studied from its genesis in the mid-50s, combining influences from R&B, Country, and Pop, through the variety of sub-genres in the 60s to the punk and disco movements in the 70s that attempted to return R/R to its simpler origins and functions. Movers and shakers who shaped the growth and acceptance of R/R as a popular artistic culture as well as the multitude of social, political, and racial challenges that influenced popular music will be the basis of discussions in class.

Topic for Fall 2016: The History of Recorded Sound

Since the late nineteenth century the history of music has been inextricably tied to the history of recorded sound. In this course we will study the history of sound recording and examine the impact of recorded sound on practices of composing, performing, and listening to music. To supplement our analysis of historical recordings and tape music compositions we will read and discuss essays and articles by composers and performers, as well as material and cultural histories of recorded sound. Not open to students who have completed, or need to complete this topic under MUCO 450.

Topic for Winter 2017: The Beatles--Four Lads Who Shook the World

A survey of The Beatles' career from their formation and early development, rise to superstardom, and influence in popular music in the 1960s, to their subsequent adoration as cultural icons. Discussions will center on presentations of audio and video clips, and simple analyses of music and lyrics relating socio-cultural, political, and other extra-musical factors to popular music.

Topic for Spring 2017: The Blues

The course explores topics in the history of African American blues music, from the late 19th century to the present, including: the early recorded history of the blues, "classic" blues singers, the blues revival, boogie woogie, jump blues, and rhythm and blues. In addition to studying various blues genres, we will study blues forms and styles in the context of jazz, European modernist music, African American classical music, American musical theater and opera, and rock ’n’ roll. Not open to students who have completed, or need to complete this topic under MUCO 450.

Units: 6.

Prerequisite: Sophomore standing

MUCO 221: *Music and Gender*

This course will explore the relationship between music and gender in the Western world from the Middle Ages to the present. Considering classical and popular music, including music videos and film, as well as writings about gender and music, we will explore music's role as a reflection of, reaction to, and active participant in gender construction. Units: 6.

Also listed as Gender Studies 222

Prerequisite: Sophomore standing

MUCO 223: *Music & Mystical Experience*
What is mystical experience? And how does music evoke, induce, or otherwise bring us into relation with it? These questions motivate a cross-cultural, multi-disciplinary, and diachronic exploration of the ways in which human beings experience the numinous through music. In the spirit of its title, the course also introduces specific contemplative practices in order to cultivate qualities of mind conducive to contemplative engagement with music and sound. Not open to students who have received, or need to receive, credit for MUCO 423. Units: 6.

Prerequisite: Sophomore standing

MUCO 390: *Tutorial in Studies Musicology*
Units: Variable.

Prerequisite: Counter Registration Required

MUCO 391: *Directed Study in Musicology*
Directed study follows a syllabus set primarily by the instructor to meet the needs or interests of an individual student or small group of students. The main goal of directed study is knowledge or skill acquisition, not research or creative work. Units: Variable.

Prerequisite: Counter Registration Required

MUCO 395: *Internship in Music History*
An experience-based project in music developed in consultation with a designated supervisor and a conservatory faculty member, comprising a work component and an academic component. The academic component of the internship, carried out under the supervision of the faculty member, may include readings related to the substance of the internship, discussions with the faculty member, and a written report or other culminating project appropriate to the discipline. Units: Variable.

Prerequisite: Counter Registration Required

MUCO 399: *Independent Study in Musicology*
Students considering an honors project should register for independent study for one or more terms. Units: Variable.

Prerequisite: Counter Registration Required

MUCO 411: *Aesthetics of Music*
A study of what can reasonably be said or written about music, critically examining many of the typical late Western assumptions often made of it, *e.g.,* that music is an art, that it involves the production of works, that it is expressive, that it is a universal language. Open to music majors and non-majors. Previous music study helpful but not required. Units: 6.

Prerequisite: Sophomore standing

MUCO 421: *Music and Gender*
This course will explore the relationship between music and gender in the Western world from the Middle Ages to the present. Considering classical and popular music, including music videos and film, as well as writings about gender and music, we will explore music's role as a reflection of, reaction to, and active participant in gender construction. Units: 6.

Also listed as Gender Studies 421

Prerequisite: MUCO 202

MUCO 422: *Borrowed Music in the Movies*
When a film uses a pre-existing piece of music (popular or classical), meanings multiply, both within and outside the film itself. This course will explore these meanings, focusing on the fluid and reciprocal relationship between film and the music it borrows. Units: 6.

Also listed as Film Studies 422

Prerequisite: MUCO 202

MUCO 423: *Music and Mystical Experience*
What is mystical experience? And how does music evoke, induce, or otherwise bring us into relation with it? These questions motivate a cross-cultural, multi-disciplinary, and diachronic exploration of the ways in which human beings experience the numinous through music. Readings from contemporary and historical sources in eastern and western philosophy, psychology, and the history and theory of music provide intellectual and aesthetic contexts in which to engage with a variety of musical practices and traditions. In the spirit of its title, the course also requires a commitment to specific contemplative practices—not bound to any particular belief system—that are introduced in an effort to cultivate qualities of mind conducive to contemplative engagement with a work of music or the experience of sound. Not open to students who have received credit, or need to receive credit, for MUCO 223. Units: 6.

Prerequisite: MUCO 202

MUCO 431: *The Grand Tour: Musical Tastes and Manners in Europe 1600–1750*
A study of music in the Baroque period, its social and historical context and relationship to other arts. The course explores the depth and variety of 17th and 18th century musical life and follows a broad range of interests to suit both music majors and non-specialists. Museum visits and weekly concerts, with accompanying lectures; demonstrations by performers active in the field of historical performance practice; and readings on form, style, and the lives of composers. This course is a seminar involving independent research. Not open to students who have previously received credit for MUCO 131. *Offered at the London Centre.* Units: 6.

Prerequisite: Must be attending the Lawrence London Centre. MUCO 201 and 202

MUCO 433: *Perspectives on Genius: The life and musical impact of Beethoven*
Ludwig van Beethoven, arguably one of the most famous composers of all time, is a compelling and fascinating figure in classical music. He occupies a central position as the architect of musical Romanticism and his influence continues today. In additions to studying his music from the perspective of his own time, we will discuss his extraordinary creative personality and the reception of his music by subsequent composers and listeners. A number of concerts and outside visits will be organized, and students will be encouraged to attend relevant performances in London, for which they will be prepared in class. This course is a seminar involving independent research. Not open to students who have received credit for MUCO 133. Units: 6.

Prerequisite: MUCO 202; must be attending the Lawrence London Centre

MUCO 435: *The British Musical Renaissance: Elgar, Vaughn Williams, and Britten*
An introduction to British music in the first three-quarters of the 20th century. In addition to studying major works by Elgar, Vaughan Williams, and Britten, students will explore the social and political currents as they impinged on musical life in Britain. A number of concerts and outside visits will be organized, and students will be encouraged to attend relevant performances in London, for which they will be prepared in class. This course is a seminar involving independent research. Not open to students who have previously received credit for MUCO 135. *Offered at the London Centre.* Units: 6.

Prerequisite: MUCO 202

MUCO 440: *Topics in Musicology: Life and Works*
A study of a composer's career, emphasizing the relationship between composer and society. Topics in this series vary from year to year. May be repeated when topic is different.

Topic for Winter 2017: Benjamin Britten

This course will examine the life and works of Benjamin Britten in historical and social contexts through study of selected masterpieces that illumine his particular artistic preoccupations: reverence for the expressive possibilities of the human voice, corruption of innocence, sexuality, poetry, and pacifism. The core of the syllabus will draw upon several major operas, including *Peter Grimes, Billy Budd, and The Turn of the Screw,* as well as one or more of the song cycles and *War Requiem*.

Units: 6.

Prerequisite: MUCO 202

MUCO 441: *Debussy: Contextual Perspectives*
This course will examine Debussy and his music from a broad cultural perspective in order to reveal the connections between the music and the political, social, and artistic world in which it was created and received, and to use these connections to consider alternative paths of musical interpretation. Units: 6.

Prerequisite: MUCO 202

MUCO 450: *Topics in Musicology: Genre History*
An examination of the historical development of a single genre, stressing the effects of societal changes. Topics in this series vary from year to year. May be repeated when topic is different.

Topic for Fall 2016: The History of Recorded Sound

Since the late nineteenth century the history of music has been inextricably tied to the history of recorded sound. In this course we will study the history of sound recording and examine the impact of recorded sound on practices of composing, performing, and listening to music. To supplement our analysis of historical recordings and tape music compositions we will read and discuss essays and articles by composers and performers, as well as material and cultural histories of recorded sound. Not open to students who have completed, or need to complete this topic under MUCO 210.

Topic for Fall 2016: Music and the Fairy Tale

This course will explore the ways that music embodies, constructs, deconstructs, interrogates, and communicates values and meanings in a variety of fairy tale contexts in popular and classical realms.

Topic for Winter 2017: Early Music Revivals

This course will examine when, where, how and why musicians have revived musical works and practices from the period roughly encompassing 800-1750 AD. In addition to studying early music movements, students will explore issues of performance practice and presentation by performing early musical works of their own choosing.

Topic for Spring 2017: Music and Memory

An exploration of the diverse ways that musical creation, practice, and reception are bound up with memory. We will examine music and ideas from the Middle Ages to the present, focusing on the ways music can function as, be affected by, create, invoke, and interrogate memory.

Topic for Spring 2017: The Blues

The course explores topics in the history of African American blues music, from the late 19th century to the present, including: the early recorded history of the blues, "classic" blues singers, the blues revival, boogie woogie, jump blues, and rhythm and blues. In addition to studying various blues genres, we will study blues forms and styles in the context of jazz, European modernist music, African American classical music, American musical theater and opera, and rock ’n’ roll. Not open to students who have completed, or need to complete this topic under MUCO 210.

Topic for Spring 2017: The German Lied and National Identity

In this course, we will examine Lieder from the 18th to the 20th centuries from a socio-cultural perspective to explore the multiple ways that the genre has been bound up with German national identity.

Units: 6.

Prerequisite: MUCO 202

MUCO 451: *History of the String Quartet*
Composers have used the string quartet genre to express some of their most profound and daring musical thoughts since the late 18th century and up to the present day. Through readings and analysis, students will explore how this repertoire and its audiences have been shaped by sociological and aesthetic forces. Units: 6.

Prerequisite: MUCO 202

MUCO 452: *History of the Wind Band*
This course will be an examination of the history and development of the wind band as an artistic medium, focusing on repertoire and instrumentation development and cultural influences. The growth of the modern concert wind ensemble will be studied as a part of the evolution beginning with Gabrieli and proceeding through classical, romantic, and contemporary musical trends. Units: 6.

Prerequisite: MUCO 202

MUCO 453: *Opera and Betrayal*
This course will examine different modes of betrayal (for example, at the plot, music, or production level) within opera from the 17th century to the present and explore possible meanings conveyed by operas relative to specific societal contexts and ideals, past and present. Units: 6.

Prerequisite: MUCO 202

MUCO 455: *Jazz History*
A study of the contributions of select jazz artists through analysis of recordings, historical films, solo transcriptions, scores, and readings from texts. Units: 6.

Prerequisite: MUCO 202 or consent of instructor

MUCO 460: *Topics in Musicology: Cultural Moments*
A study of a particular time and place, examining the relationship between social institutions, intellectual ideas, and music products. Topics in this series vary from year to year. May be repeated with consent of instructor. Units: 6.

Prerequisite: MUCO 202

MUCO 461: *The English Musical Renaissance*
A study of the remarkable period in British music, roughly 1870–1970, now commonly called the English musical renaissance. Important relationships between social, intellectual, and musical currents will be examined through critical reading, discussion, and analysis of selected works by three major composers: Edward Elgar, Ralph Vaughan Williams, and Benjamin Britten. Units: 6.

Prerequisite: MUHI 202

MUCO 465: *The Second Viennese School: Schoenberg, Berg, Webern*
This course has as its principal focus the three great figures of the so-called “Second Viennese School”: Schoenberg, Berg, and Webern. It includes not only a detailed study of their lives and works but also consideration of the cultural milieu from which they emerged and which they in turn influenced profoundly. Units: 6.

Prerequisite: MUC0 202

MUCO 470: *Topics in Ethnomusicology—Regions*
An examination of music of a particular geographic region or diasporic group. Topics and prerequisites may vary from year to year. May be repeated when topic is different.

Topic for Winter 2017: Music of India

This course will cover aspects of North and South Indian classical, folk, and popular musics. Students will become familiar with Indian tuning systems, rhythmic patterns, formal structures, and performance practices. We will explore music’s role in society in India as well as among diasporic populations, and explore music’s connections to other areas of artistic, social, spiritual, and political life.

Units: 6.

MUCO 471: *Performing Arts of Bali*
This course explores the intersections of Balinese music, dance, drama, and ritual. Discussions will include how globalization, tourism, and economic and religious tensions affect the arts and performer's lives. Students will have hands-on experience learning to play Balinese gamelan instruments. Units: 6.

Also listed as Ethnic Studies 471

Prerequisite: Sophomore standing

MUCO 490: *Topics in Ethnomusicology—Issues*
An examination of a particular issue in ethnomusicological study. Topics and prerequisites may vary from year to year. May be repeated for credit when topic is different. Units: 6.

Prerequisite: Sophomore standing or consent of instructor

MUCO 491: *Introduction to World Music & Culture*
This course offers the opportunity to explore music and music cultures in a variety of ways and to increase your understanding of and appreciation for musics from around the world. We will discuss what music means to different people, how this relates to issues of ethnic, national, and gender identity, and how music traditions are changing due to forces of globalization. We will also discuss current ethnomusicological and anthropological theories that can help explain and analyze different contexts and understandings of music and why music is so important in human life. Students will apply these ideas in conducting their own musical ethnographic projects. Units: 6.

Prerequisite: Sophomore standing or consent of the instructor

MUCO 493: *Music and Gender in Cross-Cultural Perspective*
This course examines the relationship between the constructions of gender identities and music performance and practice, and looks at history and development of approaches, theories, and studies regarding this relationship. Each week contains theoretical readings from gender studies, women's studies, or feminist scholarship as well as ethnomusicological case studies from a variety of locations around the world. Units: 6.

Also listed as Gender Studies 493

Prerequisite: Sophomore standing

MUCO 494: *Music and the Environment*
In many societies around the world, people use music to connect with nature, specific places, and surrounding environments. This course will explore music performance practices and repertoire that expresses or enacts these connections. Case studies will include songlines and Australian Aboriginal land claims, North American protest songs, and the intimate relationships between music and nature of the BaAka people in central Africa and among the Kakuli people in Papua, among others. Units: 6.

Also listed as Environmental Studies 494

Prerequisite: Sophomore standing or consent of instructor

MUCO 495: *Introduction to Ethnomusicology*
This course will cover the history of the field of ethnomusicology, key debates, influential scholars, and significant case studies. Important concepts will include fieldwork methods, organology (the study of musical instruments), tuning systems, transcription, and issues in applied ethnomusicology. This course will be particularly helpful to students considering graduate work in ethnomusicology. Units: 6.

Prerequisite: Sophomore standing

MUCO 590: *Tutorial in Studies Musicology*
Units: Variable.

Prerequisite: Counter Registration Required

MUCO 591: *Directed Study in Musicology*
Directed study follows a syllabus set primarily by the instructor to meet the needs or interests of an individual student or small group of students. The main goal of directed study is knowledge or skill acquisition, not research or creative work. Units: Variable.

Prerequisite: Counter Registration Required

MUCO 595: *Internship in Musicology*
An experience-based project in music developed in consultation with a designated supervisor and a conservatory faculty member, comprising a work component and an academic component. The academic component of the internship, carried out under the supervision of the faculty member, may include readings related to the substance of the internship, discussions with the faculty member, and a written report or other culminating project appropriate to the discipline. Units: Variable.

Prerequisite: Counter Registration Required

MUCO 599: *Independent Study in Musicology*
Students considering an honors project should register for independent study for one or more terms. Units: Variable.

Prerequisite: Counter Registration Required

MUCO 690: *Tutorial in Studies Musicology*
Units: Variable.

Prerequisite: Counter Registration Required

MUCO 691: *Directed Study in Musicology*
Directed study follows a syllabus set primarily by the instructor to meet the needs or interests of an individual student or small group of students. The main goal of directed study is knowledge or skill acquisition, not research or creative work. Units: Variable.

Prerequisite: Counter Registration Required

MUCO 695: *Internship in Musicology*
An experience-based project in music developed in consultation with a designated supervisor and a conservatory faculty member, comprising a work component and an academic component. The academic component of the internship, carried out under the supervision of the faculty member, may include readings related to the substance of the internship, discussions with the faculty member, and a written report or other culminating project appropriate to the discipline. Units: Variable.

Prerequisite: Counter Registration Required

MUCO 699: *Independent Study in Musicology*
Students considering an honors project should register for independent study for one or more terms. Units: Variable.

Prerequisite: Counter Registration Required

COURSES—Applied music individual instruction

MUIN 102: *Elementary Individual Instruction–Organ*
Individual, year-long instruction for beginning students who are B.A. degree candidates not majoring in music. The three-class series must be completed in a single academic year for a total of 6 units to be awarded. Credit is awarded upon completion of the third term only. Interested students must contact the Conservatory Office for a studio assignment which is required for registration. Units: 2.

Prerequisite: Credit awarded upon completion of three terms of study

MUIN 103: *Elementary Individual Instruction–Voice*
Individual, year-long instruction for beginning students who are B.A. degree candidates not majoring in music. The three-class series must be completed in a single academic year for a total of 6 units to be awarded. Credit is awarded upon completion of the third term only. Interested students must contact the Conservatory Office for a studio assignment which is required for registration. Units: 2.

Prerequisite: Credit awarded upon completion of three terms of study

MUIN 104: *Elementary Individual Instruction–Violin*
Individual, year-long instruction for beginning students who are B.A. degree candidates not majoring in music. The three-class series must be completed in a single academic year for a total of 6 units to be awarded. Credit is awarded upon completion of the third term only. Interested students must contact the Conservatory Office for a studio assignment which is required for registration. Units: 2.

Prerequisite: Credit awarded upon completion of three terms of study

MUIN 105: *Elementary Individual Instruction–Viola*
Individual, year-long instruction for beginning students who are B.A. degree candidates not majoring in music. The three-class series must be completed in a single academic year for a total of 6 units to be awarded. Credit is awarded upon completion of the third term only. Interested students must contact the Conservatory Office for a studio assignment which is required for registration. Units: 2.

Prerequisite: Credit awarded upon completion of three terms of study

MUIN 106: ***Elementary Individual Instruction–Cello***
Individual, year-long instruction for beginning students who are B.A. degree candidates not majoring in music. The three-class series must be completed in a single academic year for a total of 6 units to be awarded. Credit is awarded upon completion of the third term only. Interested students must contact the Conservatory Office for a studio assignment which is required for registration. Units: 2.

Prerequisite: Credit awarded upon completion of three terms of study

MUIN 107: ***Elementary Individual Instruction–Doublebass***
Individual, year-long instruction for beginning students who are B.A. degree candidates not majoring in music. The three-class series must be completed in a single academic year for a total of 6 units to be awarded. Credit is awarded upon completion of the third term only. Interested students must contact the Conservatory Office for a studio assignment which is required for registration. Units: 2.

Prerequisite: Credit awarded upon completion of three terms of study

MUIN 108: ***Elementary Individual Instruction–Guitar***
Individual, year-long instruction for beginning students who are B.A. degree candidates not majoring in music. The three-class series must be completed in a single academic year for a total of 6 units to be awarded. Credit is awarded upon completion of the third term only. Interested students must contact the Conservatory Office for a studio assignment which is required for registration. Units: 2.

Prerequisite: Credit awarded upon completion of three terms of study

MUIN 109: ***Elementary Individual Instruction–Flute***
Individual, year-long instruction for beginning students who are B.A. degree candidates not majoring in music. The three-class series must be completed in a single academic year for a total of 6 units to be awarded. Credit is awarded upon completion of the third term only. Interested students must contact the Conservatory Office for a studio assignment which is required for registration. Units: 2.

Prerequisite: Credit awarded upon completion of three terms of study

MUIN 110: ***Elementary Individual Instruction–Oboe***
Individual, year-long instruction for beginning students who are B.A. degree candidates not majoring in music. The three-class series must be completed in a single academic year for a total of 6 units to be awarded. Credit is awarded upon completion of the third term only. Interested students must contact the Conservatory Office for a studio assignment which is required for registration. Units: 2.

Prerequisite: Credit awarded upon completion of three terms of study

MUIN 111: ***Elementary Individual Instruction–Clarinet***
Individual, year-long instruction for beginning students who are B.A. degree candidates not majoring in music. The three-class series must be completed in a single academic year for a total of 6 units to be awarded. Credit is awarded upon completion of the third term only. Interested students must contact the Conservatory Office for a studio assignment which is required for registration. Units: 2.

Prerequisite: Credit awarded upon completion of three terms of study

MUIN 112: ***Elementary Individual Instruction–Saxophone***
Individual, year-long instruction for beginning students who are B.A. degree candidates not majoring in music. The three-class series must be completed in a single academic year for a total of 6 units to be awarded. Credit is awarded upon completion of the third term only. Interested students must contact the Conservatory Office for a studio assignment which is required for registration. Units: 2.

Prerequisite: Credit awarded upon completion of three terms of study

MUIN 113: ***Elementary Individual Instruction–Bassoon***
Individual, year-long instruction for beginning students who are B.A. degree candidates not majoring in music. The three-class series must be completed in a single academic year for a total of 6 units to be awarded. Credit is awarded upon completion of the third term only. Interested students must contact the Conservatory Office for a studio assignment which is required for registration. Units: 2.

Prerequisite: Credit awarded upon completion of three terms of study

MUIN 114: ***Elementary Individual Instruction–Horn***
Individual, year-long instruction for beginning students who are B.A. degree candidates not majoring in music. The three-class series must be completed in a single academic year for a total of 6 units to be awarded. Credit is awarded upon completion of the third term only. Interested students must contact the Conservatory Office for a studio assignment which is required for registration. Units: 2.

Prerequisite: Credit awarded upon completion of three terms of study

MUIN 115: ***Elementary Individual Instruction–Trumpet***
Individual, year-long instruction for beginning students who are B.A. degree candidates not majoring in music. The three-class series must be completed in a single academic year for a total of 6 units to be awarded. Credit is awarded upon completion of the third term only. Interested students must contact the Conservatory Office for a studio assignment which is required for registration. Units: 2.

Prerequisite: Credit awarded upon completion of three terms of study

MUIN 116: ***Elementary Individual Instruction–Trombone***
Individual, year-long instruction for beginning students who are B.A. degree candidates not majoring in music. The three-class series must be completed in a single academic year for a total of 6 units to be awarded. Credit is awarded upon completion of the third term only. Interested students must contact the Conservatory Office for a studio assignment which is required for registration. Units: 2.

Prerequisite: Credit awarded upon completion of three terms of study

MUIN 117: ***Elementary Individual Instruction–Euphonium***
Individual, year-long instruction for beginning students who are B.A. degree candidates not majoring in music. The three-class series must be completed in a single academic year for a total of 6 units to be awarded. Credit is awarded upon completion of the third term only. Interested students must contact the Conservatory Office for a studio assignment which is required for registration. Units: 2.

MUIN 118: ***Elementary Individual Instruction–Tuba***
Individual, year-long instruction for beginning students who are B.A. degree candidates not majoring in music. The three-class series must be completed in a single academic year for a total of 6 units to be awarded. Credit is awarded upon completion of the third term only. Interested students must contact the Conservatory Office for a studio assignment which is required for registration. Units: 2.

MUIN 119: ***Elementary Individual Instruction–Harpsichord***
Individual, year-long instruction for beginning students who are B.A. degree candidates not majoring in music. The three-class series must be completed in a single academic year for a total of 6 units to be awarded. Credit is awarded upon completion of the third term only. Interested students must contact the Conservatory Office for a studio assignment which is required for registration. Units: 2.

Prerequisite: Credit awarded upon completion of three terms of study

MUIN 120: ***Elementary Individual Instruction–Percussion***
Individual, year-long instruction for beginning students who are B.A. degree candidates not majoring in music. The three-class series must be completed in a single academic year for a total of 6 units to be awarded. Credit is awarded upon completion of the third term only. Interested students must contact the Conservatory Office for a studio assignment which is required for registration. Units: 2.

Prerequisite: Credit awarded upon completion of three terms of study

MUIN 121: *Elementary Harp*
Individual, year-long instruction for beginning students who are B.A. degree candidates not majoring in music. The three-class series must be completed in a single academic year for a total of 6 units to be awarded. Credit is awarded upon completion of the third term only. Interested students must contact the Conservatory Office for a studio assignment which is required for registration. Units: 2.

MUIN 191: *Directed Study in Individual Performance Instruction*
Directed study follows a syllabus set primarily by the instructor to meet the needs or interests of an individual student or small group of students. The main goal of directed study is knowledge or skill acquisition, not research or creative work. Units: Variable.

Prerequisite: Counter Registration Required

MUIN 301: *Piano*
Private instruction tailored to the individual student. These courses are not appropriate for beginning students, who should enroll for the elementary level. Studio assignments for B.Mus. students are determined upon matriculation. B.Mus. students adding a second instrument and other interested students should contact the Conservatory Office for a studio assignment before attempting to register. Units: 3 OR 6.

MUIN 302: *Organ*
Private instruction tailored to the individual student. These courses are not appropriate for beginning students, who should enroll for the elementary level. Studio assignments for B.Mus. students are determined upon matriculation. B.Mus. students adding a second instrument and other interested students should contact the Conservatory Office for a studio assignment before attempting to register. Units: 3 OR 6.

MUIN 303: *Voice*
Private instruction tailored to the individual student. These courses are not appropriate for beginning students, who should enroll for the elementary level. Studio assignments for B.Mus. students are determined upon matriculation. B.Mus. students adding a second instrument and other interested students should contact the Conservatory Office for a studio assignment before attempting to register. Units: 3 OR 6.

MUIN 304: *Violin*
Private instruction tailored to the individual student. These courses are not appropriate for beginning students, who should enroll for the elementary level. Studio assignments for B.Mus. students are determined upon matriculation. B.Mus. students adding a second instrument and other interested students should contact the Conservatory Office for a studio assignment before attempting to register. Units: 3 OR 6.

MUIN 305: *Viola*
Private instruction tailored to the individual student. These courses are not appropriate for beginning students, who should enroll for the elementary level. Studio assignments for B.Mus. students are determined upon matriculation. B.Mus. students adding a second instrument and other interested students should contact the Conservatory Office for a studio assignment before attempting to register. Units: 3 OR 6.

MUIN 306: *Cello*
Private instruction tailored to the individual student. These courses are not appropriate for beginning students, who should enroll for the elementary level. Studio assignments for B.Mus. students are determined upon matriculation. B.Mus. students adding a second instrument and other interested students should contact the Conservatory Office for a studio assignment before attempting to register. Units: Variable.

MUIN 307: *Doublebass*
Private instruction tailored to the individual student. These courses are not appropriate for beginning students, who should enroll for the elementary level. Studio assignments for B.Mus. students are determined upon matriculation. B.Mus. students adding a second instrument and other interested students should contact the Conservatory Office for a studio assignment before attempting to register. Units: 3 OR 6.

MUIN 308: *Guitar*
Private instruction tailored to the individual student. These courses are not appropriate for beginning students, who should enroll for the elementary level. Studio assignments for B.Mus. students are determined upon matriculation. B.Mus. students adding a second instrument and other interested students should contact the Conservatory Office for a studio assignment before attempting to register. Units: 3 OR 6.

MUIN 309: *Flute*
Private instruction tailored to the individual student. These courses are not appropriate for beginning students, who should enroll for the elementary level. Studio assignments for B.Mus. students are determined upon matriculation. B.Mus. students adding a second instrument and other interested students should contact the Conservatory Office for a studio assignment before attempting to register. Units: 3 OR 6.

MUIN 310: *Oboe*
Units: 3 OR 6.

MUIN 311: *Clarinet*
Private instruction tailored to the individual student. These courses are not appropriate for beginning students, who should enroll for the elementary level. Studio assignments for B.Mus. students are determined upon matriculation. B.Mus. students adding a second instrument and other interested students should contact the Conservatory Office for a studio assignment before attempting to register. Units: 3 OR 6.

MUIN 312: *Saxophone*
Private instruction tailored to the individual student. These courses are not appropriate for beginning students, who should enroll for the elementary level. Studio assignments for B.Mus. students are determined upon matriculation. B.Mus. students adding a second instrument and other interested students should contact the Conservatory Office for a studio assignment before attempting to register. Units: 3 OR 6.

MUIN 313: *Bassoon*
Private instruction tailored to the individual student. These courses are not appropriate for beginning students, who should enroll for the elementary level. Studio assignments for B.Mus. students are determined upon matriculation. B.Mus. students adding a second instrument and other interested students should contact the Conservatory Office for a studio assignment before attempting to register. Units: 3 OR 6.

MUIN 314: *Horn*
Private instruction tailored to the individual student. These courses are not appropriate for beginning students, who should enroll for the elementary level. Studio assignments for B.Mus. students are determined upon matriculation. B.Mus. students adding a second instrument and other interested students should contact the Conservatory Office for a studio assignment before attempting to register. Units: 3 OR 6.

MUIN 315: *Trumpet*
Private instruction tailored to the individual student. These courses are not appropriate for beginning students, who should enroll for the elementary level. Studio assignments for B.Mus. students are determined upon matriculation. B.Mus. students adding a second instrument and other interested students should contact the Conservatory Office for a studio assignment before attempting to register. Units: 3 OR 6.

MUIN 316: *Trombone*
Private instruction tailored to the individual student. These courses are not appropriate for beginning students, who should enroll for the elementary level. Studio assignments for B.Mus. students are determined upon matriculation. B.Mus. students adding a second instrument and other interested students should contact the Conservatory Office for a studio assignment before attempting to register. Units: 3 OR 6.

MUIN 317: *Euphonium*
Private instruction tailored to the individual student. These courses are not appropriate for beginning students, who should enroll for the elementary level. Studio assignments for B.Mus. students are determined upon matriculation. B.Mus. students adding a second instrument and other interested students should contact the Conservatory Office for a studio assignment before attempting to register. Units: 3 OR 6.

MUIN 318: *Tuba*
Private instruction tailored to the individual student. These courses are not appropriate for beginning students, who should enroll for the elementary level. Studio assignments for B.Mus. students are determined upon matriculation. B.Mus. students adding a second instrument and other interested students should contact the Conservatory Office for a studio assignment before attempting to register. Units: 3 OR 6.

MUIN 319: *Harpsichord*
Private instruction tailored to the individual student. These courses are not appropriate for beginning students, who should enroll for the elementary level. Studio assignments for B.Mus. students are determined upon matriculation. B.Mus. students adding a second instrument and other interested students should contact the Conservatory Office for a studio assignment before attempting to register. Units: 3 OR 6.

MUIN 320: *Percussion*
Private instruction tailored to the individual student. These courses are not appropriate for beginning students, who should enroll for the elementary level. Studio assignments for B.Mus. students are determined upon matriculation. B.Mus. students adding a second instrument and other interested students should contact the Conservatory Office for a studio assignment before attempting to register. Units: 3 OR 6.

MUIN 321: *Harp*
Private instruction tailored to the individual student. These courses are not appropriate for beginning students, who should enroll for the elementary level. Studio assignments for B. Mus. students are determined upon matriculation. B.Mus. students adding a second instrument and other interested students should contact the Conservatory Office for a studio assignment before attempting to register. Units: 3 OR 6.

MUIN 329: *Jazz Studies*
Private instruction tailored to the individual student. These courses are not appropriate for beginning students, who should enroll for the elementary level. Studio assignments for B.Mus. students are determined upon matriculation. B.Mus. students adding a second instrument and other interested students should contact the Conservatory Office for a studio assignment before attempting to register. Units: 3 OR 6.

MUIN 355: ***London Studio Instruction***
Individual instruction in music at the London Centre. Units: 3.

Prerequisite: Must be attending the Lawrence London Centre.

MUIN 390: ***Tutorial in Individual Performance Instruction***
Units: Variable.

Prerequisite: Counter Registration Required.

MUIN 391: ***Directed Study in Individual Performance Instruction***
Directed study follows a syllabus set primarily by the instructor to meet the needs or interests of an individual student or small group of students. The main goal of directed study is knowledge or skill acquisition, not research or creative work. Units: Variable.

Prerequisite: Counter Registration Required

MUIN 590: ***Tutorial in Individual Performance Instruction***
Units: Variable.

Prerequisite: Counter Registration Required.

MUIN 591: ***Directed Study in Individual Performance Instruction***
Directed study follows a syllabus set primarily by the instructor to meet the needs or interests of an individual student or small group of students. The main goal of directed study is knowledge or skill acquisition, not research or creative work. Units: Variable.

Prerequisite: Counter Registration Required

MUIN 599: ***Independent Study in Individual Performance Instruction***
Units: Variable.

Prerequisite: Counter Registration Required.

MUIN 690: ***Tutorial in Individual Performance Instruction***
Units: Variable.

Prerequisite: Counter Registration Required.

MUIN 691: ***Directed Study in Individual Performance Instruction***
Directed study follows a syllabus set primarily by the instructor to meet the needs or interests of an individual student or small group of students. The main goal of directed study is knowledge or skill acquisition, not research or creative work. Units: Variable.

Prerequisite: Counter Registration Required

MUIN 699: ***Independent Study in Individual Performance Instruction***
Units: Variable.

Prerequisite: Counter Registration Required.

COURSES—Music repertoire–performance study

MURP 101: *Elementary Piano*
A beginning piano course for students without formal piano study and those returning to piano study after an extended absence. Reading of musical notation, terms, and symbols; basic technique; basic keyboard theory; exploration of diverse repertoire. Does not satisfy requirements of any music major. 2 units per term, awarded only upon completion of three terms of study. Consent of instructor required to ensure proper placement. May be repeated for credit. Units: 2.

Prerequisite: Credit awarded upon completion of three terms of study

MURP 110: *Topics in Repertoire and Performance*
This class will enable a variety of performance and repertoire topics to be studied for performers of all musical disciplines. Topics will include but not be limited to stage presence, memorization, professional performance strategies, repertoire history and repertoire development.
Units: Variable.

MURP 151: *Intermediate Piano*
Intermediate-level piano class for students who have completed MURP 101 or have reached a similar level of advancement. Does not satisfy requirements of any music major. Placement determined by audition (two pieces in contrasting styles, at least the level of the Bach Minuets or the easiest Schumann pieces from *Album for the Young*); consent of instructor required to ensure proper placement. May be repeated for credit. Units: 2.

Prerequisite: MURP 101

MURP 171: *Balinese Gamelan Music*
Open to all students. Gamelan is a type of traditional percussion and wind ensemble from Indonesia. This course offers study and performance of Balinese classical instrumental pieces, dance accompaniment, and contemporary works. May be repeated for credit. Units: 1.

MURP 191: *Directed Study in Music Repertoire and Performance Studies*
Directed study follows a syllabus set primarily by the instructor to meet the needs or interests of an individual student or small group of students. The main goal of directed study is knowledge or skill acquisition, not research or creative work. Units: Variable.

Prerequisite: Counter Registration Required

MURP 195: *Internship in Music Repertoire and Performance Studies*
An experience-based project in music developed in consultation with a designated supervisor and a conservatory faculty member, comprising a work component and an academic component. The academic component of the internship, carried out under the supervision of the faculty member, may include readings related to the substance of the internship, discussions with the faculty member, and a written report or other culminating project appropriate to the discipline. Units: Variable.

Prerequisite: Counter Registration Required

MURP 201: *Basic Keyboard Skills I*
Sight-reading, keyboard harmony, transposition, improvisation, technique, and selected repertoire. Students must demonstrate proficiency at each level before advancing to the next level. Completion of MURP 203 or demonstrated equivalent required of all Bachelor of Music degree candidates and Bachelor of Arts degree candidates with a major in music. Audition for placement required. 1 unit per term. *Note:* Required in the freshman year of all Bachelor of Music degree students whose performance area is not a keyboard instrument. BKS grades are factored into grade-point averages, but credit does not apply toward requirements for the Bachelor of Music degree. BKS must be completed successfully by the end of the sophomore year. (Music majors and minors are registered for BKS until the requirement has been completed.) Students who do not complete requirements in four terms of study are charged a fee of $75 in each successive term until all requirements are met. Units: 1.

MURP 202: *Basic Keyboard Skills II*
Sight-reading, keyboard harmony, transposition, improvisation, technique, and selected repertoire. Students must demonstrate proficiency at each level before advancing to the next level. Completion of MURP 203 or demonstrated equivalent required of all Bachelor of Music degree candidates and Bachelor of Arts degree candidates with a major in music. Audition for placement required. 1 unit per term. *Note:* Required in the freshman year of all Bachelor of Music degree students whose performance area is not a keyboard instrument. BKS grades are factored into grade-point averages, but credit does not apply toward requirements for the Bachelor of Music degree. BKS must be completed successfully by the end of the sophomore year. (Music majors and minors are registered for BKS until the requirement has been completed.) Students who do not complete requirements in four terms of study are charged a fee of $75 in each successive term until all requirements are met. Units: 1.

MURP 203: *Basic Keyboard Skills III*
Sight-reading, keyboard harmony, transposition, improvisation, technique, and selected repertoire. Students must demonstrate proficiency at each level before advancing to the next level. Completion of MURP 203 or demonstrated equivalent required of all Bachelor of Music degree candidates and Bachelor of Arts degree candidates with a major in music. Audition for placement required. 1 unit per term. *Note:* Required in the freshman year of all Bachelor of Music degree students whose performance area is not a keyboard instrument. BKS grades are factored into grade-point averages, but credit does not apply toward requirements for the Bachelor of Music degree. BKS must be completed successfully by the end of the sophomore year. (Music majors and minors are registered for BKS until the requirement has been completed.) Students who do not complete requirements in four terms of study are charged a fee of $75 in each successive term until all requirements are met. Units: 1.

MURP 223: *Educators' Keyboard Skills*
An upper-level keyboard proficiency course for students enrolling in any music education emphasis that includes general music. Students will develop a comfort level at the piano so it can be used as a teaching tool in the classroom. Main topics include vocal warm-ups, improvisation, creating and transposing accompaniments, reading three-part scores and teaching from the keyboard. Units: 1.

Prerequisite: MURP 203 or equivalent

MURP 271: *Introduction to Vocal Studies*
An overview of classical singing, including anatomy and physiology of the voice, basic vocal acoustics, voice health, and an introduction to historical singing terminology. Units: 1.

Prerequisite: Concurrent registration in voice lessons

MURP 272: *English Singing Diction*
An introduction to English singing diction, including identification of problematic American regionalisms and basic elements of English poetics. The International Phonetic Alphabet is learned as a tool for work in this and subsequent singing diction classes. Units: 1.

Prerequisite: Concurrent registration in voice lessons

MURP 273: *Italian and Latin Singing Diction*
An introduction to Italian singing diction with special attention given to sounds problematic for English speakers. Brief study of the pronunciation of ecclesiastical Latin. Units: 1.

Prerequisite: Concurrent registration in voice lessons

MURP 274: ***German Singing Diction***
An introduction to German singing diction, with special attention to sounds problematic for English speakers. Expressive use of the language in Lied interpretation begun. Units: 1.

Prerequisite: Concurrent registration in voice lessons

MURP 275: ***French Singing Diction***
An introduction to French singing diction, with special attention to sounds problematic for English speakers. Expressive use of the language, using appropriate mélodie texts, begun. Units: 1.

Prerequisite: Concurrent registration in voice lessons

MURP 276: ***Recitative***
An introduction to the performance practices of the pre-Romantic recitative, emphasizing the secco style. Critical listening to a variety of recorded examples and individualized selection, preparation, and coaching of appropriate examples of Baroque and Classic recitatives. Units: 1.

Prerequisite: Concurrent registration in voice lessons

MURP 285: ***The Eloquent Musician***
Course explores and promotes the art of speaking elegantly and knowledgeably about music in the context of live musical performance, and writing engagingly about music for a general audience. Course designed for music majors and other students with strong musical background and interest in interactive concerts and other public programs. Units: 6.

Also listed as Innovation & Entrepreneurship 285

Prerequisite: Major in music or consent of instructor

MURP 301: ***Functional Skills for Keyboard Majors I***
Development of functional keyboard skills. Sight-reading, score-reading, transposition, keyboard harmony, playing by ear, improvisation, and conducting from the keyboard. FKS grades are factored into grade-point averages, but credit does not apply toward requirements for the Bachelor of Music degree. Units: 1.

MURP 302: ***Functional Skills for Keyboard Majors II***
Development of functional keyboard skills. Sight-reading, score-reading, transposition, keyboard harmony, playing by ear, improvisation, and conducting from the keyboard. FKS grades are factored into grade-point averages, but credit does not apply toward requirements for the Bachelor of Music degree. Units: 1.

MURP 315: ***Fretboard Harmony for the Classical Guitarist***
Study of intervals, chord construction, and voice leading, using exercises and examples from the standard guitar repertoire. Includes sight-reading, realizing figured bass and harmonizing melodies. Units: 1.

Prerequisite: Sophomore standing

MURP 317: ***History and Literature of the Guitar***
A study of the guitar and its music from 1500 to present. This course examines the physical evolution of the instrument and surveys the important performers and composers for the guitar and other plucked instruments. Includes readings, listening, analysis, performance, transcription and written assignments. Units: 1.

Prerequisite: Sophomore standing

MURP 330: ***Orchestral Literature for Strings***
The course prepares string players for the unique challenges of life in a professional symphony orchestra and will complement work done in university ensembles and private instrumental instruction. Students will learn specific techniques through multiple performance opportunities, class discussion, readings and assigned listening. Units: 3.

MURP 350: ***Suzuki/Vocal Viewpoints***
Explore vocal production from a physically-based, full-bodied approach using the methodology of Tadashi Suzuki and the research of Anne Bogart. A physically-demanding course helping the body gain strength and agility, the voice increase range and capacity, and the actor's brain expand spontaneous, kinesthetic awareness and responsiveness. Units: 6.

Prerequisite: MUEN 280

MURP 361: ***Acting for Singers 1***
An opera/song performance course that develops the fundamental tools to create on stage. This term concentrates on basic acting techniques beginning with spoken word and then transferring those skills to intoned speech (song.) These building blocks include understanding and breaking down a script, navigating the stage and movement on it, creating and motivating character choices, response to your fellow performers, honesty on-stage, concentration, imagination and commitment to the script, the environment and your character. Units: 3.

Also listed as Theatre Arts 362

MURP 362: ***Acting for Singers 2***
An opera/song performance course that develops the fundamental tools to create on stage. This term concentrates on expanding the techniques from the previous term and on developing a stronger sense of ensemble work. Viewpoints and Theatrical Composition will be the main thrust of the exploration, using the current song and aria repertoire of the individual student. Units: 3.

Also listed as Theatre Arts 364

Prerequisite: MURP 361 or equivalent

MURP 390: ***Tutorial Studies in Music Repertoire and Performance***
Units: Variable.

Prerequisite: Counter Registration Required.

MURP 391: ***Directed Study in Music Repertoire and Performance Studies***
Directed study follows a syllabus set primarily by the instructor to meet the needs or interests of an individual student or small group of students. The main goal of directed study is knowledge or skill acquisition, not research or creative work. Units: Variable.

Prerequisite: Counter Registration Required

MURP 395: ***Internship in Music Repertoire and Performance Studies***
An experience-based project in music developed in consultation with a designated supervisor and a conservatory faculty member, comprising a work component and an academic component. The academic component of the internship, carried out under the supervision of the faculty member, may include readings related to the substance of the internship, discussions with the faculty member, and a written report or other culminating project appropriate to the discipline. Units: Variable.

Prerequisite: Counter Registration Required

MURP 399: ***Independent Study in Music Repertoire and Performance***
Students considering an honors project should register for independent study for one or more terms. Units: Variable.

MURP 405: ***Senegalese Music***
This course is part of the Lawrence Francophone Seminar in which students study in French-speaking West Africa for ten weeks. Units: 3.

Also listed as French 404

Prerequisite: Must be attending the LU Francophone Seminar

MURP 420: *Collaborative Piano: Vocal*
Vocal accompanying for the advanced pianist, including art song, opera recitative, and aria. Performances required of all participants. Units: 3.

MURP 425: *Collaborative Piano: Instrumental*
Instrumental accompanying for the advanced pianist, including duo sonatas and concerto orchestral reductions. Performances required of all participants. Units: 3.

MURP 451: *Literature of the Piano I*
A two-term historical survey of the repertoire from 1600 to the present, with consideration of performance practice and broader historical context. Lectures, readings, listening, analysis, performance, and written assignments. Units: 6.

Prerequisite: Consent of instructor

MURP 452: *Literature of the Piano II*
A two-term historical survey of the repertoire from 1600 to the present, with consideration of performance practice and broader historical context. Lectures, readings, listening, analysis, performance, and written assignments. Units: 6.

Prerequisite: MUPR 451

MURP 455: *Vocal Literature*
An introductory survey of the history and literature of the solo singer from antiquity to the present. Units: 3.

Prerequisite: Junior standing or consent of instructor

MURP 465: *Woodwind Chamber Music Literature*
A general survey of woodwind chamber music ensembles and music from the classical period to the current day, concentrating on the wind quintet, but also including other ensembles that feature at least one woodwind instrument. Units: 1.

Prerequisite: Junior standing

MURP 480: *Advanced Conducting*
Intended to give students more experience with score study, rehearsal techniques and conducting vocabulary through weekly podium time and class discussion. Advanced Conducting will continue the topics covered in Conducting Principles. Basic knowledge of beat patterns and gestural vocabulary will be assumed and students will explore conducting in the orchestral, band, choral and mixed media. Units: 6.

Prerequisite: MUEP 380

MURP 590: ***Tutorial Studies in Music Repertoire and Performance***
Units: Variable.

Prerequisite: Counter Registration Required.

MURP 591: ***Directed Study in Music Repertoire and Performance Studies***
Directed study follows a syllabus set primarily by the instructor to meet the needs or interests of an individual student or small group of students. The main goal of directed study is knowledge or skill acquisition, not research or creative work. Units: Variable.

Prerequisite: Counter Registration Required

MURP 595: ***Internship in Music Repertoire and Performance Studies***
An experience-based project in music developed in consultation with a designated supervisor and a conservatory faculty member, comprising a work component and an academic component. The academic component of the internship, carried out under the supervision of the faculty member, may include readings related to the substance of the internship, discussions with the faculty member, and a written report or other culminating project appropriate to the discipline. Units: Variable.

Prerequisite: Counter Registration Required

MURP 599: ***Independent Study in Music Repertoire and Performance***
Students considering an honors project should register for independent study for one or more terms. Units: Variable.

Prerequisite: Counter Registration Required.

MURP 690: ***Tutorial Studies in Music Repertoire and Performance***
Units: Variable.

Prerequisite: Counter Registration Required.

MURP 691: ***Directed Study in Music Repertoire and Performance Studies***
Directed study follows a syllabus set primarily by the instructor to meet the needs or interests of an individual student or small group of students. The main goal of directed study is knowledge or skill acquisition, not research or creative work. Units: Variable.

Prerequisite: Counter Registration Required

MURP 695: ***Internship in Music Repertoire and Performance Studies***
An experience-based project in music developed in consultation with a designated supervisor and a conservatory faculty member, comprising a work component and an academic component. The academic component of the internship, carried out under the supervision of the faculty member, may include readings related to the substance of the internship, discussions with the faculty member, and a written report or other culminating project appropriate to the discipline. Units: Variable.

Prerequisite: Counter Registration Required

MURP 699: ***Independent Study in Music Repertoire and Performance***
Students considering an honors project should register for independent study for one or more terms. Units: Variable.

Prerequisite: Counter Registration Required.

COURSES—Music theory

MUTH 100: ***Music Theory for the Non-Major***
An introduction to the fundamentals of music: notation, scales, intervals, chords, keys, and basic harmonic and contrapuntal concepts. Improvement of reading skills and performance through an understanding of music's structure and notation. Does not apply toward any music major. Units: 3.

MUTH 151: ***Music Fundamentals, Theory, and Analysis 1***
An intensive version of MUTH 201, 202, this course provides a thorough grounding in music fundamentals in conjunction with a comprehensive introduction to tonal harmony, counterpoint, and associated formal procedures. The two terms are taken in sequence. Placement determined by the Music Theory Placement Exam. Corequisites: MUTH 161, 171. Units: 6.

Prerequisite: Placement Corequisites: MUTH 161, 171

MUTH 152: ***Music Fundamentals, Theory, and Analysis 2***
An intensive version of MUTH 201, 202, this course provides a thorough grounding in music fundamentals in conjunction with a comprehensive introduction to tonal harmony, counterpoint, and associated formal procedures. The two terms are taken in sequence. Placement determined by the Music Theory Placement Exam. Corequisites: MUTH 162, 172. Units: 6.

Prerequisite: MUTH 151 Corequisites: MUTH 162, 172

MUTH 161: ***Aural Skills Fundamentals 1***
Intensive ear training commensurate with MUTH 151, 152. Taken in sequence. Placement determined by the Music Theory Placement Exam. Credit does not count toward the B.Mus degree. Corequisites: MUTH 151, 171. Units: 2.

Prerequisite: Placement Corequisites: MUTH 151, 171 Credit does not count toward the B. Mus. degree

MUTH 162: ***Aural Skills Fundamentals 2***
Intensive ear training commensurate with MUTH 151, 152. Taken in sequence. Placement determined by the Music Theory Placement Exam. Credit does not count toward the B.Mus degree. Corequisites: MUTH 152, 172. Units: 2.

Prerequisite: MUTH 161 Corequisites: MUTH 152, 172 Credit does not count toward the B.Mus degree

MUTH 171: ***Sight Singing Fundamentals 1***
Sight singing commensurate with MUTH 151, 152. Placement determined by placement into the corequisite course. Credit does not count toward the B.Mus. degree. Corequisites: MUTH 151, 161. Units: 1.

Prerequisite: Placement Corequisites: MUTH 151, 161 Credit does not count toward the B. Mus. degree

MUTH 172: ***Sight Singing Fundamentals 2***
Sight singing commensurate with MUTH 151, 152. Placement determined by placement into the corequisite course. Credit does not count toward the B.Mus. degree. Corequisites: MUTH 152, 162. Units: 1.

Prerequisite: MUTH 171 Corequisites: MUTH 152, 162 Credit does not count toward the B. Mus. degree

MUTH 191: ***Directed Study in Music Theory***
Directed study follows a syllabus set primarily by the instructor to meet the needs or interests of an individual student or small group of students. The main goal of directed study is knowledge or skill acquisition, not research or creative work. Units: Variable.

Prerequisite: Counter Registration Required.

MUTH 195: ***Internship in Music Theory***
An experience-based project in music developed in consultation with a designated supervisor and a conservatory faculty member, comprising a work component and an academic component. The academic component of the internship, carried out under the supervision of the faculty member, may include readings related to the substance of the internship, discussions with the faculty member, and a written report or other culminating project appropriate to the discipline. Units: Variable.

Prerequisite: Counter Registration Required

MUTH 201: ***Music Theory and Analysis 1***
A comprehensive introduction to the structural principles and compositional techniques of art music from the 18th and 19th centuries. Emphasis on diatonic harmony and elementary counterpoint through written exercises, model composition, and analysis. Introduction to the basic formal procedures associated with tonal music. Taken in sequence, MUTH 201 and 202 are the first two courses in the five-term music theory core. Placement determined by the Music Theory Placement Exam. Corequisites: MUTH 211 and 221. Units: 4.

Prerequisite: Placement Corequisites: MUTH 211, 221

MUTH 202: ***Music Theory and Analysis 2***
A comprehensive introduction to the structural principles and compositional techniques of art music from the 18th and 19th centuries. Emphasis on diatonic harmony and elementary counterpoint through written exercises, model composition, and analysis. Introduction to the basic formal procedures associated with tonal music. Taken in sequence, MUTH 201 and 202 are the first two courses in the five-term music theory core. Placement determined by the Music Theory Placement Exam. Corequisites: MUTH 212 and 222. Units: 4.

Prerequisite: MUTH 201 Corequisites: MUTH 212, 222

MUTH 211: ***Aural Skills 1***
Ear training commensurate with MUTH 201. Melodic, harmonic, and contrapuntal dictation, error detection, and aural perception of basic formal procedures. Taken in sequence. Placement and section assignment determined by the Music Theory Placement Exam. Corequisites: MUTH 201, 221. Units: 1.

Prerequisite: Placement Corequisites: MUTH 201, 221

MUTH 212: ***Aural Skills 2***
Ear training commensurate with MUTH 202. Melodic, harmonic, and contrapuntal dictation, error detection, and aural perception of basic formal procedures. Taken in sequence. Placement and section assignment determined by the Music Theory Placement Exam. Corequisites: MUTH 202, 222. Units: 1.

Prerequisite: MUTH 211 Corequisites: MUTH 202, 222

MUTH 221: ***Sight Singing 1***
Sight singing commensurate with MUTH 201. Solo and ensemble singing using solfège; treble and bass clefs only. One- and two-part rhythmic exercises. Improvisation. Taken in sequence. Placement and section assignment determined by sight-singing audition. Corequisites: MUTH 201, 211. Units: 1.

Prerequisite: Placement Corequisites: MUTH 201, 211

MUTH 222: ***Sight Singing 2***
Sight singing commensurate with MUTH 202. Solo and ensemble singing using solfège; treble and bass clefs only. One- and two-part rhythmic exercises. Improvisation. Taken in sequence. Placement and section assignment determined by sight-singing audition. Corequisites: MUTH 202, 212. Units: 1.

Prerequisite: MUTH 221 Corequisites: MUTH 202, 212

MUTH 240: ***Jazz Theory and Aural Training***
A comprehensive introduction to jazz scales, modes, chords, harmonic progressions, nomenclature, and notation. Emphasis on linking essential jazz theoretic functions to performance practice, composition, and arranging. Units: 3.

MUTH 251: ***Music Theory and Analysis 3***
Continued study of the harmonic techniques and structural principles of tonal music, with emphasis on chromatic harmony and contrapuntal elaboration through written exercises, model composition, and analysis. Introduction to large-scale formal procedures associated with 18th- and 19th-century art music. Part of the five-term music theory core, taken in sequence. Corequisites: MUTH 261, 271. Units: 4.

Prerequisite: MUTH 152 or MUTH 202 Corequisites: MUTH 261, 271

MUTH 252: ***Music Theory and Analysis 4***
Continued study of the harmonic techniques and structural principles of tonal music, with emphasis on chromatic harmony and contrapuntal elaboration through written exercises, model composition, and analysis. Introduction to large-scale formal procedures associated with 18th- and 19th-century art music. Part of the five-term music theory core, taken in sequence. Corequisites: MUTH 262, 272. Units: 4.

Prerequisite: MUTH 251 Corequisites: MUTH 262, 272

MUTH 261: ***Aural Skills 3***
Ear training commensurate with MUTH 251. Continued work in melodic, harmonic, and contrapuntal dictation, error detection, and aural perception of basic forms of tonal music. Taken in sequence. Section assignment determined by the music theory/composition department. Corequisites: MUTH 251, 271. Units: 1.

Prerequisite: MUTH 162 or MUTH 212 Corerequisites: MUTH 251, 271

MUTH 262: ***Aural Skills 4***
Ear training commensurate with MUTH 252. Continued work in melodic, harmonic, and contrapuntal dictation, error detection, and aural perception of basic forms of tonal music. Taken in sequence. Section assignment determined by the music theory/composition department. Corequisites: MUTH 252, 272. Units: 1.

Prerequisite: MUTH 261 Corerequisites: MUTH 252, 272

MUTH 271: *Sight Singing 3*
Sight singing commensurate with MUTH 251. Continued solo and ensemble singing (modes, alto and tenor clefs added), rhythmic exercises, and improvisation. Taken in sequence. Section assignment determined by the music theory/composition department. Corequisites: MUTH 251, 261. Units: 1.

Prerequisite: MUTH 172 or MUTH 222 Corequisites: MUTH 251, 261

MUTH 272: *Sight Singing 4*
Sight singing commensurate with MUTH 252. Continued solo and ensemble singing (modes, alto and tenor clefs added), rhythmic exercises, and improvisation. Taken in sequence. Section assignment determined by the music theory/composition department. Corequisites: MUTH 252, 262. Units: 1.

Prerequisite: MUTH 271 Corerequisites: MUTH 252, 262

MUTH 301: *Music Theory and Analysis 5*
The final course in the music theory core curriculum. The first part of the course develops and refines analytic skills introduced earlier in the core, applying them to specific works of the tonal repertory. The second part provides an introduction to the structural principles and formal procedures of art music from the early 20th century to the present. Corequisites: MUTH 311, 321. Units: 4.

Prerequisite: MUTH 252 Corequisites: MUTH 311, 321

MUTH 311: *Aural Skills 5*
Ear training commensurate with MUTH 301. Section assignment determined by the music theory/ composition department. Corequisites: MUTH 301, 321. Units: 1.

Prerequisite: MUTH 262 Corequisites: MUTH 301, 321

MUTH 321: *Sight Singing 5*
Sight singing commensurate with MUTH 301. Section assignment determined by the music theory/ composition department. Corequisites: MUTH 301, 311. Units: 1.

Prerequisite: MUTH 272 Corequisites: MUTH 301, 311

MUTH 345: *Post-Core Sight Singing*
A continuation of the 5-term Sight Singing sequence. Improvisational exercises and the singing of various styles of part music from the Renaissance to the present day. Units: 1.

Prerequisite: MUTH 321

MUTH 350: *Topics in Music Analysis*
Intermediate studies in music analysis, focusing on a particular analytic technique, critical approach, or repertory, such as text/music relations, Renaissance counterpoint, music and film, and non-western music. Topics vary from year to year. Course may be repeated when the topic is different. Units: 6.

Prerequisite: MUTH 301

MUTH 390: *Tutorial Studies in Music Theory*
A tutorial is a primarily student-driven course of study undertaken by an individual student or small group of students in collaboration with one or more faculty members. The primary goal of a tutorial is expansion, refinement, and synthesis of knowledge and abilities through in-depth exploration of a specific topic. Tutorials supplement regular course offerings, especially in the junior and senior years, by extending the curriculum in depth or breadth according to the intersecting interests of students and faculty members. A tutorial may be undertaken to satisfy personal academic interest, to prepare for advanced or graduate study, or to lay the groundwork for an independent study, senior experience, or honors project. Units: Variable.

Prerequisite: Counter Registration Required.

MUTH 391: *Directed Study in Music Theory*
Directed study follows a syllabus set primarily by the instructor to meet the needs or interests of an individual student or small group of students. The main goal of directed study is knowledge or skill acquisition, not research or creative work. Units: Variable.

Prerequisite: Counter Registration Required.

MUTH 395: *Internship in Music Theory*
An experience-based project in music developed in consultation with a designated supervisor and a conservatory faculty member, comprising a work component and an academic component. The academic component of the internship, carried out under the supervision of the faculty member, may include readings related to the substance of the internship, discussions with the faculty member, and a written report or other culminating project appropriate to the discipline. Units: Variable.

Prerequisite: Counter Registration Required.

MUTH 399: *Independent Study in Music Theory*
Students considering an honors project should register for independent study for one or more terms. Units: Variable.

Prerequisite: Counter Registration Required.

MUTH 400: *Renaissance Counterpoint*
In-depth study of the dazzling vocal polyphony of European masters from the fifteenth and sixteenth centuries, including Dufay, Ockeghem, Josquin, Palestrina, and Lassus. Extensive model composition is informed by close analysis of selected masterworks. Units: 6.

Prerequisite: MUTH 301 or consent of instructor

MUTH 401: *Counterpoint in the Style of J.S. Bach I*
The first course in a two-term survey of the techniques of 18th-century counterpoint. Imitative and non-imitative counterpoint in two voices, leading to the composition of binary-form suite movements and two-voice inventions. Complementary work in analysis. Units: 6.

Prerequisite: MUTH 301 or consent of instructor

MUTH 402: *Counterpoint in the Style of J.S. Bach II*
A continuation of MUTH 401. Imitative counterpoint in three and four voices, leading to the composition of a four-voice fugue. Complementary work in analysis. Units: 6.

Prerequisite: MUTH 401

MUTH 421: *Theory & Analysis of Music from 1900–1945*
Study of a range of analytical approaches to selected works composed during the first half of the twentieth century. The musical domains of pitch, pitch class, and rhythm will be addressed from many perspectives, including set theory, contour theory, centricity, modality, and the extension of set theory into transformational theory. Units: 6.

Prerequisite: MUTH 301

MUTH 422: *Theory & Analysis of Music since 1945*
Study of selected works composed since the end of World War II and of the related theoretical and analytic literature: John Cage and the New York school, collage and quotation, minimalism, post-minimalism and neo-romanticism, spectralism, totalism, and the influences of electro-acoustic music, non-western music, and improvisation. Units: 6.

Prerequisite: MUTH 301 and MUTH 421

MUTH 520: *Schenkerian Analysis*
An introduction to the theory and analytical techniques of Heinrich Schenker (1868–1935) and his followers. Investigating what is perhaps the most influential theoretical paradigm yet developed for the analysis of tonal music, the course will explore both the theory and its associated graphic notation as applied to significant works of tonal music from Bach to Brahms. Units: 6.

Prerequisite: MUTH 301 or consent of instructor

MUTH 550: *Topics in Music Analysis*
Advanced studies in music analysis, such as Schenkerian analysis, late 19th-century chromaticism, and analysis and performance. Topics vary from year to year. Course may be repeated with consent of instructor.

Topic for Spring 2017: Music and Meaning

For many, the love of music stems from its powerful expressive capabilities, encompassing the greatest exuberance and the deepest pathos, but how can music express complex ideas without words, dance, or depiction? In this exploration of musical semiotics, students will apply insights from linguistics, philosophy, Gestalt psychology, literary theory, and cognitive science to the interpretation of music from many repertoires.

Units: 3 OR 6.

Prerequisite: MUTH 301

MUTH 590: *Tutorial Studies in Music Theory*
A tutorial is a primarily student-driven course of study undertaken by an individual student or small group of students in collaboration with one or more faculty members. The primary goal of a tutorial is expansion, refinement, and synthesis of knowledge and abilities through in-depth exploration of a specific topic. Tutorials supplement regular course offerings, especially in the junior and senior years, by extending the curriculum in depth or breadth according to the intersecting interests of students and faculty members. A tutorial may be undertaken to satisfy personal academic interest, to prepare for advanced or graduate study, or to lay the groundwork for an independent study, senior experience, or honors project. Units: Variable.

Prerequisite: Counter Registration Required.

MUTH 591: *Directed Study in Music Theory*
Directed study follows a syllabus set primarily by the instructor to meet the needs or interests of an individual student or small group of students. The main goal of directed study is knowledge or skill acquisition, not research or creative work. Units: Variable.

Prerequisite: Counter Registration Required.

MUTH 595: *Internship in Music Theory*
An experience-based project in music developed in consultation with a designated supervisor and a conservatory faculty member, comprising a work component and an academic component. The academic component of the internship, carried out under the supervision of the faculty member, may include readings related to the substance of the internship, discussions with the faculty member, and a written report or other culminating project appropriate to the discipline. Units: Variable.

Prerequisite: Counter Registration Required.

MUTH 599: ***Independent Study in Music Theory***
Students considering an honors project should register for independent study for one or more terms. Units: Variable.

Prerequisite: Counter Registration Required.

MUTH 690: ***Tutorial Studies in Music Theory***
A tutorial is a primarily student-driven course of study undertaken by an individual student or small group of students in collaboration with one or more faculty members. The primary goal of a tutorial is expansion, refinement, and synthesis of knowledge and abilities through in-depth exploration of a specific topic. Tutorials supplement regular course offerings, especially in the junior and senior years, by extending the curriculum in depth or breadth according to the intersecting interests of students and faculty members. A tutorial may be undertaken to satisfy personal academic interest, to prepare for advanced or graduate study, or to lay the groundwork for an independent study, senior experience, or honors project. Units: Variable.

Prerequisite: Counter Registration Required.

MUTH 691: ***Directed Study in Music Theory***
Directed study follows a syllabus set primarily by the instructor to meet the needs or interests of an individual student or small group of students. The main goal of directed study is knowledge or skill acquisition, not research or creative work. Units: Variable.

Prerequisite: Counter Registration Required.

MUTH 695: ***Internship in Music Theory***
An experience-based project in music developed in consultation with a designated supervisor and a conservatory faculty member, comprising a work component and an academic component. The academic component of the internship, carried out under the supervision of the faculty member, may include readings related to the substance of the internship, discussions with the faculty member, and a written report or other culminating project appropriate to the discipline. Units: Variable.

Prerequisite: Counter Registration Required.

MUTH 699: ***Independent Study in Music Theory***
Students considering an honors project should register for independent study for one or more terms. Units: Variable.

Prerequisite: Counter Registration Required.

DECEMBER TERM

December Term (D-term) is an optional two-week session of academic enrichment during the break between Fall and Winter Terms.

In the first two weeks of December, Lawrence offers brief, intensive courses that can be taken for 3 units of credit toward a Lawrence degree. These courses are not accelerated versions of courses normally offered during the academic year and are not required of any student. On-campus courses include workshops, fieldwork, or travel to sites or activities within a day's drive of Lawrence. Travel courses take students to locations around the world for hands-on learning in an immersive setting. All offer focused, experiential learning in a small class of interested students led by a Lawrence faculty member.

D-term enrichment courses have separate tuition and fees for room and board. For December 2016, tuition is $1,485, and room and board for on-campus courses is approximately $400. On-campus courses may charge additional fees for travel or supplies. Travel courses charge a program fee for lodging, meals, museums/tours and insurance, and students are responsible for their own airfare to the course location. Tuition is significantly discounted to make the courses affordable, so no additional financial aid is available.

D-term courses are listed in the course schedule with a DECM prefix, and registration is through the Voyager system in the late spring or early fall. Students may register for one D-term course. Any course that does not have five students will be canceled, and students will be given the opportunity to enroll in another course. Registration for D-term courses closes at fall midterm reading period.

Academic performance in December Term will not change a student's academic standing, though the December Term course grade will be included in a student's grade point average, which could affect academic standing in subsequent terms.

December term does not count as a term of residency in meeting degree requirements.

Courses

DECM 111: *Culture, Biology, and Human Nutrition*

Human nutrition is both biological and cultural. This course will explore ways in which biological heritage, population history, culture, genetics, trade, media, and other forces interact to shape variation in human nutritional outcomes. Students will be invited to suggest topics for focused study. Units: 3.

DECM 112: *Ancient and Byzantine Coins: A Student-Designed Exhibition*

This course will examine themes in Greek, Roman, and Byzantine coins, using the University's well-known Ottilia Buerger Coin Collection as a resource. Students will research the coins and design and mount an exhibition of some of the coins. Units: 3.

DECM 113: *Living Research and Exploration—Devised Theatre Project*

An interdisciplinary, non-traditional approach to exploring subject matter through the act of writing as a group, in time and space, using the language of theater. Students will create short pieces for the stage by putting together raw resource material through cooperation and quick, intuitive/improvised decisions. Units: 3.

DECM 114: *Exploring the Creative Self Through Deep Listening*

What does it mean to actively and deeply listen? How can expansive listening encourage one's creative impulse? Drawing on the works of Pauline Oliveros, John Cage, John Muir and others, we will explore the expansive yet nuanced world of sound, deep listening, and the creative act. Open to all explorers. Units: 3.

DECM 115: *Beyond the Pin Factory: Real Firms, Local and Global*

Adam Smith famously used the example of a pin factory to illustrate some of his theories. Where did he learn about pin making? As it turns out, from a French encyclopedia. We will step outside the usual economics curriculum and study real firms, right in the Fox Valley. Through site visits at eight local (yet in some cases global) firms, and background readings on each firm and industry, we will gain a solid understanding of economic activity in the area, and learn economics through real-world, real-time case studies. Units: 3.

Prerequisite: ECON 100 or ECON 120

DECM 116: *Los Angeles: A Modern Biography*
This course offers an introduction to America's defining modern city. Using a variety of historical and literary texts. It explores the making of 20th (and 21st) century Los Angeles, as explosive growth, burgeoning power, and deep conflict framed a race and class-centered debate over its direction, identity, and future. Units: 3.

DECM 117: *Printed Books to 1900*
An introduction to the physical aspects of books from the hand-press period through the machine-press period. The course will cover identification and description of paper, typography, illustration processes, binding materials and styles, and the use of physical evidence in bibliographical analysis. Units: 3.

DECM 118: *Philosophy and Literature*
Explores interesting overlaps between literature and philosophy. Examines philosophical accounts of literature, and literary texts that invoke philosophical problems or theories. How are the aims of literature and philosophy similar? How can literature shape one's moral sense? Can literature provide insight to abstract philosophical debates? Should philosophy matter to authors? Units: 3.

DECM 119: *Soviet History through the Kitchen Door: Soviet Cooking Culture*
For Russians, food has always been a prickly subject, especially in the Soviet period. This course examines the monumental and the prosaic in the history of culinary culture in the Soviet Union. Each day we address a decade's key moments in private life, and learn to prepare a signature dish. Additional course fee of $50 plus purchase of book. Units: 3.

DECM 120: *The Shakespeare Intensive*
As we closely examine the First Folio texts, we will build a common vocabulary of performance practice, historical context, and literary exploration. Our showcase performance will feature scenes, songs and sonnets, dramaturgical posters, and at least one example of performance in the mode of the "Original Shakespeare Project." Additional course fee of $25. Units: 3.

DECM 121: *A Peek at Animal Behavior: Worms and Whales*
Students will explore how neurobiology, genetics, physiology, and ecology direct animal behavior, focusing on two example animals (*C. elegans* and whales). Students will learn using direct observation, student-directed lab experiments, lecture, and discussion of readings. There will be a field trip to the Shedd Aquarium in Chicago with an optional Beluga Encounter. Additional material, field trip, or lab fees may be charged for this class. Additional course fee of $40. The optional Beluga Encounter is approximately $250. Units: 3.

DECM 122: *Food Politics and Culture*
This course examines political and cultural forces that shape what we eat as well as implications for public health and the environment. Course material includes academic writing, food writing, popular commentary and food media, and students will pursue independent projects on a topic of interest. Units: 3.

DECM 123: *Music Theory Fundamentals through Composition*
A project-based introduction to music theory fundamentals, including scales, intervals, key signatures, triads, rhythm, and meter. Intended for majors and non-majors seeking to improve their grasp of theory fundamentals through guided composition and other creative activities. Units: 3.

DECM 124: *300 Galleries in 3 Days: Art Basel—Miami Beach*
This mode of exhibition is the new center of power in the art world and this course will examine the phenomenon through readings, discussions, research, and experiential learning by visiting ART BASEL—MIAMI with over 300 galleries from across the globe showing works of contemporary art of the highest quality. This class includes a trip to Miami on December 4-6. An additional fee will be charged to cover the cost of the trip. Units: 3.

DECM 125: *The Chemistry of Cooking*
This course will investigate the oldest and most widespread application in chemistry—cooking. We will discuss the chemistry behind basic cooking methods, then apply this knowledge in the kitchen to understand how variations in our methods affect the final products. Additional course fee of $30. Units: 3.

DECM 126: *Museum Curatorial Intensive*
This course will introduce students to the intellectual and practical labors of curating a museum exhibition on an interdisciplinary theme. Students will collectively curate, research, and design an exhibition built from the University's art collection. Readings will present contemporary debates in curatorial practice and an introduction to the course theme. Units: 3.

DECM 127: *Scientific Visualization*
Constructing figures, diagrams, and infographics for use in publications, websites, and presentations relies heavily on the use of digital technologies. This course will focus on approaches and techniques used to distill scientific information into effective visual representations using a variety of computer software packages, including Adobe Photoshop and Illustrator®. Units: 3.

DECM 128: *Urban Cultures—Buenos Aires*

An introduction to Buenos Aires urban culture, this travel course will provide students with an experiential learning opportunity through a series of itineraries related to the city's historical, political, literary, artistic, and musical scenes. The course will emphasize cultural exchange, engagement with the space, and personal transformation. Knowledge of Spanish helpful but not required.

Additional fees apply to this course: approximately $2,500 plus airfare. Units: 3.

Prerequisite: Instructor's approval and a series of readings

DECM 129: *The History of Video Games: 1977–1996*

An exploration of the history of video games, with an emphasis on games and gaming systems from 1977 to 1996. Games will be explored as technology, entertainment and a product of culture. Students will play games and write about developments in visual design, evolution of sound and music, representations of gender and race and other topics. Units: 3.

DECM 130: *Topological Data Analysis Through Structural Dance Improvisation*

Interdisciplinary exploration of topological data analysis—the mathematical study of "the shape of data"—and its interpretations in movement and physical metaphor. Includes in-class and in-studio components, culminating in a performance. Intended for open-minded students seeking to augment their mathematical/dance training and process with new modalities and vocabularies. Units: 3.

DECM 131: *Children's Stories in Communities: Going Beyond "And they lived happily ever after"*

This service-learning course will consider how fairy tales, myths and folktales reflect and inflect cultural and community practices. Drawing on pedagogical and literary approaches, the course will examine how ideas of childhood, gender, race, ethnicity and class are constructed and sustained through children's stories. Participants will work with non-profit organizations in the Fox Valley community doing creative projects with children's stories. Additional fees will apply: estimated $50 for performance attendance. Units: 3.

DECM 132: *Serious Gaming and Learning*

This course will explore learning, motivation and self-regulation involved in serious digital game play. Participants will explore current educational games being developed to capitalize on the popularity of gaming by playing and analyzing the game structure and components. Special attention will be paid to skill and content knowledge development through game play and the transfer of this knowledge outside of games. Units: 3.

DECM 133: Shakespeare in Performance

Students will study the text and production history of a specific Shakespeare play in detail, then apply that knowledge to a major production of the play, usually in Chicago, Milwaukee or Madison. The major assignment will be an analysis of that production. In 2016, the course will study Georges Bigot's Macbeth at Theater Y in Chicago. Additional fees will apply: tickets for the performance ($30-$60), specific performance-oriented edition of play ($20-$50), and travel. Units: 3.

DECM 134: *Witchcraft in Art*

Engage the art of Europe's fascination with witchcraft and the supernatural from 1100 to 1800 using materials from the university's rare book and art collections. We will examine depictions of magicians, sorcerers, and witches, along with their rituals and politico-religious prosecution. Methods include historical contextualization, chronological comparison, slow looking, and analysis of the iconography and semiotics of witchcraft. Students will complete short, detail-oriented projects. Units: 3.

DECM 211: *The Artist Book*

An introduction to bookmaking as an art form with special emphasis on craft and conceptual development as a form of visual expression. Traditional and contemporary approaches to creating artist books are explored in detail to compliment a variety of binding methods. Additional $30 course fee plus book. Units: 3.

Prerequisite: ART 100 or ART 110

DECM 213: *Educational Innovation*

This course engages students in the design of innovative educational programs or structures to promote integrative learning, personal development, and creative accomplishment. Students will work from core principles to produce a charter school design, after-school program, or multidisciplinary unit of instructions (as selected by the class). Units: 3.

Prerequisite: One course in education studies or consent of instructor

DECM 214: *Fun Home's Intro to LGBTQ+ Studies*

Alison Bechdel's *Fun Home* provides a literary and cultural history of the modern LGBTQ+ movement. Topics will include Stonewall, the Anita Bryant affair, the first gay civil rights groups (Mattachine Society, Daughters of Bilitis), the AIDS crisis, crossdressing laws, and the influence of Wilde and Proust on modern gay identity. Units: 3.

DECM 215: *9/11 in Context: Terrorism as a Lived Experience*

This course approaches September 11, 2001 through the perspective of those who experienced the terrorist attacks directly. We will explore the lived experience of 9/11 through news clips, photography, interviews and memoirs, culminating with a walking tour of lower Manhattan and visit to the new 9/11 memorial and museum. Cost for four-day trip to New York is approximately $1,000. Please contact the instructor for more information. Units: 3.

DECM 216: *Renaissance Madrigal Dinner*

Fascinated by English Renaissance court entertainments? Want to learn more and apply it to a performance? This course will engage the era and its entertainment aesthetics while producing a madrigal dinner complete with music, and theatrical scenes and improvisation. All interested students should speak to Mr. Swan or Ms. Privatt. Units: 3.

DECM 217: *Istanbul*

This course will involve an 8-day trip to Istanbul, Turkey. Students will be introduced to central sites of the Byzantine and Ottoman empires, as well as of modern Turkey. The choice of sites will emphasize cultural exchange and transformation. We will visit Rumi's shrine and burial place in Konya, Turkey. An additional fee will be charged to cover the cost of the trip. Units: 3.

DECM 218: *Disrupted Communities*

This course explores African writers' representations of the unsettling effects of colonialism on the structures, praxis and values of African communities. Through a close analysis of novels from various regions of the continent, the course will explore the role of literature in the articulation of the discourse of African nationhood. Units: 3.

DECM 219: *Start-Up Theatre*

Open to students from theatre, economics, and other students interested in entrepreneurship in the performing arts. May be repeated when the topic is different. Additional fees may be charged to cover materials. Units: 3.

Prerequisite: Sophomore standing

DECM 220: *Wheel Throwing Intensive*

This course serves as a "boot camp" for those interested in developing skills on the potters wheel. We will place emphasis on process rather than product, and will approach the wheel as a tool appropriate for creating functional pottery as well as sculpture. Units: 3.

Prerequisite: ART 100 or ART 110

DECM 221: *Greece Then, Greece Now*

In this course we will visit prehistoric Mycenae, Classical sanctuaries at Epidauros, Olympia and Delphi, Byzantine monasteries at Meteora, and the major archaeological sites and museums of Athens. Students will learn how to read an archaeological site, do first-hand visual analysis of works of art, contextualize ancient literature and history, and at the same time begin to understand the complexities of modern Greece, including its economy fueled by tourism but also beset by EU-imposed austerity.

Additional fees apply to this course: approximately $1,400-$1,800 plus airfare. Registration deadline is June 3. Participants will need to make a 35% non-refundable deposit in early June. Units: 3.

Prerequisite: Sophomore standing

DECM 222: *Technical Drawing*

Technical Drawing will build skills in using both traditional hand drafting and CAD. These skills can be applied to architectural drawings, theatrical drafting and prototyping. Projects will include scale drawings, gound plans and isometric views, and can be tailored to the interests and needs of the student. Topics will cover proper tools, techniques and design fundamentals. Additonal fees for materials will apply for those students who choose the option to use the Makerspace 3D printers. Will vary by student. Units: 3.

DECM 411: *Jorge Luis Borges (in Spanish)*

A sustained inquiry on Borges' literary works in historical and cultural context. The course will explore Borges' essays, poems, and short stories, and their multidisciplinary resonances, from film and visual arts to physics and linguistics, among others. Taught in Spanish. Units: 3.

Prerequisite: One course in Spanish at the 300-level or above, or consent of instructor

DECM 412: *The Sonata Cycle in the 19th Century*

An immersive study of 19th-century masterworks. Through close analytical engagement with sonatas, chamber works, and symphonies by leading composers of the period, students will learn how sonata form movements give rise to larger multi-movement sonata cycles. Students will also observe the evolution of sonata form throughout this period. Units: 3.

Prerequisite: MUTH 252

Individualized course options

Students have the opportunity for individual or small group learning through directed study, tutorials, independent study or academic internships, as well as private music lessons. The university also offers a writing-for-credit option for other courses.

DIRECTED STUDY

Directed study follows a syllabus set primarily by the instructor to meet the needs or interests of an individual student or small group of students. The main goal of directed study is knowledge or skill acquisition, not research or creative work. Students may meet frequently with the faculty supervisor or work more independently, completing assignments according to a schedule agreed upon in advance. Typically, several assignments and/or exams are used to evaluate student learning. Directed Study courses may be numbered 191, 391, 591 or 691.

Directed study may be used to deliver content from an existing course (whether because there are too few students enrolled or because the course is not currently being offered), to develop a possible new course offering or to direct a student in a defined course of study beyond the existing curriculum.

TUTORIALS

A tutorial is a primarily student-driven course of study undertaken by an individual student or small group of students in collaboration with one or more faculty members. The primary goal of a tutorial is expansion, refinement, and synthesis of knowledge and abilities through in-depth exploration of a specific topic. Tutorials supplement regular course offerings, especially in the junior and senior years, by extending the curriculum in depth or breadth according to the intersecting interests of students and faculty members. Pedagogical approaches vary, but tutorials typically feature significant reading plus integrative writing, speaking or performance assignments, problem solving and discussion. Regular conferences (typically once or twice a week) with the supervising faculty member or members focus on presentation and critique of student work. Tutorials are numbered 390, 590, or 690.

A tutorial may be undertaken to satisfy personal academic interest, to prepare for advanced or graduate study, or to lay the groundwork for an independent study, *Senior Experience* or honors project.

To illustrate the variety and scope of tutorial studies, many academic departments have listed a number of recent tutorial topics at the end of their departmental listings in the “Courses of Study” section of this catalog.

Because tutorials develop out of student interest, these topics should not be construed as offerings but as samples of the topics students have recently elected to pursue.

INDEPENDENT STUDY

Independent study carries the student beyond the established curriculum into largely student-directed work that in most disciplines is expected to result in the generation of new scholarship or the creation of a new work or performance. Scholarship may take the form of generating new information through research or a new conceptual formulation based on existing knowledge. Creative activity may result in a new composition or other work of art, or a new performance of an existing work. The nature of the faculty-student interaction, methodology and final work or performance may vary according to the goal of the project and the needs and preparation of the student. Through independent study, the student refines and applies abilities acquired in previous coursework while producing new work typical of the discipline. Independent studies are numbered 399, 599 or 699.

At the outset of independent study, the student and supervising faculty member should define and agree upon clear goals, plans for communicating and assessing progress, and criteria for evaluating the student's work. For independent study lasting more than one term, the student and faculty member should discuss and assess progress at the end of each term. If either party concludes that it would not be beneficial for the student to continue, the student may be assigned a grade for completed or additionally assigned work and not be required to enroll for the next term. Students who continue into the next term may be assigned a temporary grade of In Progress (IP), which will be replaced by the final grade assigned at the end of the independent study period.

Where appropriate, two students may engage in collaborative independent study, and an interdisciplinary independent study may involve more than one faculty mentor. Independent study may be undertaken to pursue a project of personal academic interest, to prepare for graduate study, to meet the requirements for a *Senior Experience* or to complete work for an honors project.

ACADEMIC INTERNSHIPS

Lawrence recognizes that a student's education can be enhanced by the combination of academic and experience-based learning. Academic internships provide students an opportunity to apply what they have learned in the classroom and to bring back to the classroom an enriched perspective on their learning.

Where academic departments find that the interaction of academic pursuits and work experience is both appropriate to their relevant disciplines and feasible in terms of available work experiences, they normally offer academic internships. These internship courses are listed in this catalog under departmental offerings, and they are offered at differing levels of the curriculum.

Where no departmental internship exists, student-designed internships may be proposed to the Instruction Committee. Proposals must be submitted to the Instruction Committee by the end of the fifth week of the term before the start of the internship.

Students may take a maximum of 12 units of academic internship in fulfillment of their major, minor or graduation requirements. Academic internships require prior approval by the relevant academic department (in cases where a departmental internship is available) or by a faculty supervisor/academic department and the Instruction Committee (in cases where a departmental internship is not available). Academic internships may be paid or unpaid.

Students enrolled in academic internships engage in work or service experiences with intentional learning objectives that promote reflection throughout the experience and that relate to their academic interests. Site and faculty supervisors work closely with the students and provide evaluations of the students' activities at the end of the internship.

The academic component of the internship includes readings related to the substance of the internship, discussions with the faculty supervisor and a written report appropriate to the discipline. Course grades are based on this academic work.

Application forms for student-designed academic internships may be obtained from the Registrar's Office, the Center for Academic Success, Career Services and the Main Hall, Briggs Hall, Conservatory and Wriston Art Center offices.

MUSIC LESSONS

Private instruction for non-music majors is available by permission of the instructor based on audition or interview and faculty schedules. The fees for private lessons and the use of practice facilities are $300 per term for a half-hour lesson each week and $600 per term for a 1-hour lesson each week. Group piano lesson are also available. Information is available in the Conservatory of Music office.

WRITING FOR CREDIT

Students may write for credit (with permission of the instructor) in any course in the curriculum other than directed study, tutorials, independent study, academic internships or *Freshman Studies*. They should consult the instructor for permission to write for credit; the instructor will then specify a program and schedule of reading, examinations and papers.

To register, a student must supply the registrar with a memorandum containing the name of the course and the signatures of the student's advisor and the instructor of the course. The work must be completed in one year. Courses do not become part of a student's record until the instructor reports that the required work has been satisfactorily completed. The letter grade will be recorded for the term in which the grade is reported.

Students who have opted for billing by the course under the incremental fee plan will be charged for the credit earned by writing for credit and reported that term.

Student-designed majors

Student-designed majors provide an opportunity for students to develop areas of concentration outside established programs for interdisciplinary or departmental majors. Like all majors, those that are student-designed should meet the following objectives: greater knowledge of the field under study; increased methodological sophistication; and the integration of sometimes disparate but related areas of study that fall within the proposed major. Student-designed majors must be based on areas of faculty expertise and regularly offered courses. The major should not be heavily reliant on tutorials, independent studies or a single faculty member.

The procedure for establishing a student-designed major is relatively simple:

1. The student elects a general topical area and identifies a member of the faculty who is willing to act as advisor.

2. With the advisor, the student develops a statement on the planned major. The statement indicates (a) how the major will serve the objectives of an area of concentration; (b) what educational or other objectives the student seeks to meet; and (c) the courses that have been taken or will be taken that would fit into the major and the proposed *Senior Experience*. In the statement, the student and the advisor have the responsibility to show that the proposed objectives can best be satisfied outside established programs of study. (d) Proposed coursework should include a reasonable distribution across the introductory, intermediate and advanced levels. As a guideline, regular majors for the Bachelor of Arts degree typically require nine to 12 courses and a *Senior Experience*. (e) Self-designed majors should not be proposed in areas that are better served by existing majors and minors.

3. The advisor and the student invite two other members of the faculty who are supportive of the proposed major to serve as the student’s advisory panel for the major. The panel is responsible for overseeing the program and for reviewing minor changes—e.g., in course selections, topics for an honors paper, etc. One member of the panel should be designated as an alternate advisor in case the principal advisor goes on leave or teaches at an overseas campus that the student does not attend. It is the student's responsibility to check with the department chairs whether proposed courses in the major will be offered in the terms indicated. If the *Senior Experience* will be done as an independent study, the student also needs the signed commitment of a faculty member for that independent study.

4. The student submits the statement of the proposed major, endorsed by the faculty advisor and members of the panel, and a transcript to the Instruction Committee (for the Bachelor of Arts degree) or the Conservatory Committee on Administration (for the Bachelor of Music degree) before the end of Term I of the student's junior year. Students wishing an extension to this deadline should contact the chair of the relevant committee. Faculty members who endorse the statement accept responsibility for supervising the major if it receives committee approval.

5. The Instruction Committee takes action on the proposed major and communicates its action to the registrar, the student, the faculty advisor and members of the panel.

Honors projects

Honors projects are coherent programs of independent work carried out by students, usually in their senior year, on subjects or problems of more than ordinary difficulty in areas they have studied in considerable depth, usually in their majors or closely related areas. An honors project may also be a work of creative, visual or performing art. *Senior Experience* projects may be submitted as honors projects if they fulfill all of the requirements for *cum laude* honors. It is up to each individual department to decide whether an honors project will be accepted as satisfying the *Senior Experience* requirement for the major.

Successful honors projects receive Latin Honors in Independent Study at graduation in three grades: *cum laude (with distinction)*, *magna cum laude (with great distinction)* and *summa cum laude (with highest distinction)*. These levels are awarded by vote of the faculty acting on the recommendation of the university Honors Committee. Honors are indicated in the Commencement program and on official transcripts.

PLANNING FOR AN HONORS PROJECT

Since honors projects frequently complement students' work in their majors, students should discuss the opportunities for independent study with faculty members in their fields of concentration as early as possible in order to begin laying appropriate foundations in courses, tutorial work and summer reading. In some fields, tutorials or courses in research methods can lead to the formulation of suitable thesis topics and methods of attack, while in other fields topics may stem from unanswered problems in regular courses, from students' own interests or from teachers' suggestions. Whatever the field, students ought to keep in mind the possibility of doing an honors project as they plan their programs, especially in the junior year, or earlier if they will be off-campus at that time. If it is agreeable to both the student and advisor, an honors project may be undertaken while a student or advisor is off-campus. Students do not have to take an independent study course in order to submit an honors project.

Projects undertaken jointly may be submitted for Honors in Independent Study. The work involved in such cases, however, must be equitably shared and demonstrate benefits clearly resulting from the merger of the authors' different skills and knowledge. Students considering joint projects must obtain the consent of their faculty advisor(s) and the Honors Committee well in advance of such endeavors.

THE FACULTY ADVISOR

Students' project advisors are responsible for providing guidance in regard to format and the conventions of scholarly documentation pertinent to their disciplines. Advisors are also expected to periodically review the progress of their students' research or creative activity.

All voting members of Lawrence University's faculty may serve as advisors of honors projects. If the honors project advisor is a non-voting member of the faculty, he or she must enlist a voting member of the faculty to serve as a co-sponsor of the proposed project and periodically consult with the co-sponsor as the project develops. A voting member of the faculty is one with academic rank (instructor, assistant professor, professor, etc.) and does not have to be tenure-track or full-time. Emeriti professors are considered voting members of the faculty during those terms in which they are teaching. Fellows may act as honors project advisors. Visiting faculty may act as honors project advisors at the discretion of the Honors Committee.

STATEMENT OF INTENT

To apply for Honors in Independent Study, a student must send to the Honors Committee a Statement of Intent to submit a thesis in candidacy for honors. This statement includes the student's contact information, title of the project, department and both the student's and faculty advisor's signatures. The final date for receipt of such Statements of Intent is announced at the beginning of each term to all juniors and seniors and is posted on the honors projects website. Statements do not obligate students to submit projects, but no project will be considered for honors unless the committee has received a Statement of Intent.

THE HONORS THESIS

The thesis need not be of any special form or length, provided that its form and length are appropriate to the discipline. Nevertheless, since physical copies of all accepted theses are permanently retained in the Lawrence University Archives and digital copies are housed in Lux, Lawrence University's institutional repository, the form of honors projects is subject to a few standardized regulations suggested by the librarians and endorsed by the Honors Committee. The chair of the committee may be consulted about these regulations.

Upon completion of the project, sufficient copies of the thesis, one for each member of the examining committee and the Honors Committee representative, are to be submitted to the chair of the Honors Committee at a place and by a date and hour designated each term. Students who find themselves unable to meet this deadline may petition the Honors Committee for an extension, but they must do so well in advance of the deadline. The committee usually approves such petitions only when circumstances beyond the candidate's control have arisen.

Even though the Honors Committee permits candidates to correct minor typographical errors or to make such other minor corrections as their examiners may require, it emphasizes that theses must be in final form when they are submitted prior to the oral examination. Candidates must assume responsibility for accurate proofreading and checking of all quotations and references. Frequent misspellings, faulty punctuation or syntax, omitted references or stylistic incoherence will disqualify projects despite the intrinsic merit they may otherwise exhibit. Candidates are therefore encouraged to work with their advisors and/or tutors from the Center for Academic Success to ensure the quality of their work: clear, well organized writing; consistent bibliographic citations appropriate to the discipline and the absence of grammatical or typographical flaws.

PROJECTS INVOLVING TESTING OF HYPOTHESES

One important purpose of honors projects is to provide opportunities to evaluate students' knowledge of an area, their skill in employing that knowledge in experimentation, and their care and cleverness in approaching the task of testing their hypotheses. Thus, if a project allows these evaluations to be made, it should be considered for honors despite the vicissitudes of fortune that may attend the project. In particular, the failure to obtain significant positive results when testing a hypothesis or a network of hypotheses ought not to disqualify a candidate from achieving honors, provided that those professionally competent in the area agree that this failure was not due to a lack of care, to a lack of skill or knowledge in the field or to a lack of competence in techniques or experimental design. Mere diligence, on the other hand, is not a sufficient ground for the awarding of honors.

Students whose projects have not achieved their expected results should give the best accounts they can of the ways in which they probed for additional operative variables that were uncontrolled in their previous experiments, of the reasons why the failures could not have been anticipated by skillful experimenters in the crucial beginning stages, and of their careful attempts to locate the difficulties.

PROJECTS IN THE ARTS

Students interested in submitting an exhibition, performance or work of art, music, theatre or imaginative literature as an honors project must follow the normal procedures for honors work and must be willing to engage in a discussion of their work. A brief essay—as preface, foreword, introduction, afterword, postscript or critical review—must accompany any such creative work. The essay should clarify and illuminate the work in a manner appropriate to genre, form or medium and may include the aims of the project, its formal and stylistic precedents, its techniques and the limitations and potential of the project. *In the arts, the project itself clearly remains the most important component to be evaluated by the examining committee.* Here is a list of supplementary guidelines for honors projects in the arts:

- A project in the arts may be undertaken in any discipline (e.g., biology, physics, history, etc.), keeping in mind that Honors in Independent Study are university awards.

- If a project in the arts consists of a performance, audio-visual documentation in both digital and hard copy (DVD, CD, photographs, etc.) must be included with the final project for archiving, along with a performance program. If the project is an art exhibition, visual documentation and an exhibition catalog in digital and hard copies must also be included. If the project is web based, arrangements must be made to create an archive copy. Materials will be archived in physical form as well as in Lux, the digital repository.

- The supplementary essay should be six to 10 or more pages in length. A bibliography and appropriate documentation may or may not be necessary, depending on the content of the paper.

- Criteria for Honors in Independent Study should be used primarily to evaluate the arts project itself, for which the essay provides context, and the subsequent oral examination. The essay, while not primary to the evaluation, must nevertheless be clearly organized, well-written and free of error, and its content must display a high quality of thought and presentation and be accurate, meaningful and appropriate to the project.

THE EXAMINING COMMITTEE

The examining committee evaluates the results of each project, conducts an oral examination of the honors candidate and considers what constitutes the appropriate level of honors in view of the strengths and weaknesses of the work and oral defense in relation to the criteria for Honors in Independent Study.

The project advisor, in consultation with the student and with the assent of the Honors Committee, appoints an examining committee consisting of at least three voting faculty members, one of whom must be from outside the project's department. Faculty within the Conservatory may serve as outside members for examination of honors projects in other Conservatory departments. For example, a faculty member in the voice department may serve as an outside member on an exam in jazz and improvisation. The project advisor, if a voting member of the faculty, acts as one of the three voting members of the committee. If the advisor is a non-voting member of the faculty, the co-sponsor acts as one of the three examining committee members, and the non-voting advisor attends the oral examination and participates in all aspects of the committee's discussion of the project except voting on whether to award honors and the level of honors to be awarded. Fellows may not act as voting members of examining committees. At the discretion of the advisor, after consultation with the student, an additional Lawrence faculty member or an outside expert who is uniquely qualified to shed insight into the quality of the project may also attend the examination. These individuals may not take part in the decision-making process.

The Honors Committee assigns its own representative to act as the non-voting moderator during the oral examination. Sitting members of the Honors Committee and other members of the Lawrence University community may be asked to serve as Honors Committee representatives.

The Honors Committee representative reports the results of the examination to the Honors Committee prior to its last meeting. The Honors Committee reviews the recommendations of each examining committee and submits its recommendations for Honors in Independent Study to the faculty for final approval.

The examining committee recommends honors on the basis of the criteria below, not on the criteria a professional journal would use to determine whether to publish a thesis in a given area of research based on the review of professionals in that field. In other words, Honors in Independent Study is not limited to students whose work would compete successfully with that of their professors for publication in professional journals.

Criteria for honors in independent study

The following criteria are used in evaluating all Honors in Independent Study projects:

CUM LAUDE—HONORS WITH DISTINCTION
To achieve honors, the project must fulfill all of the following criteria:

1. Theoretical understanding: The work demonstrates a substantial knowledge of, and facility with, previous work, underlying principles and central concepts or theories in areas relevant to the project.

2. Originality: The work clearly shows that the student has established an original thesis or hypothesis, an original interpretation or analysis, a substantial and original synthesis or innovative pedagogical exposition of a sophisticated body of established work or has created a new work of art. In other words, the student must demonstrate that the project does not merely replicate, review, paraphrase or compile previous work by others.

3. Quality: The work itself is of very high quality and is clear, well organized and stylistically sound. The paper appropriately frames the original material in the project within the context of established work or relevant traditions in the discipline.

4. Format: The work provides documentation (e.g., bibliographic citations, tables and figures, illustrations) appropriate to the discipline and contains few and relatively minor grammatical or typographical flaws.

5. Research/Creative Process: The project has been carried out competently, diligently, independently and in a manner that fulfills the basic standards of the discipline.

6. Oral Exam: The oral examination reaffirms the student’s facility with relevant principles, concepts and background material; the originality of the contribution and the high quality of the work.

MAGNA CUM LAUDE—HONORS WITH GREAT DISTINCTION
In addition to fulfilling the criteria described above, the project must fulfill all of the following criteria:

1. Theoretical Understanding: The work demonstrates a level of mastery of, and facility with, relevant previous work, underlying principles and central concepts or theories of which few undergraduates are capable, as well as a solid grasp of related but peripheral material.

2. Originality: The thesis, interpretation, analysis, synthesis, pedagogical exposition or creative endeavor encompassed by the project demonstrates unusual and substantial creativity, conceptual innovation or theoretical sophistication (i.e., an unusual degree of independence of thought) on the part of the student.

3. Quality: The work itself is of outstanding quality and is particularly well written, lucid and compelling. The framing of the original material in the project within the context of established work or relevant traditions is remarkably sophisticated, revealing a sensitive and advanced understanding of the relationship between the student's contribution and established traditions or theories.

4. Format: The paper contains almost no grammatical or typographical flaws.

5. Research/Creative Process: The project has been carried out with a degree of technical competence, diligence and independence of which few undergraduates are capable.

6. Oral Exam: The oral examination reaffirms the outstanding quality of the work. The student is able to give complete, clear, well organized and satisfying responses to the examiners' questions without the need for much guidance or prompting from the examiners.

SUMMA CUM LAUDE—HONORS WITH HIGHEST DISTINCTION
This level of honors is rarely achieved and is reserved for those instances in which all components of the project demonstrate a superlative level of excellence. In addition to fulfilling the criteria described above, the project must fulfill all of the following criteria:

1. Theoretical Understanding: The work not only demonstrates an exceptional level of mastery of, and facility with, relevant previous work, underlying principles and central concepts or theories but also a sophisticated and original critical perspective on this material (i.e., the student possesses informed opinions about the strengths and weaknesses of previous work, theories and traditions in the area). The student not only intimately understands relevant background material but also has the ability to view this material critically in a wider intellectual context.

2. Originality: The thesis, interpretation, analysis, synthesis, pedagogical exposition or creative endeavor encompassed by the project demonstrates a superlative level of creativity, conceptual innovation or theoretical sophistication on the part of the student.

3. Quality: The work itself exceeds all expectations and is exceedingly well written, compelling and engaging. The framing of the original material in the project within the context of established work or relevant traditions is elegant and subtle, revealing a rare and exceedingly advanced understanding of how the student's project represents a significant contribution to established traditions or theories

4. Format: The paper is technically flawless.

5. Research/Creative Process: The project has been carried out with a superlative level of technical competence, sophistication, diligence and independence.

6. Oral Exam: The oral examination reaffirms that the work is a rare achievement that makes an original and sophisticated contribution. The student is able to give extraordinarily complete and persuasive responses to the examiners' questions without the need for guidance or prompting from the examiners.

SPECIAL INSTRUCTIONS FOR PROJECTS IN THE ARTS

The above criteria are used in evaluating all Honors in Independent Study projects with the exception of the brief paper written for a project in the arts. While the paper for a project in the arts must be clearly organized and well written, contain appropriate documentation when needed and display a high quality of thought and presentation, it is considered to be supplementary to the work itself. In the arts, the criteria listed above should be used primarily to evaluate the project itself and the subsequent oral examination.

Off-campus study provides a valuable opportunity to hone and extend the intellectual skills and capacity for civic and academic engagement associated with a Lawrence liberal arts education by placing students in educational settings that purposefully combine classroom and experiential learning. In such settings, students are challenged to apply and question what has been learned on the home campus and to evaluate alternate perspectives and ways of learning.

Off-campus study also provides a rich opportunity for personal growth as students gain independence and self-confidence through active engagement with social and cultural practices different than their own and/or through the experience of educational or research settings whose pedagogical approaches and curricular structures differ from those at Lawrence.

Look into your options

Students interested in off-campus study should make an appointment with the Off-Campus Programs office well in advance of the time they wish to pursue such study. These meetings help students establish academic goals, explore their off-campus options, and to discuss logistical issues such as timing of participation and the application process.

Students should also discuss their interest in studying off-campus with their faculty advisors. Advisors can help students select a program matching their academic preparations and interests as well as consider ways the student may be able to integrate their off-campus study into their curriculum at Lawrence.

Students can also get information about their options when representatives from affiliated programs visit campus in fall and winter terms, informational meetings held about specific programs, or from students who have studied off-campus in the past.

It is a good idea to gather as much information about the program(s) as possible to get the fullest understanding of the options.

Study abroad funding

There are many sources of funding for off-campus study.

Students who wish to study off-campus are encouraged to make an appointment with the Financial Aid office to discuss their financial expectations. Program costs vary widely and the Financial Aid office can help students understand the financial implications of off-campus study decisions. Students participating in Lawrence-sponsored or Lawrence-affiliated off-campus programs are able to utilize some of their financial aid package toward their off-campus program.

There are many opportunities for funding outside of Lawrence as well, and the off-campus study funding page on the Off-Campus Programs office website will help students identify possibilities from program providers, outside scholarships and other resources.

Policies and procedures for off-campus study

Participation in an off-campus program requires approval by the Lawrence Subcommittee on Off-Campus Study and, in the case of affiliated programs, acceptance by the program sponsor. Students must apply using the Lawrence Off-Campus Study Proposal. Each year, the proposal deadline for most affiliated programs for the upcoming summer and following academic year is in late January (a few programs have earlier application deadlines). Applications for the London Centre and the Francophone Seminar in Dakar Senegal are due early in Spring Term.

Approval

Lawrence approval is granted only if the student is adequately prepared both personally and academically for the program and if the program coherently fits the goals of a Lawrence liberal arts education and the individual student's academic plan. The specific evaluation criteria are listed below.

Students may elect to participate on a non-affiliated off-campus program and seek transfer credit for that experience. Lawrence scholarships and grants may not be applied to the program costs associated with non-affiliated programs. Students interested in participating in a non-affiliated program must work closely with the Off-Campus Programs office in preparing for this.

Application evaluation and eligibility criteria

Following are the criteria used to determine student eligibility to participate on an off-campus study program and used by the Subcommittee on Off-Campus Study in evaluating applications for such programs.

1. The student meets all Lawrence eligibility requirements for off-campus study. A student is *ineligible* for off-campus study in the following cases:
    - if she or he will not achieve sophomore status prior to participation on the off-campus program
    - if she or he is on academic probation in the term preceding off-campus study or will not be in good academic standing at the time of participating in off-campus study
    - if she or he is on disciplinary probation in the term preceding off-campus study or will not be in good disciplinary standing at the time of participating in off-campus study; and/or
    - if she or he has a demonstrated history of behavioral issues inappropriate for off-campus study

2. The proposed program represents a well-defined continuation of the curricular and pedagogical goals of a Lawrence liberal arts education and the individual student's academic plan. This may include, but is not limited to:
    - opportunities to apply, extend, and/or develop specific academic or intellectual skills in a different educational, cultural, or linguistic context
    - opportunities to pursue specific independent research; and/or

- opportunities to apply, extend, and/or develop other kinds of on-campus learning in a different academic, cultural, or linguistic context

3. The student's record shows evidence of college-level preparation and academic achievement appropriate to the proposed program.

4. In situations where Lawrence limits participation, qualified students proposing their first off-campus program will be given priority over qualified students proposing participation on an additional program.

Billing, deposits and refunds

Lawrence bills program tuition and billable program fees for students participating in LU sponsored and affiliated programs. In the case of Lawrence-sponsored programs, students are charged Lawrence tuition and a program fee to cover fixed in-country costs. In the case of affiliated programs, Lawrence charges only the direct costs billed by the program sponsor plus a nominal administrative fee of $250. Once the student commits to their off-campus program and their LU student account has been adjusted accordingly, this Administrative Fee is nonrefundable even in instances where a student withdraws from the program or does not participate.

Most programs require a confirmation deposit from students to officially accept their offer of admission. For affiliated programs, students pay this deposit directly to the program provider. Students accepted to a Lawrence sponsored program will receive more information about this confirmation deposit upon acceptance. The deposit for an affiliated or sponsored program cannot be billed to a student's Lawrence student account.

Lawrence honors the refund, cancelation, and withdrawal policies of our partner institutions. Once a student accepts placement in a program, the program provider begins preparations for their participation. If, after a student commits to a program, they withdraw or do not participate, most program providers hold the individual student accountable for some to all of the costs incurred on their behalf. Students should make themselves aware of these policies of the organization providing their program.

Financial aid and off-campus study

In an effort to promote off-campus study, financial assistance is available to students who wish to participate in one of Lawrence's affiliated or sponsored off-campus programs and who have demonstrated financial need. Merit scholarships, music scholarships, and tuition exchange benefits will not be applied to off-campus study programs, but need-based grants and loans are applicable to all Lawrence-sponsored and Lawrence-affiliated programs. Need-based grants and loans may be applicable to Lawrence sponsored and approved programs.

Typically, all government sponsored grants (e.g., Federal Pell Grants, Federal SEOG, and Wisconsin Tuition Grants) are fully applicable to all such programs. Per program policies, students receiving Lawrence Tuition Remission or ACM Tuition Remission will be allowed to apply their tuition benefit toward the cost of Lawrence-sponsored programs. These programs include the London Centre and the Francophone Seminar in Dakar, Senegal. These benefits are not applicable to Lawrence-affiliated programs.

The cost for many off-campus study programs is greater than the cost of studying for the same period of time at Lawrence. Students should make certain they consider out-of-pocket expenses when deciding whether or not they can afford a given program. Comprehensive cost estimates for all Lawrence affiliated and sponsored programs are available from the Financial Aid office. Students considering off-campus study are encouraged to meet with the Financial Aid office. Some programs (e.g. IES and ISA programs) offer the opportunity to apply for additional scholarship funds.

Any student who will need financial assistance to be able to afford an off-campus study program is encouraged to submit the Free Application for Federal Student Aid (FAFSA) as early as possible during the year preceding their proposed program. Even those not qualifying for need-based aid may wish to absorb the incremental expense through either an unsubsidized Stafford Student Loan or a parental PLUS loan and are thus encouraged to submit the FAFSA.

Students are encouraged to pursue outside scholarship opportunities to assist with the incremental cost of off-campus programs. See the Off-Campus Study Funding web page for more information about scholarships and funding options for off-campus study.

Health advisories, travel advisories and travel warning

Lawrence strongly recommends that all students avail themselves of the travel information available from the U.S. State Department, Centers for Disease Control (CDC), and World Health Organization (WHO) websites. In particular, students should carefully consider the information included in State Department travel advisories and alerts for the country in which they are pursuing off-campus study and/or for any other country to which they are planning to travel during their time abroad. Please note the difference between State Department Travel Warnings and Travel Alerts.

Lawrence will cancel a Lawrence-sponsored program, will withdraw its approval for study on a Lawrence-affiliated program, and will not provide funding or support if a State Department Travel Warning and/or a CDC or WHO travel advisory is in place for the host country. Lawrence does not support students participating on off-campus study programs or international travel in countries with these levels of caution. Withdrawal of approval for an affiliated program bars a student from receiving Lawrence credit for the program and from applying institutional financial aid to the program costs. Exceptions to this policy may be considered on a case-by-case basis by the Provost, in consultation with legal counsel.

In order to make certain that a student may make an informed decision regarding participation on a program, the issue of potential loss of Lawrence approval for an affiliated program will be brought to the student's attention as far in advance of the program start date as it is feasible. This policy applies to students attending programs where such a warning or alert is in place before the program begins (even if there may not have been such a warning or alert for the host country when the student applied and/or was accepted to the program).

Mandatory health insurance and coverage

Students participating on a Lawrence-sponsored or -affiliated international off-campus program are required to carry the Lawrence University international medical and evacuation insurance policy administered by Cultural Insurance Services International. The only exception to this requirement is for students on programs provided by IES and ACM (students on IES and ACM programs will not be enrolled in the LU group coverage through CISI). The Off-Campus Programs office will automatically enroll students for the CISI coverage. The fee for this coverage (currently $41 per month of coverage) is charged to the student's Lawrence account along with the program fees.

It is presumed that this coverage is in addition to whatever medical insurance coverage the student already holds and has thus been factored into the comprehensive cost estimates for the international off-campus study programs.

The insurance coverage starts three days before the program start date and extends one week beyond the program end date, to allow time for travel to and from the program. As this coverage is valid only outside the United States, all students are strongly encouraged to maintain their health insurance coverage in the United States in the event of their unexpected return due to a medical emergency.

Off-campus study approval waitlists

In order to budget effectively for the institutional costs associated with off-campus study, Lawrence establishes an annual cap on the number of students who may participate on affiliated programs. If there are more suitable applicants than the annual cap allows the Subcommittee to support, a waiting list will be created based upon a combination of seniority and other relevant academic and application factors.

Program capacity for Lawrence sponsored programs (the London Centre, in particular) is limited. In the case of the London Centre, if there are more suitable applicants than there are available spaces for a given term, some students will be shifted to their second-choice term based upon relevant factors. In situations where such accommodations cannot be made, a waiting list ranked according to the same criteria as above will be maintained for each over-subscribed term.

Argentina

Buenos Aires Argentina

ISA Buenos Aires offers a broad curriculum that includes a focus on Argentine and Latin American studies. Students may select from courses designed specifically for foreign students and, in the case of students with advanced fluency in Spanish, from the regular course offerings at the University of Belgrano. In this latter case, classes are taught by Argentine faculty and classmates are regular Argentine university students. The Latin American Studies option, however, is intended for students with intermediate and advanced Spanish who have an interest in the political, social, economic, and cultural aspects of Argentina.

Duration: Summer, Year, Semester

Previous language study required.

studiesabroad.com/programs/country/argentina/city/buenos_aires

Austria

Vienna Austria

IES Vienna offers a broad curriculum in the humanities and social sciences. Students may select from either English-taught or German-taught courses. Students with advanced German proficiency may also choose to pursue integrated study at the Universität Wien. Music students may choose to enroll in the Music Performance Workshop, combining individual music instruction with a German language course and three other courses selected from area studies, music history, and music theory offerings.

Duration: Year, Semester

No previous language study is required.

iesabroad.org/IES/Programs/Austria/Vienna/vienna.html

Botswana

Botswana

This ACM program offers students interested in African culture, politics, history, economics, ecology, and other areas the chance to participate in a unique program. The program is divided between courses in intensive Setswana language study, an elective course offered through the African Studies area of the University of Botswana, an elective course offered by ACM's Program Director, as well as completing an Independent Study project within their own area of interest. Faculty Advisors: Claudena Skran & Ameya Balsekar

Duration: Semester

acm.edu/programs/1/botswana/index.html

Canada

Québec Seminar & Internship

This program in French-speaking Chicoutimi, Canada, combines nine weeks of intensive coursework on French language and Québécois culture with four weeks of full-time internship in a business, governmental, or non-governmental organization. The program is organized through the Ecole de langue français et de culture Québécoise at the Université du Québec Chicoutimi. Students are housed with French-speaking families and participate in cultural and social activities organized by the Ecole. For more information about this exchange, please contact the Off-Campus Programs office or the French department.

Duration: Term

Two years of college level French study is required or the equivalent (completion of French 202)

Chile

Santiago Chile

IES Santiago offers an opportunity to pursue Spanish language study, Spanish-taught elective courses, integrated study at the Universidad de Chile or the Pontificia Universidad Católica, and internships. Students are placed in a home stay to facilitate language development and cultural immersion.

Duration: Year, Semester

Previous language study is required.

iesabroad.org/IES/Programs/Chile/Santiago/santiagoSemester.html

China

Associated Colleges in China

Based at Minzu University of China in Beijing, the Associated Colleges in China Program combines intensive Chinese language study with lectures on Chinese society, art, literature, and history. The program includes a weekly language practicum, visits with host families, and field trips to culturally and historically significant locations.

Duration: Summer, Year, Semester

Previous language study is required.

my.hamilton.edu/china/intensive-language

Shanghai: Perspectives on Contemporary China

This program provides an opportunity for students to explore and study contemporary Chinese culture and society. The program is structured to cooperate with offerings at East China Normal University (ECNU) as well as special courses and arrangements specifically for students in the ACM program. Students undertake an independent study project, area studies elective classes, and Chinese language instruction offered at a range of levels.

Duration: Semester

acm.edu/programs/42/Shanghai/Academics0/Courses.html

Costa Rica

Field Research in Costa Rica

The ACM field research program is designed primarily for advanced students wishing to pursue a significant field-based independent research project. This research may be in the humanities, social sciences, or sciences. Students prepare for their research during a month-long orientation that includes intensive language training and a review of fieldwork methodology. The research may be integrated with an ongoing project at Lawrence or started afresh on the program.

Duration: Semester, Term

Students who will be juniors or seniors with prior coursework in the proposed research discipline are eligible. Familiarity with statistics, field work methodology, and research methods is recommended. At least two years of college Spanish (or the equivalent) is required

acm.edu/programs/4/fieldresearch/index.html

Latin American Culture & Society in Costa Rica

This interdisciplinary ACM program is for students seeking to develop an understanding of life in Latin America. Language study is stressed as the key to understanding the culture. Coursework in language, literature, geography, anthropology, politics, and cultural change enables students to develop insights that are reinforced by field trips and two weeks of field work in rural areas. Students conduct an independent study project focusing on an aspect of Costa Rican culture of particular interest to them. Students live with host families.

Duration: Semester

Students who will be sophomores, juniors, or seniors are eligible. At least two years of college Spanish (or the equivalent) is required.

acm.edu/programs/3/slacs/index.html

Sustainable Development Studies in Costa Rica

This program is offered at a field station in the community of Atenas, located along the Rio Grande River in the Central Valley. Students enroll in four courses, each of which includes extensive field study and makes use of guest lecturers and opportunities to interact with the host community. The program provides environmental studies majors who wish to focus on policy issues with an opportunity to study the challenges that developing countries face as they attempt to increase prosperity while striving for levels of sustainable development that preserve natural resources.

Duration: Semester

Applicants must have completed at least one college-level course in ecology, biology, or environmental studies/science.

fieldstudies.org/costarica

Ecuador

International Development in Ecuador

MSID seeks to engage students in an environment of reciprocal learning concerning local and global problems with a particular focus on development issues. This program allows anthropology, environmental studies, government, psychology, and other students interested in the theoretical and practical implications of international development and social justice to study firsthand the challenges faced by developing countries. Students gain hands-on experience by participating in a community-based internship. Students are placed in a home stay to facilitate language development and community integration.

Duration: Year, Semester

Applicants must have junior or senior status during the program and have taken at least 4 college-level Spanish courses.

umabroad.umn.edu/programs/americas/msid-ecuador.php

Quito Ecuador

IES Quito offers the opportunity for students to explore and study Spanish in an Andean location. Students in the Area Studies and Language track pursue Spanish language study, Spanish-taught IES elective courses, and have the option of integrating study at a local partner university. Students with advanced language skills can take part in the Direct Enrollment track where students take their full course load in the local university. Students may also pursue internships. Students are placed in a home stay to facilitate language development and cultural immersion. Note: Lawrence is not affiliated with the Galapagos program.

Duration: Year, Semester

Previous language study is required. In order to gain admittance to the Direct Enrollment track of the program, students will need to have completed two to three classes beyond Spanish 202.

iesabroad.org/IES/Programs/Ecuador/Quito/quito.html

Egypt

AU Cairo Egypt

The American University in Cairo (AUC) is a liberal arts institution and a premier English-language university in the Arab world. This direct enrollment study abroad program offers content courses in English in a range of disciplines while also offering high-quality Arabic instruction. While it is suggested that students have some experience with Arabic before attending this program, this is not required and students with an interest in the Middle East from a variety of academic backgrounds will find courses from AUC's course offerings. Courses are available for Anthropology, Arabic, Art History, Government, and Religious Studies students.

Duration: Summer, Year, Semester

Applicants should have a minimum GPA of 3.0. Most participants are juniors or seniors but applications for sophomore year are considered.

aucegypt.edu/studentlife/isa/Pages/default.aspx

France

Nantes France

IES Nantes offers students the opportunity to combine French language study, French-taught area studies courses offered by the program, integrated study at l'Université de Nantes, and internship opportunities. Students are placed in a home stay to facilitate language development and cultural immersion.

Duration: Year, Semester

Previous language study is required.

iesabroad.org/study-abroad/programs/nantes-study-nantes

Paris France - French Studies program

IES Paris offers students the opportunity to combine French language study, French-taught area studies courses offered by the program, internship opportunities, and integrated study at l'Université de Paris-Sorbonne, l'Université Paris VIII, or l'Institut Catholique. Music students may pursue performance and/or content study at the Ecole Normale de Musique de Paris/Alfred Cortot. Students are placed in a home stay to facilitate language development and cultural immersion. Note: Lawrence is not affiliated with the "Business and International Affairs" program.

Duration: Year, Semester

Previous language study is required.

iesabroad.org/IES/Programs/France/Paris/French_Studies_Program/parisFrenchStudies.html

Germany

Berlin Germany—Language & Area Studies program

IES Berlin offers advanced students the opportunity to combine German language study, German-taught area studies courses offered by the program, integrated study at the Humboldt Universität, and internship opportunities. Note: Lawrence is not affiliated with the "Metropolitan Studies" program.

Duration: Year, Semester

Previous language study is required.

iesabroad.org/IES/Programs/Germany/Berlin/Language/berlinLanguage.html

European Union

IES European Union offers students an opportunity to study the on-going development of the European Union (EU). In addition to a core seminar and a German language class, students pursue elective courses in one of three tracks: economics, political science, or international relations The program includes substantial field study, with trips to the European Parliament, Court of Justice, Commission and Council for the EU, and the European Central Bank, among others. In addition, students participate in a weekend-long model EU simulation. Internship opportunities are also available.

Duration: Semester

No previous language study is required.

iesabroad.org/study-abroad/programs/european-union#sthash.i2XTQYE2.dpbs

Freiburg Germany—Language & Area Studies program

IES Freiburg offers students the opportunity to combine German language study, German-taught area studies courses offered by the program, integrated study at the Albert-Ludwigs Universität, and internship opportunities. Note: Lawrence is not affiliated with the "Freiburg Environmental Studies" program.

Duration: Year, Semester

Previous language study is required.

iesabroad.org/IES/Programs/Germany/Freiburg/freiburgLanguage.html

Greece

College Year in Athens

The College Year in Athens offers courses in English focusing on Ancient Greece but also offers many classes on pre-historic, classical, post-classical, Byzantine, and modern Greece. In addition to offering courses useful to classics majors, the CYA curriculum includes offerings that would interest students of art history, archaeology, and Near East culture and history. All courses make full use of the resources available in Athens, with many of the classes conducted wholly or in part in museums or at historic sites. CYA regularly draws on the broad range of European and U.S. scholars pursuing research in Athens to offer lectures and colloquia at the CYA facility.

Duration: Summer, Year, Semester

cyathens.org

Hungary

Budapest Semester in Mathematics

This program allows students in math and computer science to study mathematics with eminent Hungarian instructors in Budapest. Hungary has a long tradition of excellence in mathematics education. All classes are taught in English. Classes are small and are held on the College International campus of the Technical University Budapest near the city center.

Duration: Year, Semester

Applicants must have junior or senior standing and have an appropriate amount of math and/or computer science coursework completed by the beginning of the program.

budapestsemesters.com

India

India Studies

The ACM India Studies program offers students an excellent opportunity to observe the interaction of tradition and modernity that characterizes contemporary India. Students pursue Marathi language instruction, take four elective courses and complete an independent study project. Participants are placed in home stays, and the academic program is supplemented by field trips to nearby cultural sites. A variety of extracurricular activities, such as dance, yoga, and batik, can also be arranged.

Duration: Semester

Students who will be sophomores, juniors, or seniors during the program are eligible. No previous language study is required.

acm.edu/programs/5/india/index.html

Ireland

Gaiety School of Acting in Dublin

Study at the well-regarded Gaiety School of Acting provides a valuable opportunity for a theatre arts major to experience a semester focused on the craft of acting. The school provides conservatory-like professional training taught by local acting instructors. Students take courses in contemporary Irish drama, improvisation, acting, and voice and movement for the stage. Students also attend plays and take part in related field trips and cultural events.

Duration: Summer, Semester

Applicants must be theatre arts or english majors or minors, have junior or senior standing by the beginning of the program and have an appropriate amount of theatre arts coursework completed. Final admission decisions rest with the Gaiety School.

iesabroad.org/IES/Programs/Ireland/Dublin/Direct_Enrollment/DE_Universities/gsaProfile.html

Italy

Arts in Context in London & Florence

The ACM London and Florence Program draws comparisons among the historical and political contexts of art, architecture, literature, and theatre in two historically prominent cities. Coursework is supplemented by visits to museums, galleries, and theatres; short trips to other areas of England and Italy; and discussions with local scholars. Students spend eight weeks in each city. An optional intensive course in Italian language is offered in January. Faculty Advisors: Kathy Privatt & Elizabeth Carlson

Duration: Semester, Term

No previous language study is required. The program is open to seniors, juniors, and advanced sophomores.

acm.edu/programs/7/lonflo/index.html

Earth and Environment in Italy

This program provides an opportunity for students to explore, study, and practice environmental science and geoscience in the field. The program is located with easy access to world-class field sites in a region which presents a unique laboratory for understanding earth systems through time. The program offers opportunities for genuine scientific field study and research with an earth systems perspective. Students conduct independent research projects during the semester. The program provides cultural experiences and language training in addition to hands on field training.

Duration: Semester

No previous language study is required. Applicants must have completed at least one lab science course.

luther.edu/italy-earth

Intercollegiate Center for Classical Studies

Based in Rome, the ICCS offers a curriculum exploring classical Roman civilization. The core seminar, The Ancient City, explores aspects of Roman archaeology and topography, as well as the social and urban history of Rome and Roman civilization. Students also choose elective courses from offerings in ancient history and archaeology, Latin literature, and ancient art. Weekly field trips to sites in and near Rome supplement the coursework.

Duration: Semester

This program is designed for students majoring in classics, classical history, archaeology, or art history with strong classical interests and background. All applicants should have a minimum GPA of 3.0. Previous study of Latin and the classical Roman civilization is strongly advised.

globaled.duke.edu/Programs/Semester/ICCS_Rome

Italian Renaissance Studies in Florence

The ACM Florence Program focuses on Renaissance painting, sculpture, architecture, history, and literature. Italian language instruction, a studio art course, and elective courses provide a broad perspective on Italian contributions to world civilization and facilitate the study of Florentine artistic and cultural heritage. Visits to museums and galleries, short field trips to other cities throughout Italy, and discussions with local scholars supplement the coursework. Students are placed in a home stay to facilitate language development and cultural immersion.

Duration: Semester

Students who will be juniors or seniors during the program with backgrounds in art history, studio art, modern languages, or the humanities are eligible No previous language study is required.

acm.edu/programs/6/florence/index.html

Milan—Music: Tradition and Innovation

The IES Milan - Music: Tradition and Innovation program offers an opportunity to combine highly customized musical instruction with beginning and intermediate language study and area-studies courses taught in English. Approved only for B.Mus. and B.A. Music students to pursue music study.

Duration: Semester

No previous language study is required.

iesabroad.org/study-abroad/programs/milan-music-tradition-innovation

Rome Italy

ISA Rome offers students the opportunity to enroll at the American University of Rome. All courses are taught in English, and there is no language prerequisite, but a basic knowledge of Italian is encouraged and enrollment in Italian coursework during your time there is required. Courses are available to students in a variety of areas, including humanities, arts, sciences, computer science, history, literature, and language (with an emphasis on Italian and the classics). However, students should only select courses that are appropriate to the Lawrence curriculum. Students are housed in shared apartments in neighborhoods close to the university campus.

Duration: Year, Semester

Previous language study is encouraged but not required.

studiesabroad.com/programs/country/italy/city/rome

Japan

Japan Study

This ACM/GLCA program places students at Waseda University's School of International Liberal Studies in Tokyo, pursuing language study and English-taught Asian studies elective courses. A family-living experience in Tokyo provides an invaluable education in Japanese culture.

Duration: Year, Semester

Preference is given to applicants who will be participating during their junior year. At least one term of Japanese study is required. Selection is competitive and a minimum GPA of 3.0 strictly required.

japanstudy.earlham.edu/study-japan

Tokyo Japan—Society & Culture program

IES Tokyo offers an opportunity to study Japanese society and culture. Japanese language courses through Kanda University, English-taught program elective courses, and an integrated seminar and field experience introduce students to Japanese social organization. Students are placed in a home stay to facilitate language development. Note: Lawrence is not affiliated with the "language intensive program."

Duration: Year, Semester

Previous language study is not required though it is strongly recommended.

iesabroad.org/study-abroad/programs/tokyo-language-culture-new

Jordan

Middle East and Arabic Language Studies in Amman Jordan

The ACM Middle East and Arabic Language Studies in Amman, Jordan program provides students with an immersive cultural and academic experience in Jordan and the opportunity to explore a variety of topics related to the Middle East. Students take Arabic language classes available at all proficiency levels, elective classes in a variety of subject areas, and carry out an independent study project overseen by ACM guest faculty. This program offers content courses taught in English from a range of disciplines while also offering high-quality Arabic instruction. Students live in a homestay.

Duration: Semester

Most participants will be juniors or seniors, though, applications for sophomore year are considered as well. No previous language study is required.

acm.edu/programs/38/jordan/index.html

Kenya

International Development in Kenya

MSID seeks to engage students in an environment of reciprocal learning concerning local and global problems with a particular focus on development issues. This program allows anthropology, environmental studies, government, psychology, and other students interested in the theoretical and practical implications of international development and social justice to study firsthand the challenges faced by developing countries. Students gain hands-on experience by participating in a community-based internship. Students are placed in a home stay to facilitate community integration.

Duration: Year, Semester

Applicants must have junior or senior status during the program.

umabroad.umn.edu/programs/africa/msid-kenya.php

Madagascar

SUNY Madagascar Semester

The Madagascar Semester through Stony Brook University offers students interested in anthropology, biology, primatology, or ecology an option for field study in biodiverse Ranomafana National Park. During the program, students enroll in four courses: Primate Behavior and Ecology, Ecosystem Diversity and Evolution, Field Methods in Primatology and Field Biology, and an Independent Study.

Duration: Semester

This program is open to juniors and seniors, though, well qualified sophomores may be considered.

stonybrook.edu/commcms/studyabroad/outgoing/programs/yearsemester/madagascar/madagascar

Netherlands

Amsterdam Netherlands

IES Amsterdam offers anthropology and gender studies students an opportunity to pursue Dutch language study, integrated study in English at the University of Amsterdam, and an integrated tutorial, field, or service-learning experience and field research project. IES also offers a Gender and Sexuality Seminar in which students can enroll.

Duration: Year, Semester

No previous language study is required. The program is open to juniors and seniors. In addition to normal proposal materials, students must submit additional application materials for this program. The final admission decison lies with the host university.

iesabroad.org/IES/Programs/Netherlands/Amsterdam/Study_Amsterdam/studyamsterdam.html

Amsterdam School of Music

Music students may apply to the prestigious Amsterdam School of Music which offers a highly-individualized course of study. Musical training through this program is facilitated and administered by IES. As a large conservatory in the Netherlands, the Amsterdam School of Music takes advantage of the city's established reputation in both classical and contemporary music. The school is dedicated to high standards of teaching, performing, and creating music. Music students participating in this program should be strong in performance, composition, and/or theory and have the motivation and intention to succeed in this individualized and rigorous environment.

Duration: Year, Semester

Applicants must be music majors and have junior or senior standing by the beginning of the program. Final admission decisions rest with the Amsterdam School of Music and additional application materials are required. Admission to this program is often competitive.

iesabroad.org/study-abroad/programs/amsterdam-direct-enrollment-conservatorium-van-amsterdam

Gerrit Rietveld Academie

Study at the Gerrit Rietveld Academy (GRA) provides a valuable opportunity for studio arts majors to pursue a semester focused on studio work. The GRA is a well-regarded and innovative Dutch art and design school that stresses independence and creativity through highly-individualized curriculum and instruction.

Duration: Year, Semester

No previous language study is required. The program is open to juniors and seniors. In addition to normal proposal materials, students must submit additional application materials for this program. Final admission decisions lie with the host institution.

iesabroad.org/study-abroad/programs/amsterdam-direct-enrollment-gerrit-rietveld-academie

University of Twente Exchange

This program is designed for students in Physics and the sciences who wish to pursue courses and research through directly enrolling in a host university. The University of Twente in Enschede, Netherlands is a research university which focuses on the development of technology and its impact on people and society and offers degree programs in the fields of technology and behavioral and social sciences.

Duration: Semester

Lawrence applicants must be juniors or seniors by the time of the exchange and have a minimum GPA of 3.0.

utwente.nl/en/education/international-students/exchange-students/

New Zealand

Auckland New Zealand

IES Auckland offers students the opportunity for integrated study at the University of Auckland. The university offers courses in a wide variety of disciplines, with especially strong programs in anthropology, natural science, and environmental science. While courses are available in a variety of areas, students should only select courses that are applicable to the Lawrence curriculum.

Duration: Semester

iesabroad.org/IES/Programs/NewZealand/Auckland/Academics/aucklandUniProfile.html

Russian Federation

Smolny College

The Bard College program partners with Smolny College in St. Petersburg to offer students a comprehensive Russian as a Second Language program in combination with Russian-taught elective courses. The elective courses are integrative and taken with Russian students who are regular degree-seeking students at Smolny.

Duration: Summer, Year, Semester

Previous language study is required.

bard.edu/bardabroad/smolny

Senegal

Francophone Seminar in Senegal

This biennial program in Dakar, Senegal, introduces students to Western African culture. Organized by the Lawrence French department in conjunction with the Baobab Center, participants, accompanied by a Lawrence professor, study the French and Wolof languages, Senegalese history and culture, and Francophone African literature and may arrange individual music lessons. The academic program is supplemented by local excursions, a stay in a rural village, and field trips to other parts of the country and region.

Duration: Term

Two years of college level French study is required or the equivalent (completion of French 202). The course Destination Dakar is required in the term preceding the seminar term.

lawrence.edu/academics/programs/off-campus/francophone_seminar_in_dakar_senegal

Spain

Granada Spain

This ISA program offers Spanish majors a classroom-based program with courses largely taught through the University of Granada program for foreigners. Based on the results of a placement exam administered on site, "advanced" students choose from courses, principally in the humanities, offered through the University of Granada Hispanic studies program. Students who do not pass the placement exam, usually students with "high intermediate" to "low advanced" language skills, may choose from a more limited curriculum in the Spanish Language and Culture program.

Duration: Summer, Year, Semester, Term

Previous language study is required. In order to gain admittance to the Hispanic studies program, students will most likely need to have completed two to three classes beyond Spanish 202.

studiesabroad.com/programs/country/spain/city/granada

Salamanca Spain

IES Salamanca offers Spanish-taught courses focusing on Iberian culture, comparative studies of the Mediterranean Basin, and comparative studies of Spain and Latin America. The majority of students combine program courses with study at the Universidad de Salamanca. The program also offers education and political internships.

Duration: Summer, Year, Semester

Previous language study is required.

iesabroad.org/study-abroad/programs/salamanca-study-salamanca

Tanzania

Field Studies in Tanzania

This ACM program offers a unique opportunity to conduct field work in some of the world's greatest paleoanthropological and ecological sites. The program is divided between courses in intensive Kiswahili, human evolution, and ecology at the University of Dar es Salaam and field research in the Northern Region of Tanzania. The program is physically and academically demanding and only well-qualified students will be selected.

Duration: Semester

The program is open to juniors and seniors with prior course work in the natural or social sciences. Previous language study is not required.

acm.edu/programs/9/tanzania/index.html

United Kingdom

Arts in Context in London & Florence

The ACM London and Florence Program draws comparisons among the historical and political contexts of art, architecture, literature, and theatre in two historically prominent cities. Coursework is supplemented by visits to museums, galleries, and theatres; short trips to other areas of England and Italy; and discussions with local scholars. Students spend eight weeks in each city. An optional intensive course in Italian language is offered in January. Faculty Advisors: Kathy Privatt & Elizabeth Carlson

Duration: Semester, Term

No previous language study is required. The program is open to seniors, juniors, and advanced sophomores.

acm.edu/programs/7/lonflo/index.html

London Centre

The Lawrence London Centre was established in 1970 to introduce Lawrence students to the rich social, cultural, and political history of the British people through a program of classroom study supplemented by field trips, museum visits, guest lectures and performances, cultural opportunities, and travel. While continuing to play this important role in a Lawrence liberal arts education, the London Centre also seeks to utilize its setting in a cosmopolitan world city as a rich text wherein Lawrence students can engage the significant political, economic, cultural, and intellectual challenges of the 21st century. London is known to the world as a cosmopolitan center of artistic, financial, and academic activity which makes it a great location for a variety of academic and cultural explorations. London Centre courses cover a range of areas including theatre, music history, anthropology, history, government, and art history. Course offerings vary each term. All students take part in a 3-unit core course called British Life and Culture. London Centre courses do not have prerequisites and are open to all London Centre participants. Many courses can be used to fulfill general education requirements. Internships are also available to juniors and seniors through an additional selection process. Music students are able to arrange 3-unit S/U music lessons for credit.

Duration: Term

lawrence.edu/academics/offcampus/london

Northern Ireland: Democracy & Social Change

Based in Coleraine and Belfast, this program of the Higher Education Consortium for Urban Affairs (HECUA) allows anthropology, education, government, psychology, and other students interested in peace and conflict studies to examine firsthand the transition from conflict to sustainable democracy through classroom study and an internship placement.

Duration: Semester

hecua.org/abroad/democracy-social-change-in-northern-ireland

Oxford University

This program offers very strong students with an expressed interest in pursuing advanced study the opportunity to pursue focused study in a single subject area at one of four Oxford colleges: St. Anne's College, St. Edmund Hall, St. Hilda's College (women only), and Lady Margaret Hall. Placements are available across the arts, sciences, and social sciences. This is an integrated program of study whereby Lawrence students participate in a given college's tutorial system alongside its degree-seeking students.

Duration: Year, Semester, Term

Applicants must have junior or senior standing at the beginning of the program. Minimum GPA of 3.7. This program is often competitive and the final admission decision lies with the host university.

studyabroad.arcadia.edu/find-a-program/programs-by-country/england/university-of-oxford

University of York

This program creates an opportunity for strong students across a range of majors to study one or two subjects in a British tutorial system similar to that employed at Oxford and Cambridge. This is an integrated program of study whereby Lawrence students participate in a college's tutorial system alongside its degree-seeking students. Students are fully integrated into the residential colleges and social aspects of the university.

Duration: Year, Semester, Term

Minimum GPA of 3.0. Students wishing to study in the English department must complete additional application materials. Final admission decisions rest with the host university.

studyabroad.arcadia.edu/find-a-program/programs-by-country/england/university-of-york

United States

Chicago Program: Arts, Entrepreneurship, and Urban Studies

The program immerses students academically, professionally, and personally with life in Chicago. The primary areas of emphasis in the program are Arts, Entrepreneurship, and Urban Studies and students have the opportunity to explore one of these topics in depth, or participate in class work and projects across these disciplines. The program offers an mix of academic work, a supervised internship, independent study project, common core course about the city of Chicago, and a variety of seminars focused on the arts and creativity, innovation and entrepreneurship, and urban studies and social justice. Faculty Advisors: (Arts) - John Shimon & Julie Lindemann, (Entrepreneurship) - Marty Finkler, (Urban Studies) - Bill Hixon

Duration: Semester, Term

acm.edu/programs/18/chicago/index.html?src=mapocs

Coe College Wilderness Field Station

The Coe College Wilderness Field Station is a four-week summer program of biological field study in the Superior National Forest in northern Minnesota. Classes are small and personal, with no more than eight students per instructor. All courses integrate lectures and laboratory investigation with daily canoe outings. Each class undertakes a lengthy canoe trip into Boundary Waters Canoe Area Wilderness.

Duration: Summer

public.coe.edu/fieldstation

Newberry Library Seminar in the Humanities

Based at the world-renowned Newberry Library in Chicago, this ACM program provides a powerful introduction to the art of pursuing original research. Students in the program attend interdisciplinary seminars taught by visiting professors and work with resident scholars and library staff to research and write a major research paper based on the Newberry's broad collections in the humanities.

Duration: Semester

Juniors or seniors interested in pursuing serious research in the Humanities are eligible.

acm.edu/programs/14/newberry/index.html

Oak Ridge Science Semester

The ACM/GLCA Oak Ridge Science Semester enables advanced undergraduates to study and conduct research in the prestigious and challenging scientific environment of the Oak Ridge National Laboratory (ORNL) near Knoxville, Tennessee. The majority of a student's time is spent participating in a long-range research project with an advisor specializing in biology, chemistry, physics, computer science, or biochemistry. In addition, students participate in an interdisciplinary seminar and lecture series designed to broaden their exposure to developments in their major field and related disciplines.

Duration: Semester

The program is designed for seniors and highly qualified juniors with a minimum GPA of 3.0 and declared majors in related areas.

acm.edu/programs/15/oakridge/index.html

SEA Semester

The SEA program is designed to develop in students a talent for the application of scientific thinking and method to the marine environment. This program gives undergraduates the opportunity to study the ocean from a variety of academic perspectives and to do it from the platform of a traditional sailing vessel. It is open to students in the sciences, humanities, and social sciences. This is a unique opportunity for Lawrence students, scientists and non-scientists alike, to learn about maritime heritage (in art, literature, philosophy, and politics) and to develop the observational and investigative skills that grow from sustained attention to complex physical data. The 12-week program is divided into the Shore Component (the first six weeks) and the Sea Component (the remaining six weeks). No sailing experience is necessary.

Duration: Term

Some tracks of the program require past science coursework but many tracks do not -- students should check for prerequisites for their track of interest

sea.edu

Semester in Environmental Science

The Semester in Environmental Science is offered at the world-renowned Ecosystems Center of the Marine Biological Laboratory (MBL) in Woods Hole, Massachusetts. Students participate in two core seminars focusing on aquatic and terrestrial ecosystems. They also choose an elective seminar and pursue an independent research project under the guidance of the MBL staff and faculty.

Duration: Semester

Applicants should have background in one Biology course, one Chemistry course, and one Math course. Students who are lacking in a given area may still qualify for admission to the program at the discretion of the on-campus faculty advisor and selection committee.

ecosystems.mbl.edu/SES

TeachChicago Urban Teaching Program

Students seeking teacher certification can complete their student teaching practicum and seminar in the ethnically and culturally diverse urban Chicago environment. Placements are made in both public and private central-city Chicago schools. Students live in apartments located in Hyde Park, adjacent to the University of Chicago.

Duration: Semester

Interested students should talk with the education department about requirements for this program.

chicagocenter.org/student-programs/urban-student-teaching-practicum

Washington Semester

The Washington Semester enables students to participate in a thematic program of study at the American University in Washington, D.C. In addition to the core seminar, students pursue an internship related to the program topic and an independent study project. The Lawrence-approved program tracks are: American Politics, International Environment and Development, International Law and Organizations, Justice and Law, Peace and Conflict Resolution, Islam and World Affairs Foreign Policy, and Global Economics and Business.

Duration: Semester

american.edu/spexs/washingtonsemester/index.cfm

Academic responsibilities

OPPORTUNITIES, OBLIGATIONS AND RESPONSIBILITIES
Academic procedures and regulations, together with degree, program, and course requirements and the code of student responsibility, form the basis for the equitable and orderly conduct of student academic life at Lawrence University. These rules accord students opportunities, such as the ability to develop a personalized course of study or change a course selection after the first class meeting. They also impose obligations and responsibilities, such as planning a course of study to complete program requirements and maintaining satisfactory academic progress. Students are expected to be thoroughly familiar with the contents of the course catalog, the Online Student Handbook, and other contracts and official notices of the university.

CONFIDENTIALITY OF STUDENT RECORDS
Lawrence requires students to give consent in writing before any personally identifiable information from their education records can be released, except to the extent allowed by the Family Educational Rights and Privacy Act (FERPA). It is each student's responsibility to communicate information about grades, academic progress or disciplinary actions to parents, guardians or other family members.

For further information about student rights with respect to education records, FERPA, and release of education records, see the Online Student Handbook.

CATALOG OF RECORD
Students may choose to complete degree requirements using the course catalog in effect at the time they matriculate as degree-seeking students or the current catalog at the time they plan to complete their degree. If requirements for a major, minor, or interdisciplinary area change, students should consult the department or program chair and their major advisor regarding the applicability of current course offerings to the major requirements they intend to complete. Academic regulations and procedures are effective as of the date they are approved by the university unless otherwise noted.

Academic expectations

ACADEMIC SUCCESS

Most Lawrence students do fine most of the time. Nevertheless, on occasion some students find themselves out of sync not only with the expectations of their instructors but also with their own expectations of themselves. Attendance may trail off, coursework may be avoided, and assignments may be turned in late or not at all. Despite students' best efforts, pressures and anxieties build, course performance suffers, and it becomes hard to see a pathway to academic success. At these times, it is essential that students recognize what is expected of them and how to take the steps needed to put themselves back on track.

Through institutional resources and the efforts of its faculty, Lawrence strives to assist students who find themselves in academic difficulty. Mudd Library, the Center for Academic Success, and Health and Counseling Services are among the most prominent resources that Lawrence offers to help students succeed. Likewise, faculty members seek to foster academic success among their students not only in the classroom but also during office hours, at study or review sessions, and through online tools and resources.

When a misunderstanding or discrepancy emerges between what faculty members and students expect from each other, this gap can adversely affect the learning that takes place in the classroom, laboratory, or studio. The notes that follow seek to reduce this sort of gap by making expectations clear.

RECOGNIZING EXPECTATIONS

Communication. Regular communication with faculty, administrators, and staff may be the single most important element in student success at Lawrence. Students are urged to communicate with instructors right away if they are experiencing academic difficulty and to seek help from the many resources made available by the university.

Engagement and respect. Students should see it as their responsibility to engage fully in all class activities and to demonstrate respect for fellow students, instructors, and course materials. Respect is demonstrated by encouraging and supporting others and never demeaning or degrading fellow Lawrentians; by adhering to the honor code and university rules and regulations; and by caring for our facilities, grounds, and equipment. Students can expect instructors, administrators, and staff to treat them with respect at all times, especially with regard to issues of race or ethnicity, class, gender, sexual orientation, and disability. Furthermore, they can expect their instructors to hold them to clear and consistent academic standards and to assess their work in a fair and timely manner with an indication of how it might be improved.

Attendance. Although different instructors spell out attendance requirements for their courses in different ways, students should consider it their responsibility to attend all class sessions and lessons and to be on time and well prepared. Missing class or arriving late can result in unexcused absences or a lowered grade for class participation. If students must miss class or arrive late, they should make every effort to inform their instructors beforehand. Faculty can be very understanding of student difficulties, and unforeseen conflicts, unexpected crises, and even the rare case of forgetfulness may be excused in light of normally good attendance and class preparation.

Deadlines. Students should consider it their responsibility to turn in all assigned work by the specified deadlines and to abide by the policies for assignments established by each individual instructor. When it is impossible for students to meet their deadlines, prompt and direct communication with the instructor, or with a staff member or administrator when communication with the instructor is not possible, is crucially important. Likewise, students can expect that instructors will clearly announce all deadlines and policies for assignments, including penalties for late or missing work.

Academic, extracurricular, and professional conflicts. Students should request permission in advance to miss class for academic, extracurricular, or professional activities that conflict with regular classes or lessons. While they may be sympathetic to such conflicts, instructors are under no obligation to grant permission and may do so at their own discretion. Instructors who schedule curricular activities (such as field trips, rehearsals, conferences, or competitions) outside of regular class time should remind students to request permission to miss any regularly scheduled classes or lessons that might conflict with those activities.

Illness. Students who miss class for illness should contact their instructors for guidance in making up missed work. If they miss more than two consecutive class sessions or a major assignment or examination, they should see a nurse, doctor, or counselor for a medical excuse. With permission, Health and Counseling Services can e-mail the excuse to instructors. If an illness extends to two weeks or longer, or occurs at or near the end of term, students should communicate with the Center for Academic Success to discuss whether they will be able to complete their courses or need to request an incomplete, withdraw from a course, or withdraw from the term (take a leave).

Personal crisis. Personal crises, such as trauma, severe anxiety or depression, or family emergencies, are handled with empathy by staff and faculty. Adjustments to course requirements or deadlines are granted at the discretion of instructors in consultation with appropriate staff or administrators. Communication on the part of students is paramount. Unless they alert their instructors, or a staff member from Health and Counseling Services, Student Affairs, or the Center for Academic Success, students can expect no adjustments in requirements. Faculty and staff are committed to serving students in moments of crisis, but they can act only on the basis of what they know.

If difficulties arise. Faculty expect students to be fully engaged in the classes for which they are registered: to attend regularly, to be well prepared, to participate in discussion, to complete assignments, and to communicate with instructors as outlined above. Students who are not meeting these expectations will be referred to the Center for Academic Success for help.

In those rare cases where a student who has not been attending classes also does not respond to requests from the Center for Academic Success, the student may be withdrawn from the term and placed on administrative leave. The university reserves the right to determine when an administrative withdrawal is appropriate and what conditions must be met before the student is allowed to return. Academic implications (credit and grades) and financial implications (tuition, fees, and financial aid) will vary depending on the circumstances.

In general, students are strongly urged to seek help from the Center as soon as difficulties arise so they can stay on track for academic success. That is why the Center exists, and it is in the interest of everyone to put these resources to their best use.

Academic advising

PHILOSOPHY OF ADVISING

The philosophy that underlies academic advising at Lawrence reflects the university's emphasis on student responsibility and independence. Students have the responsibility for planning and pursuing their own academic programs. All students are assigned a faculty advisor to help with understanding strengths and weaknesses, setting goals and utilizing resources at Lawrence.

Advisors are not expected to make decisions for advisees except in the case of an underload or overload request, nor are they expected to engage in a personal counseling relationship. Advisors are required to sign petitions and forms only if they have had the opportunity to provide their best advice on the decision.

Advisors have the responsibility to advise the student. Students have the responsibility of making the decision.

THE ADVISING PROCESS

Lawrence has a faculty-based advising system. All full-time members of the teaching faculty serve as academic advisors to students. New students are assigned to faculty advisors on the basis of academic interests and availability of faculty for advising. Junior and senior students are required to have advisors in their majors. Any student, however, may change an advisor by completing the Academic Advisor Form available in the registrar's office and obtaining the signature of the new advisor on that form.

Students are encouraged to consult with other faculty members or the Center for Academic Success for further advice.

Honor system

HONOR CODE
To help maintain an atmosphere of mutual trust and confidence among students and faculty members and to ensure that each student is judged solely according to his or her own merits, the Lawrence University community has established the following honor code:

No Lawrence student will unfairly advance his or her own academic performance nor will the student in any way intentionally limit or impede the academic performance or intellectual pursuits of other students of the Lawrence community.

The Lawrence community firmly believes in the academic atmosphere this Honor Code is intended to ensure. An academic honor system secures freedoms, conveniences and privileges that otherwise would not be available to students, creating an atmosphere in which they can learn without constant surveillance.

Students are responsible for understanding the Honor Code, and the Honor Council provides extensive information to all students. The council does not consider ignorance or negligence as excuses when determining whether or not an Honor Code violation has occurred.

PLEDGE AND REAFFIRMATION
As members of the Lawrence University community, students are required to sign the following Honor Pledge. By doing so, they affirm their belief in the value of the stipulations of the system:

I hereby affirm that I understand and accept the responsibilities and stipulations of the Lawrence University Honor System.

Furthermore, students must reaffirm the Honor Code by writing “I reaffirm the Lawrence University Honor Pledge,” followed by their signatures, on all submitted work.

HONOR COUNCIL
The honor system is administered by the Honor Council, which consists of ten students. The Council is responsible for educating the Lawrence community about the honor code and for acting as a judicial body when suspected violations occur. Every member of the Lawrence community is responsible for upholding the honor system.

If a member of the community suspects a violation, he or she has two options:

- contact the faculty member involved, the administrative advisor to the Honor Council (appointed by the Provost), or a member of the Honor Council

- discuss the concerns directly with the student involved. The reporting of a suspected violation does not commit the student to pursuing additional action.

For more information, please refer to the full Honor System Charter and related information contained on the Honor Council webpage.

Accommodations for students with disabilities

NONDISCRIMINATION ON THE BASIS OF DISABILITY
"No otherwise qualified handicapped individual shall, solely by reason of his handicap, be excluded from participation in, be denied the benefits of, or be subjected to discrimination under any program or activity receiving federal financial assistance."
— Section 504 of the Rehabilitation Act of 1973

The commitment of Lawrence University to provide a quality liberal education carries with it a commitment to a learning environment that provides all students with an equal opportunity for academic success.

Lawrence, in compliance with Section 504 of the Rehabilitation Act of 1973 and the Americans with Disabilities Act of 1990 (amended in 2008), recognizes that qualified students who have diagnosed disabilities, including specific learning disabilities, are entitled to an equal opportunity to benefit from the educational program of the university and that reasonable academic accommodations may be necessary to provide that opportunity.

REQUESTING AN ACADEMIC ACCOMMODATION
Students who have a disability covered by the Americans with Disabilities Act are entitled to academic accommodations. The academic accommodation system at Lawrence is based on the university's educational philosophy emphasizing student independence and responsibility. All requests for accommodations must be initiated by the student. No automatic notification of instructors occurs without a student request, and no student is required to tell instructors about a disability or to request accommodations. If a student does choose to request accommodations, the request must be made no later than the start of the term in which the course is offered.

To request appropriate accommodations, a student should meet with the accessibility services coordinator in the Center for Academic Success.

The student will be asked to provide appropriate documentation of the disability, including its impact on the student and recommended accommodations to ameliorate that impact. Once the disability is documented, the student may request accommodations for specific courses through the accessibility services coordinator. Accommodations should be arranged during the first week of the term, and any testing accommodations must be requested at least two weeks prior to the test or examination. More information can be found on the Center for Academic Success website.

Term system and course loads

THREE-TERM SYSTEM AND COURSE LOADS
Lawrence University has a three-term schedule. Each term consists of ten weeks of classes followed by three days of examinations, which are considered an integral part of the term. The term ends with the completion of final exams. A standard course load is three courses per term (6 units each) or the equivalent, with additional credit (1 unit each) for music ensembles.

STANDARD CLASS PERIODS
The normal class periods are three 70-minute sessions per week on Monday, Wednesday and Friday (MWF) or two 110-minute sessions per week on Tuesday and Thursday (TR) as follows:

8:30–9:40 a.m. MWF
9:50–11 a.m. MWF
11:10 a.m.–12:20 p.m. MWF
12:30–1:40 p.m. MWF
1:50–3 p.m. MWF
3:10–4:20 p.m. MWF

9–10:50 a.m. TR
12:30–2:20 p.m. TR
2:30–4:20 p.m. TR

Courses are recorded using a term-course system. A standard course is six units. For purposes of transcript evaluation, six units may be considered the equivalent of three and one-third (3-1/3) semester hours or five (5) quarter hours. A six-unit course that includes extra class or laboratory sessions is the equivalent in content to courses that carry five semester hours or eight quarter hours at some other institutions.

Students who arrange their programs in the normal pattern take three courses (18 units) each term. A course load of 15 units per term is required for certification as a full-time student; a course load of 21 units is required for full-time status in the student-teaching semester and semester-length off-campus programs.

OVERLOADS / UNDERLOADS

Students must receive permission from their advisors to take 24 or more units in a single term. A “B” average for the preceding three terms is generally expected of students requesting permission to overload. Students in the university should normally take no more than two partial courses (less than 6 units each) above the standard three-course load in any one term. Students will be assessed additional tuition for course loads exceeding 23 units in one term. See the Overload Policy for details.

Students who desire to overload must submit an overload form to the Registrar’s Office at the beginning of the term and before the eighth day of classes. Students may find it educationally advantageous to choose a reduced program for one or more terms. Students considering a reduced load should consult with their academic advisors and carefully investigate the consequences of dropping below full-time status. Less-than-full-time status can affect time to completion of the degree, financial aid, additional tuition charges, insurance, loan deferments, immigration status, and eligibility for participation in athletics.

The Incremental Fee Plan may be applicable if an overload or underload program is elected.

DECEMBER TERM

During the first two weeks of December, Lawrence offers brief, intensive courses that can be taken for credit (3 units) toward a Lawrence degree. December Term or "D-Term" courses are designed to be exciting experiences that offer new perspectives, unusual content, or interesting activities. These enrichment courses are not accelerated versions of courses normally offered during the academic year and are not required of any student.

D-Term courses have separate tuition and fees for room and board. Tuition is significantly discounted to make the courses affordable, so no additional financial aid is available.

The Lawrence faculty are offering the D-Term courses listed in the course schedule with a DECM prefix. Each student may register for one D-Term course, and each course must have five students to be given. If a course is canceled, students will be offered the chance to enroll in another course. Registration is through the Voyager system.

Registration

REGISTRATION SYSTEM
Registration for all students is conducted through the Voyager Information System, which is accessible both on and off campus via the Internet. Announcements and other information about registration and course offerings will be sent to students at their Lawrence e-mail addresses. Instructions for registration can be found at lawrence.edu/s/registrar/registration.

Students may view their registration status and assigned times in Voyager. In order to register or make schedule changes during each assigned period, students must meet with their faculty advisors, obtain any required course approvals from instructors, and clear all registration holds (Financial Services, Health Center, Registrar's Office and deans). Students with registration holds on their records should contact the appropriate office directly.

The schedule of classes for current and future terms is published at lawrence.edu/s/registrar/catalog.

ADVANCE REGISTRATION
Advance registration for the next academic year begins in the Spring Term. All continuing, degree-seeking students will be eligible to register at this time. Students are expected to consult with their academic advisors about their academic progress and proposed program for the following year before the registration period opens. Continuing students must advance-register in order to participate in the housing selection process.

Advance registration for new freshmen, transfer students, visiting-exchange students and Waseda Program students begins over the summer. Preliminary registration materials and program-planning information will be sent to new students by the dean of student academic services. During Welcome Week in the fall, new students will meet with their academic advisors and make any necessary changes to their course registrations using the Voyager Information System. Students entering Lawrence in the middle of the academic year will register at the beginning of the term in which they first enroll.

TERM REGISTRATION
After the first round of advance registration, students may register and make class changes for future terms during the first two weeks of classes and from the fifth through the tenth week of classes each term. Students should check their registration-status page in Voyager for assigned registration days and times. The last opportunity for students to register or make class changes for any term is during the first ten days of classes (first two weeks).

It is the student's responsibility to maintain an accurate registration record. Failure to do so can result in (1) receiving no credit for a completed course; (2) receiving a failing grade in a course not taken; (3) failing to be certified as a full-time student for insurance, financial aid, immigration or other purposes; and (4) being assessed a late registration fee to correct registration errors.

Students who need to correct class registrations after the tenth day of classes must petition the Faculty Subcommittee on Administration. The deadline for submitting these petitions is the last day of classes of the academic term immediately following the term for which a registration change is being requested.

After the term begins, students wishing to register for a limited-enrollment class must obtain the approval of the instructor. Please see the section on limited enrollment classes (below). Beginning the sixth day of classes of the term (beginning of the second week), students must obtain the approval of the instructor to register for any class. In order to make class changes, all registration holds (academic advising, Financial Services, deans, Health Center and Registrar's Office) must be cleared. The deadline for submission of special registration forms (registration for tutorials, independent study, internships and supervised accompanying; S/U option form) is also the end of the tenth day of classes for the term.

REGISTRATION FOR NON-DEGREE STUDENTS

Individuals attending classes as non-degree students are required to register at the beginning of each term and may not advance-register for future terms. Such students include members of the local community taking courses for personal growth, college graduates seeking teacher certification and high school students in the Lawrence Academy Program. Non-degree students must obtain the approval of each instructor and meet with their academic advisor before they will be able to register through the Voyager system. Priority will be given to degree-seeking students when classes are over-subscribed.

FEES FOR LATE REGISTRATION

$25 per late class cancellation or addition approved from the third week of the term through the last day of classes, up to a maximum of $200 for the term.

$50 per late class cancellation or addition approved after the last day of classes for the term, no maximum.

The Faculty Subcommittee on Administration may waive the late registration fee when a class change was delayed due to exceptional circumstances such as illness, family emergency, a curricular decision that could not be made by registration deadlines, etc. The student is responsible for documenting such an exceptional circumstance as part of the petition.

Courses

LIMITED-ENROLLMENT CLASSES
When a limited-enrollment class is filled, students may request to be added to the waiting list. Waiting list requests can be made through the Voyager registration system during the term just prior to the one in which the class is offered (for example, in winter a student may waitlist for spring). Students may remove themselves from waiting lists using the "add/drop classes" option in the Voyager registration system.

At the beginning of the term, all students registered for a limited-enrollment class and any students on the waiting list who still wish to enroll must attend the first class meeting. At that time, the instructor may choose to cancel the registration of students not in attendance and admit students to the class from the waiting list. Students admitted to the class by the instructor must use the Voyager registration system to add the class after the instructor has entered approval to register.

PREREQUISITE CHECKING
Prerequisites provide important information to students constructing their academic program plans. A course prerequisite may be composed of a list of specific courses to be completed, a description of skill level previously achieved or a combination of both. Prerequisites are listed in the class schedule and the course catalog. This information is provided by instructors and academic departments to help students understand what prior preparation will be expected and will contribute to a successful experience in the course. It is the responsibility of the student to review prerequisites before registering for a class.

It is assumed that all students will have completed the prerequisites for every course for which they are registered prior to the first day of classes. Students who do not meet the prerequisites but are interested in taking the course **must** contact the instructor for permission. Students who believe transfer credit or credit from advanced-placement examinations should be applied to the prerequisites also **must** contact the instructor for permission to take the class.

During the first week of classes, instructors may cancel the registration of students who have not met prerequisites. Students may be asked to document that the prerequisites for a course are complete.

WITHDRAWING FROM A COURSE
Students are permitted to withdraw passing (WP) from one of their classes after the second week of the term and through the Friday of the seventh week of the term. The instructor must confirm the student’s last date of attendance and certify the student completed all work and earned a passing grade. Written acknowledgement from the student’s faculty advisor also is required. A form is available from the registrar’s office for this purpose. The grade of WP is recorded on the student’s record but has no effect on the grade-point averages.

A student must petition the Faculty Subcommittee on Administration to withdraw passing if any of the following apply:

- the student is withdrawing from more than one class in the term, or
- the student has already withdrawn from three classes during his or her career at Lawrence, or
- the student is on probation, or
- the student is unable to complete the class after the seventh-week deadline.

Students may withdraw failing (WF) from a class through the last day of classes for the term with the permission of the instructor, the faculty advisor and the dean of student academic services. A grade of WF is recorded on the student's record and appears in the grade-point averages as an F grade.

Students who officially withdraw from the university during the term will have grades of WP and WF posted on their record depending on whether they were passing or failing their classes at the time of withdrawal. WF grades in this particular case will not be included in the grade-point averages.

CLASS ATTENDANCE

Instructors may, at their own discretion, require attendance and/or take attendance into account in determining grades. Students should check class-attendance expectations with instructors at the beginning of each term. Whatever the attendance expectations may be for a class, students are responsible for all class obligations.

Students who wish to cancel or withdraw from a class after the term begins should notify the instructor of their intention promptly, as the instructor will be asked to verify the date the student last attended.

FINAL EXAMINATIONS

All final examinations are given and taken during the examination period. An examination schedule is published by the registrar before the fifth week of the term. Individual students who wish to change the time of a scheduled examination must petition the Faculty Subcommittee on Administration no later than Wednesday of the tenth week of classes.

Petitions to change final exams for travel purposes will not be approved. An exam time for the whole class may be changed only with the unanimous consent of the class members and with the permission of the provost and dean of the faculty. During the last week of classes, no examinations or tests may be given in class or as take-home exercises.

Individual students who wish to change the examination time for single courses must petition the Faculty Subcommittee on Administration. Students who have three examinations on the same day may request a change of the time of one of them by such a petition. The Faculty Subcommittee on Administration also entertains petitions for change of examination times for reasons of health, family considerations, summer academic programs, etc.

It is a faculty member's prerogative to establish the conditions for his or her particular exam. If no specifications are given, however, the exam will be taken in class without books, notes, or discussion among the students.

Grading system

GRADING SCALE AND GRADE SYMBOLS

Grade	Description	Computation of Grade Points
A	Excellent	4 x value of the course
A–		3.75 x value of the course
B+		3.25 x value of the course
B	Good	3 x value of the course
B–		2.75 x value of the course
C+		2.25 x value of the course
C	Satisfactory	2 x value of the course
C–		1.75 x value of the course
D+		1.25 x value of the course
D	Passing, but Unsatisfactory	1 x value of the course
D–		0.75 x value of the course
F	Failing	0 x value of the course
WF	Withdrew Failing	0 x value of the course, except upon approved withdrawal from the term (see * below)
WP	Withdrew Passing	No course credit. Grade does not affect grade-point averages.
S	Satisfactory	Equivalent to a C– or better, but does not affect grade-point averages
U	Unsatisfactory	Equivalent to D+ or below, but does not affect grade-point averages; no course credit

I	Incomplete	May be reported only for students who did not complete the coursework because of circumstances beyond their control, such as illness. Students must submit a request for an incomplete to the dean of student academic services before the end of the last day of classes. The dean will consult with the instructor in making the decision. An incomplete must be removed by the date set by the dean, subject to approved extensions; failure to complete the work can result in the recording of an F (U if the course was carried on an S/U basis).
IP	In Progress	May be used to designate the first term of tutorial work or independent study for which students will be registered for additional credit for two or three terms; replaced by the final grade when that grade is reported.
AU	Audit	This option may not be used by degree-seeking students and confers no credit.
NR	Not Reported	No valid grade reported. Grade will lapse to F (U if the course was carried on an S/U basis) if a valid grade is not reported shortly after the end of the term.
*	Withdrawal From Term	No course credit. Grade does not affect grade-point averages.
#	Repeated Course	Credit is not applied to degree and grade is not used in computation of degree GPA

All grades, except approved incompletes or IP grades, are final when they are recorded with the registrar. Grades are due, according to faculty legislation, 72 hours after the end of the examination in the class or, if there is no examination, no later then 72 hours after the published examination period. The Faculty Subcommittee on Administration reviews student records for academic progress shortly after grades have been submitted.

SATISFACTORY / UNSATISFACTORY OPTION

The S/U option is provided to encourage students to explore new academic disciplines. The decision to exercise this option must be made by the end of the second week of classes. It is not intended to be used as a means of grade protection after students have assessed their ability to complete required coursework satisfactorily. The S/U option may not be used in some courses. Please refer to the course description for more information.

Students who have completed 54 units may elect to take one class per term outside their major/minor and major/minor department on a Satisfactory/Unsatisfactory basis. See additional guidelines for language and art majors and minors below:

- Students with a minor in Latin may take a course in Greek on an S/U basis.
- Students with a minor in Greek may take a course in Latin on an S/U basis.
- Students with a minor in studio art may take a course in art history on an S/U basis.
- Students with a minor in art history may take a course in studio art on an S/U basis.
- Students with a minor in Chinese may take a course in Japanese on an S/U basis.
- Students with a minor in Japanese may take a course in Chinese on an S/U basis.

Additionally, students who take 24 or more units in a term may also exercise the S/U option for the overload class. No more than four grades of S or U resulting from the option may appear on a student's transcript at any one time.

Students may at any time (e.g., during the term in which a course is taken S/U or after the course has been completed) change the basis of grading in a course from S/U to a letter grade; they may not change from a letter grade to S/U. Instructors submit letter grades (A-F) for all courses not offered strictly on an S/U basis. The registrar then converts the letter grades to S or U for those students who have elected the S/U option. Grades of C- or above become Satisfactory; grades of D+ or below become Unsatisfactory. A satisfactory performance ensures credit toward graduation but does not affect grade-point averages. An unsatisfactory performance does not confer credit, nor does it affect the grade-point average.

REPEATING COURSES

Students are permitted to repeat courses in which a grade of F is received. Both the original F and the new grade will be recorded on the permanent record. Only the second grade, however, will count in the degree GPA. If the course is in the student's major or minor department, only the second grade will count in the major or minor GPA. Both the original F and the repeat grade will count in the composite GPA (see "Grade Point Averages")

Students who have withdrawn from a class (WP or WF) have not completed the course and are free to take it again. A grade of WF is treated like an F when a course is repeated. Only the grade for the repeated course will count in the degree and major GPAs. Both the original WF and the repeat grade will count in the composite GPA.

Students must submit a Repeated Course form to the Registrar's Office to initiate the procedure for repeating a course and to have the new grade replace the F in the degree GPA.

GRADE REPORTING AND TRANSCRIPTS

Grades become visible to students, academic advisors and administrative personnel in the Voyager Information System once all end-of-term processing has been completed, approximately 7-10 days after the last day of final examinations. Grades will not be given to students on an individual basis until grade processing is complete, nor will they be given to students over the phone. Students may obtain unofficial transcripts of their academic history and a degree summary report through the Voyager Information System.

Students are responsible for keeping parents, guardians, scholarship foundations, insurance companies and any others as needed informed about their academic progress. A grade report will be sent to parents only upon the written request of the student. A form for this purpose can be obtained in the registrar's office.

To obtain an official transcript, a student must make a request in writing, giving permission to release the transcript to a third party. A charge of $5 (which includes tax) will be assessed for each official transcript requested. Additional fees will also be assessed for special shipping arrangements such as overnight delivery or fax. Students should be aware that transcripts will not be sent after the last day of classes until grades for the term have been posted and the academic-progress review is complete. Transcript requests are usually fulfilled within 3-5 days.

Official transcripts are issued only for students whose accounts with Financial Services are clear.

GRADE CHANGES

A grade submitted to the registrar can be changed only with approval of the university faculty at the request of the instructor. The instructor must submit a request for a change of grade in writing to the faculty secretary. The change will take effect upon approval of the faculty minutes in which the request is recorded.

A change of grade is permitted for reassessment of work previously evaluated or for the correction of an error in the calculation or reporting of a grade. The instructor states which reason applies. Grade changes are not permitted for work submitted after the class has concluded.

GRADE POINT AVERAGES

Lawrence uses four grade-point averages: major, minor, degree and composite. The averages are used to determine academic progress, fulfillment of degree requirements and honors in course at graduation.

The major GPA includes all courses in the student's major department and those courses outside the department required for the major. Courses taken on the Lawrence campus, as well as courses completed at approved Lawrence off-campus programs (see Off-Campus Programs) are included in the major GPA. Courses accepted for transfer credit from other institutions are not included. A student must earn a major GPA of 2.000 or above to graduate.

The minor GPA includes all courses in the student's minor department and those courses outside the department required for the minor. Courses taken on the Lawrence campus as well as courses completed at approved Lawrence off-campus programs are included in the minor GPA. Students must earn a minor GPA of 2.000 in order to complete the minor and have it recorded on their academic record.

The degree GPA includes all courses taken on the Lawrence campus or at approved Lawrence off-campus programs. It is used to determine academic actions and, in conjunction with the composite GPA, honors in course at graduation. A student must earn a degree GPA of 2.000 or above to graduate.

The composite GPA includes all courses included in the degree GPA plus any courses taken at other colleges and universities. The composite GPA is used, in conjunction with the degree GPA, to determine honors in course at graduation and selection for awards and membership in honorary societies.

Declaration of majors, minors, and interdisciplinary areas

DECLARATION OF A MAJOR
Students are strongly urged to declare a major by Winter Term of the sophomore year and to find an academic advisor in the major department who can help the student plan a program of studies for the junior and senior years. Advising and registration for the upcoming year take place in spring term.

Students are required to declare a major by the beginning of their junior year but may do so at any time by completing a Declaration of Major, Minors, or Interdisciplinary Areas form available in the registrar's office. Students must also have an academic advisor in their major department no later than the beginning of their junior year. The declaration of a major and change of advisors does not preclude students from seeking additional counsel about their academic programs from any member of the faculty.

DECLARATIONS OF MINORS AND INTERDISCIPLINARY AREAS
In addition to completing degree and major requirements, students may choose to complete the requirements for a minor or an interdisciplinary area. Students may declare their intent to pursue such programs by completing a Declaration of Majors, Minors, or Interdisciplinary Areas form available in the registrar's office. Students are strongly encouraged to consult with the appropriate department chair, program director, or faculty advisor on a regular basis about their course selections.

Credit for AP, IB, and transfer courses

CREDIT FOR ADVANCED PLACEMENT EXAMINATIONS
The Advanced Placement program of the College Board offers high school students the opportunity to study prescribed courses in many subject areas and to take nationally administered examinations on these courses. Lawrence will give 6 units in the appropriate discipline for a score of 4 or 5 on an advanced placement examination, except for multiple examinations with substantial shared material, for which the credit granted may be limited to 6 units. Individual departments may decide to award additional credit.

Credit awarded for advanced-placement examinations may be used to fulfill the competency and diversity General Education Requirements as appropriate. Such credit may not be applied to distribution requirements. Individual departments will determine whether advanced-placement credit fulfills major or minor requirements and the placement of students who wish to undertake further work in that discipline.

CREDIT FOR INTERNATIONAL BACCALAUREATE PROGRAM

Credit may be awarded for International Baccalaureate (IB) examinations in subject areas applicable to the liberal arts curriculum at Lawrence University where a student has earned a score of 5, 6 or 7. Students who have earned an IB diploma may receive 6 units of credit for each IB higher-level examination and 3 units of credit for each subsidiary-level examination. Students who have not earned an IB diploma but have completed individual IB examinations may receive 6 units of credit for each higher-level examination. A maximum of 48 units of credit may be awarded.

Current subject areas acceptable for credit include: language A1, second language, economics, history, Islamic history, philosophy, psychology, social and cultural anthropology, biology, chemistry, physics, environmental systems, mathematics, computer science, film studies, music, theatre arts and visual arts. Placement in Lawrence courses based on IB examination credit will be determined by the appropriate academic department or program.

Credit awarded for IB examinations will be applied to competency and diversity General Education Requirements as appropriate. Such credit may not be applied to distribution requirements. Individual departments will determine whether advanced-placement credit fulfills major or minor requirements and the placement of students who wish to undertake further work in that discipline.

TRANSFER CREDIT

Academic work completed at other institutions of higher education will be evaluated to determine the courses and credit to be transferred and applied to a Lawrence degree. Evaluations are based on official transcripts received directly from U.S. accredited colleges and universities, or a report from Educational Credential Evaluators, Inc., in the case of foreign institutions. Only courses applicable to the programs and degrees offered by Lawrence and graded at a C- or better will be transferred. Students may be asked to provide course descriptions, syllabi or other information if a determination cannot be made from the transcript information alone. Credit is normally granted on the basis of 6 Lawrence units for three-and-one-third semester hours or five quarter hours.

Coursework from other institutions may not be used to fulfill the writing or speaking General Education Requirements. Individual academic departments and programs will determine if transfer credit fulfills major, minor, or interdisciplinary-area requirements. Students should review the requirements for their degree for important information on residence requirements and limits on the total transfer credit that may be applied to a Lawrence degree. Transfer credit and transfer grade points are used only in the computation of the composite GPA.

EVALUATION OF CREDIT FOR TRANSFER STUDENTS

Transfer students must have official transcripts sent to Lawrence from their former institutions as part of the application process. Once a student is admitted, the registrar will evaluate the work for transfer. The registrar's evaluation will include: a list of courses accepted toward a Lawrence degree; the Lawrence unit value awarded to each accepted course; the total units accepted; a statement of the value of the grades earned at the former institution in the student's cumulative composite grade-point average; a notation of courses that may be transferred pending completion of work, review of descriptions and syllabi, or review by a Lawrence department; a notation of courses denied for unsatisfactory grades or because the content is not applicable to a Lawrence Bachelor of Arts or Bachelor of Music degree; a statement of the work required for graduation; and a statement of the students academic class standing on entry. Depending on work transferred and major selected at Lawrence, transfer students may need to complete additional credit beyond the minimum required for their Lawrence degree program in order to fulfill all degree requirements.

COLLEGE WORK COMPLETED IN HIGH SCHOOL

Students who have taken college-level courses while in high school may be granted up to 42 Lawrence units for such work.

TRANSFER OF CREDIT FOR CONTINUING STUDENTS

Students who wish to attend summer school or undertake a period of study at another institution must petition the Faculty Subcommittee on Administration for approval of their proposed course of study. Petitions must include titles and descriptions of courses; length of session or term and, in the case of summer work, number of hours of participation (class, laboratory, field or studio); and statements of support from the student's advisor and from the chairs of the departments that would offer the courses were they part of the Lawrence curriculum. In some cases syllabi may be requested in order to make a determination. Normally no more than 12 Lawrence units may be earned in a summer session. The transfer credit will be applied to degree requirements as appropriate based on the subject of the course. If the student wishes the work to fulfill a particular general education diversity or competency requirement, that desire should be clearly stated in the petition (usually a syllabus will be needed to make this determination). It is expected that the student and academic advisor have reviewed the implications of transfer credit with respect to degree requirements such as the residence requirements. Transfer credit is used only in computing the student's composite GPA. It will not change the student's degree GPA.

The Faculty Subcommittee on Administration will notify the student of courses approved for transfer and grades required. The student will also be notified if an examination at Lawrence will be required before credit is awarded. The student will be expected to arrange for the appropriate documentation to be sent to Lawrence upon the completion of the work (see the general rules for transfer credit above). Grade reports or transcripts submitted by the student will not be accepted.

Completion of the language competency requirement

Students fulfill the language requirement by demonstrating proficiency in listening, speaking, reading, and writing at the level of 200 or above (B.A. or B.A./B.Mus.) or 102 or above (B.Mus.) or the equivalent. For classical languages (Latin or Ancient Greek), students must demonstrate proficiency only in reading and writing. Students with previous language study or experience, including native speakers of languages other than English, may demonstrate proficiency in any of the ways described below.

COURSEWORK OR EXAMINATIONS IN LANGUAGES TAUGHT AT LAWRENCE

- Students may begin or continue language study at Lawrence and fulfill the requirement by completing a course at the level of 200 or above (B.A. or B.A./B.Mus.) or 102 or above (B.Mus.).

- Students may participate in certain affiliated off-campus programs with language components and fulfill the requirement by completing a course at the appropriate level. A list of programs with qualifying courses is available through the off-campus programs office.

- Students may fulfill the requirement by passing the Lawrence University proficiency examination in a language other than English at the appropriate level. The language department will determine placement and whether the language competency general education requirement is satisfied. Degree credit is not awarded for these examinations.

- Students may fulfill the requirement by obtaining a score of 4 or 5 on the College Board Advanced Placement Examination or a score of 6 or above on an International Baccalaureate Examination in a language other than English at the high level. This option carries credit equivalent to one six-unit course.

- For Spanish only, students may fulfill the requirement by obtaining a score of 630 or higher on the SAT II Spanish or Spanish with Listening exam or by presenting documentation for CLEP credits in Spanish: four CLEP semesters (B.A. or B.A./B.Mus.) or two CLEP semesters (B.Mus.). This option carries no academic credit.

COURSEWORK OR EXAMINATIONS IN LANGUAGES NOT TAUGHT AT LAWRENCE
Students who have studied a language other than those taught at Lawrence, including students who have participated in an affiliated off-campus program with a language component, may use this language to fulfill the requirement by demonstrating proficiency in listening, speaking, reading, and writing at the level of 200 or above (B.A.) or 102 or above (B.Mus.). For non-written languages, students must demonstrate proficiency only in listening and speaking. Proficiency may be demonstrated in any of the following ways:

- By completing equivalent coursework at the appropriate level. Courses may be taken at another institution and transferred to Lawrence. Students should check with the registrar to make sure that a course will transfer for credit and with the chair of the language coalition to make sure that it will satisfy the general education requirement.

- By taking and passing a proficiency examination in the language. This process may be facilitated locally by student academic services. Where proficiency examinations are not available locally, students may petition to use another form of evaluation administered and certified by an outside authority who will (a) identify that authority's expertise in the language, (b) describe the methods by which the authority assessed the proficiency of the student, and (c) provide a diagnostic report on the level of proficiency the student has obtained in listening, speaking, reading, and writing. Students should contact the chair of the language coalition for help preparing the petition and confirming the acceptability of the outside authority.

ADDITIONAL OPTIONS FOR NATIVE SPEAKERS OF LANGUAGES OTHER THAN ENGLISH
Students who are native speakers of a language other than English have additional options for fulfilling the language requirement. For written languages, students must demonstrate proficiency in listening, speaking, reading, and writing. For non-written languages, students must demonstrate proficiency only in listening and speaking. To satisfy the university's language requirement, the language must be a natural language that is natively spoken (or signed) by one or more linguistic communities. Students should submit the necessary documentation by the end of the freshman year (or the first year for transfer students).

- The language requirement will be waived for international students whose high school program was conducted in a language other than English. The student must provide documentation (such as a high school diploma) to verify that this was the case.

- If the student's high school program was conducted primarily in English, the student must demonstrate proficiency in the native language in another way. For languages in which proficiency cannot be assessed by a Lawrence faculty member, students must provide a letter from a person in authority (such as a headmaster or teacher) along with relevant documentation attesting to the student's language proficiency. The letter or documentation may not be from a family member or relative of the student. Contact the chair of the language coalition (Peter John Thomas, Russian department) for assistance.

Academic progress

EXPECTATIONS FOR ACADEMIC PROGRESS
Lawrence University normally expects students to complete their work toward graduation in four years (or five years in the case of students in the B.A./B.Mus. double-degree program). At the time of matriculation, the university determines the class standing of each student on the basis of transfer and advanced placement credits, if any, accepted by Lawrence. Thereafter, the number of credits earned at Lawrence and the degree grade-point average determine a student's academic progress.

Generally, full-time students are expected to progress toward graduation according to the following guidelines. At the end of the freshman year, or three terms, a student should have completed at least 48 units and have a minimum degree GPA of 1.833. At the end of the sophomore year, or six terms, a student should have completed at least 102 units and have a minimum degree GPA of 2.000. Students who do not meet these guidelines or who receive failing grades or other indications of unsatisfactory progress may be warned, placed on academic probation or strict probation, suspended, or required to withdraw from the university. Academic performance in December Term will not change a student's academic standing, though the December Term course grade will be included in a student's grade point average, which could affect academic standing in subsequent terms.

Students must be in good academic standing to participate in off-campus programs sponsored by Lawrence, the Associated Colleges of the Midwest or other organizations with which Lawrence has consortial agreements. Students placed on strict probation are not eligible to participate in either extracurricular performances or sports (varsity, junior-varsity or club), nor may they hold a position of responsibility, elected or volunteer, in any Lawrence University Community Council-sanctioned activity or Greek organization. The spirit of this eligibility restriction is to limit any significant extracurricular activity but not necessarily to eliminate nominal participation, such as attendance at a meeting.

Additional information on policies governing academic progress and standing is contained in "Guidelines for Academic Action," which may be obtained from the Center for Academic Success.

LEAVES OF ABSENCE AND WITHDRAWAL

A student who wishes to leave the university for any reason should request a leave of absence or withdrawal by completing the request form available from the Center for Academic Success. The dean of academic success, using faculty legislation, will review the request and, upon its approval, will notify all appropriate university offices. A student who has not been attending classes and has not responded to communications from university offices may be placed on leave by the university.

A student granted a leave is expected to return at the end of the leave (and may return earlier) or to request an extension before the leave expires. Any student who does not do so is withdrawn from the university. Any student who, without a leave of absence, terminates enrollment at Lawrence or in a Lawrence-sponsored program is withdrawn from the university. A student who has been withdrawn must petition to be readmitted. A student placed on leave by the university will be expected to address the problems that led to the leave before returning to continue a course of study.

Petitions for readmission are reviewed by the Faculty Subcommittee on Administration. The petition should include a clear and detailed explanation of why the student terminated enrollment or overstayed a leave of absence, what academic or other worthwhile activities occupied the student while withdrawn from the university, and why the student wants to be readmitted.

A student who does not follow these procedures for a leave or a withdrawal or who fails to meet refund deadlines may forfeit the continuing-enrollment deposit.

TRANSFER BETWEEN DEGREE PROGRAMS

Students who find that their interests have changed may apply to transfer to a different degree program within the university. An application for transfer is made as a petition for admission to the intended program. B.Mus. students who wish to transfer to the B.A. degree program should direct their petitions to the Faculty Subcommittee on Administration. B.A. students who wish to transfer to the B.Mus. degree program should direct their petitions to the Conservatory Committee on Administration.

Students in the five-year B.A./B.Mus. degree program may drop one of their degrees and move to a single-degree program (either the B.A. or the B.Mus.) by notifying the registrar's office.

Any student considering transferring to a different degree program should, at a minimum, consult with his or her advisor, the dean of the conservatory, and the dean of academic success in order to assess the consequences of such a move. A petition for transfer should not only speak to the reasons for the change but also present a plan for completing the requirements of the new degree program. In the case of transfer to the B.Mus. degree program, an audition or other qualifying examination may be required. Students who transfer to a different program after their second year of study usually will need to extend the time required for completion of their degrees.

CONFERRING OF DEGREES AND GRADUATION

Lawrence confers degrees at the end of the Fall and Spring Terms each year but holds its Commencement only once, in June. Degrees are not conferred automatically. Students must apply for graduation by completing an application distributed by the registrar's office. Receipt of a completed graduation application initiates a review of the student's academic record for completion of degree requirements. All grades, official transcripts, and other certifying documents, such as the major-completion form, must be filed at the registrar's office before a degree can be awarded. Students enrolled in the five-year B.A./B.Mus. program must complete all program requirements before receiving either degree.

Once a degree is conferred, a student may not apply additional credit to that degree.

Participation in Commencement is a privilege earned by students who complete degree requirements. Students who expect to finish and receive their degrees by the end of the calendar year may petition to participate in Commencement the June before their degree is conferred. Petitions to participate in Commencement must be submitted to the Faculty Subcommittee on Administration no later than April 15.

When a degree is conferred, a citation is posted to the student's record noting the date and nature of the degree awarded. This information will be included in all transcripts requested after the degree date. Diplomas are printed once each year and distributed at Commencement in June. Official transcripts, diplomas, and letters certifying completion of all requirements will be released only for students whose accounts with Financial Services are clear.

Honors

DEAN'S LIST
The Dean's List is an annual honor roll of students demonstrating exemplary academic performance. The list is compiled at the end of June after Term III grades have been posted. To be included on the Dean's List a student's record must meet the following qualifications:

- The student must have earned a 3.400 GPA for the year in all A-F graded courses.
- The student must have earned at least 36 units in A-F graded courses during the year.
- The student must have no unsatisfactory grades (U, D+, D, D-, or F) in courses taken during the year.
- The student must have no grades of I or NR, except where the NR is due to a faculty member's not turning in grades for the course.

HONORS AT GRADUATION
The faculty of Lawrence University grants honors at graduation both to encourage students to do superior academic work and to recognize superior performance. Honors in Course and Honors in Independent Study recognize two distinctive kinds of academic achievement; some students each year receive both types of honors. Students who have distinguished themselves in fulfilling the requirements for the bachelor's degree are awarded Honors in Course, primarily on the basis of their cumulative grade-point averages, while those who have completed significant independent projects may submit their work for evaluation for Honors in Independent Study. Both types of honors are indicated in the Commencement program and on official transcripts, and both are granted in three grades—cum laude, magna cum laude and summa cum laude—by vote of the faculty acting on the recommendation of the university Committee on Honors.

HONORS IN COURSE
Performance in courses taken at Lawrence or as part of Lawrence-approved off-campus programs (degree GPA), as well as a student's entire academic record (composite GPA), determines a student's eligibility to receive honors. The committee uses as guidelines the following grade-point averages:

- 3.40 to 3.69 for *cum laude*
- 3.70 to 3.89 for *magna cum laude*
- 3.90 to 4.00 for *summa cum laude*

Honors in Course are not awarded automatically, however. The committee examines all students' records individually and recognizes that in certain situations cumulative averages are not accurate measures of a student's achievements in course. If, for example, a student has taken an unusually large number of courses on a S/U basis, has completed an unusual student-designed major or has performed with distinction on a departmental examination, the committee may consider departmental or committee evaluations and other relevant data.

Students who transfer from other colleges or universities, as well as students who undertake virtually all of their coursework at Lawrence, qualify for Honors in Course on the same basis. Students normally must achieve the stated guidelines in both the degree GPA and the composite GPA to qualify for a given level of honors.

HONORS IN INDEPENDENT STUDY

Students may also earn honors at graduation through the successful completion of an honors project (see "Honors Projects" in Student-Initiated Courses.)

Petitions for exceptions to academic regulations

University regulations govern the academic progress of students, the welfare of the community and the equitable and orderly conduct of university affairs. On occasion, however, individual circumstances may warrant exceptions to established regulations, and students may petition the appropriate officer of the university or university committee for such exceptions.

- Petitions for exceptions to social regulations should be directed to the dean of students.
- Petitions for exceptions to academic regulations should be directed to the Faculty Subcommittee on Administration via the registrar or dean of academic success.
- Petitions for exceptions to conservatory requirements should be directed to the dean of the conservatory.
- Petitions concerning business affairs should be directed to the vice president for finance and administration.

Petitions will be reviewed by the appropriate entity and decisions communicated to the petitioning students. In the specific case of corrections to class registration (dropping or adding a class), petitions must be submitted by the end of the academic term immediately following the term for which a class registration correction is being requested.

Petitions should contain a clear and detailed statement of the exception requested and the reasons for the request. Students should review petitions with faculty advisors and others who may be involved, such as instructors, department chairs or deans, and seek their approval. Petitions for exceptions to academic regulations must contain the signature of the student's advisor(s) and, depending on the exception requested, the instructor's or department chair's signature may also be required.

Any appeals of academic decisions should be directed to the provost, who is the chief academic officer of the university.

GRIEVANCE PROCEDURE

The grievance procedure is a way to address concerns that are not covered by other university processes (academic petitions, honor council or judicial board hearings, or complaints of sexual misconduct or employee discrimination). If you have a concern about the actions or lack of action of another member of the Lawrence community, you should follow the procedure below.

1. **Discussion**. Where possible, discuss the concern with the other person to seek a mutually acceptable resolution. If you feel uncomfortable or unsafe doing so, proceed to #2 or 3.

2. **Consultation/mediation**. Seek counsel from a supervisor, advisor, residence hall director or residence life advisor, counselor, dean, colleague, etc., who may suggest possible solutions, refer you to a university procedure for addressing this type of concern, or act as an informal mediator to help resolve the dispute.

3. **Formal review**. If the matter remains unresolved, request a formal review by the appropriate university authority:

    - vice president for student affairs for a concern about a student's actions;

    - provost and dean of the faculty for a concern about a faculty member's actions; or

    - vice president for finance and administration for a concern about a staff member's actions.

    To call for a formal review, send the university authority a written statement of the concern and any action taken to resolve it. The preferred way to receive a grievance is by email with "grievance" in the subject line.

    The authority will acknowledge receipt of the grievance within two weeks and will work to resolve the matter as quickly as possible. The authority may guide the party to an applicable university procedure or investigate the matter by:

    a) sharing the statement with the other party and asking for a written response;

    b) seeking additional information from one or both parties or from others who have knowledge of the dispute; and

    c) consulting sources on university procedures and regulations or seeking advice from appropriate counsel.

On the basis of this information, the authority will determine whether either party acted inappropriately and what corrective action needs to be taken. If the authority determines that the situation is not a matter for university governance, the authority may recommend actions, but neither party is bound to act on those recommendations. The authority's written decision and directives or recommendations will be sent to both parties, preferably by email.

4. **Appeal**. If the authority's decision does not resolve the matter, you or the other party may request that a panel hear the grievance. To call for a panel, send the authority a written statement of your reason for the appeal and your willingness to abide by the panel's decision. The preferred way to receive an appeal is by email with "appeal" in the subject line.

   The authority will acknowledge receipt of the appeal within two weeks and will compose a panel to hear the grievance. The university authority will ask you and the other party each to submit the names of three faculty or staff members. The authority will select one person from each list and name a third person to the panel. If either party to the grievance is a student, the third person will be a student member of the judicial board who has no involvement with the dispute; otherwise, the third person will be a member of the faculty or staff. The authority will designate one panel member as chair.

   The panel will be given all written statements related to the grievance, including the university authority's decision and directives or recommendations. The panel may interview any or all parties and others with knowledge related to the dispute. On the basis of this information, the panel will render its decision, preferably by consensus but otherwise by majority vote. The panel's written decision will be sent to both parties and the university authority, preferably by email. All parties are expected to abide by that decision.

   While the grievance procedure is meant to resolve disagreements that affect members of the Lawrence community, it may not be possible to solve a problem to everyone's satisfaction. The university expressly forbids any retaliation or threat of retaliation for filing a grievance, and any party that fails to follow the directives of the university authority or grievance panel will be subject to disciplinary action. This ensures that the process can lead to a genuine resolution.

Admission to the university

Lawrence admits students whose talents and aspirations match well with what the university has to offer and who will contribute to our academic and residential community. Strong candidates for admission have taken at least 16 academic units from the areas of English, mathematics, history, social studies, natural sciences, and foreign languages. We are interested in students who have challenged themselves in high school, who have performed well in their academic work, who express themselves well both verbally and in writing, who understand the value of a liberal arts education, and who are imaginative, energetic, and willing to become active members of a learning community.

Lawrence considers the strength of each applicant's course of study, grades, recommendations and extracurricular activities, roughly in that order. Lawrence will consider, but does not require, SAT or ACT scores for admission.

Note: International students whose primary language is not English must submit the results of the ACT, SAT, IELTS (International English Language Testing System), or the TOEFL (Test of English as a Foreign Language).

Candidates for the Bachelor of Music degree and for the five-year double-degree program are evaluated additionally on musicianship, musical background, performance potential, and music teachers' recommendations. Along with the regular application forms, music degree applicants must submit a music resume and a recommendation from a private music teacher, and must audition on their primary instrument.

We welcome applications from transfer students who wish to complete their degree at Lawrence. Transfer candidates are required to submit college transcripts and a college faculty recommendation along with the application, secondary school report, and final high school transcript. Lawrence accepts, but does not require, SAT or ACT scores for transfer admission. Transfer candidates for the music degree must also submit a music resume and a recommendation from a music teacher, and must audition on their primary instrument. Generally, coursework in the arts and sciences completed satisfactorily at accredited institutions is accepted toward a Lawrence degree.

For information on residence requirements for each degree program please see the "Degree and general education requirements" section of the course catalog.

On occasion, Lawrence accepts qualified applicants for early admission who are prepared to begin college at the end of the junior year of high school.

Application deadlines and campus visits

There are three application deadlines for first-year students planning to enroll in September.

Early Action I: Nov. 1 (notification Dec. 15)
Early Action II: Dec. 1 (notification Jan. 25)
Regular Decision: Jan. 15 (notification April 1)

Admitted students have until the May 1 National Candidates Reply Date to choose to accept or decline Lawrence's offer of admission.

Transfer admission is competitive and offered on a space-available basis. We consider transfer students for admission to any of our three terms, though we generally discourage midyear transfers from students who are currently enrolled in their first term at another college.

Fall Term: April 1 application deadline (notification May 15)
Winter Term: Nov. 1 (notification Nov. 15)
Spring Term: Feb. 1 (notification Feb. 15)

Lawrence welcomes visits by prospective students, as a campus visit is the best way to learn about a college. We encourage students to visit when classes are in session and there is an abundance of campus activities. We can arrange class visits, individual meetings with faculty, meals in the dining hall, a campus tour, and an interview with an admissions officer. We ask that visits be arranged at least two weeks in advance and that students limit residence-hall overnights to one night. We provide overnight stays for high school seniors and transfer students visits on Sunday through Thursday nights. Summer visits consist of an individual interview or group presentation and campus tour.

LAWRENCE UNIVERSITY COMPREHENSIVE FEE DETAILS 2016-17

Tuition

Annual tuition fee	*Per term*	*Due date*
$44,544	$14,848	August 15 for Term I
	$14,848	December 15 for Term II
	$14,848	March 15 for Term III

Room

Annual charge	*Per term*	*Due date*
Double		
$4,725	$1,575	To accompany tuition payment
Single		
$5,487	$1,829	To accompany tuition payment

Board

Annual board plan	*Per term*	*Due date*
$4,929	$1,643	To accompany tuition payment

Activity fee*

Annual fee	*Per term*	*Due date*
$285	$95	To accompany tuition payment

*Student organization/Lawrence University Community Council (LUCC) fee per three-term year.

LUCC Environmental Sustainability Fee

Annual fee	*Per term*	*Due date*
$15	$5	To accompany tuition payment

Comprehensive fee

The amount of **$54,498,** the total comprehensive fee per three-term year, includes tuition, double room charge, board charge, the student activity fee and the LUCC Environmental Sustainability Fee. In addition to the comprehensive fee, other charges and fees may apply based on individual course schedules.

Incremental fees

Under certain circumstances some students may be eligible to pay their fees on a per-course basis.

Per term	
$5,493	1st six units
$4,900	2nd six units
$4,454	3rd six units
$4,009	4th six units
$3,564	5th six units

For students admitted prior to Fall Term 2012, the equivalent of at least twelve terms (216 units) of tuition, less transfer or advanced placement credit, must be paid by single-degree students prior to graduation. Double-degree students must pay the equivalent of at least fifteen terms (270 units) of tuition. Students enrolled full time for more than twelve terms may elect assessment by the term or by the course for the thirteenth and succeeding terms.

Beginning Fall Term of 2012, students who are registered for more than 23 units (excluding ensembles) in an academic term will be charged additional tuition. $1,238 per unit is the fee charged for academic year 2016/2017.

Overload fees

Effective for new admits and transfers beginning with those admitted for Fall 2012.

Students who are degree-seeking and are registered for more than 23 units (excluding ensembles) in an academic term will be charged additional tuition. $1,238 per unit is the fee charged for academic year 2016–17.

Students who are non-degree seeking and are registered for more than 23 units in an academic term will be charged additional tuition. $1,238 per unit is the fee charged for academic year 2016–17. Ensembles will *not* be excluded from the unit calculation as they are for degree-seeking students.

Students need to fill out the overload request form and have the approval of their advisor.

Tuition is charged for courses in which the student is officially registered, regardless of attendance or final grade. Overload fees will be charged based on a student's official registration for the term (attempted units). Failure to successfully complete and earn credit for all registered courses will not cancel or modify any overload fees that have been assessed.

Housing deposit

Continuing students are required to pay a non-refundable $300 housing deposit to secure their housing contract for any/all term(s) in the next academic year. The housing deposit is due at the start of the third week of Spring Term of each year and will be applied to the student's account for the first term they are on campus in the next academic year. The deposit must be made in order for students to participate in housing selection for the upcoming year.

The deposit is refundable only under the following circumstances:

1. A student is not progressing academically and is required to withdraw by the university

2. A student is required to withdraw by the action of the Dean of Students or designee, Judicial Board or Honor Council

Other fees and costs

- $300: Textbook cost per term, approximate
- $20 Conservatory fee per term. Covers Artist Series, Jazz Series and World Music Series.
- $30: Residence hall activity fee per three-term year
- $300: Music lesson charge per term, one-half hour of instruction per week, for students not majoring in music
- $250 Off-campus administrative fee per term when participating in a Lawrence University affiliated off-campus program

- A 12% annual-percentage-rate late charge will be assessed on all accounts 30 days past due
- A $20 non-refundable charge will be incurred if charges billed directly to students by a department are not paid to that department by their deadline. Such charges are then added to a student's account along with the non-refundable fee. This would include overdue library items and computer mini-hubs.

Note: Medical insurance is not provided for students by the university. A student insurance plan offering accident and sickness coverage is available through a local agent. Details may be obtained from the Dean of Students office.

Room and board

Lawrence University is a residential college, and all students are expected to live on campus throughout their entire enrollment. Exemptions are granted to students who have been Lawrence students for four academic years, students beginning their fifth year or later after high school, married students, students in documented domestic partnerships, or students with dependent children. Students meeting any of these criteria should submit a written request for a housing exemption to the vice president for student affairs and dean of students. Housing charges will be canceled only after reasons are verified. Students must keep the registrar's office informed of any address or telephone number changes.

Room charges are: double occupancy, $4,725 per three-term year, single occupancy, $5,487 per three-term year. Changes of occupancy will be reflected on the student account as they occur. Residence hall rooms are provided with essential furniture; students must provide their own linens.

All residential students are required to have a board plan. Board plans do not vary in price, only in the balance between meals per term and declining balance monies on the meal card. Students choose the plan that best meets their individual needs and schedules.

Residence halls open for new students on the first day of Welcome Week. Rooms for returning students will be available on the Saturday prior to registration. The first board meal is served on Sunday evening.

The obligations of the university to resident students for room and board cease after breakfast on the day following the last examination at the end of each term or after the last class before each vacation period within a term. In the third term, a 24-hour period after the individual student's last examination is allowed for packing.

The room and board charge does not include the winter break, or any other period when dining halls or residences are closed. Residence halls will remain available during spring break but the regular board options will not be available. Retail dining options are available in the Warch Campus Center on a reduced operating schedule during breaks.

Bills and payments

Bills are available electronically via CashNet. Students will be able to access their statements through Voyager. Students are able to grant others access to their student account. These other authorized users will receive login information once they are set up by their student. Monthly statements are generated on or around the 15th of each month. No paper bills will be sent. CashNet also offers a “dynamic billing” function, which allows students and any authorized user to see live student account balance information and activity. The bill reflects appropriate adjustments for merit awards and financial aid awards based upon receipt of signed Lawrence financial aid awards that have been accepted by a student. Students are responsible for accessing their billing information in CashNet. Email notifications are sent as a courtesy when billing statements are generated. Not receiving an email notification does not excuse late payments.

At the 7th week of each term, students who have not paid their term fees in full, have no paid term fees as agreed under payment plan, or have not made other payment arrangements will be put on administrative leave for the next term, and all future registration will be removed. They will not be allowed to return until all outstanding fees are paid in full, along with the payment for the upcoming term. Failure to make payment for subsequent terms by the due dates, after being reinstated as a student, will result in an indefinite leave.

Additional charges incurred for course-related items, extracurricular activities, or miscellaneous purchases are due as incurred. Students are expected to pay these obligations when due.

Official transcripts, diplomas, and letters certifying completion of requirements or receipt of a degree will not be released and verbal confirmation of a degree will not be given until all accumulated fees and charges have been paid.

PAYMENT DUE DATES
Fall Term: Aug. 15
Winter Term: Dec. 15
Spring Term: March 15

Refunds

In 1999 Lawrence adopted a refund policy in accordance with the U.S. Department of Education’s 1998 Reauthorization of The Higher Education Amendments (Section 668.22).

LEAVE OF ABSENCE OR WITHDRAWAL BEFORE THE FIRST DAY OF CLASSES
Full room, board, tuition, activity fee and environmental fee will be refunded upon proper notification of withdrawal or leave of absence prior to the first day of classes for any term. Written notification of leave of absence or withdrawal must be directed to the Associate Dean of Faculty for Student Academic Services. A student who remains on campus after the approved leave of absence or withdrawal date will be charged pro rata for room and board through the date on which they depart, as determined by the dean of students.

Students who fail to notify the university of their decision not to enroll for classes by the date fees for the term are due (see Bills and Payments), will forfeit their housing deposit.

LEAVE OF ABSENCE OR WITHDRAWAL ON OR AFTER THE FIRST DAY OF CLASSES
Students who take a leave of absence or withdraw from the university after classes are in session may qualify for a reduction in certain charges that are due to the university.

A student must request a change in status, including a leave of absence or withdrawal from the Associate Dean of Faculty for Student Academic Services. Students who wish to request this change, or discuss such an option, should make an appointment with the Associate Dean of Faculty for Student Academic Services before completing the required form. If granted permission for a change of status, a student may qualify for a reduction in charges that are due the university.

If a student takes a leave of absence or withdraws prior to or at the 60-percent point of the term, the refund for tuition, room, and board charges will be pro-rated based on the number of calendar days the student was in attendance. A student who remains on campus after the approved leave of absence or withdrawal date will be charged pro rata for room and board through the date on which they depart, as determined by the Vice President for Student Affairs and Dean of Students.

If a student takes a leave of absence or withdraws after the 60-percent point of the term, there will be no refund of tuition, room or board.

Computation of the 60-percent point will be based on the total number of calendar days in the term beginning with the first day of classes and ending with the last day of final examinations. For the 2016–17 academic year, the 60-percent dates are on or after:

Term I: Oct. 25, 2016
Term II: Feb. 15, 2017
Term III: May 12, 2017

A non-refundable $200 withdrawal fee will be assessed each time a student withdraws or takes a leave of absence from the university, unless the leave of absence or withdrawal is before the first day of classes of each term.

Federal, state, institutional, and private financial aid funds (except for earned federal work study funds) awarded to the student will be reduced based on the number of calendar days the student was in attendance up to the 60-percent point of the term. After 60 percent of the term has been completed, financial aid awards will not be adjusted. Further details and examples can be obtained at the Financial Aid Office.

Refunds for students who have withdrawn or taken a leave of absence will not be processed until two weeks after either the last date of attendance or the student's departure date, whichever is later.

Credit balances

A credit balance on your student account is created when you have funds remaining (either financial aid or personal) after all eligible charges to your student account are paid in full. All credit balances remain on a student's account and will be applied to future terms within the same academic year unless a student specifically requests a refund. Refund requests should be made to Student Accounts. Students who have requested refund of credit balances can expect to receive their refund approximately three weeks after the start of the term.

We encourage students to enroll online in CashNet for electronic refunds (eRefund). Refunds will be processed and will be automatically deposited into a checking or savings account. If a student does not enroll in eRefund and thereby chooses to receive their refund via check, a $20 processing fee will be charged to the student's account. This $20 fee does NOT apply to refunds of parent PLUS loans.

Returning students with a credit balance of more than $200 at the end of the academic year may submit a request to Student Accounts to have their credit balance carried forward to the next academic year. For all other returning students, credit balances of more than $200 that exist at the end of the academic year will be refunded approximately three weeks after the last day of final exams. If the student is enrolled in eRefund, the entire credit will be refunded. If a student chooses to receive their refund via check, only credits greater than $200 will be refunded, minus a $20 check processing fee. Credit balances of less than $200 will be carried forward and applied to the next academic year.

Refunds of credit balances to graduating students will be processed approximately three weeks after graduation.

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NorthRoad Capital Management LLC

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Senior Vice President/Management
Consulting, OptumHealth

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Compliance Officer, Northwestern Mutual

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Mary B. Sensenbrenner

Cynthia Stiehl '89
Singer

Priscilla Peterson Weaver '69
Attorney, Shepherdess, Mayer Brown

Faculty

Minoo Adenwalla (1959)
Professor Emeritus of Government
University of Bombay, B.A.; Northwestern University, M.S., Ph.D.
Interest(s): South Asian and British politics, political philosophy

Akimi Adler
Instructor of Japanese

I Dewa K.A. Adnyana (2009)
Lecturer of Music
Conservatory of Indonesian Musical Arts (Sekolah Menengah Karawitan Indonesia), Batubulan, Bali, Indonesia
Interest(s): Traditional and contemporary Balinese music and dance

Ingrid V. Albrecht (2013)
Visiting Assistant Professor of Philosophy and Uihlein Fellow of Ethics
Wake Forest University, B.A.; University of Illinois at Urbana-Champaign, M.A., Ph.D.
Interest(s): Ethics (with an emphasis on Kant), moral psychology

Timothy Van Albright (2016)
Assistant Professor of Music-Trombone
Bachelor of Music, Eastman School of Music

Madera Allan (2008)
Associate Professor of Spanish
Reed College, B.A.; University of Pennsylvania, M.A., Ph.D.
Interest(s): Medieval and early modern Spanish and Latin American cultural production, theater, literary theory, ethics

Matthew E. Ansfield (2000)
Associate Professor of Psychology
University of Wisconsin-Madison, B.S.; University of Virginia, Ph.D.
Interest(s): Social psychology

Janet Anthony (1984)
Professor of Music and George and Marjorie Olsen Chandler Professor of Music and Teacher of Cello
University of Arizona, B.Mus.; Hochschule für Musik und Darstellende Kunst, Vienna; State University of New York at Stony Brook, M.Mus.
Interest(s): Cello, music history, chamber music

Matthew R. Arau (September 2014 - Pre)
Assistant Professor of Music Education and Associate Director of Bands
University of Colorado Boulder, D.M.A.; Southern Oregon University, M.S.; Lawrence University, B.Mus.
Interest(s): Leadership, potential, learning theory, talent research, music education, motivation, Stravinsky, engagement in rehearsals, Paul Taffanel Chamber Wind Society in Paris 1879–1893, jazz, wind ensembles

Chloe Armstrong (2015)
Assistant Professor of Philosophy
University of Victoria, B.A.; University of Western Ontario, M.A.; University of Michigan, Ph.D.
Interest(s): History of philosophy (17th and 18th centuries, ancient Greek philosophy); science fiction and philosophy; logic

Tori O. Arthur (2016)
Visiting Assistant Professor of Ethnic Studies
James Madison University, B.S.; American University, M.F.A.; Bowling Green State University, Ph.D.

Joshua E. Baker (2016)
Instructor of Spanish
Temple University, B.A.; Universitat Pompeu Fabra, M.A;
University of Chicago, M.A.

Ameya S. Balsekar (2009)
Associate Professor of Government
Brown University, B.A.; Cornell University, M.A., Ph.D.
Interest(s): Political participation, identity politics and ethnic conflict, politics of Asia, comparative democratization, politics of human rights, multiculturalism

Regan Buck Bardeen (2014)
Visiting Assistant Professor of History
University of California, Los Angeles, M.A., Ph.D.; University of Kansas, B.A.

Celia B. Barnes
Assistant Professor of English
College of William and Mary, B.A.; Indiana University, M.A., Ph.D.
Interest(s): 18th-century British literature; women's writing, letters, and diaries

Rachel Barnes (2001)
Lecturer
University of East Anglia, B.A.; Barber Institute of Fine Arts, M.Phil.
Interest(s): Art history

Maite Barragan
Post-doctoral Fellow in Art History

Philip A. Baruth
Lecturer of Music

Ian Bates (2011)
Assistant Professor of Music Theory
The University of Western Ontario, B.Mus.; Yale University, M.A., M.Phil., Ph.D.
Interest(s): Post-common-practice tonality and modality, music of Ralph Vaughan Williams, theories of harmonic function, music theory pedagogy, performance as analysis, music of Alberto Ginastera, analysis of tran

Loren PQ. Baybrook
Visiting Professor of Film Studies
University of Virginia, Ph.D.

David Bell (2005)
Associate Professor of Music
Oberlin College, B.Mus.; Northwestern University, M.Mus.
Interest(s): Marathon running

Ilil Benjamin (2016)
Instructor of Anthropology
Cornell University, M.A., Ph.D.
Interest(s): Medical humanitarianism, development, forced migration, global health, humanitarian mental health, Israel and Palestine

John H. Benson (1997)
Instructor of Music
University of Minnesota, B.S.; University of Wisconsin-Madison, B.Mus.; University of Washington, M.Mus.
Interest(s): theory, composition

James E. Berg
Lecturer of Film Studies

Christian Bester (2016)
Lecturer in Music

Gene Biringer (1995)
Associate Professor of Music
Rutgers University, B.A.; University of Illinois, M.Mus.; Yale University, M.Phil., Ph.D.
Interest(s): Music theory, composition, music history

Nathan Paul Birkholz
Staff Accompanist

Marcia Bjornerud (1995)
Walter Schober Professor of Environmental Studies and Professor of Geology
University of Minnesota-Minneapolis, B.S.; University of Wisconsin-Madison, M.S., Ph.D.
Interest(s): Structural geology, tectonics, rock mechanics, earth history

Peter A. Blitstein (2001)
Associate Professor of History
Johns Hopkins University, B.A.; University of California, Berkeley, M.A., Ph.D.
Interest(s): History of the Russian Empire and the Soviet Union, nationalism and ethnicity, historical theory

Ann Kohlbeck Boeckman (1992)
Instructor of Music and Teacher of Music Fundamentals
Lawrence University, B.Mus.; Western Illinois University, M.A.
Interest(s): Music theory, piano, early childhood education

Austin J. Boncher
Lecturer of Music

Garth Bond (2004)
Associate Professor of English
Trinity University, B.A.; University of Chicago, M.A., Ph. D.
Interest(s): Renaissance literature, poetry and drama, manuscript studies, history of the book, film

Helen Boyd Kramer (2008)
Lecturer of Gender and Freshman Studies
City College of New York, B.A. (English)
City College of New York, M.A. (Writing)
Interest(s): Transgender issues

Joanne H. Bozeman (1993)
Instructor of Music
University of Arizona, Tucson, B.Mus.
Interest(s): Voice, singing diction, vocal technique and pedagogy

Kenneth W. Bozeman (1977)
Frank C. Shattuck Professor of Music and Teacher of Voice
Baylor University, B.Mus.; University of Arizona, M.Mus.; Hochschule für Musik, Munich
Interest(s): Voice, voice science and pedagogy

John R. Brandenberger (1968-2008)
Alice G. Chapman Professor Emeritus of Physics
Carleton College, B.A.; Brown University, Sc.M., Ph.D.

Adriana E. Brook (2015-)
Assistant Professor of Classics
McMaster University, BASc; University of Western Ontario, MA; University of Toronto, PhD
Interest(s): Greek tragedy, especially Sophocles, poetics, ritual, literature and culture of fifth-century Athens

Jason Brozek (2008)
Stephen Edward Scarff Professor of International Affairs and Associate Professor of Government
Wayne State College, B.A.; University of Wisconsin-Madison, M.A., Ph.D.
Interest(s): Freshwater, international security, conflict bargaining, US foreign policy, International law

Karen L. Bruno (1997)
Director of the Academy of Music
A.B., Smith College M.Mus, Boston University
Interest(s): Choral music, issues in music education, pedagogy

Nell Jorgensen Buchman (1994)
Teacher of Piano and Early Childhood Music and Lecturer of Music
Meredith College, B. Mus; University of Oklahoma, M.M.
Interest(s): Piano

Stephanie Burdick-Shepherd (2015)
Assistant Professor of Education
Columbia University, Ph.D., M.Phil.; Montclair State University, M.Ed.; Transylvania University, B.A.

David Burrows (2005)
Provost and Dean of the Faculty
Columbia University, B.A.; University of Toronto, M.A., Ph.D.
Interest(s): Cognitive psychology

Elizabeth Carlson (2006)
Associate Professor of Art History
University of Cincinnati, B.A.; University of Minnesota, M.A., Ph.D.
Interest(s): Modern and contemporary art history and visual culture

Maria G. Carone (2015)
Visiting Assistant Professor of German
University of Cologne: B.A., M.A.; University of Bonn: M.A.; University of Wisconsin Madison: PhD in German, PhD in Italian.
Interest(s): 18th-19th century German literature, postcolonial theory, migrant literature, transcultural studies, literature and philosophy (H. Blumenberg, W. Benjamin)

Kelley K. Carpenter
Lecturer of Music and Teacher of Saxophone and Saxophone Quartet Coach

Karen L. Carr (1987)
McNaughton Rosebush Professor of Liberal Studies and Professor of Religious Studies
Oberlin College, B.A.; Stanford University, A.M., Ph.D.
Interest(s): 19th- and 20th-century religious thought, philosophy of religion, comparative religion

Bill Carrothers
Lecturer of Music

Hillary Caruthers (2014)
Assistant Professor of Economics
Brigham Young University, B.A.; University of Wisconsin at Madison, M.A., Ph.D.
Interest(s): Economic development, labor migration, global nutrition and health, natural resource and environmental economics, East and Southeast Asian studies

Sara Gross Ceballos (2008)
Assistant Professor of Music
Colby College, B.A.; University of California, M.A., Ph.D.
Interest(s): Musicology

Sara Chamberlin
Visiting Assistant Professor of Physics

Dominica Chang (2007)
Associate Professor of French
University of Wisconsin-Madison, B.A.; Middlebury College, M.A.; University of Michigan-Ann Arbor, M.A., Ph.D.
Interest(s): Romance languages and literature

Terence Charlston (2004)
Lecturer
Oxford University, M.A.; University of Wales; Royal Academy of Music and University of London, M.Mus.
Interest(s): Restoration keyboard music and computational methods of analysis

Yu-Lin Chiu (2012)
Instructor of Chinese
Taipei Municipal University of Education, B.E.; University of Wisconsin-Madison, M.A.
Interest(s): Generative linguistics, Chinese linguistics, syntax and phonology interface

Jeffrey J. Clark (1998)
Associate Professor of Geology
Middlebury College, B.A.; Johns Hopkins University, Ph.D.
Interest(s): Geomorphology, earth surface processes, human influences on the environment

Paul M. Cohen (1985)
Patricia Hamar Boldt Professor of Liberal Studies and Professor of History
Clark University, B.A.; University of Chicago, M.A., Ph.D.
Interest(s): Modern European intellectual history

Andrew S. Cole (2015)
Visiting Assistant Professor of Music and Freshman Studies
University of Missouri-Kansas City, D.M.A.; New Zealand School of Music, Graduate Diploma in Music
Interest(s): Electronic music, media arts, and eco-acoustics.

Jeffrey A. Collett (1995)
Associate Professor of Physics
St. Olaf College, B.A.; Harvard University, A.M., Ph.D.
Interest(s): Condensed matter physics, X-ray scattering, phase transitions, and critical phenomena

Tony Gerald Conrad (2012)
Lecturer of Art
University of Wisconsin-Milwaukee, M.F.A.

Scott Corry (2007)
Associate Professor of Mathematics
Reed College, B.A.; University of Pennsylvania, Ph.D.
Interest(s): Number theory, algebraic geometry, combinatorics, and mathematical physics

John Daniel (2002)
Associate Professor of Music and Teacher of Trumpet
Ball State University, B.Mus.; University of Iowa, M.A.; University of Michigan
Interest(s): Trumpet

Patricia A. Darling (2007)
Lecturer of Music
Lawrence University, B.Mus.
Interest(s): Jazz, composition

Carla Daughtry (2000)
Associate Professor of Anthropology
Mount Holyoke College, B.A.; University of Michigan, M.A., Ph.D.
Interest(s): Middle East and North Africa, new immigrants in Italy, migrants and refugees, food and culture, cultural research methods, race and ethnicity across cultures, sex/gender/sexuality systems

Bart T. De Stasio (1988-89, 1992)
Dennis and Charlot Nelson Singleton Professor of Biological Sciences and Professor of Biology
Lawrence University, B.A.; University of Rhode Island; Cornell University, Ph.D., University of Wisconsin-Madison, postdoctoral researcher
Interest(s): Evolutionary ecology, aquatic biology, predator-prey interactions

Elizabeth Ann De Stasio (1988-89; 1992)
Raymond H. Herzog Professor of Science and Professor of Biology
Lawrence University, B.A.; Brown University, Ph.D.; University of Wisconsin Madison, postdoctoral fellow
Interest(s): Interactions of biological molecules, evolution

James H. DeCorsey (1990)
Associate Professor of Music and Teacher of Horn
Stanford University, B.A.; Yale University, M.A., M.M.A., D.M.A.
Interest(s): Horn, chamber music, music history

Stefan Debbert (2007)
Associate Professor of Chemistry
University of Minnesota-Twin Cities, B.S.; Cornell University, Ph.D.
Interest(s): Organic and organometallic chemistry, synthesis, medicinal chemistry

Israel Del Toro (2016)
Assistant Professor of Biology
University of Massachusetts Amherst, M.Sc., Ph.D.; University of Copenhagen, Denmark, postdoctoral research fellow
Interest(s): Community ecology, biodiversity science, biogeography

Loren Dempster (2016)
Lecturer of Music
San Francisco Conservatory, M.M.; University of Washington, B.A./B.M.
Interest(s): Performance, education, improvisation, composition, electronic music, recording, music for dance

Cecile C. Despres-Berry (2002)
Lecturer in English as a Second Language and Director of the Waseda Program
Earlham College, B.A.; University of Texas at Austin, M.A.
Interest(s): Second language writing

Donna Jeanne DiBella (1996)
Instructor of Music
Rutgers University, B.A.; Westminister Choir College; Suzuki Institute, University of Maine-Orono
Interest(s): Theory, sight-singing, organ

Daniell DiFrancesca (2015)
Postdoctoral Fellow of Education
North Carolina State University, Ph.D.; University of Pittsburgh, M.A.T.; University of Pittsburgh, B.S.

Kimberly Dickson (2007)
Associate Professor of Biology
Smith College, B.A.; Johns Hopkins University. M.S.; University of Wisconsin-Madison, Ph.D.
Interest(s): Protein structure and function

Mark L. Dintenfass (1968-2006)
Professor Emeritus of English
Columbia University, B.A., M.A.; University of Iowa, M.F.A.
Interest(s): Prose fiction, American literature, composition

Erin K. Dix (2010)
University Archivist and Assistant Professor
Lawrence University, B.A.; University of Wisconsin-Madison, M.A.

Judith Dobbs (1991)
Lecturer
Vassar College, B.A.; Bedford College, University of London, M.Phil.
Interest(s): Victorian art, history, and literature

Deanna L. Donohoue (2013)
Assistant Professor of Chemistry
Augustana College: B.A.; University of Miami: Ph.D.

Sonja L. Downing (2008)
Assistant Professor of Ethnomusicology
Swarthmore College, B.A.; University of California, Santa Barbara, M.M., Ph.D.
Interest(s): Ethnomusicology, gender studies, traditional Balinese music

John P. Dreher (1963)
Lee Claflin-Robert S. Ingraham Professor of Philosophy
St. Peter's College, B.A.; Fordham University, M.A.; University of Cologne; University of Chicago, Ph.D.
Interest(s): History of philosophy, environmental ethics, American pragmatism

Dianne M. Droster (2000)
Lecturer of Education
Lawrence University, B.A.; Warren Wilson College, M.F.A.
Interest(s): History and creative writing

Cindy Lee Duckert (2011 -)
Lecturer of Biology
California Institute of Technology
Interest(s): Science communication, informal science education

Dale L. Duesing (1992)
Artist-in-Residence
Lawrence University, B.Mus.; Hochschule für Musik, Munich, Artist Diploma
Interest(s): Voice, opera

Mark Dupere (2016)
Assistant Professor of Music and Director of Orchestral Studies
Michigan State University, D.M.A.; Royal Conservatory of the Hague, NL, B.Mus, M.A.; University of Texas at Austin, B.Mus
Interest(s): Orchestra, music education, chamber music, cello, musicology

Jose L. Encarnacion (2011)
Assistant Professor of Music and Director of Jazz Studies
Berkeley School of Music, B.Mus.; Eastman School of Music, M.Mus.
Interest(s): Improvisation, music theory, arranging/composition and world music

Margaret Engman (2001)
Lecturer of Education
University of Wisconsin-Madison, B.S.
Interest(s): Teacher education

Marty Erickson (2002)
Instructor of Music and Teacher of Tuba
Michigan State University
Interest(s): Tuba, chamber music

Gustavo C. Fares (2000)
Professor of Spanish
Colegio Nacional de Buenos Aires, B.A.; Universidad de Buenos Aires, J.D.; West Virginia University, M.A.; University of Pittsburgh, Ph.D.
Interest(s): Latin American cultural studies, literature and visual arts, border studies. Latin@ studies

Merton D. Finkler (1979)
John R. Kimberly Distinguished Professor in the American Economic System and Professor of Economics
University of California-San Diego, B.A.; London School of Economics, M.Sc.; University of Minnesota, Ph.D.
Interest(s): Health policy, economic growth and development, macroeconomic policy, the economics of China

Allison M. M. Fleshman (2013)
Assistant Professor of Chemistry
University of Oklahoma, B.S., Ph.D.
Interest(s): Fundamental transport phenomena of ions and molecules in liquids (primarily conductivity, diffusion, and viscosity), also investigating pigments and inks in art objects using confocal Raman microscopy

Michael Fosdal (1999)
Lecturer
London Guildhall University, B.A.; Birkbeck College, University of London, M.A.
Interest(s): Modern British politics

Jake Frederick (2006)
Associate Professor of History
University of Massachusetts-Amherst, B.A; Pennsylvania State University, Ph.D.
Interest(s): Mexican history, Afro-Latino history, environmental history

Adam Galambos (2006)
Dwight and Marjorie Peterson Professor of Innovation and Associate Professor of Economics
University of Northern Iowa, B.A.; University of Minnesota, M.S., Ph.D.
Interest(s): Microeconomic theory, game theory, social choice theory, innovation and entrepreneurship

Alexandra Galambosh
Lecturer of Linguistics

John T. Gates (2006)
Visiting Assistant Professor of Music and Teacher of Voice
University of South Carolina, B. Mus, M.M.; Florida State University, D.M.
Interest(s): Voice

Samantha George (2008-)
Associate Professor of Music and Teacher of Violin
Eastman School of Music B.Mus., Performer's Certificate, M.Mus; University of Connecticut, D.M.A.

David Gerard (2009)
John R. Kimberly Distinguished Professor in the American Economic System and Associate Professor of Economics
Grinnell College, B.A.; University of Illinois, M.S., Ph.D.
Interest(s): New institutional economics, energy and the environment, regulation and public policy

Peter J. Gilbert (1990)
Alice G. Chapman Director of the Library
Carleton College, B.A.; University of Wisconsin-Madison, M.A.
Interest(s): Reference, networked information resources, American library history

Peter S. Glick (1985)
Henry Merritt Wriston Professor of the Social Sciences and Professor of Psychology
Oberlin College, A.B.; University of Minnesota, Ph.D.
Interest(s): Stereotyping, discrimination, prejudice

Terry L. Gottfried (1986)
Professor of Psychology
University of Minnesota, B.A., Ph.D.
Interest(s): Perception of speech and singing, psychology of cognition and perception

Joseph N. Gregg (1991)
Associate Professor of Mathematics
Texas A&M University, B.S., M.S.; Princeton University, Ph.D.
Interest(s): Architecture of large software systems, software for math education, complex systems

Geraldine O. Grine
Lecturer of Music

Miyoko Grine
Teacher of Cello

Wen-Lei Gu (2006)
Associate Professor of Music
The Juilliard School, B.Mus.; Mannes College of Music, M. Mus.; Indiana University School of Music, D.Mus.
Interest(s): Violin, piano, foreign languages, literature

Alison C. Guenther-Pal (2007)
Assistant Professor of German
University of California, Santa Cruz, B.A.; University of Minnesota, M.A., Ph.D.
Interest(s): Feminist theory and pedagogies, German cinema, film theory

Beth Ann Haines (1992)
Associate Professor of Psychology
University of Wisconsin-Milwaukee, B.S.; University of Wisconsin-Madison, M.S., Ph.D.
Interest(s): Cognitive development, problem-solving, social development, learning styles

Alyssa S. Hakes (2012)
Assistant Professor of Biology
Louisiana State University, Ph.D.; University of Illinois Urbana-Champaign, B.S.
Interest(s): Spatial ecology, herbivory, plant defense

David J. Hall (2002)
Associate Professor of Chemistry
Butler University, B.S.; University of Wisconsin-Madison, Ph.D.
Interest(s): Mechanisms by which rhinovirus activation of immune cells leads to the exacerbation of asthma

Kathrine Handford (2004)
Lecturer of Music and University Organist
Concordia College, B.A.; University of Wisconsin-Eau Claire, B.Mus.; Eastman School of Music, M.Mus., D.M.A.
Interest(s): Organ

Christine Harris
Director of the London Centre

Anne Victoria Haydock (2014)
Visiting Assistant Professor of Film Studies
University of Wisconsin-Madison, B.A.; The University of Iowa, M.F.A.

James R. Heiks (Faculty since 2011)
Lecturer of Music and Conductor of Young Men's Chorus
Bluffton College, B.A.; Northwestern University, M.M.
Interest(s): Choral music, music education, wildlife, native prairie restoration

Cecilia Herrera (2009)
Instructor of Spanish
Universidad de Playa Ancha, Chile, B.A., M.A.
Interest(s): Latin American literature, Spanish civilizations and culture

Bruce E. Hetzler (1976)
Professor of Psychology
DePauw University, B.A.; Northwestern University, M.A., Ph.D.
Interest(s): Neuropharmacology, effects of alcohol on the brain, computer analysis of brain waves

Lori Michelle Hilt (2011)
Assistant Professor of Psychology
Lawrence University, B.A.; Viterbo University, M.A.; Yale University, M.S., M.Phil., Ph.D.
Interest(s): Clinical psychology, developmental psychopathology, adolescent depression, nonsuicidal self-injury, emotion regulation

William Hixon (2000, 2003)
Gordon R. Clapp Chair in American Studies and Associate Professor of Government
Washington University, B.A.; University of Rochester, M.A., Ph.D.
Interest(s): Public policy, environmental public policy, Congressional politics

Karen A. Hoffmann (1998)
Associate Professor of English and Diversity Enhancement Faculty Director
Lawrence University, B.A.; Indiana University, M.A., Ph.D.
Interest(s): American and African American literature

Eilene Hoft-March (1988)
Milwaukee-Downer College and College Endowment Association Professor of Liberal Studies and Professor of French
Carroll College, B.A.; University of California, Berkeley, M.A., Ph.D.
Interest(s): 20th-century and 21st-century French literature, evolution of the novel, life writing

Judith Humphries (2007)
Assistant Professor of Biology
The Queen's University of Belfast, B.S., Ph.D.
Interest(s): Parasitology, invertebrate immunology, gene regulation, snail neurobiology

Nicholas James (1997)
Lecturer
Oxford University, B.A.; University of London, M.A.; University of Michigan, M.A.; University of Birmingham, Ph.D.
Interest(s): Archaeology, Native American studies, cultural heritage management

Brenda Jenike (2004)
Associate Professor of Anthropology
Pomona College, B.A.; University of California, Los Angeles, M.A., Ph.D.
Interest(s): Anthropology of Japan, medical anthropology, cultural gerontology, gender ideology, psychological anthropology

Mark Jenike (2004)
Pieper Family Professor of Servant Leadership and Associate Professor of Anthropology
Harvard College, B.A.; University of California, Los Angeles, Ph.D.
Interest(s): Behavioral ecology, human biology, nutritional anthropology, human evolution, reproductive ecology, anthropological demography

Thelma B. Jimenez-Anglada
Assistant Professor of Spanish

Alisa S. Jordheim
Lecturer in Music

Steven Jordheim (1981)
Professor of Music and Teacher of Saxophone
University of North Dakota, B.Mus.; Northwestern University, M.Mus.
Interest(s): Saxophone, instrumental pedagogy, chamber music

Suzanne Jordheim (1989)
Lecturer of Music and Teacher of Flute
Lewis and Clark College, B.Mus.; Northwestern University, M.Mus.
Interest(s): Flute, flute pedagogy, woodwind techniques

Constance E. Kassor (2016)
Assistant Professor of Religious Studies
Smith College, B.A.; Emory University, Ph.D.
Interest(s): Asian religions, Buddhist philosophy, Tibetan Buddhism

Catherine C. Kautsky (1987–2002, 2008)
Professor of Music and Chair of Keyboard
New England Conservatory, B.M.; Juilliard School, M.M.; State University of New York-Stony Brook, D.M.A.
Interest(s): Chamber music, music and social history, music and literature

Nick Keelan (1985)
Associate Professor of Music
Henderson State University, B.M.E.; University of Northern Colorado, M.Mus.
Interest(s): Trombone performance, trombone pedagogy

Edmund Michael Kern (1992)
Associate Professor of History
Marquette University, B.A.; University of Minnesota, M.A., Ph.D.
Interest(s): Early-modern Europe, religious culture, Hapsburgs, Austria

Claire E. Kervin (2016)
Instructor of Freshman Studies
Boston University, M.A., Ph.D.; University of Wisconsin-Madison, B.A.
Interest(s): 20th-century American literature; modern and contemporary fiction; nature writing; ecocriticism and environmental humanities; composition; tutoring; pedagogy

Lena L. Khor (2009)
Associate Professor of English
Middlebury College, B.A.; University of Texas at Austin, M.A., Ph.D.
Interest(s): Contemporary world Anglophone literature, human rights and humanitarian discourse, postcolonial studies, literary theory, cultural studies, film

Andrew Knudsen (2003)
Associate Professor of Geology
Hamilton College, B.A., University of Idaho, Ph.D.
Interest(s): Environmental mineralogy, low-temperature geochemistry

Bonnie Koestner (2001)
Associate Professor of Music
Lawrence University, B.Mus.; University of Wisconsin-Madison, M.Mus.
Interest(s): Voice coach/accompanist

Victoria Kononova (2015-)
Assistant Professor of Russian
Lomonosov Moscow State University, B.A., M.A.; University of Wisconsin-Madison, M.A.
Interest(s): 19th-century Russian literature, theater, folklore, cultural history, nationalism, Russian and Soviet music

Karin Simonson Kopischke (2011)
Costume Shop Supervisor and Lecturer
Lawrence University, B.A., B.Mus.
Interest(s): Historical renderings of real women forgotten and lost in time

Ryan M. Korb
Lecturer of Music

Kurt Krebsbach (2002)
Associate Professor of Computer Science
Lawrence University, B.A.; University of Minnesota, M.S., Ph.D.
Interest(s): Artificial intelligence, automated planning, multi-agent systems, functional programming, music, zymurgy

Elizabeth Krizenesky (1999)
Instructor of Russian
Ripon College, B.A.
Interest(s): Russian language

Carol L. Lawton (1980)
Ottilia Buerger Professor of Classical Studies and Professor of Art History
Vassar College, B.A.; University of Pittsburgh, M.A.; Princeton University, M.F.A., Ph.D.
Interest(s): Greek and Roman art

Karen Leigh-Post (1996)
Associate Professor of Music and Teacher of Voice
Lawrence University, B.Mus.; University of Arizona, M.Mus.; Rutgers University, D.M.A.
Interest(s): Vocal performance, cognitive neuroscience for the performing musician, mind-body awareness, optimal performance

Erin Lesser (2011)
Assistant Professor of Flute
University of Ottawa, B.Mus.; Manhattan School of Music, M.Mus, D.M.A.

Eric Lewellyn (2015-present)
Visiting Assistant Professor of Biology
Carleton College, B.A.; University of Wisconsin, Madison, Ph.D.; University of California, Berkeley, postdoctoral fellow
Interest(s): Virus biology, genetics and molecular biology, genome editing, cell biology

Jonathan Lhost (2014-)
Assistant Professor of Economics
Amherst College, B.A.; University of Texas, M.S., Ph.D.
Interest(s): Industrial organization, game theory, microeconomics

Nancy Lin (2016)
Assistant Professor of Art History
Bryn Mawr College, B.A.; Columbia University, M.A.; University of Chicago, Ph.D.
Interest(s): East Asian art history and visual culture

Debra Loewen
Resident Artist of Theatre Arts

Adam M. Loy (2013)
Assistant Professor of Statistics
Luther College, B.A.; Iowa State University, M.S., Ph.D.
Interest(s): Mixed/hierarchical models, statistical computing, statistical graphics, statistics education, applying statistical methods to problems in the engineering/physical sciences

Elyse C. Lucas (2015)
Lecturer of Education
Lawrence University, B.A.

Colette Lunday Brautigam
Digital Collections Librarian and Assistant Professor
University of Minnesota, B.A.; College of Saint Catherine, M.L.I.S.

Ruth M. Lunt (1992)
Associate Professor of German
Millersville State University, B.A.; University of Pittsburgh, M.A.; Princeton University, Ph.D.
Interest(s): Language and the law, Germanic linguistics, language pedagogy, history of German

Yoshiaki Makita
Instructor of Japanese

Andrew G.O. Malone
Visiting Assistant Professor of Geology

Douglas S. Martin (2007)
Associate Professor of Physics
Pomona College, B.A.; University of Texas, Ph.D.
Interest(s): Biological physics, molecular motors, cytoskeleton

Carol Mason
Adjunct Professor of Anthropology

Andrew Mast (2004)
Kimberly-Clark Professor of Music, Associate Professor of Music, and Director of Bands
University of Iowa, B.Mus., D.M.A.; University of Minnesota, M.A.
Interest(s): Wind ensemble and band, music education

Stephen McCardell (1999)
Instructor of Music
Lawrence University; Mannes College of Music, B.Mus., M.Mus.
Interest(s): Music theory, composition

Susan Lawrence McCardell (2000)
Lecturer of Music and Teacher of Bassoon
Lawrence University, B.Mus.
Interest(s): Bassoon

David E. McGlynn (2006)
Associate Professor of English
University of California, Irvine, B.A.; University of Utah, M.F.A., Ph.D.

Randall McNeill (1999)
Associate Professor of Classics
Harvard University, A.B.; Yale University, M.A., Ph.D.
Interest(s): Latin poetry, language and social interaction, Greek and Roman history

Julie McQuinn (2003)
Associate Professor of Music
Oberlin College, B.A., B.Mus.; New England Conservatory; University of Illinois, M.Mus.; Northwestern University, Ph.D.
Interest(s): Musicology

Patricia J.M. Merrifield
Conductor of Ragazze Girl Choir

Gerald I. Metalsky (1992)
Professor of Psychology
University of California, Berkeley, B.A.; State University of New York at Stony Brook, M.A.; University of Wisconsin-Madison, Ph.D.
Interest(s): Origins of psychopathology, cognition and emotion, psychodiagnostics, psychotherapy

Joanne Metcalf (2001)
Associate Professor of Music
University of California, Santa Barbara, B.A.; Duke University, M.A., Ph.D.
Interest(s): Music composition

Cheryl Meyer
Conductor of Allegretto Girl Choir

Leslie Outland Michelic (2000)
Lecturer of Music and Teacher of Oboe
University of Wisconsin-Milwaukee
Interest(s): Oboe

Matthew C. Michelic (1987)
Associate Professor of Music and Teacher of Viola
University of Wisconsin-Milwaukee, B.F.A.; Indiana University, M.M.
Interest(s): Viola, chamber music, theory

Brigetta F. Miller (1996)
Associate Professor of Music
Lawrence University, B.Mus.; Silver Lake College, M.Mus.
Interest(s): Elementary and secondary education, multicultural education

Michael D. Mizrahi (2009)
Associate Professor of Music
University of Virginia, B.A.; Yale School of Music, M.Mus., D.Mus.A.
Interest(s): Chamber music, piano literature, contemporary music, music history, music education

Rob Neilson (2003)
Frederick R. Layton Professor of Art and Associate Professor of Art
College of Creative Studies, B.F.A.; University of North Carolina, Chapel Hill, M.F.A.
Interest(s): Sculpture, public art, drawing

Deena I.J. Newman
Lecturer

Howard Niblock (1981)
Professor of Music and Teacher of Oboe
University of Michigan, B.A.; Michigan State University, M.M.; University of Wisconsin-Madison
Interest(s): Oboe, theory, aesthetics

Amy Nottingham-Martin
Lecturer of Freshman Studies

Katrina L. Nousek (2015)
Hurvis NEH Fellow
Cornell University, Ph.D.; Harvard University, B.A.
Interest(s): 20th- and 21st-century German-language literature and culture, transnationalism, post-communism, narrative studies, concepts of time and futurity, theories of subjectivity and history

Amy A. Ongiri
Jill Beck Director of Film Studies and Associate Professor of Film Studies

Anthony P. Padilla (1997)
Associate Professor of Music
Northern Illinois University, B.Mus.; Eastman School of Music, M.Mus., Performer's Certificate; University of Washington, Artist's Diploma
Interest(s): Piano

Margaret S. Paek (2015)
Instructor of Dance
Hollins University/American Dance Festival, M.F.A.; University of California, San Diego, B.A.

Alan Parks (1985)
Professor of Mathematics
University of Wisconsin-Madison, B.A., M.A., Ph.D.
Interest(s): Application of mathematics, computer algorithms, dynamics

Steve Peplin (2004)
Lecturer of Music
Berklee College of Music, B.A.
Interest(s): Guitar, composition

Peter Neal Peregrine (1995)
Professor of Anthropology
Purdue University, B.A., M.S., Ph.D.
Interest(s): Anthropological theory, evolution of complex societies, culture contact and culture change, integration of archaeology and ethnology

Brian G. Pertl (2008)
Dean of the Conservatory of Music
Lawrence University, B.A., B.M.; Wesleyan University, M.A.
Interest(s): Ethnomusicology

Leila Ramagopal Pertl
Music Education Instructor, Lawrence University & Performing Arts Director, Appleton Public Montessori & Harp Instructor

Brent Peterson (2002)
Professor of German
Johns Hopkins University, B.A.; University of Iowa, M.A.; University of Minnesota, Ph.D.
Interest(s): Construction of national and ethnic identities; the intersection of historical fiction and history; the “long 19th century” 1789–1918; post-war, post-wall experiences of both Germanies

Mark Phelan (2011)
Assistant Professor of Philosophy
Ouachita Baptist University, B.A.; The University of Utah, M.S.; University of North Carolina-Chapel Hill, Ph.D.
Interest(s): Philosophies of mind, language, and cognitive science; figurative language; theory of mind; linguistic pragmatics

Brian P. Piasecki (2011 -)
Assistant Professor of Biology
University of North Texas, B.S.; University of Texas at Austin, M.A.; University of Minnesota, Ph.D.; Karolinska Institute, postdoctoral fellow
Interest(s): Cell and molecular biology, evolutionary biology, microbiology

Megan Pickett (2006)
Associate Professor of Physics
Cornell University, B.A.; Indiana University, M.A., Ph.D.
Interest(s): Formation of solar systems, black hole and neutron star dynamics, Jupiter formation

Keith E. Pitts (2012)
Assistant Professor of Theatre Arts
Northwestern University, M.F.A.

Janet Planet (2007)
Lecturer of Music
Interest(s): Vocal jazz

Jerald Podair (1998)
Robert S. French Professor of American Studies and Professor of History
New York University, B.A.; Columbia University School of Law, J.D.; Princeton University, M.A., Ph.D
Interest(s): 20th-century American history, urban history, American race relations

Bruce H. Pourciau (1976)
Professor of Mathematics
Brown University, B.A.; University of California, San Diego, Ph.D.
Interest(s): Newton's Principia, history of mathematics, optimization theory, analysis, topology, philosophy of mathematics

Antoinette Powell (2002)
Music Librarian and Associate Professor
St. Norbert College, B.Mus.; University of Wisconsin-Milwaukee; University of Pittsburgh, M.L.S.
Interest(s): Music library

Keith Powell (2006)
Teacher of French Horn
SUNY-Stony Brook University, B.A., Carnegie Mellon University, M.Mus.
Interest(s): French horn performance, teaching, horn ensembles, composing for chamber music ensembles and orchestras

Kathy Privatt (1999)
James G. and Ethel M. Barber Professor of Theatre and Drama and Associate Professor of Theatre Arts
Central Missouri State University, B.S.E.; Southwest Missouri State University, M.A.; University of Nebraska, Ph.D.
Interest(s): American theatre

Daniel J. Proctor (2011)
Visiting Assistant Professor of Anthropology
Eastern Washington University, B.A.; Florida Atlantic University, M.A.; University of Iowa, Ph.D.
Interest(s): Origins of bipedalism, paleoanthropology, forensic anthropology, functional anatomy

Lavanya Murali Proctor (2010)
Assistant Professor of Anthropology
University of Delhi: B.A., M.A., M.Phil.; University of Iowa: M.A., Ph.D.
Interest(s): English language ideologies, gender and sexuality, economic anthropology, post/colonialism, South Asia (India)

Stewart C. Purkey (1985)
Bee Connell Mielke Professor of Education and Associate Professor of Education
Stanford University, A.B.; Reed College, M.A.T.; University of Wisconsin-Madison, Ph.D.
Interest(s): Educational reform, professional development, community- and place-based education, sociology of education, environmental education, film studies, ethnic studies

Melissa H. Range (2014)
Assistant Professor of English
University of Tennessee, B.A.; Old Dominion University, M.F.A.; Candler School of Theology, M.T.S.; University of Missouri, Ph.D.
Interest(s): Contemporary American poetry, 19th century poetry, abolitionist literature, African American poetry, political poetry, religious poetry, rhyme

Carl A. Rath (1978–1981; 2012)
Instructor
Lawrence University, B.Mus.; University of Denver Lamont School of Music, M.A.

Gretchen M. Revie (1997)
Reference Librarian and Instruction Coordinator and Associate Professor
Carleton College, B.A.; University of Wisconsin-Madison, M.A.
Interest(s): Reference, information literacy

Relena R. Ribbons
Instructor of Freshman Studies
University of Copenhagen, University of Bangor, Ph.D.

Dane M. Richeson (1984)
Professor of Music
Ohio State University, B.Mus.; Ithaca College, M.Mus.
Interest(s): Percussion

Monica Rico (2001)
Associate Professor of History
University of California-Berkeley, B.A., M.A., Ph.D.
Interest(s): Early America; the American West; gender and environment

Brian Ridgers
Lecturer

Benjamin Rinehart (2006)
Associate Professor of Art
Herron School of Art/Indiana University, B.F.A.; Louisiana State University, M.F.A.
Interest(s): Printmaking, book arts, paper making, drawing, painting, & graphic design

Luke Patrick Rivard
Lecturer in Music

Michael Rivers
Teacher of Piano

Brady J. Rocks (2016)
Visiting Assistant Professor of Mathematics
New Mexico State University, B.S.; Washington University, St. Louis, M.A., Ph.D.
Interest(s): Commutative algebra, polynomial automorphisms

Monica B. Rodero
Lecturer of Dance

Thomas C. Ryckman (1984)
Professor of Philosophy
University of Michigan, Flint, B.A.; University of Massachusetts, M.A., Ph.D.
Interest(s): Philosophy of language, philosophy of mind, metaphysics, epistemology, philosophy of art

Richard A. Sanerib Jr. (1976)
Associate Professor of Mathematics
St. Anselm College, B.A.; University of Colorado, M.A., Ph.D.
Interest(s): Logic, algebra, topology, computers, minority education

Judith H. Sarnecki (1985-87; 1990)
Professor Emerita of French
Knox College, B.A.; Portland State University, M.A.T.; University of Iowa, M.A.; University of Wisconsin-Madison, Ph.D.
Interest(s): 20th-century French literature and theory, cinema, women authors, gender issues

Graham T. Sazama (2016)
Assistant Professor of Chemistry
University of Wisconsin-Madison, B.S.; Harvard University, Ph.D.
Interest(s): Synthesis of coordination organometallic compounds; small-molecule reactivity; open-shell compounds (molecules with unpaired electrons); magnetic properties; luminescence; molecular materials

Erica J. Scheinberg (2009)
Instructor of Music
University of California, Berkeley, A.B.; University of California, Los Angeles, M.A., Ph.D.
Interest(s): Music in the United States, popular music, history of recorded sound

Jodi Sedlock (2002)
Associate Professor of Biology
Loyola University, B.A., B.S.; University of Illinois-Chicago, Ph.D.
Interest(s): Tropical diversity, conservation biology, ecosystem services, sensory ecology, bat ecology

Charles Austin Segrest (2014)
Visiting Assistant Professor of English
Emory University, B.A.; Georgia State University, M.F.A; The University of Missouri, Ph.D.

Becquer Seguin
Assistant Professor of Spanish

Sawa Senzaki
Lecturer of Psychology

Aaron M. Sherkow (Spring 2013)
Technical Director
Lawrence University B.A.; Boston University M.F.A.
Interest(s): Drama, opera, improvisation, dance, color, form, composition, interactive performance and design, carpentry, welding, electronics, projections, photography

John A. Shimon (2000)
Associate Professor of Art
University of Wisconsin-Madison, B.S.; Illinois State University, M.S.
Interest(s): Photography, new media, visual culture, antiquarian photographic processes, documentary photography and film, experimental film

Arnold Shober (2006)
Associate Professor of Government
Bradley University, B.A.; University of Wisconsin-Madison, M.A., Ph.D.
Interest(s): Public policy, education, charter schools, federalism, state and local government, American political development

Stephen M. Sieck (2010)
Assistant Professor and Co-director of Choral Studies
University of Chicago, A.B.; University of Illinois at Urbana-Champaign, M.M., D.M.A
Interest(s): Inclusive pedagogy for choirs, diction pedagogy, vocal pedagogy

Claudena Skran (1990)
Edwin & Ruth West Professor of Economics and Social Science and Professor of Government
Michigan State University, B.A.; Oxford University, M.Phil., Ph.D.
Interest(s): International relations, international organizations, refugees

Martyn Smith (2006)
Associate Professor of Religious Studies
Prairie College-Alberta, B.Th.; Fuller Seminary, M.A.; Emory University, Ph.D.
Interest(s): Islam, medieval Arabic literature, religion and the environment

Steven Spears (2004)
Associate Professor of Music
University of Louisville School of Music, B.Mus.; The Juilliard School, M.Mus.
Interest(s): Voice

Timothy A. Spurgin (1990)
Bonnie Glidden Buchanan Professor of English Literature and Associate Professor of English
Carleton College, B.A.; University of Virginia, M.A., Ph.D.
Interest(s): 19th-century English literature, the novel, Dickens, literary criticism and theory

Asha Srinivasan (2008)
Associate Professor of Music
Goucher College, B.A.; Peabody Conservatory of Music-John Hopkins University, M.M., University of Maryland, D.M.A.
Interest(s): Acoustic, electronic and multi-media composition; collaboration with other arts

Jeffrey M. Stannard (2001)
Associate Dean of the Conservatory, Professor of Music, and Teacher of Trumpet
University of Iowa, B.Mus.; University of Michigan, M.Mus., D.M.A.
Interest(s): Trumpet

Matthew R. Stoneking (1997)
Professor of Physics
Carleton College, B.A.; University of Wisconsin-Madison, Ph.D.
Interest(s): Non-neutral plasma physics, magnetic confinement of neutral plasmas

Meghan C. Sullivan (2015)
Uihlein Fellow of Studio Art
University of Nebraska-Lincoln, M.F.A.; University of Florida, Post-baccalaureate; Massachusetts College of Art, B.F.A.
Interest(s): Ceramics, drawing, figurative sculpture

Kuo-ming Sung (1994)
Associate Professor of Chinese and Linguistics
National Taiwan University, B.A.; University of California-Los Angeles, M.A., C. Phil., Ph.D.
Interest(s): Generative linguistics, comparative syntax, language pedagogy

Phillip A. Swan (2002)
Associate Professor of Music and Co-Director of Choral Studies
Concordia College, B.A.; University of Texas at El Paso, M.Mus.
Interest(s): Choral conducting, music education, jazz

Rosa Tapia (2002)
Associate Professor of Spanish
Universidad de Granada, B.A.; University of Delaware, M.A.; Pennsylvania State University, Ph.D.
Interest(s): Spanish and Latin American literature, film studies, gender studies

Craig L. Thomas (2016)
Systems and Data Services Librarian and Assistant Professor
Washington State University, B.A.; Harvard University, A.M.; University of Illinois Urbana-Champaign, M.L.I.S;
Interest(s): Library systems and services, scholarly communication, data management; English Renaissance literature and history

Jill G. Thomas (2010)
Director of Technical Services and Assistant Professor
Washington State University, B.A.; Simmons College, M.S.
Interest(s): Special collections, metadata, physical and digital preservation, Early modern Europe

Peter John Thomas (2006)
Associate Professor of Russian Studies
Northwestern University, B.A., M.A., Ph.D.
Interest(s): Russia, poetry, translation, philosophy, contemporary composers

Benjamin C. Tilghman (2012)
Assistant Professor of Art History
Lawrence University, B.A.; Williams College, M.A.; Johns Hopkins University, Ph.D.
Interest(s): Medieval art, Byzantine art, Renaissance art, manuscript illumination, materiality and thing theory, museum studies, contemporary art

Jacque Troy
Lecturer in Theatre Arts and Freshman Studies

Timothy X. Troy (1997)
J. Thomas and Julie Esch Hurvis Professor of Theatre and Drama and Professor of Theatre Arts
Lawrence University, B.A.; University of Iowa, M.F.A.
Interest(s): Directing, musical theatre

Sumner T. Truax (2015–2016)
Instructor of Music
Lawrence University, B.Mus.; Eastman School of Music, M.Mus.
Interest(s): Contemporary music, pedagogy, avant-garde music, classical and jazz improvisation

Matthew L. Turner (2010)
Lecturer of Music
Lawrence University, B.Mus.; New England Conservatory of Music, M.Mus.
Interest(s): Improvisation, jazz, composition, music education, new music, avant-garde, experimental music

Mark Urness (2003)
Associate Professor of Music and Teacher of String Bass
University of Northern Iowa, B.A.; University of Cincinnati College-Conservatory of Music, M.Mus.; University of Iowa
Interest(s): Double bass, jazz

Mary F. Van De Loo (2002)
Instructor of Music and Teacher of Piano
Lawrence University, B.Mus.; University of Oklahoma, M.Mus.
Interest(s): Piano

Brigid E. Vance (2015)
Assistant Professor of History
Carleton College, B.A.; Stanford University, M.A.; Princeton University, Ph.D.
Interest(s): East Asian history (especially early modern China and Japan), history of science and medicine, and dreams

Angela M. Vanden Elzen (2013)
Reference and Web Services Librarian and Assistant Professor
UW-Milwaukee, M.L.I.S.;
UW-Green Bay, B.S.

Gary T. Vaughan (2009)
Coordinator of the Innovation and Entrepreneurship Program and Lecturer of Economics
UW- Oshkosh Bachelor of Liberal Studies; Silver Lake College, M.S.
Interest(s): Hiking the Ice Age Trail

Massimiliano Verita' (2005)
Instructor of Arabic
University of Bologna, B.A., M.A.
Interest(s): Arabic/African/Italian language and literature

Lifongo Vetinde (1996)
Associate Professor of French
Université de Yaoundé, Cameroun, B.A.; Université de Dijon, France; University of Oregon, M.A., Ph.D.
Interest(s): Francophone African literature

Donna Vinter (2001)
Lecturer
Canisius College, B.A.; Harvard University, M.A., Ph.D.
Interest(s): English theatre

Dirck Vorenkamp (1997)
Associate Professor of Religious Studies
University of Tulsa, B.S.; University of Kansas, M.A.; University of Wisconsin-Madison, Ph.D.
Interest(s): Asian religions, Buddhism

Jef Wagner
Visiting Assistant Professor of Physics

Catherine S. Walby (2000)
Teacher of Piano and Lecturer of Music
Lawrence University, B.A., B.Mus.; University of Oklahoma, M.M.
Interest(s): Piano

Nancy A. Wall (1995)
Associate Professor of Biology
Presbyterian College, B.S.; University of South Carolina, M.A.; Vanderbilt University, Ph.D.
Interest(s): Neural development, pattern formation, differentiation

Matty Wegehaupt (2008)
Instructor of Freshman Studies, Gender Studies and East Asian Studies
University of Wisconsin, B.A.; University of California, M.A.; University of Michigan, M.A.
Interest(s): Gender Studies, masculinity, sexuality, East Asia, Korean literature and film, Buddhism, translation

Jere Wickens (1988)
Visiting Assistant Professor of Anthropology
Dartmouth College, A.B.; Indiana University, M.A., Ph.D.
Interest(s): Archaeology and history of Greece

Robert F. Williams (2004)
Associate Dean of the Faculty and Associate Professor of Education
Purdue University, B.A., B.S.M.E.; University of Colorado at Denver, M.A.; University of California-San Diego, M.S., Ph.D.
Interest(s): Distributed cognition; cognitive linguistics; gesture studies; instructional discourse

Andrew J. Wilson (Fall 2015)
Instructor of Music
Indiana University B.M., M.M.; CUNY Graduate Center, M.Phil.

Copeland Woodruff
Director of Opera Studies and Associate Professor of Music

Steven Wulf (2002)
Associate Professor of Government
Cornell University, B.A.; Yale University, M.A., M.Phil., Ph.D.
Interest(s): Political philosophy, American politics, history of ideas

Nathan Wysock (2003)
Lecturer of Music
Illinois State University, B.Mus.; Eastman School of Music, M.Mus., D.M.A.
Interest(s): Classical guitar

Beth A. Zinsli (2013)
Director and Curator of the Wriston Art Center Galleries, Museum Studies Interdisciplinary Area Program and Adjunct Assistant Professor of Art History
Lawrence University, B.A.; University of Wisconsin-Madison, M.A., Ph.D.
Interest(s): History and Theory of Photography, Visual Culture Studies, Contemporary Art History, Museum Studies

Emeriti faculty

Minoo Adenwalla (1959)
Professor Emeritus of Government
University of Bombay, B.A.;
Northwestern University, M.S., Ph.D.

Corry F. Azzi (1970)
Professor Emeritus of Economics
Lawrence University, B.A.;
Harvard University, Ph.D.

Jill Beck
President Emerita

David E. Becker (2004)
Professor of Music and Director of
Orchestral Studies
University of Chicago, B.A., M.A., Ph.D.

Robert Below (1964–96)
Professor Emeritus of Music
University of Louisville, Mus.B., Mus.M.;
Hochschule für Musik, Köln/Rhein

Mary Blackwell (1989)
Associate Professor of Chemistry
University of Illinois-Urbana, B.A.;
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John R. Brandenberger (1968–2008)
Alice G. Chapman Professor
Emeritus of Physics
Carleton College, B.A.;
Brown University, Sc.M., Ph.D.

William W. Bremer (1969-98)
Professor Emeritus of History
Stanford University, B.A., Ph.D.;
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David M. Cook (1965–2008)
Professor Emeritus of Physics and Philetus
E. Sawyer Professor Emeritus of Science
Rensselaer Polytechnic Institute, B.A.;
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Columbia University, B.A., M.A.;
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James S. Evans (1966)
Professor of Computer Science
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Bates College, B.A.;
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Richmond Frielund (1979–84; 1985)
Associate Professor of Theatre Arts
University of Minnesota, B.A.;
University of Wisconsin-Superior, M.A.;
University of Michigan, M.F.A.

Peter A. Fritzell (1966–2003)
Professor Emeritus of English and Patricia
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University of North Dakota, B.A.;
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Chong-do Hah (1961)
Professor Emeritus of Government
Indiana University, B.A., Ph.D.;
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J. Michael Hittle (1966–2001)
Professor Emeritus of History and
David G. Ormsby Professor Emeritus of
History and Political Economy
Brown University, B.A.;
Harvard University, M.A., Ph.D.

Joseph A. Hopfensperger (1952–90)
Professor Emeritus of Theatre and Drama;
Director of Bjorklunden
Lawrence College, B.A.;
Northwestern University, M.A.

Marjory Irvin (1947–87)
Professor Emerita of Music
Illinois Wesleyan University, Mus.B.,
Mus.M.; Juilliard School of Music;
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John Koopman (1960–94)
Professor Emeritus of Music
Drake University, B.Mus.Ed., M.Mus.Ed.;
Indiana University

Michael J. LaMarca (1965–95)
Professor Emeritus of Biology
State University of New York-Albany, B.A.;
University of Chicago;
Cornell University, Ph.D.

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Professor Emeritus of Economics

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Trumpet Teacher
Ithaca College, B.S.;
North Texas State University, M.M.E.

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Luther College, B.A.; University of
Wisconsin-Madison, M.A., Ph.D.

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Professor Emeritus of Spanish
University of Chicago, B.A.;
Northwestern University, M.A., Ph.D.

Ronald J. Mason (1961–95)
Professor Emeritus of Anthropology
University of Pennsylvania, B.A.;
University of Michigan, M.A., Ph.D.

John C. Palmquist (1968–96)
Professor Emeritus of Geology
Augustana College, B.A.;
University of Iowa, M.S., Ph.D.

William J. Perreault (1971–2006)
Professor Emeritus of Biology
Siena College, B.A.;
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Mary H. Poulson (1964–93)
Professor Emerita of Physical Education
Valparaiso University, B.A.;
Miami University, M.Ed.;
Colorado State College

Theodore L. Rehl (1958–92)
Professor Emeritus of Music
Oberlin Conservatory of Music, Mus.B.,
Mus.M.; University of Southern California,
Indiana University

Bradford G. Rence (1979)
Professor of Biology
University of Iowa, B.A.;
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Dennis Ribbens (1971–98)
Professor and University Librarian Emeritus
Calvin College, B.A.;
University of Wisconsin-Madison,
M.A., Ph.D.

Sumner Richman (1957–95)
Professor Emeritus of Biology
Hartwick College, B.A.;
University of Massachusetts, M.A.;
University of Michigan, Ph.D.

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Associate Professor Emeritus of Geology
Indiana University, B.S., M.A.;
Washington State University, Ph.D.

Judith H. Sarnecki (1985–87; 1990)
Professor Emerita of French
Knox College, B.A.; Portland State
University, M.A.T.; University of Iowa, M.A.;
University of Wisconsin-Madison, Ph.D.

George R. Saunders (1977–2002)
Professor Emeritus of Anthropology
Claremont Men's College, B.A.;
University of California, San Diego,
M.A., Ph.D.

Dan Sparks (1963–93)
Associate Professor Emeritus of Music
Cincinnati Conservatory of Music, B.M.,
M.M.; Eastman School of Music

John M. Stanley (1961–99)
Professor Emeritus of Religious Studies
Williams College; University of Colorado,
B.A.; Pacific School of Religion, B.D.;
Columbia University/Union Theological
Seminary, Ph.D.

Nancy M. Stowe
Assistant to the Dean of the Conservatory

Ronald W. Tank (1962–90)
Professor Emeritus of Geology
University of Wisconsin–Madison, B.S.,
M.S.; Indiana University, Ph.D.

Daniel J. Taylor (1974–2007)
Professor Emeritus of Classics
Lawrence University, B.A.;
University of Washington, M.A., Ph.D.

Hans Ternes (1968)
Professor of German
University of Illinois, B.A., M.A.;
University of Pennsylvania, Ph.D.;
University of Freiburg; University of Munich;
University of Bucharest

Leonard L. Thompson (1965–66,
1968–95)
Professor Emeritus of Religious Studies
DePauw University, B.A.;
Drew University, B.D.;
University of Chicago, M.A., Ph.D.

Herbert K. Tjossem (1955–93)
Professor Emeritus of English
University of Minnesota, B.A.;
University of Chicago, M.A.;
Yale University, Ph.D.;
University of Heidelberg

Allen C. West (1966–93)
Professor Emeritus of Chemistry
Princeton University, B.A.;
Cornell University, Ph.D.

Ernestine Whitman (1978)
Professor Emerita of Music
Emory University, B.A.;
New England Conservatory, M.Mus.;
University of Wisconsin-Madison, D.M.A.

Jane Parish Yang (1991)
Associate Professor of Chinese
Grinnell College, B.A.;
University of Iowa, M.A.;
University of Wisconsin-Madison, Ph.D.

Richard L. Yatzeck (1966)
Professor of Russian
University of Wisconsin-Madison,
B.A., Ph.D.; University of Chicago, M.A.

Dominique-Rene S. de Lerma
Visiting Adjunct Professor of Music

Fall Term (Term I) 2016

Sept. 6	Tuesday	Welcome Week commences Residence halls open for new students (8 a.m.)
Sept. 9	Friday	First class meeting of *Freshman Studies*
Sept. 9	Friday	Final advance registration for new students
Sept. 10	Saturday	Residence halls open for returning students
Sept. 12	Monday	First day of Fall Term classes
Sept. 12–23		Registration & class change period
Sept. 23	Friday	Last day to make class changes or select the S/U option for Fall Term classes
Oct. 20–23	Thursday–Sunday	Mid-term reading period
Oct. 28	Friday	Last day to withdraw from Fall Term classes
Nov. 17	Thursday	Last day of Fall Term classes
Nov. 18–19	Friday–Saturday	Reading period
Nov. 20–22	Sunday–Tuesday	Final examinations
Nov. 23	Wednesday	Residence halls close (noon)

December Term (D-Term) 2016

Nov. 27	Sunday	Residence halls open (9 a.m.)
Nov. 28	Monday	First day of D-Term classes
Nov. 29	Tuesday	Last day to make class changes or select the S/U option for D-Term classes
Dec. 6	Tuesday	Last day to withdraw from D-Term classes
Dec. 9	Friday	Last day of D-Term classes and final examinations
Dec. 10–11	Saturday–Sunday	Closing event, if one is scheduled for the class
Dec. 11	Sunday	Residence halls close (6 p.m.)

Winter Term (Term II) 2017

Jan. 2	Monday	Residence halls open (9 a.m.)
Jan. 3	Tuesday	First day of Winter Term classes
Jan. 3–17		Registration & class change period
Jan. 16	Monday	Martin Luther King Jr. Day (no classes)
Jan. 17	Tuesday	Last day to make class changes or select the S/U option for Winter Term classes
Feb. 9–12	Thursday–Sunday	Mid-term reading period
Feb. 17	Friday	Last day to withdraw from Winter Term classes
March 10	Friday	Last day of Winter Term classes
March 11–12	Saturday–Sunday	Reading period
March 13–15	Monday–Wednesday	Final examinations
March 16	Thursday	Residence halls close (noon)

Spring Term (Term III) 2017

March 26	Sunday	Residence halls open (9 a.m.)
March 27	Monday	First day of Spring Term classes
March 27–April 7		Registration & class change period
April 7	Friday	Last day to make class changes or select the S/U option for Spring Term classes
May 4–7	Thursday–Sunday	Mid-term reading period
May 12	Friday	Last day to withdraw from Spring Term classes
May 29	Monday	Memorial Day (no classes)
June 2	Friday	Last day of Spring Term classes
June 3–4	Saturday–Sunday	Reading period
June 5–7	Monday–Wednesday	Final examinations
June 8	Thursday	Residence halls close for underclassmen (noon)
June 11	Sunday	Commencement
June 11	Sunday	Residence halls close for seniors (6 p.m.)

2016–17 catalog corrections

The following corrections have been made to the course catalog after the electronic version was originally posted:

- **Page 393—*Museum studies***
  - Corrected October 12, 2016
  - **Changed:**
    - Requirements for interdisciplinary area in museum studies from:

1. Two core courses:
   a. ANTH 222: *Historic Preservation Theory and Practice*
   b. ARHI 315: *Introduction to the Art Museum*
2. Three additional six-unit courses with significant museum studies content, selected in consultation with museum studies faculty. See the following list for suggested courses that would fulfill this requirement. Students are strongly encouraged to take at least one course that emphasizes visual analysis.
   a. At least one from:
      i. Six units of ANTH 422: *Archaeological Collections Management*
      ii. Six units of independent study working in the Wriston Art Gallery or the University Archives
      iii. A six-unit internship at a museum, historic site, or similar institution, from an appropriate academic department

to:

1. Two core courses:
   a. ANTH 222: *Historic Preservation Theory and Practice*
   b. ARHI 315: *Introduction to the Art Museum*
2. Three additional six-unit courses with significant museum studies content, selected in consultation with museum studies faculty. See the following list for suggested courses that would fulfill this requirement. Students are strongly encouraged to take at least one course that emphasizes visual analysis.
3. At least one from:
   a. Six units of ANTH 422: *Archaeological Collections Management*
   b. Six units of independent study working in the Wriston Art Gallery or the University Archives
   c. A six-unit internship at a museum, historic site, or similar institution, from an appropriate academic department

ERRATA

- **Page 675—*Academic procedures and regulations***
  - Corrected October 12, 2016
  - **Changed:**
    - Under “Coursework or examinations in languages not taught at Lawrence” and “Additional options for native speakers of languages other than English,” students were advised to contact the chair of the language coalition (Peter John Thomas, Russian department) for assistance rather than the Center for Academic Success.

- **Page 43—*Art***
  - Corrected Jan. 4, 2017
  - **Changed:**
    - Separated art and art history faculty lists

- **Page 56—*Art history***
  - Corrected Jan. 4, 2017
  - **Changed:**
    - Separated art and art history faculty lists

- **Page 91—*Biomedical ethics***
  - Corrected Jan. 4, 2017
  - **Changed:**
    - Department chair to Ansfield

- **Pages 77, 162, 296, 314, 329, 381, 440, 491**
  - Corrected Jan. 4, 2017
  - **Changed:**
    - Leave terms for various faculty members

- **Pages 695–717—*Faculty directory***
  - Corrected Jan. 4, 2017
  - **Changed:**
    - Updated faculty information