

COURSE CATALOG

2019-2020



LAWRENCE UNIVERSITY
APPLETON, WISCONSIN

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ABOUT LAWRENCE

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 the *Senior Experience*.

Statements on inclusion and non-discrimination

The Faculty of Lawrence University reaffirms its commitment to fostering a diverse and welcoming learning community that embraces all members, including those marginalized by aspects of their identities. The principles of respect and inclusion are critical to our mission as an educational institution dedicated to cultivating dialogue across differences and to the development of meaningful citizenship that will meet the challenges of a complex world.

Lawrence University is committed to providing equal access and opportunity to qualified individuals of all

backgrounds. In accordance with this policy and with applicable federal and state law, the University prohibits discrimination in admissions, its programs and activities, employment and advancement on the basis of race, color, creed, religion, national origin, ancestry, age, sex, sexual orientation, gender identity, gender expression, marital status, pregnancy, genetic information, disability, military service, protected veteran status, political affiliation, arrest record or conviction record. Retaliation against an individual for filing a discrimination complaint or for participating in a complaint investigation violates this policy and may constitute a form of illegal discrimination. University policy also prohibits harassment of individuals on any of the bases listed above. An act based on an individual's status as listed above may violate this policy and warrant University discipline even if the act does not rise to the level of unlawful discrimination, retaliation or harassment.

To request information or assistance or to file a complaint for violations of this policy, contact the Vice President for Diversity and Inclusion and Associate Dean of the Faculty, 2nd floor of Sampson House, at 920-832-7451.

Lawrence in the community

Lawrence is part of an intellectual and creative community that includes Appleton and the Fox Valley, Lawrence's alumni, and the larger global community. We are committed to providing service to and learning from the larger community. Through such resources as Björklunden, the Academy of Music, and the Center for Career, Life, and Community Engagement, Lawrence contributes to the vitality of the surrounding community by:

- making available programs of cultural enrichment;
- placing students in the community as volunteers, interns, musicians, and tutors;
- drawing on the knowledge and experience of members of the community to explore significant issues;
- certifying public school teachers in the state of Wisconsin; and
- providing opportunities for alumni to stay connected to Lawrence and each other while encouraging their lifelong interest in learning.

Accreditation

Lawrence University is accredited by the Higher Learning Commission, and the Conservatory of Music is a member in good standing of the National Association of Schools of Music.

THE LIBERAL ARTS EDUCATION

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 and technology, 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. At Lawrence, 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.

What makes Lawrence special?

Lawrence University places a priority on preparing students for a life of personal fulfillment and professional accomplishment and a lifetime of learning. It is the job of all Lawrentians to learn by availing themselves of those things that are unique to Lawrence.

ENGAGED LEARNING

Engaged Learning is that which characterizes a Lawrence education and distinguishes Lawrentians. Although students may have encountered engaged learning experiences elsewhere, at Lawrence it is the foremost attribute of every subject and every class we offer. By actively engaging in challenging and meaningful learning

experiences with faculty and with one another, students will be prepared to adapt and succeed in an ever-changing world. Those who prefer to passively absorb information passed from teacher to student will find Lawrence to be a poor fit. Those who prefer instead to explore, debate, create, research, practice, and perform in collaboration with others—to be an active participant in the learning experience—will find Lawrence to be an exhilarating community in which to live and thrive.

FRESHMAN STUDIES

From the moment they arrive at Lawrence, new students have something in common with every other new student on campus: *Freshman Studies*. The cornerstone of the Lawrence curriculum for more than sixty years, each *Freshman Studies* class consists of no more than 15 students who explore a multidisciplinary list of books, musical works, art, and films in discussions facilitated by a professor. Students are asked not to summarize or memorize but to think deeply and critically about each topic. The *Freshman Studies* course is required of all incoming students and establishes the expectation for all other classes to come, regardless of discipline. Those expectations include advance preparation, critical thinking, active class participation, and disciplined writing. The fact that all new students simultaneously work through the same syllabus ensures that all share the excitement of liberal learning and that discussions continue well beyond the classroom.

CHANDLER SENIOR EXPERIENCE

Every Lawrence student's course of study culminates in a *Senior Experience*, a capstone seminar, project, exhibition, performance, or portfolio in which the student integrates learning in the major with their broader liberal arts interests as they establish their independence as a scholar or creative artist. The Chandler Senior Experience Fund provides financial support for distinctive or ambitious Senior Experience projects, and every student is eligible to apply for this funding.

BJÖRKLUNDEN

Each year, more than a thousand Lawrence students flock to the sanctuary and serenity of Björklunden, a 425-acre estate in Door County on the shore of Lake Michigan that serves as Lawrence's "northern campus." Björklunden is a place where students are encouraged to leave old assumptions behind and barriers are removed in order for students and faculty to learn from each other. Björklunden's natural setting is the perfect backdrop for engaged learning opportunities.

COMMUNITY ENGAGEMENT

Keenly interested in their local and global communities, the active citizens at Lawrence reach beyond volunteerism when it is intertwined with education. Lawrence believes community engagement is an essential ingredient in a liberal arts education and an opportunity for students to connect learning in the classroom, studio, and laboratory with real-world experiences in Appleton, the Fox Cities, and around the world.

MULTI-INTERESTED STUDENTS

Typical is not a word one associates with Lawrentians. However, one characteristic is typical of most students

arriving at Lawrence: their wide variety of interests. The Lawrence curriculum is well-suited to such students because it encourages the exploration and development of several interests, rather than focusing on just one. Lawrence's undergraduate liberal arts college is uniquely and fully integrated with a nationally renowned conservatory of music, a place where gifted musicians might be inspired to tackle physics and math majors may compose music for the jazz ensemble. Athletics are also seen as part of the educational experience as a complement to, and enhancement of, a well-rounded liberal arts education, and Lawrence takes pride in its scholar-athlete tradition.

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 first-years, science majors from art majors, and student athletes from student musicians. Located aside 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 young adults 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.

Academic freedom

The Lawrence University Faculty adopted the following statement on February 7, 2017:

Lawrence University, a liberal arts college and conservatory of music, is dedicated to the development of intellect and talent, the pursuit of knowledge and understanding, and the cultivation of critical literacy and sound judgment. To that end, members of the Lawrence community are free to engage in, speak on, and write about scholarly research and creative activity without fear of censorship or retaliation. In the classroom, laboratory, and studio, teachers must be free to teach and students free to learn; we must be free to challenge each other's beliefs, to explore new ideas and critically examine old ones, and to listen to others without disruption. Knowledge, skill, understanding, and creative expression are acquired through interactions that are often complex and even controversial. Although these interactions may at times cause discomfort, they may not be obstructed. Intellectually honest and vibrant communities engage in complex interactions and the ability, hereby protected, to exchange ideas in a spirit of mutual respect is

essential to our educational mission.

Lawrence University faculty, as well as invited speakers and performers, may express their views publicly. However, the University may restrict speech that is defamatory of character, harassing, or infringes a protected right to privacy or confidentiality.

STRUCTURE OF THE CURRICULUM

The structure of the Lawrence curriculum

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*.

Divisions within the university

Lawrence University has organized its academic departments into divisions referenced in the degree requirements. The divisions are as follows:

- **Humanities:** Chinese and Japanese, Classics, English, French and Francophone Studies, German, History, Philosophy, Religious Studies, Russian, and Spanish.
- **Natural sciences:** Biochemistry, Biology, Chemistry, Geosciences, 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, which include Biomedical Ethics, Cognitive Science, East Asian Studies, Environmental Studies, Ethnic Studies, Film Studies, Gender Studies, Global Studies, Innovation & Entrepreneurship, Latin American Studies, Linguistics, Museum Studies, and Neuroscience, are non-divisional. University courses are offered outside the auspices of any specific department or program. Non-divisional and university courses may be assigned divisional affiliations when appropriate.

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 the liberal arts and a foundation for 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 a Lawrence degree.

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 global and domestic diversity and their impact on contemporary life, and that they develop competencies in writing/speaking, quantitative reasoning, and world languages. All of the requirements below apply to the Bachelor of Arts degree and the B.A./B.Mus. double degree. The Bachelor of Music degree has fewer general education requirements as described under Degree Requirements in the catalog.

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 in the Bachelor of Arts degree program are required to take at least one course in each division: humanities, natural sciences (with laboratory), social sciences, and fine arts (see "Divisions within the university"). This requirement cannot be satisfied with examination credit (AP, IB, or A-levels).

Humanities: In the humanities, students learn to engage in close readings of literary, cultural, historical, religious, or philosophical works and provide critical comments on those works. They also learn to place works in their historical, cultural, and/or literary contexts.

Natural sciences (with laboratory): In the natural sciences, students learn to use their understanding of a scientific concept to interpret a natural phenomenon and to draw reasonable conclusions from scientific data.

Social sciences: In the social sciences, students learn to define significant questions within the fields of anthropology, economics, education, government, or psychology and to explain how one would seek to answer those questions using methods from one or more of those fields.

Fine arts: In the fine arts, students learn to recognize and describe the concepts and/or methods involved in creating a piece of visual art, music, or theatre. They also learn to recognize and describe forms of artistic expression in their historical and cultural contexts and to create or interpret visual art, music, or theatre using methods introduced or practiced in the classroom or studio.

DIVERSITY

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

Global diversity: In global diversity (G) courses, students learn to describe important aspects of the political, economic, social, or cultural context of at least one region of the world outside Europe and the United States or, alternatively, to articulate a global and/or comparative perspective on a contemporary issue.

Dimensions of diversity: In dimensions of diversity (D) courses, students learn to discuss critically at least one dimension of diversity (such as race, ethnicity, gender, or sexuality) that is of importance in understanding contemporary society and to demonstrate an awareness of how diversity influences social life.

COMPETENCY

Competency requirements improve fundamental skills central to a liberal arts education and include courses designated as writing-intensive (W) or speaking-intensive (S), as emphasizing quantitative reasoning (Q), and as 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.

Writing-intensive & speaking-intensive: In writing-intensive (W) and speaking-intensive (S) courses, students learn to articulate a coherent thesis and supporting argument, to incorporate feedback and revision into the writing or speaking process to improve critical thinking, and to demonstrate awareness of the conventions and traditions of the discipline in which the work is undertaken.

Quantitative reasoning: In quantitative reasoning (Q) courses, students learn to apply quantitative techniques (mathematical, graphical, algebraic, or statistical), algorithmic methods, or formal logical analysis to solve defined problems or bodies of problems.

Language proficiency: In modern language courses that satisfy the language proficiency requirement, students learn to listen, speak, read, and write at the American Council of Teachers of Foreign Languages (ACTFL) intermediate-mid level for French, German, Italian, or Spanish or intermediate-low level for Arabic, Chinese, Japanese, or Russian. In classical language courses that satisfy the requirement, students learn to read and comprehend extended passages in Latin or Ancient Greek. In all language courses, students express, interpret, and negotiate meaning in the target language using linguistic, social, and historical knowledge about the target culture(s) and people(s).

Major

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 Student-initiated Courses and Programs). Students pursuing a Bachelor of Music degree also select an area of emphasis for the major in performance, music education, or 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.

The learning goals and requirements for majors are described under Areas of Study in the catalog.

Elective areas of study

Many students supplement the major with focused study in a minor or interdisciplinary area; certification to teach in pre-kindergarten through 12th-grade education; or preparation for professional study in business, law, health careers, or engineering. Students may participate in one or more terms of off-campus study, and they may choose from on-campus courses that emphasize community-based learning, incorporate travel, or deal with subjects beyond the purview of one department. Students may also initiate their own courses under the guidance of a Lawrence faculty member.

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 and interdisciplinary programs of the university.

Interdisciplinary areas allow students to cross departmental or disciplinary boundaries and address issues from several perspectives. A student who satisfies the requirements of an interdisciplinary area may have the area listed on the transcript along with the declared major.

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 (with a major in the subject area and major or minor for any additional area), and at all levels (preK–12) in music, art, world languages, and English as a second language. Students complete a semester of student teaching 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 or music education faculty at their earliest opportunity.

PRE-PROFESSIONAL STUDY

Students who plan to attend professional school in business, law, or health-related professions can receive guidance on the selection of courses and pursuit of internships to prepare for professional study. Students may also apply for one of Lawrence's cooperative degree programs in engineering, forestry and environmental science, law, or occupational therapy, or for preferred admission to a master's program in nursing. See the information under "postgraduate options" in Academic Planning and under Cooperative Degree Programs in the catalog.

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 two programs of its own, the London Centre and the Francophone Seminar in Senegal, and 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.

COMMUNITY-BASED LEARNING COURSES

Community-based learning (CBL) is one of the diverse pedagogies used to promote student academic achievement at Lawrence. The emphasis in CBL courses is on promoting the intellectual and character development of students through interaction with off-campus communities. In contrast with field trips, the off-campus experiences in CBL courses are deeply integrated with classroom learning, course assignments, and learning outcomes and involve significant participation in a community or interaction with community issues, concerns, or needs. CBL courses may be located nearby in the Fox Valley or at more distant sites such as London or Chicago.

TRAVEL COURSES

Some courses include travel to remote destinations for place-based learning, research, and engagement with local peoples, cultures, and historic sites. These may be regular term courses that include travel during winter or spring break or December Term courses that take place at another location. Travel courses charge a program fee for travel expenses and have similar eligibility requirements to off-campus programs, except that some travel courses are also open to first-year students.

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.

STUDENT-INITIATED COURSES

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 interest in depth. Additional opportunities for individualized learning include academic internships, directed study, and writing for credit. Non-music majors may request private music lessons by audition or interview and with an additional fee. For more information, see the section on Student-initiated Courses and Programs.

Senior Experience

Senior Experience is the culmination of a Lawrence education, a way for students to integrate knowledge and skills developed through years of study, demonstrate proficiency in their major fields, and develop scholarly or artistic independence. Every graduating senior produces something significant — an independent or collaborative project, major seminar paper, portfolio, performance, or exhibition — to satisfy criteria for the major set by faculty of that department or program. The *Senior Experience* is thus unique to each student yet universal to students across the university.

Every major listed under Areas of Study includes a description of how students can satisfy the *Senior Experience* requirement for that department or program. Juniors should discuss with their academic advisors how they plan to fulfill the requirement for graduation. Students pursuing studies in more than one area can propose a *Senior Experience* that integrates two majors or incorporates student teaching, and the proposal must be approved by both departments or programs as satisfying the requirement. Students pursuing projects that are ambitious or distinctive should check the *Senior Experience* web page for possible sources of funding.

Senior Experience titles appear in the Commencement program. Graduating seniors are asked to submit their titles as part of the graduation application process.

ACADEMIC PLANNING

Preparing for academic success

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. As they pursue their studies, students should seek additional guidance from academic support staff in Mudd Library, the Center for Academic Success, and the Center for Career, Life, and Community Engagement.

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 benefit most from a Lawrence education. Students may change advisors as they develop a close working relationship with a faculty member in their preferred area of study.

Every student should have an advisor in their major department or program by the spring term of their sophomore year when they register for their junior courses. The major advisor will help the student 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, and are encouraged to consult with the chair or other faculty in those departments or programs for advice on course selection and how to satisfy requirements.

Planning a course of study

First-year students typically enroll in seven courses (two in fall, two in winter, and three in spring) in addition to the two-term *Freshman Studies* sequence. Bachelor of Music students have fewer choices in the first year since they must also take music theory and private lessons. First-years should take courses that will help them plan their next three years of study by 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 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. Some majors and pre-professional programs require that specific course sequences be started in the first 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 minor, 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 minor, interdisciplinary area, 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). First-year students select courses mostly at the introductory level, though some foundation/gateway courses can be taken without prerequisites or with advanced placement credit. Some departments make further distinctions within these levels, which are described under the Areas of Study.

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 beginning students, 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 already 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). A student must take 15 or more units for full-time student status and may take up to 22 units (plus music ensembles) without additional fees. A total of 36 standard courses (216 units) is required for a Lawrence degree.

Some courses are valued at fewer than 6 units. December Term courses are all 3 units. Academic support courses (academic success, academic English for speakers of other languages, topics in precalculus, etc.) are typically also 3 units. Music ensembles and theatre production courses are valued at 1 unit per term.

For more information about course loads and how to translate Lawrence units into semester or quarter hours, see Academic Procedures and Regulations.

Postgraduate considerations

CAREER PLANNING

The Center for Career, Life, and Community Engagement (CLC) 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. The CLC participates in job and internship fairs and on-campus and off-campus recruiting opportunities, and it 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 CLC events as early as the first 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 the Center for Career, Life, and Community Engagement. 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 in the Center for Career, Life, and Community Engagement, who can 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: Adam 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

Advisory Committee: David Gerard (chair), Minoo Adenwalla, Andrea Guenther-Pal, Jerry Podair

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.

Lawrence offers a cooperative degree program with Marquette Law School, which is described in the catalog under Cooperative Degree Programs.

Health Careers

Advisory Committee: Elizabeth De Stasio (chair), Matt Ansfield, Stefan Debbert, Doug Martin, Nancy Wall. Judith Humphries for pre-Vet advising.

The health careers advisory committee works closely with students as they explore career options in health care delivery and as they prepare applications for professional school programs. Committee members assist and advise students planning careers in medicine, veterinary medicine, dentistry, and allied health professions such as genetic counseling, physical and occupational therapy, physician assistant, and nursing. Students should work directly with a member of the committee to talk about ways to explore health care career paths, including job shadowing, and to discuss sequencing of pre-requisite courses for greatest success. Later in the process, committee members provide guidance in the selection of schools, in developing applications, in the preparation for interviews, and in planning for admissions testing.

Students who plan to attend medical school may concentrate in academic areas of their greatest interest. Health professional schools do, however, require considerable work in the natural and social sciences, including biology, chemistry and physics, and psychology as well as writing and thinking within the humanities. Members of the health careers advisory committee are available to help students select courses that will meet the requirements of medical and other professional 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 is able to support healthcare-related experiences and training for students of limited means thanks to the Florence Kasel Testamentary Trust.

Lawrence offers a cooperative degree program in occupational therapy with the School of Medicine at Washington University in St. Louis. More information can be found in the catalog under Cooperative Degree Programs. Lawrence also has an articulation agreement with Rush University's College of Nursing with preferential admission for qualified Lawrence applicants to the Generalist Entry Master of Science program in Nursing and certification as a Clinical Nurse Leader. Students complete the pre-professional basic science and general education components of their Lawrence bachelor's degree at Lawrence, while Rush provides the professional curriculum leading to a master's degree (MSN). Information can be found at <https://www.rushu.rush.edu/college-nursing/programs-admissions/masters-entry-nursing-msn-non-nurses>.

DEGREE REQUIREMENTS

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 108 units earned in Lawrence courses. Nine terms in residence and 162 units are required for the five-year B.A. and B.Mus. double-degree program. Seniors must be in residence or in a cooperative degree program until the requirements for a major have been certified as complete.

Attending courses on the Appleton campus counts as being in residence. Participating in a Lawrence-sponsored or Lawrence-affiliated off-campus program also counts as being in residence, and units earned in these programs are counted as Lawrence courses, not as transfer credit. The optional December Term does not count toward the residence requirement.

Petitions for exceptions must be approved by the Faculty Subcommittee on Administration.

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. Completion of 12 units of *Freshman Studies*, normally taken during the fall and winter terms of the first year
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 [divisions within the university](#) under Structure of the Curriculum.

- 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 and encouraged to declare a major by spring term of the sophomore year, when they advance register for junior-year courses.
- 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 or program and any other courses required for the major)
- 7. Completion of the required terms and units in residence as specified by the university [residence requirements](#).

Completion of a minor or interdisciplinary area is optional. If a minor is declared, a 2.000 grade-point average in the minor (all courses taken in the minor department or program and any other courses required for the minor) is required to complete the minor and have it recorded on the academic record.

[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 (Advanced Placement [AP], International Baccalaureate [IB], or A-levels) may be used as appropriate to fulfill diversity or competency requirements;

such credit may not be used to fulfill distribution requirements. Coursework from other institutions may not be used to fulfill the writing or speaking competency requirement.

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 BACHELOR OF MUSIC 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.

REQUIREMENTS FOR THE BACHELOR OF MUSIC DEGREE

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 internshipsThe additional 12 units may be selected from any department.
3. Completion of 12 units of *Freshman Studies*, normally taken during the fall and winter terms of the first year
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 211 and 212
 - 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](#).

Completion of a minor or interdisciplinary area is optional. If a minor is declared, a 2.000 grade-point average in the minor (all courses taken in the minor department, program, or area and any other courses required for the minor) is required to complete the minor and have it recorded on the academic record.

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 requirements with the exception that coursework from other institutions may not be used to fulfill requirement a. (writing intensive).

Bachelor of Arts/Bachelor of Music Degree

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, theory, or 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 and the director of teacher education.

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. December Term does not count as a term toward this requirement. 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. Completion of 12 units of *Freshman Studies*, normally taken in the fall and winter terms of the first year.
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

See [divisions within the university](#) under Structure of the Curriculum.

- 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 and encouraged to declare a major by spring term of the sophomore year, when they advance register for junior-year courses.
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 211 and 212
 - 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. Completion of a designated *Senior Experience* course or activity within the chosen majors for each degree.
8. 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 in the major department or program and any other courses required for the major)
 - c. 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
9. Completion of required terms and units in residence as specified by the university residence requirements.

Completion of a minor or interdisciplinary area is optional. If a minor is declared, a 2.000 grade-point average in the minor (all courses taken in the minor department, program, or area and any other courses required for the

minor) is required to complete the minor and have it recorded on the academic record.

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 (Advanced Placement [AP], International Baccalaureate [IB], or A-levels) may be used as appropriate to fulfill diversity or competency requirements; such credit may not be used to fulfill distribution requirements. Coursework from other institutions may not be used to fulfill the writing or speaking competency requirement.

COOPERATIVE DEGREE PROGRAMS

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 (164 for pre-law) 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.

Students who earn the required number of units at Lawrence and successfully complete the first year of study in professional school may participate in the Lawrence Commencement with their matriculation class.

Engineering

Program advisor: [Jeff 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, 155, 200, and 210), computer science (CMSC 150), introductory chemistry (CHEM 115 and 116), introductory physics with calculus (PHYS 141 and 151, or 151 and 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: [Bart 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.

Law

Program advisor: [David Gerard](#)

A liberal education, whatever the disciplinary focus, is excellent preparation for law school and a legal career. The conventional time for completion of a *juris doctor (J.D.)* law degree is four years for the undergraduate degree plus three years of law school. Lawrence has an accelerated 3-plus-3 cooperative partnership with Marquette Law School that allows qualified students to complete both the Lawrence degree and *juris doctor* degree in just six years.

Students in the accelerated program must complete 164 units of coursework at Lawrence, including general education requirements and a major (with *Senior Experience*), prior to enrolling at Marquette Law School. Students are awarded the Lawrence degree upon successful completion of the first year at Marquette. They then continue for two more years to complete the *juris doctor* degree.

Incoming first-year students with a 28 or higher on the ACT test may apply for admission to the 3-plus-3 program. Matriculated students who have completed the first year and have a cumulative GPA of 3.5 or higher may apply prior to the start of the junior year. Students must take the LSAT as part of the application process, and Marquette considers applicants as part of the general pool for admission and financial aid. Admitted students who decline the opportunity may return to or remain at Lawrence for a fourth year to complete the bachelor's degree.

Students interested in the accelerated pre-law program are strongly encouraged to work with their academic advisor and pre-law advisor early in their academic career.

Occupational therapy

Program advisor: [Gerald 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 at 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 3.250 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 130, 150, 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, or ECON 290; 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 not 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 <https://www.ot.wustl.edu/education/masters-msot-131>.

ANTHROPOLOGY

Professor:	P. Peregrine
Associate professors:	C. Daughtry (<i>chair</i>), B. Jenike (<i>Edward F. Mielke Professor of Ethics in Medicine, Science and Society</i>), M. Jenike, L. Murali
Visiting assistant professor:	D. Proctor

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, forensic 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 core courses for the major in anthropology

Students who complete the major will demonstrate an understanding of unique concepts and theoretical perspectives of anthropology. They will apply methodological approaches used in anthropology and

comprehend and critically analyze research literature. Moreover, they will be able to explain the relevance of anthropology to understanding contemporary human life.

The major requires the following core courses plus one of the tracks listed below.

1. The following introductory courses:
 - a. ANTH 110: *Cultural Anthropology* or ANTH 130: *Linguistic Anthropology*
 - b. ANTH 120: *World Prehistory*
 - c. ANTH 140: *Biological Anthropology*
2. ANTH 200: *History of Anthropological Ideas* (Students are expected to complete this course during their sophomore year and no later than the end of their junior year.)
3. ANTH 401: *Research Preparation in Anthropology* (taken in the spring of the junior year)
4. *Senior Experience* foundation course: ANTH 430 or any 6-unit 500- or 600-level course in Anthropology taken in the senior year
5. ANTH 699: *Senior Experience in Anthropology* (2 units) taken concurrently with the senior experience foundation course
6. Completion of the requirements for one of the tracks listed below.

Required for the anthropology major: cultural anthropology and general track

1. Students are expected to complete the following methods courses during their sophomore year and no later than the end of their junior year:
 - a. ANTH 207: *Quantitative Analysis in Anthropology*
 - b. ANTH 210: *Research Methods in Cultural Anthropology*
2. Four six-unit elective courses in anthropology numbered 300 or above, 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: linguistic anthropology track

1. Students are expected to complete the following methods courses by the end of their sophomore year:
 - a. ANTH 207: *Quantitative Analysis in Anthropology*
 - b. ANTH 210: *Research Methods in Cultural Anthropology*
2. ANTH 330: *Language and Culture* or ANTH 331: *Introduction to Sociolinguistics* (sophomore year)
3. ANTH 430: *Methods in Linguistic Anthropology* (junior year)
4. ANTH 530: *Topics in Linguistic Anthropology* or ANTH 531: *Semiotics*
5. One additional six-unit elective course in anthropology numbered 300 or above

Note: All required courses in the linguistic anthropology track also apply towards completion of the cultural anthropology track.

Required for the anthropology major: archaeology track

1. Students are expected to complete the following methods courses during their sophomore year and no later than the end of their junior year:
 - a. ANTH 207: *Quantitative Analysis in Anthropology*
 - b. ANTH 220: *Research Methods in Archaeology* or another approved field experience
 - c. ANTH 222: *Historic Preservation Theory and Practice*
2. Six units of ANTH 422: *Archaeological Collections Management*
3. Three six-unit elective courses in anthropology numbered 300 or above, including ANTH 520: *Topics in Archaeology* or a related 500-level seminar.

Required for the anthropology major: biological anthropology track

1. BIOL 130: *Integrative Biology: Cells to Organisms*
2. BIOL 150: *Integrative Biology: Organisms to Ecosystems*
3. ANTH 207: *Quantitative Analysis in Anthropology* or BIOL 170: *Integrative Biology: Experimental Design and Analysis*. ANTH 210 *Research Methods in Cultural Anthropology* is recommended for students pursuing an interest in biocultural anthropology via the biological anthropology track. Students are expected to complete this requirement during their sophomore year and no later than the end of their junior year.
4. Three six-unit elective courses in anthropology numbered 300 or above, including ANTH 540: *Topics in Biological Anthropology*.
5. 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.

Senior Experience in anthropology

The Department of Anthropology's *Senior Experience* is a two-course sequence which is 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, each anthropology student develops a plan for their *Senior Experience* by the end of the spring term of their junior year. Typically, students will develop this plan in **ANTH 401: Research Preparation**. However, students who are studying off-campus during spring of their junior year will need to consult with their advisor about an alternative to ANTH 401, including the addition of 6 credits of at least 400-level coursework to their requirements for the major.

Following from the plan developed in the junior year, students will enroll in a **Senior Experience foundation course** in their senior year that will serve as the basis for *Senior Experience* work. ANTH 430 or any 500- or 600-level course in Anthropology can serve as the *Senior Experience* foundation course. Concurrent with the foundation course, students must enroll in 2 units of ANTH 699 with the foundation course instructor, for which they will complete additional mentored independent work that results in a research paper, exhibit, film, or other product that demonstrates their proficiency in anthropological knowledge. Students are also required to

present their project in a classroom or public forum, typically either at the end of the foundation course, or during spring term at a formal symposium for juniors enrolled in ANTH 401.

Required for the minor in anthropology

1. Two of the following courses:
 - ANTH 110: *Cultural Anthropology* or ANTH 130: *Linguistic 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 401
3. One six-unit upper-division seminar (courses numbered in the 500s)

Teacher certification in social studies

Anthropology majors can seek certification to teach social studies at the secondary level. For certification in broad-field social studies, students must complete the major and a minimum of two courses each in two other social studies (economics, government/political science, history, or psychology) and at least one course in each of the remaining social studies. Students are strongly encouraged to take a course in U.S. history and a course in global history. A course in environmental studies is also required. Students can seek endorsement to teach English as a second language by completing the Teaching ESL minor in linguistics. Students who plan to seek teacher certification should review the requirements in the Education section of the catalog and meet with the director of teacher education, preferably before the end of the sophomore year.

Courses - Anthropology

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 language, kinship, and religion as cultural systems, as well as to forms of social control, stratification and inequality in relation to culture (including gender, race, ethnicity, and class). Social patterns and processes within and across cultures examined through ethnographic cases studies from around the world. *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 130: LINGUISTIC ANTHROPOLOGY

In this introductory course, students will learn basic concepts and theories in linguistic anthropology, begin to understand the complex relationship between language and culture, survey some of the important literature in the field, learn linguistic ethnographic methods, and work on hands-on projects that will demonstrate what they have learned. Classes will be a mix of lecture, discussion, and project work. *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: 1 TO 98.*

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: 1 TO 98.*

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. When this course is scheduled at 8-noon TR, class will dismiss early for scheduled convocations. *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, transgender identity, work, communication, and violence. *Units: 6.*

Also listed as Gender Studies 350

Prerequisite: ANTH 110 or GEST 100

ANTH 314: GLOBAL HEALTH

An introduction to the multidisciplinary field of global health, emphasizing health inequities, transnational health issues, and partnership-based approaches to meeting important public health challenges. Topics include social and ecological determinants of health as well as strategies for prevention and care. Analysis of historical case studies and discussion of contemporary health concerns. Discussion/lecture format; writing, exams and presentations. *Units: 6.*

Prerequisite: Sophomore Standing

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

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.*

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 ANTH 130 or LING 150

ANTH 331: 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.*

Also listed as Linguistics 325

Prerequisite: LING 150 or ANTH 110 or ANTH 130

ANTH 332: SIGNIFYING IDENTITY: THE SEMIOTICS OF EMBODYING MUSICAL GENRE AFFILIATIONS

The exploration of how people embody and display their identities as they relate to musical genres. From Doc Martens to zoot suits, body mod to makeup, we will learn about the semiotics of musical genre affiliations,

paying attention to how embodied expressions of affiliation intersect with different aspects of identities such as ethnicity, queerness, or race. Class includes discussions, projects, and speakers.

Units: 6.

Also listed as Linguistics 232, Musicology 232

Prerequisite: Sophomore Standing

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

An introduction to the comparative, cross-cultural study of health, healing, and beliefs about the body and illness. Topics covered include: (1) biocultural approaches to understanding health; (2) social determinants of health (how social inequalities become embodied); (3) medical systems, including biomedicine, as cultural systems of knowledge and practice; (4) the social construction of illness and health; and (5) an introduction to global health. *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 345: DISTRIBUTED COGNITION AND THE EXTENDED MIND

The new science of the mind treats cognition as a distributed process involving the brain, body, and world. This seminar explores the role of material settings and tools, bodily engagement, social interaction, and cultural processes in human reasoning, problem solving, and learning. Students will write short papers examining aspects of cognitive activity in real-world settings. *Units: 6.*

Also listed as Education Studies 345, Psychology 345, Cognitive Science 345

Prerequisite: PHIL 105 recommended

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.*

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

ANTH 353: READING ETHNOGRAPHY

This seminar explores ethnography as the defining feature of cultural anthropology. Reading a range of articles and booklength works, students survey several ethnographic genres including classic realist, experimental, narrative, self-reflexive, and critical ethnography. Students also gain experience leading discussion and delivering oral reports and presentations. *Units: 6.*

Prerequisite: ANTH 110 or sophomore standing

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: national cultural identity, historical consciousness, family and gender ideologies, the Heisei recession, invisible and visible others, demographic change, sexuality, pop culture, youth culture, multiculturalism, and recovery from calamity. *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: 1 TO 98.*

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: 1 TO 98.*

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: 1 TO 98.*

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: 1 TO 98.*

Prerequisite: Counter Registration Required.

ANTH 401: RESEARCH PREPARATION IN ANTHROPOLOGY

Students will develop advanced library research skills with a focus on anthropological resources and topics. Each student will write a thematic annotated bibliography based on library research, consider ethical implications of empirical research on the topic they have chosen, and formulate a plan for their senior experience foundation and independent study courses. This course will also explore career development for anthropology majors. Seminar. *Units: 6.*

Prerequisite: ANTH 200 and junior or senior standing

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 AND SOCIOLINGUISTICS

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, ANTH 330, or ANTH 331

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.

Units: 6.

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

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. *Units: 6.*

Prerequisite: ANTH 120 and junior standing or consent of instructor

ANTH 522: TOPICS IN MUSEUM STUDIES

An examination of a particular topic in contemporary museum studies, focused on anthropological collections and museums. 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. Course may be repeated when topic is different. *Units: 6.*

Prerequisite: ANTH 222

ANTH 530: TOPICS IN LINGUISTIC ANTHROPOLOGY

An examination of a particular topic in linguistic anthropology. The specific topic being investigated will change from year to year. Students are expected to do advance reading and independent research. Course may be repeated when topic is different. *Units: 6.*

Also listed as Linguistics 532

Prerequisite: ANTH 330, ANTH 331, or LING 325 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 or ANTH 331

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 2019: The Great Apes

This course will explore diversity and commonalities among chimpanzees, bonobos, orangutans, gorillas, and hominins, with a goal of using comparative study to advance our understanding the nature of *Homo sapiens*.

Units: 6.

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

ANTH 542: ANTHROPOLOGY AND PUBLIC HEALTH

This advanced discussion seminar considers applied critical medical anthropology's contributions, in terms of theory, research, and practice, to addressing community and global health concerns. With a political-economic framework, we will focus on the social determinants of health and how both macrostructural forces and local conditions have to be considered for effective health development. Reading response papers, final research paper and presentation. *Units: 6.*

Prerequisite: ANTH 342 or ANTH 340, and junior or senior standing

ANTH 551: ANTHROPOLOGY OF BIOMEDICINE

This advanced seminar, for students who have already had an introduction to medical anthropology or to poststructural anthropological theory, draws from critical theory and ethnographic research to study biomedicine as a system of knowledge and social practice, including discussion of the radical societal changes and ethical debates arising from the global application of biomedical technologies. Response papers, final research paper and presentation. *Units: 6.*

Prerequisite: ANTH 342 or 200, and junior or senior standing

ANTH 552: DISABILITY AND CULTURE

Disability is a social and lived category fundamental to human experience. This advanced discussion seminar draws from experiential, reflexive, phenomenological, and critical approaches in cultural and medical anthropology to cross-culturally explore the subjectivities of perceived disabilities in both local and global worlds. Topics may include: autism, learning disabilities, bipolar disorder, schizophrenia, chronic pain, d/Deaf culture, and other categories of social impairment. Papers, research paper and presentation. *Units: 6.*

Prerequisite: ANTH 110 or ANTH 342, 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: 1 TO 98.*

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: 1 TO 98.*

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: 1 TO 98.*

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: 1 TO 98.*

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: 1 TO 98.*

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: 1 TO 98.*

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: 1 TO 98.*

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: 1 TO 98.*

Prerequisite: Counter Registration Required.

STUDIO ART

Professors:	R. Neilson (<i>Frederick R. Layton Professor of Art, chair</i>), B. Rinehart
Associate professor:	J. Shimon
Visiting assistant professor:	T. Conrad
Instructor:	M. Sullivan (<i>Uihlein Fellow of Studio Art</i>)

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 major in studio art

Students who major in studio art will learn the principles of two-dimensional design (line, shape, texture, value, color theory, balance, rhythm, emphasis, illusion of space, etc.), three-dimensional design (form, function, dimensionality, line, plane, volume, mass, space, texture, light, color, balance, scale, proportion, materials, etc.), and four-dimensional design (elements of time, narrative, non-narrative, multiples, experimental structure, installations, etc). Students will generate and propose project ideas for a fully realized body of work to be included in ongoing exhibitions, installations and public art displays. Moreover, they will recognize the continuum of art history, theory, and criticism to provide background and context for critiquing and producing art, and they will interpret contemporary art and design and its relationship to art history and visual culture. In so doing, they will implement the communication skills required for evaluating art. At the conclusion of the major, students will produce a fully realized body of work backed by an artist statement and properly presented in the Senior Exhibition.

The major in studio art requires the following:

1. A minimum of nine studio art courses (54 units) to include:
 - a. ART 100: *Introduction to 3D Art* and ART 110: *Introduction to 2D Art*
 - 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 101: *Introduction to Art History* or ARHI 100: *Survey of Western Art I: Ancient to Medieval* or ARHI 102: *Survey of Western Art II: Renaissance to Modern*

- b. One ARHI course (6 units) with an emphasis on 20th century or contemporary art

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.

Required for the minor in studio art

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

Teacher certification in art (K-12)

Studio art majors may seek certification to teach art in grades K-12. Required art courses for certification include ART 200, 240, 250, and 585, and ARHI 100 and 102. These courses may be taken in conjunction with or in addition to the studio art major requirements. Additional recommended courses to expand knowledge of media and processes are ART 220, 230, and 270. Students can add an endorsement for a second area (such as English as a second language) by completing the appropriate minor. Students who plan to seek teacher certification should notify their advisor, review the requirements in the Education section of the catalog, and meet with the director of teacher education as soon as possible, preferably before the end of the sophomore year.

Courses - Studio Art

ART 100: *INTRODUCTION TO 3D ART*

An introduction to studio art and the fundamental principles of 3-Dimensional design. Projects, lectures, readings, class discussions, and critiques examine elements of 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 2D ART

An introduction to 2-Dimensional mediums, 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 2-Dimensional mediums. When scheduled on Tuesday-Thursday, class will dismiss early for University Convocations. *Units: 6.*

ART 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.*

Also listed as Film Studies 120

ART 125: TOPICS IN INTERDISCIPLINARY ART

A course designed to provide students an opportunity to study interdisciplinary approaches to art making and knowledge seeking. Topics will vary based on instructors' areas of expertise and interests. May be repeated for credit when topic is different. *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: 1 TO 98.*

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: 1 TO 98.*

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 222: ARTIST BOOKS

Artist books are explored in a variety of forms including accordions, exposed and non-adhesive bindings, pop-ups, box making and alternative structures. Letterpress along with other forms of printmaking and surface treatments will be used. Techniques of cutting, folding, sewing, gluing, 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 223: 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.*

Also listed as Film Studies 220

Prerequisite: FIST 120 or consent of instructor

ART 224: 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.*

Also listed as Film Studies 222

Prerequisite: FIST 120 or consent of instructor

ART 225: SPECIAL TOPICS IN PRINTMAKING

This course provides an introduction to specific peripheral processes of printmaking like papermaking, 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.

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

A class where students make projects that engage the outside world via digital media. Lectures, discussions, readings, and critiques will investigate contemporary interdisciplinary practices and the nature of creativity. Students will be taught the basics of design thinking, leading to conceptual-development, planning, and production. Students work individually or collaboratively on documentary, video, performance, installation, graphic novels, podcasts and web projects. Mac-based. *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 2019: Narrative Clay

This course will explore the use of the narrative in ceramics. Topics will include the exploration of 2-d surface techniques, the narrative potential of functional and sculptural objects, and how to communicate through the combination of surface and form. Historical and contemporary examples of storytelling in ceramics will be examined. *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 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.*

Also listed as Film Studies 319

Prerequisite: FIST 100 or consent of instructor

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 collagraph, intaglio, plate and stone lithography, and relief. When scheduled on Tuesday-Thursday, class will dismiss early for University Convocations. *Units: 6.*

Prerequisite: ART 220 or ART 225

ART 322: INTERMEDIATE ARTIST BOOKS

A continuation of ART 222, exploring historical and contemporary bindings, and letterpress printing with an emphasis on conceptual ties between structure, process, and function. Additional surface treatments and printing techniques are used in conjunction with altered, collaborative, dimensional, movable books, and historical binding. More advanced techniques of binding, printing, and working in dimension are examined in detail to enhance the conceptual and visual narrative inherent to this sequential medium. *Units: 6.*

Prerequisite: ART 222

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 based 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 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.*

Also listed as Film Studies 371

Prerequisite: FIST 100 or consent of instructor

ART 372: 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.*

Also listed as Film Studies 370

Prerequisite: FIST 100 or consent of instructor

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: 1 TO 98.*

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: 1 TO 98.*

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: 1 TO 98.*

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: 1 TO 98.*

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 522: ADVANCED ARTIST BOOKS

A continuation of ART 322, exploring advanced research into combining book making techniques, with exploration of formal, theoretical and technical issues related to artist books 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. *Units: 6.*

Prerequisite: ART 322

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: 1 TO 98.*

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: 1 TO 98.*

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: 1 TO 98.*

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: 1 TO 98.*

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: 1 TO 98.*

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: 1 TO 98.*

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: 1 TO 98.*

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: 1 TO 98.*

Prerequisite: Counter Registration Required.

ART HISTORY

Associate professor: E. Carlson (*Studio Art*)

Assistant professors: D. Joyner (*Studio Art*), N. Lin (*Studio Art*) (*on leave term(s) I*), B. Zinsli (*Studio Art*)

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 course required for the major in their freshman or 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 major in art history

Students who major in art history will develop a broad knowledge of the major monuments of art and their historical and cultural contexts. They will acquire and demonstrate the ability to look closely at works of art, provide precise and accurate descriptions, and analyze form and content. Through their studies, they will gain a detailed and sophisticated knowledge of a small group of works of art (selected by artist, period, medium, iconography, function, or some other organizing principle), and they will interpret and evaluate works of art in their historical and cultural context using appropriate art historical vocabulary. Through the course of the major, they will acquire a familiarity with differing theories and methods of art historical practice and show the ability to apply such theories appropriately. At the conclusion of the major, they will demonstrate proficiency in conducting art historical research and presenting the results of such research in both written and oral forms.

The major in art history has the following requirements:

1. A minimum of nine art history courses (54 units) to include:
 - a. One of the following:
 - i. ARHI 101: *Introduction to Art History*, or
 - ii. ARHI 100: *Survey of Western Art I: Ancient to Medieval*, or
 - iii. ARHI 102: *Survey of Western Art II: Renaissance to Modern*
 - b. One 200- or 300-level course (6 units each) in each of the following periods or areas:
 - East Asian
 - Ancient/Medieval/Renaissance
 - Modern and Contemporary
 - c. One 400-level course (6 units)
 - d. ARHI 680: *Senior Seminar*
 - e. Three additional art history courses (18 units)
2. One course in studio art (6 units)

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.

Required for the minor in art history

1. A minimum of six art history courses (36 units) to include:
 - a. One of the following:
 - i. ARHI 101: *Introduction to Art History*, or
 - ii. ARHI 100: *Survey of Western Art I: Ancient to Medieval*, or
 - iii. ARHI 102: *Survey of Western Art II: Renaissance to Modern*
 - b. Three courses at the 200 or 300 level (6 units each) to be taken from at least two of the following periods or areas:
 - Modern and Contemporary
 - Ancient/Medieval/Renaissance
 - East Asian
 - c. One 400-level course (6 units)

Off-campus study

Art history majors are encouraged to participate in one of Lawrence's international off-campus programs or the program at the Newberry Library in Chicago.

Courses - Art History

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 101: *INTRODUCTION TO ART HISTORY*

This lecture course aims to develop skills in the critical analysis of a wide range of visual materials. Issues and problems in the making, exhibition, and understanding of images and objects will be explored through lectures, classroom discussion of key works, critical reading of primary and secondary sources, and visits to the Wriston Print Study Room. Students will be assessed through exams and writing assignments. *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 ISLAMIC CULTURES

This course introduces students to the rich artistic traditions generated by Islamic cultures from the 7th century onward. While considering the Umayyad, Abbasid, Ilkhanid, and Mughal dynasties, among others, we examine architecture, illuminated manuscripts, metalwork, ceramics, and more. A broad selection of readings and activities supplements class discussions on themes that include the role of art in Islam, relationships between art and power, and the importance of cross-cultural exchange. *Units: 6.*

ARHI 135: TEMPLES AND TOGAS: ARTS OF THE ANCIENT WORLD

This introductory class examines the art and architecture of ancient Greece and Rome, spanning from the Minoans on Crete to the Arch of Titus in the Roman Forum. Students will learn about the progression of styles, functions, and historical meanings of these objects as they are introduced to basic art historical methods. *Units: 6.*

Also listed as Classics 135

ARHI 175: THE ARTS OF EAST ASIA

An introduction to artistic traditions in China, Japan, and Korea, from prehistory to the 21st century, including tomb and temple sites, gardens, calligraphy, ink painting, woodblock prints, tea ceremony vessels, and contemporary art. Through a balance of broader art historical readings, primary texts, scholarly essays, and close-looking at objects, students will explore how an object's visual and material properties contribute to its function. *Units: 6.*

Also listed as East Asian Studies 175

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: 1 TO 98.*

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: 1 TO 98.*

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 205: VIKINGS TO VAULTINGS: ART AND ARCHITECTURE OF MEDIEVAL NORTHERN CULTURES

This course examines the art and architecture associated with cultures from northern Europe from the fourth to the fourteenth centuries. Beginning with pre-Christian Germanic, Celtic, and Scandinavian examples, we will examine how these groups responded artistically to conversion, Latinity, the impact of Mediterranean traditions, and the establishment of new kingdoms throughout the long medieval millennium. *Units: 6.*

ARHI 210: EARLY MEDIEVAL ART AND ARCHITECTURE

This course explores the art and architecture of early medieval cultures between the third and the tenth centuries. From Mediterranean Christianity influenced by the Roman Empire to pagan Germanic and Scandinavian peoples of the North Seas, we examine architecture, illuminated manuscripts, metalwork, woodwork, stone sculpture, and textiles to gain a better sense of these cultures and artistic traditions. Primary and secondary source readings and assignments focusing on objects such as the Wriston Coin Collection supplement class discussions on the ongoing impact of the classical world, ritual and devotion, the natural environment, power, gender, and cross-cultural interactions. *Units: 6.*

Prerequisite: ARHI 101 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: GLASS, GOLD, AND GLORY: GOTHIC ART AND ARCHITECTURE

The term “Gothic” as it is applied to European art and architecture from the mid-twelfth to the fifteenth century carries a wide range of connotations. In examining the inventive architecture, sculpture, manuscripts,

metalwork, wall-paintings and textiles from these centuries, this class will compare the implications historically ascribed to “Gothic” with the ideas promoted by the cultures and individuals creating and using these inspired objects. *Units: 6.*

Prerequisite: ARHI 100 or sophomore standing

ARHI 215: *PARCHMENT, POWER, AND PLAY: ART OF THE MEDIEVAL MANUSCRIPT*

Medieval manuscripts offer extraordinarily immediate, hands-on access to the art, ideas, actions, and people of the long Middle Ages. Their pages, filled with epic literature, devout (and sometimes less than devout) prayers, scientific treatises, philosophical essays, law codes, and more, offer glimpses of a world long past and yet, sometimes, surprisingly familiar. This class examines masterful and mundane manuscripts made from the fifth to the fifteenth centuries as a means of introducing students both to the diverse and fascinating world of the Middle Ages and to their creative practices. Visits to regional collections to examine actual manuscripts and work with digitized libraries will supplement class discussions on topics including materials and production, the word made flesh, and subversive marginalia. *Units: 6.*

Prerequisite: ARHI 101 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 101 or sophomore standing

ARHI 225: *MUSIC IN THE MONASTERY*

This course examines intersections of music and art in pre- and early-modern monasteries. Students will gain facility analyzing visual and musical traditions as we explore themes such as the cosmos and community, gender, and the Christian body politic. Students will learn about varied disciplinary approaches to chant and polyphony, architecture and sculpture, the politics of enclosure, and practices of faith and spirituality, among other topics. *Units: 6.*

Also listed as Musicology 225

Prerequisite: Sophomore Standing.

ARHI 240: *FROM ROMANTICISM TO POST-IMPRESSIONISM: ART OF THE 19TH CENTURY*

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 101 or sophomore standing

ARHI 242: *ART OF THE AVANT-GARDE: 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 101 or sophomore standing

ARHI 244: REPRESENTING IDENTITY IN 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 247: ART NOW: CONTEMPORARY ART IN LONDON

This seminar will introduce students to the historical framework and theoretical tools to critically experience and examine the practices of contemporary British art through site visits to London museums, galleries, and studios. Students will explore such topics as: British and global identity, art as instruments of socio-political change, art reception, the changing gallery system, the global art market, DIY practices, and new media and technology. *Offered at the London Centre. Units: 6.*

Prerequisite: Must be attending the Lawrence London Centre.

ARHI 248: LONDON'S BUILT ENVIRONMENT: 600 YEARS OF ARCHITECTURE

This seminar will examine the rich architectural history of London. Through case studies, students will acquire an understanding of architectural vocabulary, historical periods and styles, and how humans have constructed and interacted with sacred and secular spaces, examples of which include St. Paul's Cathedral, the Houses of Parliament, Tate Modern, Neasden Temple, the Barbican, 2 Willow Road, and the Serpentine Galleries. *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 101 or sophomore standing

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 course will focus on the diverse artistic production and consumption practices within Edo-period Japan (1603-1868). Topics include the revival of classical Heian narratives like *The Tale of Genji*, the rise of an urban bourgeois culture, the prints and paintings depicting kabuki actors, courtesans, and ghosts, the reification of the tea ceremony and encounters with the West through trade. *Units: 6.*

Also listed as East Asian Studies 284

Prerequisite: ARHI 101 or 175 or sophomore standing

ARHI 285: THE TRANSFORMATION OF THE MODERN CITY: TOKYO, SEOUL AND SHANGHAI (1860-1945)

This 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.” *Units: 6.*

Also listed as East Asian Studies 285

Prerequisite: ARHI 101 or 175 or sophomore standing

ARHI 286: THE POLITICS OF POWER IN MODERN AND CONTEMPORARY CHINESE ART

Over the past century, China has witnessed the arrival of Western Imperialism, mass rebellion, revolution, and radical reconstruction under the Communist regime. This class will trace how artists attempted to intervene in social life to change its course of development and how art continues to affect radical social change. *Units: 6.*

Also listed as East Asian Studies 286

Prerequisite: ARHI 101 or 175 or sophomore standing

ARHI 301: TOPICS IN ANCIENT ART

An examination of a particular topic in ancient art history. Students are expected to carry out independent research through a series of guided assignments. The topic will change periodically. May be repeated when topic is different. Not open to students who have previously received or need to receive credit for ARHI 400 with the same topic. *Units: 6.*

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

ARHI 305: MEDIEVAL ECOLOGIES: ART, NATURE, AND THE ENVIRONMENT

This class investigates intersections among people, arts, and the environment in European regions during the Middle Ages (c. 400-1400). Readings draw broadly from primary sources in translation, ecocritical studies, and environmental histories and dovetail with close examinations of images, objects, monuments, and sites across

varied medieval landscapes. We question what constitutes medieval ecologies and consider their profound relevance for today's world. *Units: 6.*

Also listed as Environmental Studies 305

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: CRITICAL QUESTIONS IN ART TODAY

A study of art since 1960. Students will examine a diverse range of art works and the theories and strategies that have informed their production and exhibition. Students will learn about how artists today respond to such issues as gender, racial and ethnic identity, globalization, market capitalism, and new media and technology. *Units: 6.*

Prerequisite: ARHI 101 or sophomore standing

ARHI 321: TOPICS IN MEDIEVAL AND RENAISSANCE ART

An examination of a particular topic in medieval and renaissance art history. Students are expected to carry out independent research through a series of guided assignments. The topic will change periodically. Course may be repeated when topic is different. Not open to students who have previously received or need to receive credit for ARHI 420 with the same topic. *Units: 6.*

Prerequisite: 200-level art history course 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 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 331: TOPICS IN EAST ASIAN ART

An examination of a particular topic in East Asian art history. Students are expected to carry out independent

research through a series of guided assignments. The topic will change periodically. Course may be repeated when the topic is different. Not open to students who have previously received or need to receive credit for ARHI 430.

Topic for Spring 2020: Modern Ruins in East Asia

In examining modern catastrophes—acts of war, iconoclasm, natural and man-made disasters, this seminar will focus on how sites of modern ruination have been both documented and aestheticized. Individual case studies will include the 1923 Great Kanto Earthquake, wartime reportage, the Hiroshima and Nagasaki atomic bombings, protest imagery, the demotion of colonial architecture, and environmental art dealing with the Fukushima nuclear disaster and the Three Gorges Dam. *Units: 6.*

Also listed as East Asian Studies 331

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

ARHI 333: GLOBAL MODERNISMS

This course aims to interrogate the Eurocentric prejudices of the art history discipline and consider instead the concept of multiple modernities. Readings and assignments will focus on expanding art historical, curatorial, digital practices. Students will put these ideas into practice by curating and designing a virtual exhibition using the OMEKA online platform to examine how art continues to circulate in a global context. *Not open to students who have previously received or need to receive credit for ARHI 433. Units: 6.*

Prerequisite: ARHI 101 or consent of instructor

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 341: TOPICS IN CONTEMPORARY AND MODERN ART

An examination of a particular topic in modern and/or contemporary art history. Students are expected to carry out independent research through a series of guided assignments. The topic will change periodically. Course may be repeated when the topic is different. Not open to students who have previously received or need to receive credit for ARHI 440. *Units: 6.*

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

ARHI 345: THEORIZING THE FEMALE BODY IN EAST ASIAN ART

This course explores how the female body and the gendering of space has been addressed in murals, paintings, performance, film, and popular culture during the course of East Asian art history. We will discuss how social and political issues were defined through images of bodies in Japan, Korea, and China in the context of national identity formation, historical reconstruction, subjectivity, and sexuality. Students will also work to develop and refine the quality of their communication skills by presenting and debating their ideas throughout the course. *Units: 6.*

Also listed as East Asian Studies 345, Gender Studies 345

Prerequisite: Sophomore standing

ARHI 381: TOPICS IN ART HISTORY

An examination of a particular topic in art history. Students are expected to carry out independent research through a series of guided assignments. The topic will change periodically. Course may be repeated when topic is different. Not open to students who have previously received credit or need to receive credit for ARHI 480.

Units: 6.

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

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: 1 TO 98.*

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: 1 TO 98.*

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: 1 TO 98.*

Prerequisite: Sophomore standing

ARHI 399: INDEPENDENT STUDY IN ART HISTORY

Advanced study for students doing honors projects in art history. *Units: 1 TO 98.*

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 when the topic is different. Not open to students who have previously received or need to receive credit for ARHI 301 with the same topic. *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. Not open to students who have previously received or need to receive credit for ARHI 420 with the same topic. *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 East Asian art history. Students are expected to carry out independent research through a series of guided assignments. The topic will change periodically. Course may be repeated when the topic is different. Not open to students who have previously received or need to receive credit for ARHI 331.

Topic for Spring 2020: Modern Ruins in East Asia

In examining modern catastrophes—acts of war, iconoclasm, natural and man-made disasters, this seminar will focus on how sites of modern ruination have been both documented and aestheticized. Individual case studies will include the 1923 Great Kanto Earthquake, wartime reportage, the Hiroshima and Nagasaki atomic bombings, protest imagery, the demotion of colonial architecture, and environmental art dealing with the Fukushima nuclear disaster and the Three Gorges Dam. *Units: 6.*

Also listed as East Asian Studies 430

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

ARHI 433: GLOBAL MODERNISMS

This course aims to interrogate the Eurocentric prejudices of the art history discipline and consider instead the concept of multiple modernities. Readings and assignments will focus on expanding art historical, curatorial, digital practices. Students will put these ideas into practice by curating and designing a virtual exhibition using the OMEKA online platform to examine how art continues to circulate in a global context and by writing a research paper. *Not open to students who have previously received or need to receive credit for ARHI 333. Units: 6.*

Prerequisite: ARHI 101 or consent of instructor

ARHI 440: TOPICS IN MODERN AND CONTEMPORARY ART

An examination of a particular topic in modern or contemporary art history. Students are expected to carry out independent research, culminating in a research paper. The topic will change periodically. Course may be repeated when topic is different. Not open to students who have previous received credit for ARHI 341. *Units: 6.*

Prerequisite: One 200-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. Not open to students who have previously received credit or need to receive credit for ARHI 381. *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: 1 TO 98.*

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: 1 TO 98.*

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: 1 TO 98.*

Prerequisite: Sophomore standing

ARHI 599: *INDEPENDENT STUDY IN ART HISTORY*

Advanced study for students doing honors projects in art history. *Units: 1 TO 98.*

Prerequisite: Counter Registration Required.

ARHI 660: *CRITICAL THEORIES IN VISUAL AND MATERIAL CULTURE*

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

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, 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: 1 TO 98.*

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: 1 TO 98.*

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: 1 TO 98.*

Prerequisite: Sophomore standing

ARHI 699: INDEPENDENT STUDY IN ART HISTORY

Advanced study for students doing honors projects in art history. *Units: 1 TO 98.*

Prerequisite: Counter Registration Required.

BIOCHEMISTRY

Professor:	E. De Stasio (<i>The Raymond H. Herzog Professor of Science Biology</i>)
Associate professors:	S. Debbert (<i>Chemistry</i>), K. Dickson (<i>Biology, chair</i>), D. Martin (<i>Physics</i>)

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 pharmacy.

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 major in biochemistry

Students who complete the major will be able to explain major concepts in biochemistry, including the structure/function relationship in molecules and the evolutionary forces that shape those molecules, processes of energy conversion in organisms, and processes of information storage and transfer in organisms. They will learn to critically analyze scientific literature and to conduct biochemical research.

The major in biochemistry requires the following:

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 Statistics*
 - 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:
- a. CHEM 380 (1 unit S/U)
 - b. CHEM 480 (2 units S/U)
 - c. CHEM 680 (3 units S/U)
- OR-
- a. BIOL 650 (5 units and 1 unit)
 - b. Fall and Spring Terms BIOL 600 or equivalent (1 unit S/U each)

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*

On-line coursework cannot be transferred to fulfill these requirements.

Students interested in chemistry-focused graduate programs or careers are encouraged to take CHEM 210: *Analytical Chemistry* and CHEM 370: *Chemical Dynamics*. Students interested in molecular biology-focused careers or graduate programs are encouraged to take BIOL 260: *Genetics* and BIOL 325: *Cell Biology*.

Courses - Biochemistry

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: Completion of 54 units in Lawrence courses or consent of instructor

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

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;

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.*

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

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. *Units: 6.*

Prerequisite: Four years of high school mathematics and minimum score on ALEKS online diagnostic exam, as set by the department.

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.

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

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; concurrent enrollment in CHEM 211

required

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 BIOL 150, CHEM 116 recommended

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

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 250

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: BIOL 130 and BIOL 150, BIOL 170 recommended

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 Winter 2020: Neuroimmunology

Neuroimmunology is the study of the interactions between the nervous and immune systems. This course will explore the interaction of these two systems under homeostatic conditions as well as during disease states. Specific topics to be included may include: infections and cancers of the brain, communication between the nervous and immune systems, and neurodegenerative and neuroimmune disorders. The course will utilize mainly primary literature and include discussions, presentations, and writing assignments. *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

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

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

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

CHEM 370: PHYSICAL CHEMISTRY: THERMODYNAMICS AND KINETICS

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

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: BIOL 130, BIOL 150, and junior standing; 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

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

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. *Units: 6.*

Prerequisite: CHEM 252 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 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

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. *Units: 6.*

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

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 680: SENIOR SEMINAR

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

BIOLOGY

Professors:	B. De Stasio (<i>Dennis and Charlot Nelson Singleton Professor of Biological Sciences, chair</i>), E. De Stasio (<i>The Raymond H. Herzog Professor of Science</i>)
Associate professors:	K. Dickson, A. Hakes (<i>on leave term(s) II</i>), J. Humphries, B. Piasecki (<i>on leave term(s) III</i>), J. Sedlock, N. Wall (<i>on leave term(s) II</i>)
Assistant professor:	I. Del Toro
Visiting assistant professors:	N. Chodkowski, S. Newman
Instructor:	A. Nottingham-Martin (<i>Education</i>)

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: *Integrative Biology: Organisms to Ecosystems*, includes three open-ended research modules in the laboratory portion of the course while the third course, BIOL 170: *Integrative Biology: Experimental Design and Statistics*, has students focus 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, geosciences, 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 major in biology

Students who major in biology will learn to explain both theory of and evidence for basic biological principles including energy metabolism, inheritance, evolution, physiology, and ecosystem structure and function. They will demonstrate critical analysis of primary research literature and conduct original research.

The major in biology requires:

1. The following biology courses:
 - a. BIOL 130: *Integrative Biology: Cells to Organisms*
 - b. BIOL 150: *Integrative Biology: Organisms to Ecosystems*
 - c. BIOL 170: *Integrative Biology: Experimental Design and Statistics*
2. CHEM 116: *Principles of Chemistry: Energetics and Dynamics*
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 the biology *Senior Experience*, including:
 - a. A student-directed project
 - b. 6 units of BIOL 650: *Biology Senior Capstone*
 - c. 2 units of BIOL 600: *Recent Advances in Biology Seminar*

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. Online coursework cannot be transferred to earn biology credit.

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

Biology students who have strong secondary interests in physics or geology may construct a major involving biology 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 biology as the primary discipline are:

1. The following biology courses:
 - a. BIOL 130: *Integrative Biology: Cells to Organisms*
 - b. BIOL 150: *Integrative Biology: Organisms to Ecosystems*
 - c. BIOL 170: *Integrative Biology: Experimental Design and Statistics*
2. The following physics courses:
 - a. PHYS 141: *Principles of Classical, Relativistic, and Quantum Mechanics* and PHYS 151: *Principles of Classical Physics*; or

- b. PHYS 151: *Principles of Classical Physics* and PHYS 160: *Principles of Modern Physics*
- 3. The following courses if geosciences is the secondary discipline:
 - a. GEOL 110: *Introductory Geology*
 - b. GEOL 210: *History of the Earth and Life*
- 4. At least 10 six-unit courses in the natural sciences (biology, chemistry, geosciences, 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
- 5. Completion of the biology *Senior Experience*

Senior Experience in biology

Required: A student-designed project, 6 units of BIOL 650: *Biology Senior Capstone*, 2 units of BIOL 600: *Recent Advances in Biology Seminar*.

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: *Biology Senior Capstone* (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 their 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.

Required for the minor in biology

- 1. The following biology courses:
 - a. BIOL 130: *Integrative Biology: Cells to Organisms*
 - b. BIOL 150: *Integrative Biology: Organisms to Ecosystems*
 - c. BIOL 170: *Integrative Biology: Experimental Design and Statistics* (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.

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

Teacher certification in biology or broad-field science

Students who seek certification to teach biology at the secondary level should choose a broad range of biology courses that includes ecology, plant and animal organismal biology, and molecular and cellular biology, and should gain experience in both field and laboratory research. Students also have the option of seeking broad-field science certification by completing a minimum of two courses in each of two other science disciplines and at least one course in each of the remaining sciences. Students who plan to seek teacher certification should review the requirements in the Education section of the catalog and meet with the director of teacher education, preferably before the end of the sophomore year.

Courses - Biology

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. Phylogenetic 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: 1 TO 98.*

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 211: BOTANY

An introduction to the study of plants with an emphasis on their structure, development, physiology, and diversity. Although this course is lecture-based, students will frequently interact with plants from the Lawrence University greenhouse. *Units: 6.*

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 and sophomore standing

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 BIOL 150, CHEM 116 recommended

BIOL 229: GENERAL ECOLOGY (LECTURE ONLY)

An introduction to the interactions between organisms and the environment. Explores 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 only. *Units: 6.*

Also listed as Environmental Studies 229

BIOL 230: GENERAL ECOLOGY

An introduction to the interactions between organisms and the environment. Explores 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 265: BIOGEOCHEMISTRY

This course explores fundamental cycles between earth's major reservoirs of nutrients such as nitrogen, phosphorus, carbon and water. Through lecture and group presentations, students will gain a solid understanding of the fundamentals of biogeochemical cycles and the mechanism underlying the biological transformations of those elements. Lecture and laboratory. *Units: 6.*

Also listed as Environmental Studies 265, Geology 265

Prerequisite: BIOL 130 or GEOL 110

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: BIOL 130 and BIOL 150, BIOL 170 recommended

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 Winter 2020: Neuroimmunology

Neuroimmunology is the study of the interactions between the nervous and immune systems. This course will explore the interaction of these two systems under homeostatic conditions as well as during disease states. Specific topics to be included may include: infections and cancers of the brain, communication between the nervous and immune systems, and neurodegenerative and neuroimmune disorders. The course will utilize mainly primary literature and include discussions, presentations, and writing assignments. *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 260

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 375: BIOSTATISTICS

This analytical and writing course trains students on the use of advanced analytical methods common in biological data analysis. Students complete analyses in the R programming software and work on individual datasets. Extensive writing about analytical methods, appropriate applications of analyses, and interpretations of these analyses from a large portion of this course. Lecture only with a term-long project required. *Units: 6.*

Prerequisite: BIOL 170 or consent of instructor.

BIOL 380: ECOLOGICAL MODELING

An integrated lecture and computer laboratory introduction to the process of developing mathematical descriptions of the interactions between components of a population, community, or ecosystem, and the use of computer simulation as a tool for understanding ecology and natural resource management. Topics include population growth, predator-prey and competitor interactions, biogeochemical cycling, and mass balance in ecosystems. *Units: 6.*

Also listed as Environmental Studies 380

Prerequisite: At least one of the following: BIOL 229, BIOL 230, BIOL 245, BIOL 330, BIOL 335 or BIOL 345

BIOL 390: TUTORIAL STUDIES IN BIOLOGY

Individual investigations of problems in biology. *Units: 1 TO 98.*

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: 1 TO 98.*

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: 1 TO 98.*

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: BIOL 130, BIOL 150, and 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 433: ECOLOGICAL ENERGETICS (LECTURE ONLY)

Study of the transfer and transformation of energy or energy-containing materials between and within organisms and populations. Discussions will cover food web structure and function across marine, freshwater and terrestrial environments. Part of the Marine Biology Term. Lecture only. *Units: 6.*

Also listed as Environmental Studies 411

Prerequisite: BIOL 330, concurrent enrollment in BIOL 505 and 226 and 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 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.

Topic for Fall 2020: Recent Trends in Parasitology

This Topics course will introduce students to the major groups of parasitic species, their life cycles, physiology,

ecology, and effects on host behavior. In addition we will examine the most recent advances in the field, such as emerging parasitic diseases, drug development, and the potential effects of climate change on parasites. This is a lecture only course that will include hands-on activities so students can gain experience in detecting and identifying parasites. *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: 1 TO 98.*

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: 1 TO 98.*

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: 1 TO 98.*

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: 1 TO 98.*

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: 1 TO 98.*

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: 1 TO 98.*

Prerequisite: Counter Registration Required

BIOMEDICAL ETHICS

Drawing from the humanities, social sciences, and sciences, the interdisciplinary biomedical ethics minor examines the broader biosocial and environmental contexts in which the health sciences are practiced. Social contexts include structural health disparities, local considerations like cultural values and beliefs, and particular public policies, infrastructure, and institutions, as well as universal considerations such as respect for persons. Overall, students will learn to question norms of health and biomedical assumptions and to seek new understandings of how social, biosocial, technological, and environmental factors contribute to good or poor health outcomes in both local and global contexts.

Biomedical ethics minors will learn to examine the principles of autonomy and informed consent and be able to recognize complicating factors in the practice of medicine. They will learn, through multiple disciplinary analytical frameworks, how social, biosocial and environmental factors contribute to the complexities of population health. Finally, they will be able to critically consider the application of biomedicine and biomedical technologies in both local and global contexts.

This minor has been designed to appeal to Lawrence students planning further work in medicine, nursing, genetic counseling, public health, global health, social work and other areas of study in or related to health and health care as well as students wishing to undertake graduate work in applied ethics.

Required for the minor in biomedical ethics

1. BIET 120/PHIL 120: *Applied Ethics: Introduction to Biomedical Ethics*
2. One of the following:
 - a. BIOL 100: *The Biology of Human Reproduction*,
 - b. BIOL 103: *Biotechnology and Society*,
 - c. BIOL 130: *Integrative Biology: Cells to Organisms*, or
 - d. ANTH 140: *Biological Anthropology*
3. One of the following:
 - a. ECON 200: *Economic Development*,
 - b. ECON 204: *Effective Altruism*,
 - c. ECON 271: *Public Economics*, or
 - d. GOVT 380: *Introduction to Public Policy* (biomedical ethics minors can take a concurrent tutorial in *Health Policy* while attending GOVT 380)
4. One of the following:
 - a. ANTH 342: *Medical Anthropology* or
 - b. PSYC 245: *Health Psychology*
5. One of the following:
 - a. BIET 370/PHIL 370: *Advanced Studies in Bioethics*,
 - b. ANTH 542: *Anthropology and Public Health*,
 - c. ANTH 551: *Anthropology of Biomedicine*,
 - d. ANTH 552: *Disability and Culture*, or
 - e. an approved independent study project on some aspect of biomedical ethics, public health or health

policy. Possible contexts for projects include an academic internship, a tutorial, an independent study course, or a health-related project in conjunction with an off-campus program. Independent study projects must be approved by the advisory committee.

6. Two additional 6-unit courses from the list below or other relevant courses with approval of the program director.

- ANTH 314: *Global Health*
- ANTH 340: *Human Biology, Evolution, and Health*
- ANTH 342: *Medical Anthropology*
- ANTH 377: *Culture and Aging*
- ANTH 542: *Anthropology and Public Health*
- ANTH 551: *Anthropology of Biomedicine*
- ANTH 552: *Disability and Culture*
- BIOL 100: *The Biology of Human Reproduction*
- BIOL 103: *Biotechnology and Society*
- BIOL 260: *Genetics*
- BIOL 354: *Molecular Biology*
- BIOL 465: *Advanced Biotechnology*
- BIOL 453: *Developmental Biology*
- ECON 200: *Economic Development*
- ECON 203: *Latin American Economic Development*
- ECON 204: *Effective Altruism*
- ECON 271: *Public Economics*
- ECON 290: *The Economics of Medical Care*
- ETST 110: *Introduction to Ethnic Studies*
- ETST 301: *Theories of Race and Ethnicity*
- GEOL 213: *Geology and Health*
- GOVT 380: *Introduction to Public Policy*
- GOVT 465: *Environmental Politics*
- 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*
- PSYC 350: *Psychopharmacology and Behavior*

Courses - Biomedical Ethics

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: 1 TO 98.*

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

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: 1 TO 98.

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: 1 TO 98.

Prerequisite: Counter Registration Required.

BIET 399: INDEPENDENT STUDY IN BIOMEDICAL ETHICS

Units: 1 TO 98.

Prerequisite: Counter Registration Required.

BIET 590: TUTORIAL STUDIES IN BIOMEDICAL ETHICS

Units: 1 TO 98.

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: 1 TO 98.

Prerequisite: Counter Registration Required.

BIET 599: INDEPENDENT STUDY IN BIOMEDICAL ETHICS

Units: 1 TO 98.

Prerequisite: Counter Registration Required.

BIET 690: TUTORIAL STUDIES IN BIOMEDICAL ETHICS

Units: 1 TO 98.

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: 1 TO 98.

Prerequisite: Counter Registration Required.

BIET 699: INDEPENDENT STUDY IN BIOMEDICAL ETHICS

Units: 1 TO 98.

Prerequisite: Counter Registration Required.

CHEMISTRY

Associate professors:	S. Debbert, D. Donohoue, A. Fleshman (<i>chair</i>)
Assistant professor:	G. Sazama
Instructors:	M. Clement, R. Doughty

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. For more information about placement in our introductory chemistry courses, please visit the Introductory Chemistry and Advanced Placement page at our departmental website: <http://go.lawrence.edu/4420>.

Required for the major in chemistry

Students who major in chemistry will explain and practice theories, concepts, and models from each of the disciplines within chemistry, and they will demonstrate depth of expertise in a particular chemical discipline or topic. They will also demonstrate safe and effective laboratory techniques and conduct experiments using both classical and instrumental analysis methods, and they will analyze and interpret chemical data and draw sound conclusions. And by implementing the scientific method, they will apply foundational and advanced chemical concepts in new areas of inquiry. As they develop their knowledge and skills, students will search, comprehend, summarize, discuss, and critically analyze the primary literature, and they will clearly communicate scientific concepts and reasoning in both written and oral forms to multiple audiences. They will also work effectively and inclusively as part of a group to complete a scientific task or project through project management, cooperative action, and positive interpersonal interactions, and they will explain and adhere to the relevant professional standards (ACS, NIH, OSHA, etc.) of safety, honesty, and integrity in scientific work.

The major in chemistry requires the following:

1. Introductory principles
 - a. CHEM 115: *Principles of Chemistry: Structure and Reactivity* and CHEM 116: *Principles of Chemistry: Energetics and Dynamics*, or the equivalent
 - b. MATH 140: *Calculus 1* and MATH 155: *Multivariable Calculus*, or the equivalent
 - c. PHYS 141: *Principles of Classical, Relativistic, and Quantum Mechanics* and PHYS 151: *Principles of Classical Physics*
2. Core competencies
 - a. CHEM 210: *Analytical Chemistry* and CHEM 211: *Statistics in Analytical Chemistry* (3 units)
 - 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 the following chemistry *Senior Experience* courses:
 - a. CHEM 380: *Seminar: Perspectives on Chemistry* (1 unit)
 - b. CHEM 480: *Seminar: Chemical Literature* (2 units)
 - c. CHEM 680: *Senior Seminar* (3 units)

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

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: *Principles of Chemistry: Structure and Reactivity* and CHEM 116: *Principles of Chemistry: Energetics and Dynamics*, or the equivalent
 - b. GEOS 110: *Introduction to the Geosciences* and GEOS 210: *History of the Earth and Life*
 - c. PHYS 141: *Principles of Classical, Relativistic, and Quantum Mechanics* and PHYS 151: *Principles of Classical Physics*
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 the following chemistry *Senior Experience* courses:
 - a. CHEM 380: *Seminar: Perspectives on Chemistry* (1 unit)
 - b. CHEM 480: *Seminar: Chemical Literature* (2 units)
 - c. CHEM 680: *Senior Seminar* (3 units)

Senior Experience in chemistry

The chemistry department's capstone sequence consists of a series of three 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.
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 fields of interest to them. In this seminar, they learn the character and organization of the chemical literature and become familiar with search strategies. Students select topics and, guided by the instructor, conduct a literature search for key papers, construct a bibliography, and prepare presentations highlighting key research findings. 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.

Required for the minor in chemistry

1. Introductory principles
 - a. CHEM 115: *Principles of Chemistry: Structure and Reactivity* and CHEM 116: *Principles of Chemistry: Energetics and Dynamics*, or the equivalent
2. Core competencies
 - a. CHEM 210: *Analytical Chemistry* and CHEM 211: *Statistical Methods in Analytical Chemistry* (3 units)
 - 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 the following chemistry seminar courses:
 - a. CHEM 380: *Seminar: Perspectives on Chemistry* (1 unit)
 - b. CHEM 480: *Seminar: Chemical Literature* (2 units)
 - c. CHEM 680: *Senior Seminar* (3 units)

Teacher certification in chemistry or broad-field science

Students can seek teacher certification to teach chemistry at the secondary level. Certification requires a major in chemistry with courses in other science subjects. Students also have the option of seeking broad-field science certification by completing a minimum of two courses in each of two other science disciplines and at least one course in each of the remaining sciences. Students who plan to seek teacher certification should review the requirements in the Education section of the catalog and meet with the director of teacher education, preferably before the end of the sophomore year.

Courses - Chemistry

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 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: 1 TO 98.*

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: 1 TO 98.*

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; concurrent enrollment in CHEM 211 required

CHEM 211: STATISTICAL METHODS IN ANALYTICAL CHEMISTRY

This course covers methods of statistics and data analysis as applied to modern chemistry. Students in this course will develop a working knowledge of the basic and advanced capabilities of the spreadsheet program Microsoft Excel. Topics explored include descriptive statistics, hypothesis testing, correlation, regression, and tests of significance. This course is taught in an exercise-oriented approach where we use real data collected during CHEM 210. *Units: 3.*

Prerequisite: CHEM 116, placement exam, or consent of instructor; concurrent enrollment in CHEM 210 is required

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 225: NANOSCIENCE AND NANOTECHNOLOGY

This course provides an introduction to the novelty, challenge, and excitement of nanoscale science and technology. Emphasis on the physical and chemical properties and phenomena at the nanoscale and their influence in chemistry, biochemistry, and environmental chemistry. Opportunities for individually designed projects. No formal laboratory. *Units: 6.*

Prerequisite: At least one introductory course sequence in either chemistry (115, 116) or physics (150, 160 or 120, 130)

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 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

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: THERMODYNAMICS AND KINETICS

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: 1 TO 98.*

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: 1 TO 98.*

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: 1 TO 98.*

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: 1 TO 98.*

Prerequisite: Counter Registration Required.

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 252, CHEM 370 recommended

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 445: BIOCHEMISTRY OF VIRUSES

The advanced biochemical, molecular, epidemiological and biotechnological aspects of animal, bacterial and plant viruses will be covered in this course. Specific areas of virology will be covered, including viral structure and assembly, viral replication, viral recombination and evolution, virus-host interactions, viral transformations, antiviral drugs, and vaccines. Selected virus families are discussed individually with respect to classification, genomic structure, virion structure, virus cycle, pathogenesis, epidemiology and immunity. *Units: 6.*

Prerequisite: CHEM 340 or BIOL 354

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. *Units: 6.*

Prerequisite: CHEM 252 or consent of instructor

CHEM 470: PHYSICAL CHEMISTRY: QUANTUM CHEMISTRY & SPECTROSCOPY

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 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, PHYS 151, CHEM 370 or CHEM 470; 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 ADVANCED PHYSICAL CHEM

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: 1 TO 98.*

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: 1 TO 98.*

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: 1 TO 98.*

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: 1 TO 98.

Prerequisite: Counter Registration Required.

CHEM 680: 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: 1 TO 98.*

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: 1 TO 98.*

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: 1 TO 98.*

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: 1 TO 98.*

Prerequisite: Counter Registration Required.

CHINESE AND JAPANESE

Professor: K. Sung (*chair*) (*on leave term(s) II*)

Instructors: A. Adler, Y. Chiu (*Schmidt Fellow*), Y. Makita, M. Wegehaupt (*Dean of Faculty Office*)

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 major in Chinese

Students who complete the major in Chinese will demonstrate proficiency in the four language skills (speaking, listening, reading, writing) at the intermediate-high to advanced-low level according to the American Council of Teachers of Foreign Languages (ACTFL) guidelines. They will also demonstrate the ability to read classical Chinese texts and translate appropriately into the vernacular and to work with complex fictional, non-fictional, and filmic texts in Chinese culture, history, and institutions.

The major in Chinese requires the following:

1. Completion of beginning and intermediate Chinese language courses:
 - a. CHJA 101: *Beginning Chinese I*
 - b. CHJA 102: *Beginning Chinese II*
 - c. CHJA 201: *Beginning Intermediate Chinese*
 - d. CHJA 202: *Intermediate Chinese I*
 - e. CHJA 203: *Intermediate Chinese II*
 - f. CHJA 301: *Advanced Intermediate Chinese*
2. Three six-unit courses in advanced Chinese, taught in Chinese: Participation in the Lawrence-affiliated study-abroad program at Associated Colleges in China and successful completion of its fourth-year level courses will fulfill this category. Participation in other off-campus Chinese language programs is to be evaluated for this category by the department faculty.
 - a. CHJA 401: *Advanced Communicative Chinese*
 - b. CHJA 402: *Advanced Readings in Chinese*
 - c. CHJA 590: *Tutorial Studies in Chinese* or CHJA 598: *Internship in Chinese*
3. Three six-unit courses in Chinese literature and linguistics, taught in English, selected from the following. The third course may be substituted by an additional course in category 4.
 - CHJA 255: *Introduction to Chinese Language and Culture*
 - CHJA 310: *Introduction to East Asian Linguistics*
 - CHJA 350: *Modern Chinese Literature and Cinema in Translation*
 - CHJA 355: *History of the Chinese Language*
 - CHJA 370: *Traditional Chinese Literature and Thought*
4. One six-unit courses in Chinese culture, taught in English, selected from the following:

- HIST 308: *Half the Sky: Chinese Women's History*
 - HIST 360: *Contemporary China: 1949-2000*
 - HIST 361: *Western Encounters with China: Perceptions and Misperceptions*
 - HIST 482: *The Art of Healing: A History of Chinese Medicine*
 - ARHI 430: *Topics in Asian Art*
5. One senior-level independent study, CHJA 699 (6 units), for the *Senior Experience* in Chinese.

Senior Experience in Chinese

CHJA 699 is 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.

Required for the minor in Chinese language

1. Completion of beginning and intermediate Chinese language courses:
 - a. CHJA 101: *Beginning Chinese I*
 - b. CHJA 102: *Beginning Chinese II*
 - c. CHJA 201: *Beginning Intermediate Chinese*
 - d. CHJA 202: *Intermediate Chinese I*
 - e. CHJA 203: *Intermediate Chinese II*
 - f. CHJA 301: *Advanced Intermediate Chinese*
2. One advanced language course
3. An exit proficiency interview

Required for the minor in Japanese language

1. Completion of beginning and intermediate Japanese language courses:
 - a. CHJA 111: *Beginning Japanese I*
 - b. CHJA 112: *Beginning Japanese II*
 - c. CHJA 211: *Beginning Intermediate Japanese*
 - d. CHJA 212: *Intermediate Japanese I*
 - e. CHJA 213: *Intermediate Japanese II*
 - f. CHJA 311: *Advanced Intermediate Japanese*
2. One advanced language course
3. An exit proficiency interview

Teacher certification in Chinese (K-12)

Chinese majors can seek certification to teach Chinese at the elementary and secondary levels. To be certified, students must spend a term in a Chinese-speaking country studying the language and culture and must pass an oral and writing proficiency test. Students can add an endorsement in a second area (such as another language or English as a second language) by completing the appropriate minor. Students who plan to seek teacher certification should review the requirements in the Education section of the catalog and meet with the director of teacher education, preferably before the end of the sophomore year.

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 affiliated off-campus programs in Beijing, Shanghai, and Tokyo (see Off-Campus Programs).

Courses - Chinese and Japanese

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: 1 TO 98.*

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 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 355: HISTORY OF THE CHINESE LANGUAGE (IN ENGLISH)

This course covers the history of the Chinese language, including the structural characteristics of the language, invention and evolution of the writing system, general survey of the major dialects, diachronic changes, spread and influence of the Chinese lexicon in East Asia, birth of the common language putonghua, evaluation of traditional versus simplified characters, and challenges of the language in the modern era. *Units: 6.*

Also listed as East Asian Studies 355

Prerequisite: Sophomore standing; one year of Chinese 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 Film Studies 360, East Asian Studies 360

Prerequisite: Sophomore standing; EAST 150 or EAST 420 recommended

CHJA 365: HISTORY OF THE JAPANESE LANGUAGE (IN ENGLISH)

This course explores the history of the Japanese language, including theories of its origin, the importation of the Chinese characters, Kanji, the invention of the Japanese syllabaries, Kana, the development of the writing system, lexical influence of loan words, and the evolution of both written and spoken forms in modern Japanese. The course also investigates two other languages in Japan, the Ainu and the Ryukyu languages. *Units: 6.*

Also listed as East Asian Studies 377

Prerequisite: Sophomore standing; one year of Japanese recommended

CHJA 370: CHINESE TRADITIONAL LITERATURE AND THOUGHT (IN ENGLISH)

An introduction to the texts and schools comprising traditional Chinese literature and thought. Reading across

time and genre, from ancient classics such as *Shijing* to Tang poetry, to later Ming novels *Water Margin* and *Romance of the Three Kingdoms*, students will explore the breadth of the Chinese literary tradition while engaging with primary texts from the Confucian, Buddhist and Daoist traditions that shaped it. Lecture, discussion and exams. *Units: 6.*

Also listed as East Asian Studies 370

CHJA 390: TUTORIAL STUDIES IN CHINESE OR JAPANESE

Individualized advanced study under regular staff direction on topics not covered in lower-level courses. *Units: 1 TO 98.*

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: 1 TO 98.*

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: 1 TO 98.*

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 590: TUTORIAL STUDIES IN CHINESE OR JAPANESE

Individualized advanced study under regular staff direction on topics not covered in lower-level courses. *Units: 1 TO 98.*

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: 1 TO 98.*

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: 1 TO 98.*

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: 1 TO 98.*

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: 1 TO 98.*

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: 1 TO 98.*

Prerequisite: Counter Registration Required

CLASSICS

Associate professors: R. McNeill (*Ottilia Buerger Professor of Classical Studies, chair*), M. Smith (*Religious Studies*) (on leave term(s) II)

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 major in classics

Students who major in classics will learn to translate passages of prose and poetry in Greek and Latin (or the language of specialization, in the case of classical civilization concentrators) and use their understanding of Greek or Latin as a tool for interpreting passages in the original language. They will demonstrate their familiarity with the history, cultures, and literary, artistic, and intellectual traditions of the ancient Mediterranean world, with special emphasis on the civilizations of ancient Greece and Rome. At the conclusion of the major, they will undertake an independent research or creative project in which they relate individual works to larger themes and issues in Greek and Roman literature, history, philosophy, art, and culture as appropriate to their particular area of concentration.

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

CONCENTRATION IN CLASSICAL LANGUAGES AND LITERATURES

1. The introductory/intermediate sequences in both Latin and Greek (or their equivalents):
 - a. CLAS 120: *Intensive Beginning Latin* and CLAS 220: *Intensive Intermediate Latin*, and
 - b. CLAS 125: *Intensive Beginning Greek* and CLAS 225: *Intensive Intermediate Greek*
2. Four courses at the 300-, 400-, or 500-level in Latin and Greek literature. At least two of these courses must be taken at the 400- or 500-level. The following courses fulfill this requirement:
 - In Latin:
 - CLAS 301/401: *Topics in Latin Literature*
 - CLAS 302/402: *Ovid*

- CLAS 303/403: *Catullus and Horace*
 - CLAS 304/404: *Virgil*
 - CLAS 306/406: *The Roman Novel*
 - CLAS 307/407: *Cicero*
 - CLAS 308/408: *Roman Historians*
 - In Greek:
 - CLAS 321/421: *Topics in Greek Literature*
 - CLAS 322/422: *Homer*
 - CLAS 323/423: *Greek Tragedy*
 - CLAS 324/424: *Greek Comedy*
 - CLAS 326/426: *Plato*
 - CLAS 327/427: *The Attic Orators*
 - CLAS 328/428: *Greek Historians*
 - In Latin and Greek:
 - CLAS 545: *Advanced Topics in Classics*
3. Two courses in classical civilization or Greek and Roman history. The following courses fulfill this requirement:
- a. CLAS 101: *Introduction to Classics*
 - b. CLAS 150: *Survey of Greek History*
 - c. CLAS 160: *Survey of Roman History*
 - d. CLAS 250: *Classical Mythology*
 - e. CLAS 260: *Ancient Voices: Classical Literature in Translation*
 - f. CLAS 280: *Warfare in Classical Antiquity*
 - g. CLAS 300: *Periclean Athens*
 - h. CLAS 305: *The Fall of the Roman Republic*
 - i. CLAS 310: *Augustan Rome*
 - j. CLAS 363: *Laughter and Pain: Greek and Roman Drama in Translation*
 - k. CLAS 370: *War and Humanity: Greek and Roman Epic in Translation*
4. One additional course in classics or related fields. If desired, this course may be chosen from the following list of courses originating in other departments:
- ANTH 324 (CLAS 365): *Archaeology of the Prehistoric Aegean*
 - ANTH 328 (ARHI 325/CLAS 368): *Ethics in Archaeology: Who Owns the Past?*
 - ARHI 200 (CLAS 340): *Archaic and Classical Greek Art*
 - ARHI 202 (CLAS 345): *From Alexander to Cleopatra: Art of the Hellenistic Age*
 - ARHI 204 (CLAS 350): *Roman Art*
 - ARHI 400 (CLAS 540): *Topics in Ancient Art*
 - ENG 285: *Biblical Narratives in Literature*
 - ENG 527: *History of the Book*
 - HIST 105: *Cross-Cultural Interactions Along the Silk Road, 200 BCE - 1400 CE*
 - PHIL 200: *History of Philosophy: Plato and Aristotle*
 - RLST 150: *Introduction to the Bible*
5. *Senior Experience* in classics, to be taken as a 6-unit independent study (CLAS 699).

CONCENTRATION IN CLASSICAL CIVILIZATION

1. The introductory/intermediate sequences in either Latin or Greek (or the equivalent):

- a. CLAS 120: *Intensive Beginning Latin* and CLAS 220: *Intensive Intermediate Latin*, or
- b. CLAS 125: *Intensive Beginning Greek* and CLAS 225: *Intensive Intermediate Greek*
2. Two courses at the 300- or 400-level in the literature of the target language. The following courses fulfill this requirement:
 - In Latin:
 - CLAS 301/401: *Topics in Latin Literature*
 - CLAS 302/402: *Ovid*
 - CLAS 303/403: *Catullus and Horace*
 - CLAS 304/404: *Virgil*
 - CLAS 306/406: *The Roman Novel*
 - CLAS 307/407: *Cicero*
 - CLAS 308/408: *Roman Historians*
 - In Greek:
 - CLAS 321/421: *Topics in Greek Literature*
 - CLAS 322/422: *Homer*
 - CLAS 323/423: *Greek Tragedy*
 - CLAS 324/424: *Greek Comedy*
 - CLAS 326/426: *Plato*
 - CLAS 327/427: *The Attic Orators*
 - CLAS 328/428: *Greek Historians*
3. Five courses in classical civilization or Greek and Roman history. The following courses fulfill this requirement:
 - a. CLAS 101: *Introduction to Classics*
 - b. CLAS 150: *Survey of Greek History*
 - c. CLAS 160: *Survey of Roman History*
 - d. CLAS 250: *Classical Mythology*
 - e. CLAS 260: *Ancient Voices: Classical Literature in Translation*
 - f. CLAS 280: *Warfare in Classical Antiquity*
 - g. CLAS 300: *Periclean Athens*
 - h. CLAS 305: *The Fall of the Roman Republic*
 - i. CLAS 310: *Augustan Rome*
 - j. CLAS 363: *Laughter and Pain: Greek and Roman Drama in Translation*
 - k. CLAS 370: *War and Humanity: Greek and Roman Epic in Translation*
4. Two additional courses in classics (CLAS) or related fields. If desired, these courses may be chosen from the following list of courses originating in other departments:
 - ANTH 324 (CLAS 365): *Archaeology of the Prehistoric Aegean*
 - ANTH 328 (ARHI 325/CLAS 368): *Ethics in Archaeology: Who Owns the Past?*
 - ARHI 200 (CLAS 340): *Archaic and Classical Greek Art*
 - ARHI 202 (CLAS 345): *From Alexander to Cleopatra: Art of the Hellenistic Age*
 - ARHI 204 (CLAS 350): *Roman Art*
 - ARHI 400 (CLAS 540): *Topics in Ancient Art*
 - ENG 285: *Biblical Narratives in Literature*
 - ENG 527: *History of the Book*
 - HIST 105: *Cross-Cultural Interactions Along the Silk Road, 200 BCE - 1400 CE*
 - PHIL 200: *History of Philosophy: Plato and Aristotle*
 - RLST 150: *Introduction to the Bible*

5. *Senior Experience* in classics, to be taken as a 6-unit independent study (CLAS 699).

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.

The *Senior Experience* in classics requires 6 units of independent study. 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.

Required for the minor in Greek or Latin

1. One of the following (or their equivalents):
 - a. CLAS 120: *Intensive Beginning Latin* and CLAS 220: *Intensive Intermediate Latin*, or
 - b. CLAS 125: *Intensive Beginning Greek* and CLAS 225: *Intensive Intermediate Greek*.
2. Two upper-level literature courses in the target language at the 300-, 400-, or 500-level; at least one of these courses must be taken at the 400- or 500-level.
3. Two additional courses in classics.

Required for the minor in classical civilization

1. Any four courses in classical civilization or ancient history (Greek and/or Roman).

2. Two additional courses in classics.

Teacher certification in Latin (K-12)

Classics majors can seek certification to teach Latin at the elementary and secondary levels. Students can add an endorsement in a second area (such as another language or English as a second language) by completing the appropriate minor. Students who plan to seek teacher certification should review the requirements in the Education section of the catalog and meet with the director of teacher education, preferably before the end of the sophomore year.

Language competency general education requirement

Students may fulfill the university's language competency requirement by taking Latin or Greek at the intermediate level (CLAS 220 or CLAS 225) or any 300-, 400-, or 500-level course in Latin or Greek literature.

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.

Courses - Classics

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 135: *TEMPLES AND TOGAS: ARTS OF THE ANCIENT WORLD*

This introductory class examines the art and architecture of ancient Greece and Rome, spanning from the Minoans on Crete to the Arch of Titus in the Roman Forum. Students will learn about the progression of styles, functions, and historical meanings of these objects as they are introduced to basic art historical methods. *Units: 6.*

Also listed as Art History 135

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: 1 TO 98.*

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: ANCIENT VOICES: 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.*

Also listed as History 241

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.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. *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.*

Also listed as History 242

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 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. *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.*

Also listed as Theatre Arts 344

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: LAUGHTER AND PAIN: 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 Theatre Arts 363, 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 Art History 325

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

CLAS 370: WAR AND HUMANITY: 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: 1 TO 98.*

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: 1 TO 98.*

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: 1 TO 98.*

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. *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 when the topic is different. *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. *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: 1 TO 98.*

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: 1 TO 98.*

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: 1 TO 98.*

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: 1 TO 98.*

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: 1 TO 98.*

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: 1 TO 98.*

Prerequisite: Counter Registration Required.

COGNITIVE SCIENCE

Professors: T. Gottfried (*Psychology*), K. Krebsbach (*Mathematics*) (*on leave term(s) I*), B. Williams (*Education, chair*)

Associate professor: M. Phelan (*Philosophy*)

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. COSC 105: *Introduction to Cognitive Science*
2. Six additional courses, five of which must be in departments other than the student's major.

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 330: *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 150: *Introduction to Computer Science*
- CMSC 205: *Data-Scientific Programming*
- CMSC 208: *Machine Learning*
- CMSC 210: *Introduction to Scientific Programming*
- CMSC 470: *Artificial Intelligence*
- CMSC 515: *Theory of Computation*
- MATH 450: *Bayesian Statistics*

c. Neuroscience

- NESC 200: *Introduction to Neuroscience*
- PSYC 282: *Neuroscience Research Techniques*
- PSYC 350: *Psychopharmacology and Behavior*
- PSYC 365: *Brain and Behavior*
- PSYC 420: *Clinical and Affective Neuroscience*

- BIOL 340/PSYC 580: *Topics in Neuroscience*
- d. Cognitive Processes
 - COSC 345/ANTH 345/EDST345/PSYC 345: *Distributed Cognition and the Extended Mind*
 - ECON 225: *Decision Theory*
 - ECON 410: *Advanced Game Theory and Applications*
 - EDST 180/PSYC 180: *Psychology of Learning*
 - 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 380: *Introduction to Morphology*
 - 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*

COSC 300: *Topics in Cognitive Science* may be counted in a group above that corresponds to the specific topic, with approval from the director of cognitive science.

Courses - Cognitive Science

COSC 105: *INTRO 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.*

Also listed as Philosophy 105

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.*

Also listed as Cognitive Science 105

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.*

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.*

Also listed as Linguistics 160

Prerequisite: Recommended for freshmen and sophomores

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

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

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 prior course in mathematics or computer science, or BIOL 170, 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

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.*

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

COSC 300: TOPICS IN COGNITIVE SCIENCE

An in-depth exploration of a topic in cognitive science. May be repeated when topic is different.

Topic for Spring 2019: The Making of Scientific Facts

In this seminar we'll examine scientific facts: what they are and how they are constructed and contested. For background, we'll read physician Ludwik Fleck's *Genesis and Development of a Scientific Fact* (1935), physicist-historian Thomas Kuhn's *The Structure of Scientific Revolutions* (1962), and anthropologist Bruno Latour and sociologist Steve Woolgar's *Laboratory Life: The Construction of Scientific Facts* (1979). We'll explore the practices of scientists at Lawrence and consider the role of facts in disputes over science education and climate change. *Units: 6.*

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 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

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 ANTH 130 or 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

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 Winter 2020: Neuroimmunology

Neuroimmunology is the study of the interactions between the nervous and immune systems. This course will explore the interaction of these two systems under homeostatic conditions as well as during disease states. Specific topics to be included may include: infections and cancers of the brain, communication between the nervous and immune systems, and neurodegenerative and neuroimmune disorders. The course will utilize mainly primary literature and include discussions, presentations, and writing assignments. *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

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

PSYC 340: COGNITIVE PSYCHOLOGY (WITH LABORATORY)

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

ANTH 345: DISTRIBUTED COGNITION AND THE EXTENDED MIND

The new science of the mind treats cognition as a distributed process involving the brain, body, and world. This

seminar explores the role of material settings and tools, bodily engagement, social interaction, and cultural processes in human reasoning, problem solving, and learning. Students will write short papers examining aspects of cognitive activity in real-world settings. *Units: 6.*

Also listed as Education Studies 345, Psychology 345, Cognitive Science 345

Prerequisite: PHIL 105 recommended

COSC 345: DISTRIBUTED COGNITION AND THE EXTENDED MIND

The new science of the mind treats cognition as a distributed process involving the brain, body, and world. This seminar explores the role of material settings and tools, bodily engagement, social interaction, and cultural processes in human reasoning, problem solving, and learning. Students will write short papers examining aspects of cognitive activity in real-world settings. *Units: 6.*

Also listed as Education Studies 345, Anthropology 345, Psychology 345

Prerequisite: PHIL 105 recommended

EDST 345: DISTRIBUTED COGNITION AND THE EXTENDED MIND

The new science of the mind treats cognition as a distributed process involving the brain, body, and world. This seminar explores the role of material settings and tools, bodily engagement, social interaction, and cultural processes in human reasoning, problem solving, and learning. Students will write short papers examining aspects of cognitive activity in real-world settings. *Units: 6.*

Also listed as Anthropology 345, Psychology 345, Cognitive Science 345

Prerequisite: PHIL 105 recommended

PSYC 345: DISTRIBUTED COGNITION AND THE EXTENDED MIND

The new science of the mind treats cognition as a distributed process involving the brain, body, and world. This seminar explores the role of material settings and tools, bodily engagement, social interaction, and cultural processes in human reasoning, problem solving, and learning. Students will write short papers examining aspects of cognitive activity in real-world settings. *Units: 6.*

Also listed as Education Studies 345, Anthropology 345, Cognitive Science 345

Prerequisite: PHIL 105 recommended

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

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

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

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 different 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

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

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

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

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

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

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

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

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: MATH 130 or MATH 140; MATH 300 recommended

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

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

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 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

LING 450: TOPICS IN THE PSYCHOLOGY OF LANGUAGE

Course examines how people know, produce, and understand language in all its diversity, using cognitive science and sociocultural approaches. Topics include first and second language learning of speech patterns, words, sentence structure, discourse rules, and the various social functions and expressions of language. Student discussion and presentations, reading quizzes, and a critical literature review paper. May be repeated when topic is different. *Units: 6.*

Also listed as Psychology 540

Prerequisite: PSYC 340, LING 150, 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 250 and CMSC 270

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

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: CMSC 150 and either MATH 220 or MATH 300

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

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 or ANTH 331

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

PSYC 540: TOPICS IN THE PSYCHOLOGY OF LANGUAGE

Course examines how people know, produce, and understand language in all its diversity, using cognitive science and sociocultural approaches. Topics include first and second language learning of speech patterns, words, sentence structure, discourse rules, and the various social functions and expressions of language. Student discussion and presentations, reading quizzes, and a critical literature review paper. May be repeated when topic is different. *Units: 6.*

Also listed as Linguistics 450

Prerequisite: PSYC 340, LING 150, 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. *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

COSC 591: DIRECTED STUDY IN COGNITIVE 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: 1 TO 98.*

Prerequisite: Counter Registration Required.

COSC 599: INDEPENDENT STUDY IN COGNITIVE SCIENCE

Individualized advanced research under staff guidance to prepare a substantial paper. *Units: 1 TO 98.*

Prerequisite: Counter Registration Required.

COSC 695: INTERNSHIP IN COGNITIVE SCIENCE

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: 1 TO 98.*

COSC 699: INDEPENDENT STUDY IN COGNITIVE SCIENCE

Advanced study, arranged in consultation with the department chair. Students contemplating an honors project should register for this course. *Units: 1 TO 98.*

Prerequisite: Counter Registration Required.

COMPUTER SCIENCE

Professor:	K. Krebsbach (<i>Mathematics</i>) (on leave term(s) I)
Associate professor:	J. Gregg (<i>Mathematics</i>)
Assistant professors:	A. Chakraborty (<i>Mathematics</i>), A. Sage (<i>Mathematics</i>)

The 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 major in computer science

The major in computer science prepares students to demonstrate independent learning in the context of an independent project: to establish a project of appropriate scope; to identify appropriate approaches and problem-solving strategies, including the appropriate level of abstraction to apply to the project to design and implement software that satisfies the requirements of the project; and to communicate the results of the project work to others clearly using methods appropriate to the discipline of computer science.

The major in computer science requires the following:

1. The following math courses:
 - a. MATH 140 *Calculus*
 - b. MATH 155 *Multivariable Calculus*
 - c. MATH 220 *Applied Combinatorics*
2. The following computer science courses:
 - a. CMSC 150 *Introduction to Computer Science*
 - b. CMSC 250 *Intermediate Programming Concepts*
 - c. CMSC 270 *Introduction to Data Structures*
 - d. CMSC 510 *Data Structures and Algorithm Analysis*
3. One of the following courses:
 - a. CMSC 205 *Data-Scientific Programming* or
 - b. CMSC 208 *Machine Learning*
4. Three additional six-unit CMSC courses numbered 400 or above, excluding tutorial, directed study, and

independent study courses taken for any reason.

5. The following courses taken in the senior year:

- a. CMSC 698 *Senior Projects* or CMSC 699 *Independent Study in Computer Science* (6 units) if CMSC 698 is not offered
- b. CMSC 600 *Senior Seminar* (3 units)

Required for the minor in computer science

1. The following math courses:
 - a. MATH 140 *Calculus*
 - b. MATH 155 *Multivariable Calculus*
 - c. MATH 220 *Applied Combinatorics*
2. The following computer science courses:
 - a. CMSC 150 *Introduction to Computer Science*
 - b. CMSC 250 *Intermediate Programming Concepts*
 - c. CMSC 270 *Introduction to Data Structures*
3. One additional six-unit CMSC course numbered 400 or above

Teacher certification in computer science

Computer science majors can seek certification to teach computer science at the secondary level. Students can add an endorsement in a second area by completing an appropriate minor. Students who plan to seek teacher certification should review the requirements in the Education section of the catalog and meet with the director of teacher education, preferably before the end of the sophomore year.

Tutorials

Tutorials are opportunities to enhance usual course offerings, not duplicate them. In order to reserve tutorials for this purpose, no tutorials or directed studies 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 computer science

Computer science majors complete an independent project during the senior year in either the fall term Senior Projects course (CMSC 698) or, if the Senior Projects course is not offered, in a 6-unit independent study. They present the results of their project in the winter term Senior Seminar (CMSC 600, 3 units). The project must be approved and supervised by a faculty member in the department. Students should consult with department faculty in the spring before their senior year in order to plan for their *Senior Experience*.

Courses - Computer Science

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: 1 TO 98.*

Prerequisite: Counter Registration Required.

CMSC 195: *INTERNSHIP IN COMPUTER SCIENCE*

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: 1 TO 98.*

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 prior course in mathematics or computer science, or BIOL 170, or consent of instructor

CMSC 208: *MACHINE LEARNING*

An overview of techniques used to discover structural patterns and make predictions using complex datasets that are prevalent in today's world. The central machine learning tasks of classification, clustering, and regression will be explored, along with methods for training models and evaluating predictions. This course will

be taught in a workshop format. Assignments will involve the use of statistical software. *Units: 6.*

Also listed as Linguistics 208

Prerequisite: One course in mathematics or computer science, or BIOL 170, 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 and CMSC 250, or consent of instructor

CMSC 390: TUTORIAL STUDIES IN COMPUTER SCIENCE

Units: 1 TO 98.

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: 1 TO 98.*

Prerequisite: Counter Registration Required.

CMSC 395: INTERNSHIP IN COMPUTER SCIENCE

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: 1 TO 98.*

Prerequisite: Counter Registration Required

CMSC 399: INDEPENDENT STUDY IN COMPUTER SCIENCE

Units: 1 TO 98.

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 250 and CMSC 270

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 250 and 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 250 and 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: CMSC 150 and either MATH 220 or MATH 300

CMSC 590: TUTORIAL STUDIES IN COMPUTER SCIENCE

Units: 1 TO 98.

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: 1 TO 98.*

Prerequisite: Counter Registration Required.

CMSC 595: INTERNSHIP IN COMPUTER SCIENCE

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: 1 TO 98.*

Prerequisite: Counter Registration Required

CMSC 599: INDEPENDENT STUDY IN COMPUTER SCIENCE

Units: 1 TO 98.

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: 1 TO 98.

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: 1 TO 98.*

Prerequisite: Counter Registration Required.

CMSC 695: INTERNSHIP IN COMPUTER SCIENCE

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: 1 TO 98.*

Prerequisite: Counter Registration Required

CMSC 698: COMPUTER SCIENCE SENIOR PROJECTS

Designed as an inclusive alternative to separately-scheduled, required independent studies (CMSC 699). Students in the graduating cohort will present proposals, progress reports, and preliminary results of their self-directed senior projects to be evaluated by their peers while learning about each others' capstone projects in computer science. *Units: 6.*

Prerequisite: Instructor Approval required

CMSC 699: INDEPENDENT STUDY IN COMPUTER SCIENCE

Units: 1 TO 98.

Prerequisite: Counter Registration Required.

EAST ASIAN STUDIES

Professor:	K. Sung (<i>Chinese and Japanese</i>) (on leave term(s) II)
Associate professors:	A. Balsekar (<i>Government</i>) (on leave term(s) II, III), B. Jenike (<i>Edward F. Mielke Professor of Ethics in Medicine, Science and Society Anthropology, chair</i>)
Assistant professors:	C. Kassor (<i>Religious Studies</i>) (on leave term(s) I), N. Lin (<i>Studio Art</i>) (on leave term(s) I), B. Vance (<i>History</i>)
Instructor:	M. Wegehaupt (<i>Dean of Faculty Office</i>)

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

Students who major in East Asian studies will demonstrate an understanding of the basic historical development of East Asian political and cultural traditions and use this knowledge to analyze how these traditions, in either China, Japan, or Korea, have evolved with modernization, which may include analysis of contemporary areas of social change. Students will be able to relate the relevance of the study of East Asia to a broader international or academic context. In the culmination of the major, students will critically analyze an aspect of Chinese, Japanese, or Korean history, philosophy, art, culture, society, economics or politics in a clearly written, thesis-driven project, and will utilize some target language sources, as primary or secondary literature, in carrying out their research.

The major in East Asian studies requires the following:

1. At least one language course: CHJA 301: *Advanced Intermediate Chinese* or CHJA 311: *Advanced*

Intermediate Japanese, or higher

2. EAST 140/HIST 160: *Traditional East Asian Civilization, 1800 B.C.-1600*
3. EAST 150/HIST 165: *Modern East Asian Civilization, 1600-1990*
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:
 - EAST 380: *Asian Women and Feminism*
 - GOVT 245: *Comparative Politics of Less-Developed Countries*
 - GOVT 340: *International Politics*
 - GOVT 480: *International Organizations*
 - HIST 295: *Nationalism in the Modern World*

Courses in other disciplines can also fulfill this requirement. Students should consult with the East Asian studies program director to select a course appropriate to their interests. See the East Asian studies Advising page for additional course suggestions.

6. EAST 699: *Independent Study in East Asian Studies* (6 units) or other 600-level course with approval of the East Asian studies program director, resulting in the completion of a substantial research paper or project. Students should consult with their East Asian studies faculty advisor in spring term of their junior year to develop a plan for their senior experience.
7. At least nine 6-unit courses should be taken at the 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 the *Senior Experience* course.

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.

Senior Experience in East Asian studies

EAST 699: *Independent Study in East Asian Studies* (6 units): Individualized senior-level advanced research under the guidance of an East Asian studies faculty advisor, culminating in the completion of a substantial paper or project derived from previous coursework in the discipline or related fields or field experience.

Students with sufficiently advanced Chinese or Japanese language skills are encouraged to use some target language sources in carrying out their research. Students are encouraged to share the results of their work in a public forum prior to graduation.

Required for the minor in East Asian studies

1. Six courses, as follows:
 - a. EAST 140: *Traditional East Asian Civilization*
 - b. EAST 150: *Modern East Asian Civilization*
 - c. Four 6-unit elective courses in EAST
2. One additional advanced course (400-level or higher) on East Asia or an advanced independent study in an area of interest

Courses - East Asian Studies

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. (G & C) *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 175: *THE ARTS OF EAST ASIA*

An introduction to artistic traditions in China, Japan, and Korea, from prehistory to the 21st century, including tomb and temple sites, gardens, calligraphy, ink painting, woodblock prints, tea ceremony vessels, and contemporary art. Through a balance of broader art historical readings, primary texts, scholarly essays, and close-looking at objects, students will explore how an object's visual and material properties contribute to its function. *Units: 6.*

Also listed as Art History 175

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: 1 TO 98.*

Prerequisite: Counter Registration Required.

EAST 216: *BUDDHISM IN CHINA AND JAPAN*

An introductory survey of Buddhist thought and practice in China and Japan. The history of key Buddhist concepts and schools in East Asia is the primary focus. Readings include translations from East Asian Buddhist canonical works. *Units: 6.*

Also listed as Religious Studies 216

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 283: *CHINESE PHILOSOPHY*

A survey of topics in Chinese Philosophy, which may include Classical Chinese philosophy, Buddhism and religion and comparative philosophy. We will discuss how the quickly changing historical and political climates affect the major schools of thought and influence pertinent philosophical questions for the region or topic. Assignments include papers and in-class assignments/presentations. *Units: 6.*

Also listed as Philosophy 283

Prerequisite: Sophomore standing or consent of instructor

EAST 284: *THE SPECTACLE OF EDO JAPAN*

This course will focus on the diverse artistic production and consumption practices within Edo-period Japan (1603-1868). Topics include the revival of classical Heian narratives like *The Tale of Genji*, the rise of an urban bourgeois culture, the prints and paintings depicting kabuki actors, courtesans, and ghosts, the reification of the tea ceremony and encounters with the West through trade. *Units: 6.*

Also listed as Art History 284

Prerequisite: ARHI 101 or 175 or sophomore standing

EAST 285: *THE TRANSFORMATION OF THE MODERN CITY: TOKYO, SEOUL AND SHANGHAI (1860-1945)*

This 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.” *Units: 6.*

Also listed as Art History 285

Prerequisite: ARHI 101 or 175 or sophomore standing

EAST 286: *THE POLITICS AND POWER IN MODERN AND CONTEMPORARY CHINESE ART*

Over the past century, China has witnessed the arrival of Western Imperialism, mass rebellion, revolution, and radical reconstruction under the Communist regime. This class will trace how artists attempted to intervene in social life to change its course of development and how art continues to affect radical social change. *Units: 6.*

Also listed as Art History 286

Prerequisite: ARHI 101 or 175 or sophomore standing

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. (G & C) *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 331: *TOPICS IN EAST ASIAN ART*

An examination of a particular topic in East Asian art history. Students are expected to carry out independent research through a series of guided assignments. The topic will change periodically. Course may be repeated when the topic is different. Not open to students who have previously received or need to receive credit for ARHI 430.

Topic for Spring 2020: Modern Ruins in East Asia

In examining modern catastrophes—acts of war, iconoclasm, natural and man-made disasters, this seminar will focus on how sites of modern ruination have been both documented and aestheticized. Individual case studies will include the 1923 Great Kanto Earthquake, wartime reportage, the Hiroshima and Nagasaki atomic bombings, protest imagery, the demotion of colonial architecture, and environmental art dealing with the Fukushima nuclear disaster and the Three Gorges Dam. *Units: 6.*

Also listed as Art History 331

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

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 course explores how the female body and the gendering of space has been addressed in murals, paintings, performance, film, and popular culture during the course of East Asian art history. We will discuss how social and political issues were defined through images of bodies in Japan, Korea, and China in the

context of national identity formation, historical reconstruction, subjectivity, and sexuality. Students will also work to develop and refine the quality of their communication skills by presenting and debating their ideas throughout the course. *Units: 6.*

Also listed as Art History 345, Gender Studies 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 355: HISTORY OF THE CHINESE LANGUAGE (IN ENGLISH)

This course covers the history of the Chinese language, including the structural characteristics of the language, invention and evolution of the writing system, general survey of the major dialects, diachronic changes, spread and influence of the Chinese lexicon in East Asia, birth of the common language putonghua, evaluation of traditional versus simplified characters, and challenges of the language in the modern era. *Units: 6.*

Also listed as Chinese and Japanese 355

Prerequisite: Sophomore standing; one year of Chinese 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. (G & C or E) *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 370: CHINESE TRADITIONAL LITERATURE AND THOUGHT (IN ENGLISH)

An introduction to the texts and schools comprising traditional Chinese literature and thought. Reading across time and genre, from ancient classics such as *Shijing* to Tang poetry, to later Ming novels *Water Margin* and *Romance of the Three Kingdoms*, students will explore the breadth of the Chinese literary tradition while engaging with primary texts from the Confucian, Buddhist and Daoist traditions that shaped it. Lecture, discussion and exams. *Units: 6.*

Also listed as Chinese and Japanese 370

EAST 377: HISTORY OF THE JAPANESE LANGUAGE (IN ENGLISH)

This course explores the history of the Japanese language, including theories of its origin, the importation of the Chinese characters, Kanji, the invention of the Japanese syllabaries, Kana, the development of the writing system, lexical influence of loan words, and the evolution of both written and spoken forms in modern Japanese. The course also investigates two other languages in Japan, the Ainu and the Ryukyu languages. *Units: 6.*

Also listed as Chinese and Japanese 365

Prerequisite: Sophomore standing; one year of Japanese recommended

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. (G & C) *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: 1 TO 98.*

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: 1 TO 98.*

Prerequisite: Counter Registration Required

EAST 399: *INDEPENDENT STUDY IN EAST ASIAN STUDIES*

Individualized advanced research under staff guidance to prepare a substantial paper. *Units: 1 TO 98.*

Prerequisite: Counter Registration Required.

EAST 430: *TOPICS IN ASIAN ART*

An examination of a particular topic in East Asian art history. Students are expected to carry out independent research through a series of guided assignments. The topic will change periodically. Course may be repeated when the topic is different. Not open to students who have previously received or need to receive credit for ARHI 331.

Topic for Spring 2020: Modern Ruins in East Asia

In examining modern catastrophes—acts of war, iconoclasm, natural and man-made disasters, this seminar will focus on how sites of modern ruination have been both documented and aestheticized. Individual case studies will include the 1923 Great Kanto Earthquake, wartime reportage, the Hiroshima and Nagasaki atomic bombings, protest imagery, the demotion of colonial architecture, and environmental art dealing with the Fukushima nuclear disaster and the Three Gorges Dam. *Units: 6.*

Also listed as Art History 430

Prerequisite: One 200-level course in art history 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 590: TUTORIAL STUDIES IN EAST ASIAN STUDIES

Individualized advanced study under regular staff direction on topics not covered in lower-level courses. *Units: 1 TO 98.*

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: 1 TO 98.*

Prerequisite: Counter Registration Required.

EAST 599: INDEPENDENT STUDY IN EAST ASIAN STUDIES

Individualized advanced research under staff guidance to prepare a substantial paper. *Units: 1 TO 98.*

Prerequisite: Counter Registration Required.

EAST 690: TUTORIAL STUDIES IN EAST ASIAN STUDIES

Individualized advanced study under regular staff direction on topics not covered in lower-level courses. *Units: 1 TO 98.*

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: 1 TO 98.*

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: 1 TO 98.*

Prerequisite: Counter Registration Required.

ECONOMICS

Professor:	M. Finkler (<i>John R. Kimberly Professor Emeritus of the American Economic System</i>)
Associate professors:	D. Fitz, A. Galambos (<i>Dwight and Marjorie Peterson Professor of Innovation, chair</i>), D. Gerard (<i>The John R. Kimberly Distinguished Professor of the American Economic System</i>) (on leave term(s) III), J. Lhost
Assistant professor:	H. Caruthers
Instructor:	G. Vaughan
Lecturer:	A. Stewart

The Lawrence economics department emphasizes abstract modeling and quantitative reasoning skills. Students acquire a basic knowledge of economic theories, principles, and techniques of analysis. They then apply these concepts and tools to issues such as poverty and discrimination, 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 major in economics

Students who major in economics will learn to comprehend an economic journal article, including the interpretation of quantitative evidence and regression analysis results, and to prepare an economic analysis (either micro or macro) and communicate effectively the results of that analysis orally and in writing. Students will learn to construct tables and graphs from available public sources that identify relevant trends for public or private policy decision-making, and they will use the methods of economics to analyze a broad spectrum of problems in social science.

The major in economics requires the following:

1. ECON 100: *Introductory Economics*
2. The following mathematics courses:
 - a. MATH 140: *Calculus I* or both MATH 120: *Applied Calculus I* and MATH 130: *Applied Calculus II*
 - b. MATH 107: *Elementary Statistics* (or equivalent)
3. Intermediate theory (majors must take all three courses prior to completion of the junior year; the economics department must approve any exception):
 - a. ECON 300: *Microeconomic Theory*
 - b. ECON 320: *Macroeconomic Theory*
 - c. ECON 380: *Econometrics*
4. Two additional six-unit courses numbered 200 or higher (six units of tutorial or independent study may count as one of these two courses) and three additional six-unit courses numbered 400 or higher. A maximum of six units of internship credit can count for these requirements. The *Senior Experience* requirement does not

count toward these five courses.

5. Complete the *Senior Experience* in economics by taking ECON 601: *Senior Experience: Reading Option* or ECON 602: *Senior Experience: Research Paper Option* as described below.

Required for the interdisciplinary major in mathematics-economics

Students who complete the major in mathematics-economics will pursue the outcomes described for the economics and mathematics majors with an explicit focus on economics in constructing and critiquing mathematical arguments. Students pursuing the major must have an advisor in each department.

The major in mathematics-economics requires the following:

1. The mathematics component of the major is:
 - The following mathematics courses:
 - MATH 140: *Calculus I*
 - MATH 155: *Multivariable Calculus*
 - MATH 200: *Complex Sequences and Series*
 - MATH 240: *Probability*
 - MATH 300: *Foundations of Algebra*
 - MATH 310: *Foundations of Analysis*
 - Either MATH 435: *Optimization* or MATH 445: *Mathematical Statistics*
 - Six 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: *Introductory Economics*
 - The following theory courses (majors must take all three courses prior to completion of the junior year; the economics department must approve any exception):
 - ECON 300: *Microeconomics*
 - ECON 320: *Macroeconomics*
 - ECON 380: *Econometrics*
 - 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.

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 research paper that stands up to the standards of the profession. To register for this section, students must already have a research idea, generally developed in a 400-level course, and discuss a research proposal with the 602 instructor. Students must explain 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. Instructor 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.

Required for the minor in economics

1. ECON 100: *Introductory Economics* or ECON 300: *Microeconomic Theory*
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. Only six units of tutorial or independent study may count as one of these six courses.

Teacher certification in economics or broad-field social studies

Economics majors can seek certification to teach economics or broad-field social studies at the secondary level. For certification in broad-field social studies, students must complete the economics major and a minimum of two courses each in two other social studies (anthropology/sociology, government/political science, history, or psychology) and at least one course in each of the remaining social studies. Students are strongly encouraged to take a course in U.S. history and a course in global history. A course in environmental studies is also required. Students who plan to seek teacher certification should review the requirements in the Education section of the catalog and meet with the director of teacher education, preferably before the end of the sophomore year.

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 that are foundational for the economics discipline, and a sequence of 300-level classes is required of all majors.

The 400-level courses are advanced applications classes.

The 500-level courses are graduate-school preparatory courses.

The *Senior Experience* courses are at the 600-level.

Recommendations

ECON 100 and ECON 225 are excellent either as stand-alone courses or as gateways into the discipline. We recommend that all majors and minors take these courses.

For the economics or mathematics-economics major:

- Speak to a professor in the department about mapping curricular choices.
- Take MATH 140 or MATH 120 and 130 as soon as possible. MATH 150 and MATH 240 are also recommended.
- Take ECON 100, a 200-level economics course, and then ECON 300.
- Talk to the instructor and explicitly obtain consent to enroll if you do not meet prerequisites for a course.
- Students preparing for graduate work in economics, public policy, business, statistics, or an M.B.A. in a quantitative field should plan to take a number of mathematics courses. These students should consult the economics faculty for advice. The mathematics-economics major or a double major in economics and mathematics are particularly well-suited for these students. Any student interested in graduate economics should take ECON 500 and ECON 520 and several selected mathematics courses as part of their preparation.

Courses - Economics

ECON 100: *INTRODUCTORY ECONOMICS*

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 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 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: 1 TO 98.*

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: 1 TO 98.*

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

ECON 202: GLOBAL ECONOMIC RELATIONS

This course covers the major concepts utilized in the field of international political economy. Major issues covered include debates about globalization, trade policy and free-trade agreements, monetary policy and currency regulation, aid and development, immigration policy and labor migration, global corporations, and international institutions such as the World Bank, IMF, and WTO. *Units: 6.*

Also listed as Government 275

Prerequisite: Sophomore standing and ECON 100. GOVT 140 or GOVT 340 recommended.

ECON 203: LATIN AMERICAN ECONOMIC DEVELOPMENT

This course combines economic theory, policy and historical accounts to understand the forces shaping Latin American economic development. Students will gain an understanding of major theories and trends in Latin American development while analyzing specific development issues, including equitable growth, agriculture, migration, gender equity, education, and health. Students will complete thoughtful critiques of readings, problem sets analyzing real data, and in-depth evaluations of specific issues. *Units: 6.*

Also listed as Government 203

Prerequisite: ECON 100

ECON 204: EFFECTIVE ALTRUISM

Effective altruism acknowledges that individuals want to help others while examining the most effective ways to do so. Taking a global approach that draws on development, health and experimental economics, this course compares differences in relative welfare and opportunity and evaluates the effectiveness of causes like health interventions, cash transfers, and gender equity. Emphasis placed on close reading problem sets, quizzes, research papers and discussions. *Units: 6.*

Prerequisite: ECON 100

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

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 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 Government 401, Environmental Studies 311

Prerequisite: ENST 300, GOVT 248, GOVT 500 and RLST 240

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 Government 208, Environmental Studies 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 212: CORPORATE FINANCE

This course studies the function of finance and the flow of funds within the corporation. Topics include financial analysis, decision making, capital acquisition and use, and strategic planning. Three competencies will be emphasized: numeracy through financial analysis, decision-making based on financial information, and communication skills through conveying analyses and decisions to the end user (the board, shareholders, other stake holders). Lecture with case studies assignments, and exams. *Units: 6.*

Also listed as Innovation & Entrepreneurship 212

Prerequisite: I-E 110

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

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.*

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 consent of instructor

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 252: SUSTAINABLE CITIES

How can cities be sustainable? The increasing urbanization of the world's population, shift to service-driven economies, and growing diversity of cities make this question pressing and complicated. This course introduces economic, environmental, and social dimensions of the urban sustainability problem and explores responses to it through a two-week December study trip to London and Amsterdam and winter term studies and poster presentations. Program fee is required. Students pay their own airfare. *Units: 3.*

Also listed as Government 252, Environmental Studies 252

Prerequisite: An introductory course in GOVT, ECON, ENST or GLST, or consent of instructor

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: 1 TO 3.*

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

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

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

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: MATH 130 or MATH 140, ECON 300

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, MATH 107, MATH 130 or MATH 140, and previous course in economics

ECON 390: *TUTORIAL STUDIES IN ECONOMICS*

Intermediate readings, discussions, and essays in economic problems of special interest to the student. *Units: 1 TO 98.*

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: 1 TO 98.*

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: 1 TO 98.*

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: 1 TO 98.*

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: MATH 130 or MATH 140; MATH 300 recommended

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 course blends a web-based course on investment philosophies with classroom discussion of economic and valuation principles. It aims for students to develop an understanding of contemporary financial markets and instruments as well as how economic fundamentals apply to the evaluation of investment alternatives and strategies. Students will apply such knowledge to craft their own economic philosophies and implementation strategies. *Units: 6.*

Prerequisite: I-E 110 and at least one of ECON 300, ECON 320 or ECON 380

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 recommended

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 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*

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. May be repeated when the topic is different. *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: 1 TO 98.*

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: 1 TO 98.*

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: 1 TO 98.*

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: 1 TO 98.*

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

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: 1 TO 98.*

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: 1 TO 98.*

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: 1 TO 98.*

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: 1 TO 98.*

Prerequisite: Counter Registration Required.

EDUCATION

Professor:	B. Williams (<i>chair</i>)
Associate professor:	S. Purkey (<i>Bee Connell Mielke Professor of Education</i>)
Assistant professor:	S. Burdick-Shepherd
Instructors:	C. Despres-Berry (<i>Center for Academic Success</i>), A. Nottingham-Martin

While Lawrence does not offer a college major in education, the education department does prepare students to become licensed elementary and secondary school teachers in public and private schools. Lawrence graduates who have completed the teacher education program are eligible to be certified for licensure in all states. In addition to certification for licensure, the department introduces students to the study of education as an academic discipline within the liberal arts. An education studies minor is available. The department also offers tutorial and independent-study opportunities for students interested in education policy, history of education, educational anthropology, sociology and psychology, philosophy of education, and the practical application of education methodology in a variety of settings. Courses in education studies (EDST) are open to all students and may be counted toward fulfilling the general education distribution requirement in social sciences.

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, music (choral, general, or instrumental), or world languages (Chinese, French, German, Japanese, Latin, Russian, and Spanish) receive special-field certification for teaching early childhood through adolescence (K-12).

Lawrence offers certification for students interested in becoming elementary school teachers (early childhood through early adolescence). Open to all majors, college or conservatory, this innovative program is a post-baccalaureate, full school year apprenticeship in an Appleton public elementary school, during which students learn to teach by working alongside a master veteran teacher. For that year there is a special, significantly reduced, tuition fee.

For further information about required courses and other program requirements as well as costs, please contact the 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.

Many 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, 563, and 555 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 the Chicago Center’s Urban Student Teaching Program, or in 17 different countries overseas through Lawrence’s International Student Teaching Program. A 13th term of student teaching with greatly reduced tuition (see Tuition, Fees, and Financial Assistance) is available for Lawrence undergraduates who have completed all graduation requirements except the student teaching cluster of courses and wish to be certified. Elementary apprenticeships take place in the Appleton Public Schools. Ask the department chair for details and for information on additional requirements. The 18-week student teaching practicum must take place within one year of graduation; the elementary practicum follows 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, whether they attended Lawrence or another college or university, 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 any required tests (e.g., 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.

Graduates who wish to teach elementary school can also be certified for licensure through Lawrence. There is a significantly reduced tuition fee for the apprenticeship year and required education courses. A 3.0 cumulative GPA is required. Any pre-student teaching tests that may be required must be passed before being admitted to the elementary apprenticeship program. Interested candidates should consult the department chair for further information.

General requirements, all students and subject areas

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. For elementary education only, students may complete any major in the college or conservatory. To receive a minor endorsement, students must complete a department-approved minor or a minimum of seven courses in the discipline. Students seeking licensure must also complete the Lawrence University general education requirements.

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 in areas other than elementary education 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 program admission as well as for certification for licensure. Before they may student teach, students must attain a 3.00 major GPA (or, for elementary certification, a 3.00 GPA in all teacher education courses) or a passing score on the subject area assessment (Praxis II subject assessment or ACTFL foreign language oral and writing proficiency tests) for each subject in which they intend to be licensed. Elementary candidates must also receive a passing score on the Wisconsin Foundations of Reading Test. All candidates must attain passing scores on the edTPA, a teacher performance assessment completed during student teaching, in order to be certified for licensure. Additional requirements are spelled out in the *Teacher Certification Handbook* and on the department website.

To be certified for licensure, candidates must demonstrate proficiency in the following Lawrence University teacher education program standards, which are based on the Wisconsin state standards for licensure:

1. Understands the central concepts, tools of inquiry, and structure(s) of the discipline and its connections with the various liberal arts and sciences.
2. Plans, organizes, and presents systematic instruction that makes the above aspects of the subject meaningful for students.
3. Uses a variety of instructional strategies, including instructional media and technology, to promote

- understanding.
4. Uses a variety of formal and informal assessment techniques to evaluate learning and adapt instruction.
 5. Uses effective verbal and nonverbal communication to foster active inquiry and engagement in learning.
 6. Creates a supportive, productive learning environment that encourages positive social interaction, collaboration, and self-motivation.
 7. Understands how children and adolescents learn and are motivated, individually and in groups, and teaches accordingly.
 8. Matches instruction to differences in prior learning, ability, and exceptionality.
 9. Demonstrates awareness of differences that arise from cultural background, gender, socio-economic status, or community context, and adapts instruction accordingly.
 10. Acts in an ethical, professional manner and exhibits fairness, respect, and care in dealing with students.
 11. Establishes positive relationships with school colleagues, parents, and agencies in the larger community.
 12. Demonstrates the ability to be self-critical and to use feedback to improve teaching practice.
 13. Understands the role of education in a democracy and the relationship between school and society.

Progress toward the standards is assessed in a pre-student teaching portfolio, and proficiency is confirmed in the final teaching portfolio, which includes the edTPA teacher performance assessment, submitted at the conclusion of student teaching. More information can be found in the *Teacher Certification Handbook* and on the department website.

Students should be aware that certification requirements are subject to revision, and students must satisfy the requirements in force at the time of program completion. It is the student's responsibility to confirm requirements with the chair of the education department.

Required courses for certification in elementary education

THE FOLLOWING CORE TEACHER EDUCATION COURSES:

Course	Lawrence course credit, in units	Certification semester hours
EDST 180: <i>Psychology of Learning</i>	6	4
EDST 350: <i>Ethnicity, Cultural Diversity, and Education</i>	6	4
EDUC 430: <i>Educating All Learners</i>	6	3
EDST 440: <i>Sociology of Education</i>	6	4

THE FOLLOWING COURSES SPECIFIC TO ELEMENTARY EDUCATION:

Course	Lawrence course credit, in units	Certification semester hours
EDUC 412: <i>The Science of Reading</i>	6	4
EDUC 555: <i>Methods in Elementary Teaching</i>	6	4
EDUC 575: <i>Elementary Content Area Methods I</i>	3	3

EDUC 576: <i>Elementary Content Area Methods II</i>	3	3
EDUC 665: <i>Advanced Methods in Teaching-Elementary I</i>	3	3
EDUC 666: <i>Advanced Methods in Teaching-Elementary II</i>	3	3
EDUC 675: <i>Student Teaching Apprenticeship-Elementary I</i>	18	12
EDUC 676: <i>Student Teaching Apprenticeship-Elementary II</i>	18	12

EDUC 575, 665, and 675 are taken concurrently during the first semester of the elementary teaching apprenticeship, and EDUC 576, 666, and 676 are taken concurrently during the second semester.

Elementary certification also requires one course in environmental studies (ENST 150 is recommended and satisfies the B.A. general education requirement for a laboratory course in the natural sciences).

Required education courses for certification in specific subject areas (other than elementary education)

THE FOLLOWING CORE TEACHER EDUCATION COURSES:

Course	Lawrence course credit, in units	Certification semester hours
EDST 180: <i>Psychology of Learning</i>	6	4
EDST 350: <i>Ethnicity, Cultural Diversity, and Education</i>	6	4
EDUC 430: <i>Educating All Learners</i> (College only)	6	3
EDUC 431: <i>Educating All Learners in Music</i> (Conservatory only)	3	3
EDST 440: <i>Sociology of Education</i>	6	4

THE FOLLOWING TEACHING METHODS AND STUDENT TEACHING COURSES:

Course	Lawrence course credit, in units	Certification semester hours
EDUC 560: <i>Methods in Middle and Secondary Teaching</i>	6	4
EDUC 563: <i>Elementary and Secondary World Language Methods†</i>	6	4
EDUC 565: <i>Methods in Teaching English Language Learners††</i>	6	4
EDUC 585: <i>Art in the Elementary and Secondary Schools†††</i>	6	4

EDUC 650 or 655: <i>Student Teaching</i>	18	12
EDUC 660: <i>Advanced Methods in Teaching</i>	3	3

† Required for world language certification only

†† Required for ESL certification only

††† Required for art certification only

Please see “Major subject area requirements” below and “[The major in music education](#)” for additional course requirements.

Major subject area requirements

Students are expected to complete the major requirements established by the relevant Lawrence department. To add a minor endorsement, students are expected to complete the minor requirements established by the relevant Lawrence department. In some cases, a minimum of 10 courses in the major subject or 7 courses in the minor may be accepted in lieu of the official Lawrence major or minor (see the department chair for further information).

Art

A major consists of the 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 ethnic/racial 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 LING 150, LING 360, LING 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.).

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](#). Licensure in music must be done through the conservatory.

Natural sciences

Students are licensed in physical science (chemistry and/or physics), earth and space science (geosciences), 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 EDST/ENST 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, or 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 (Government)

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 (anthropology/sociology, economics, history, political science [government], or 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 EDUC 560.

Theatre arts

A major consists of 10 courses; a minor is available.

World languages

A major in Chinese, Classics, French, German, Japanese, Russian, or Spanish consists of 10 courses. 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 if their major GPA is less than 3.00. A minor is available.

Courses - Education

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: 1 TO 98.*

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: 1 TO 98.*

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: 1 TO 98.*

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: 1 TO 98.*

Prerequisite: Counter Registration Required.

EDUC 412: THE SCIENCE OF READING

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 WORLD LANGUAGE METHODS

A seminar on teaching world 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 IN TEACHING ENGLISH LANGUAGE LEARNERS

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 675

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: 1 TO 98.*

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: 1 TO 98.*

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: 1 TO 98.*

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: 1 TO 98.*

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: 1 TO 98.*

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: 1 TO 98.*

Prerequisite: Counter Registration Required.

EDUCATION STUDIES

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 minor in education studies

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*, or
 - EDST 315: *Philosophy of Children*
2. Two courses in education studies from among the following, at least one of which must be at the 400 level or above:
 - EDST 270: *Why Read Children's Books?*
 - 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), or
 - 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 - Education Studies

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: 1 TO 98.*

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: 1 TO 98.*

Prerequisite: Counter registration required.

EDST 210: TOPICS IN EDUCATION AND COMMUNITY ENGAGEMENT

In this topics course, students combine practice in the community with academic coursework to examine a contemporary issue in education and society. typically, one-third of the course takes place in community settings. May be repeated when topics are different. *Units: 1 TO 6.*

Prerequisite: Sophomore Standing

EDST 270: WHY READ CHILDREN'S BOOKS?

This seminar explores the complex ways children's literature affect readers of all ages. We will immerse ourselves in reading works from *Where the Wild Things Are* to *Charlotte's Web* as we examine what it means to be a reader of children's literature by looking at our own and children's responses to the experience and joy of reading. Discussion, reflective writing and collaborative community projects. *Units: 6.*

EDST 282: BORDER CROSSINGS IN CHILDREN'S AND YOUNG ADULT LITERATURE

This seminar uses the concept of crossing borders--im/emigrating, transgressing boundaries, occupying margins--as a focus for critical exploration of children's and young adult literature. What should books for young people be and do? How do these texts participate in systems of power and developing social identities? Critical readings draw on literary, ethnic, gender, and disability studies. Discussion, short papers, and final paper/project. *Units: 6.*

Also listed as Ethnic Studies 284

Prerequisite: Sophomore Standing

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, children's rights, and adult responsibilities. Readings will derive from philosophical texts, fiction and children's literature, and social media. Students may elect to also enroll in EDST 316 for a field experience practicum in elementary classrooms. *Units: 6.*

Prerequisite: Sophomore standing

EDST 316: PHILOSOPHY OF CHILDREN PRACTICUM

Field experiences in elementary classrooms encouraging children's wonder through philosophical discussion. This is an optional practicum for the course EDST 315 Philosophy of Children. Students will design philosophy lessons for young children and will conduct these lessons in small cooperative groups. *Units: 2.*

Prerequisite: Must be concurrently enrolled in EDST 315

EDST 345: DISTRIBUTED COGNITION AND THE EXTENDED MIND

The new science of the mind treats cognition as a distributed process involving the brain, body, and world. This seminar explores the role of material settings and tools, bodily engagement, social interaction, and cultural processes in human reasoning, problem solving, and learning. Students will write short papers examining aspects of cognitive activity in real-world settings. *Units: 6.*

Also listed as Anthropology 345, Psychology 345, Cognitive Science 345

Prerequisite: PHIL 105 recommended

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 387: PICTURE BOOKS AND GRAPHIC NOVELS FOR CHILDREN AND YOUNG ADULTS

This seminar examines narratives for young people that combine text and image. It introduces concepts from literary, aesthetic, design, and cultural criticism to examine how audiences interpret these works, focusing attention on questions of representation and subjectivity. Selected works encompass fiction and non-fiction and may include picture books, graphic novels/comics, hybrid books, and digital/hyperlinked narratives. Discussion, short papers and visual projects, and collaborative final project. *Units: 6.*

Prerequisite: 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: 1 TO 98.*

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: 1 TO 98.*

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: 1 TO 98.*

Prerequisite: Counter registration required.

EDST 399: INDEPENDENT STUDY IN EDUCATION STUDIES

Units: 1 TO 98.

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.

Topic for Spring 2020: The Philosophy of the Play

Maria Montessori wrote that “the work of the child is play.” But is play also the work of all humans, child or adult? In this seminar students will examine the concept of play by reading philosophers on play, observing children and adults at play, and considering the role of play in human flourishing. Students will engage in discussion, reflective writing, and collaborative projects. *Units: 6.*

Prerequisite: Sophomore standing and one course in education studies or instructor approval

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: 1 TO 98.*

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: 1 TO 98.*

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: 1 TO 98.*

Prerequisite: Counter registration required.

EDST 599: INDEPENDENT STUDY IN EDUCATION STUDIES

Units: 1 TO 98.

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: 1 TO 98.*

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: 1 TO 98.*

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: 1 TO 98.*

Prerequisite: Counter registration required.

EDST 699: INDEPENDENT STUDY IN EDUCATION STUDIES

Units: 1 TO 98.

Prerequisite: Counter Registration Required

ENGLISH

Professor:	D. McGlynn (<i>chair</i>)
Associate professors:	C. Barnes, G. Bond (<i>on leave term(s) I</i>), K. Hoffmann, L. Khor (<i>on leave term(s) III</i>), M. Range, T. Spurgin (<i>Bonnie Glidden Buchanan Professor of English Literature</i>) (<i>on leave term(s) III</i>)
Assistant professors:	C. Kervin (<i>Freshman Studies</i>), C. Segrest

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 major in English

Students who major in English will learn to generate insightful and original analysis of both literary and non-literary texts, engaging with pertinent theory and criticism in that analysis, and to acknowledge the relationship between the texts and the historical and cultural contexts in which they were produced.

The major in English requires the following:

1. ENG 150: *Literary Analysis* (or the equivalent)
2. Two courses from the intermediate group:
 - a. ENG 230: *British Writers I*
 - b. ENG 240: *British Writers II*
 - c. ENG 250: *American Writers*
 - d. ENG 260: *African American Writers*
 - e. ENG 280: *Postcolonial Writers*
 - f. ENG 281: *History of the Book in London*
3. Two courses focusing on periods before 1800:
 - a. ENG 410: *Newtonian Lit: Chronicles of a Clockwork Universe*
 - b. ENG 420: *Studies in Medieval Literature*
 - c. ENG 425: *Shakespeare* (or ENG 170: *Shakespeare in London*, but not both)
 - d. ENG 430: *Renaissance Literature*
 - e. ENG 435: *Renaissance Drama* - no longer offered
 - f. ENG 440: *Milton and the 17th Century*
 - g. ENG 441: *John Donne and the Metaphysical Poets*
 - h. ENG 443: *New England Puritan Poetry*
 - i. ENG 445: *Restoration and 18th-Century Comedy*
 - j. ENG 446: *Gender and Enlightenment*
 - k. ENG 447: *Eighteenth-Century Terrors*
 - l. ENG 448: *Enlightenment Selves*
 - m. ENG 450: *Eighteenth-Century Literature* - no longer offered

- n. ENG 451: *The Revolutionary Eighteenth Century*
 - o. ENG 452: *Samuel Richardson's Clarissa*
 - p. ENG 470: *Early American Writing* - no longer offered
 - q. ENG 527: *History of the Book*
4. One course focusing on the nineteenth century:
- a. ENG 455: *Romanticism*
 - b. ENG 460: *The Victorian Age*
 - c. ENG 465: *The English Novel*
 - d. ENG 474: *American Poets of the Nineteenth Century*
 - e. ENG 476: *Nineteenth-Century American Women Writers*
 - f. ENG 477: *Dickinson*
 - g. ENG 478: *Nineteenth-Century African-American Writers*
5. One course focusing on the twentieth or twenty-first centuries:
- a. ENG 480: *Modernist British Fiction*
 - b. ENG 481: *Joyce's Ulysses*
 - c. ENG 483: *American Autobiography*
 - d. ENG 485: *Modernist Poetry* - no longer offered
 - e. ENG 490: *Modern Drama*
 - f. ENG 495: *Modernist American Fiction* - no longer offered
 - g. ENG 498: *Representing War in American Writing* - no longer offered
 - h. ENG 500: *Contemporary American Fiction*
 - i. ENG 501: *The Graphic Novel*
 - j. ENG 502: *Contemporary Jewish-American Literature*
 - k. ENG 503: *Contemporary American Poetry*
 - l. ENG 504: *Multiethnic American Literature*
 - m. ENG 506: *Contemporary African-American Women Poets*
 - n. ENG 510: *Literature of the Harlem Renaissance*
 - o. ENG 515: *Gender and Modernist British/American Literature*
 - p. ENG 516: *Literature and Human Rights*
 - q. ENG 517: *Topics in Human Rights*
 - r. ENG 518: *Narratives of Inequality*
 - s. ENG 521: *Narratives of International News*
 - t. ENG 522: *Literature and the Environment*
6. One additional course in English
7. In completing requirements 2 through 6, students must take at least one course from each of the following literary and cultural traditions:
- a. British: ENG 170 (London Centre), 230, 240, 281, 410, 420, 425, 430, 435, 440, 441, 445, 446, 447, 448, 450, 451, 452, 455, 460, 465, 480, 481, 515, 527
 - b. American: ENG 250, 260, 443, 470, 474, 476, 477, 478, 483, 485, 495, 498, 500, 501, 502, 503, 504, 506, 510, 522
 - c. African American: ENG 260, 478, 504, 506, 510; OR postcolonial: ENG 280, 517, 518, 521. A course in African-American literature may satisfy either category b or c but not both.
8. The English department's *Senior Experience* described below

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 minor in English

1. Two courses from the introductory and intermediate group:
 - a. ENG 150: *Literary Analysis*
 - b. ENG 230: *British Writers I*
 - c. ENG 240: *British Writers II*
 - d. ENG 250: *American Writers*
 - e. ENG 260: *African American Writers*
 - f. ENG 280: *Postcolonial Writers*
 - g. ENG 281: *History of the Book in London*
2. One course focusing on periods before 1800:
 - a. ENG 410: *Newtonian Lit: Chronicles of a Clockwork Universe*
 - b. ENG 420: *Studies in Medieval Literature*
 - c. ENG 425: *Shakespeare* (or ENG 170: *Shakespeare in London*, but not both)
 - d. ENG 430: *Renaissance Literature*
 - e. ENG 435: *Renaissance Drama* - no longer offered
 - f. ENG 440: *Milton and the 17th Century*
 - g. ENG 441: *John Donne and the Metaphysical Poets*
 - h. ENG 443: *New England Puritan Poetry*
 - i. ENG 445: *Restoration and 18th-Century Comedy*
 - j. ENG 446: *Gender and Enlightenment*
 - k. ENG 447: *Eighteenth-Century Terrors*
 - l. ENG 448: *Enlightenment Selves*
 - m. ENG 450: *Eighteenth-Century Literature* - no longer offered
 - n. ENG 451: *The Revolutionary Eighteenth Century*

- o. ENG 452: *Samuel Richardson's Clarissa*
 - p. ENG 470: *Early American Writing* - no longer offered
 - q. ENG 527: *History of the Book*
3. One course focusing on the nineteenth century:
- a. ENG 455: *Romanticism*
 - b. ENG 460: *The Victorian Age*
 - c. ENG 465: *The English Novel*
 - d. ENG 474: *American Poets of the Nineteenth Century*
 - e. ENG 476: *Nineteenth-Century American Women Writers*
 - f. ENG 477: *Dickinson*
 - g. ENG 478: *Nineteenth-Century African-American Writers*
4. One course focusing on the twentieth or twenty-first centuries:
- a. ENG 480: *Modernist British Fiction*
 - b. ENG 481: *Joyce's Ulysses*
 - c. ENG 483: *American Autobiography*
 - d. ENG 485: *Modernist Poetry* - no longer offered
 - e. ENG 490: *Modern Drama*
 - f. ENG 495: *Modernist American Fiction* - no longer offered
 - g. ENG 498: *Representing War in American Writing* - no longer offered
 - h. ENG 500: *Contemporary American Fiction*
 - i. ENG 501: *The Graphic Novel*
 - j. ENG 502: *Contemporary Jewish-American Literature*
 - k. ENG 503: *Contemporary American Poetry*
 - l. ENG 504: *Multiethnic American Literature*
 - m. ENG 506: *Contemporary African-American Women Poets*
 - n. ENG 510: *Literature of the Harlem Renaissance*
 - o. ENG 515: *Gender and Modernist British/American Literature*
 - p. ENG 516: *Literature and Human Rights*
 - q. ENG 517: *Topics in Human Rights*
 - r. ENG 518: *Narratives of Inequality*
 - s. ENG 521: *Narratives of International News*
 - t. ENG 522: *Literature and the Environment*
5. One additional course in English

Required for the minor in creative writing

- 1. Three courses in literary studies at any level in the English department (for English majors completing the creative writing minor, these can be courses from the major).
- 2. Three courses in creative writing at any level, including work in at least two different literary genres. Courses in creative writing include:
 - a. ENG 350: *Creative Writing: Non-Fiction*
 - b. ENG 360: *Creative Writing: Fiction*
 - c. ENG 370: *Creative Writing: Poetry*
 - d. ENG 550: *Advanced Creative Writing: Nonfiction*
 - e. ENG 560: *Advanced Creative Writing: Fiction*

- f. ENG 562: *Advanced Creative Writing: Novel Writing*
- g. ENG 565: *Advanced Creative Writing: Poetry*
- h. ENG 568: *Poetry as Practice*
- i. THAR 427: *Playwriting*

Teacher certification in English language arts

Students who major in English can seek certification to teach English language arts at the secondary level. Students seeking certification must satisfactorily complete at least one course in writing (e.g., ENG 350, 360, or 370), at least one course in linguistics (LING 150) or the English language, a tutorial in literature for adolescents, and a course in literature by writers of color in America (e.g., ENG 260, 506, or 510). Students can add an endorsement for a second area (such as English as a second language) by completing the appropriate minor. Students who plan to seek teacher certification should review the requirements in the Education section of the catalog and meet with the director of teacher education, preferably before the end of the sophomore year.

Teacher certification in English as a second language (K-12)

Students can seek certification to teach English as a second language at the elementary and secondary levels by completing the Teaching ESL minor in linguistics and other certification requirements. Interested students should review the requirements in the Education section of the catalog and meet with the director of teacher education, preferably before the end of the sophomore year.

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. Please see the following link for more information about university credit for AP Examinations.

[AP Examination Information \(PDF\)](#)

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.

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 coursework 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 - English

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: 1 TO 98.*

Prerequisite: Counter Registration Required.

ENG 203: *LITERARY LONDON*

This course studies literature created in and about London, from Medieval poetry, short stories, journals to newspaper sequels and contemporary novels. We will walk in the footsteps of London-born writers and those

who made London their home to find out how their writings have capture social, political, and cultural changes. A variety of assignments will allow students to engage individually with London. *Offered at the London Centre.*
Units: 6.

Prerequisite: Must be attending Lawrence London Centre

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 Theatre Arts 363, 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 from 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: 1 TO 98.*

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: 1 TO 98.*

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: 1 TO 98.*

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 441: JOHN DONNE AND THE METAPHYSICAL POETS

This lecture/discussion class will explore the rich historical, sexual, and religious tensions of 17th century British poet, courtier, and Anglican priest, John Donne. We will also explore the same tensions, manifested very differently, in the poetry of Donne's contemporary poet-priest, George Herbert. Students will write short weekly papers and a substantial final paper. In addition to Donne and Herbert, we will also read works by Sir Thomas Wyatt, Andrew Marvell, and others. *Units: 6.*

Prerequisite: ENG 250 or ENG 260, junior standing, 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 Wiggelsworth, 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 THE 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 447: EIGHTEENTH-CENTURY TERRORS

In this discussion course, we'll consider British poetry and prose of the eighteenth century specifically designed to frighten readers in order to uncover just what anxieties—cultural, racial, political—these texts are meant to awaken. Students will complete numerous short assignments, a group research project, and a researched term paper. Authors might include: Defoe, Walpole, Gray, Radcliffe, Austen. *Units: 6.*

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 451: THE REVOLUTIONARY EIGHTEENTH CENTURY

Eighteenth-century Britain was bookended by revolutions of the political sort—the Glorious Revolution (1688) and the French Revolution (1789)—yet also rife with revolutions of the social sort: abolition, women's rights, libertinism, etc. We'll consider prose, poetry, and fiction from the period, paying particular attention to how they're imagining social and other forms of change. Regular short assignments, group research project, and researched term paper. May not be taken by students who have already earned credit for ENG 450. *Units: 6.*

Prerequisite: Junior standing, ENG 230, or consent of instructor

ENG 452: SAMUEL RICHARDSON'S CLARISSA AND THE #METOO EIGHTEENTH CENTURY

Clarissa (1748) is one of the longest novels in English, and we're going to read every single beautiful word of it. Its sheer density and complexity mean that, as author Amy Gentry puts it, Richardson's messy #metoo tale "breaks and renews itself over thousands of pages." Required: short writings, short research presentation, critical synthesis. *Units: 6.*

Prerequisite: Junior standing or ENG 230, or consent of the 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 467: JANE AUSTEN AND THE HISTORY OF THE NOVEL

Intensive study of Austen's achievement and legacy. In addition to her six novels, readings will include books by earlier and later writers. These readings will help us to trace Austen's development as a writer and to consider her crucial place in literary history. Regular short assignments, brief oral reports, and a final examination. *Units: 6.*

Prerequisite: Junior standing, ENG 240, 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 477: DICKINSON

In this lecture/discussion course, we will grapple with the difficult poetry of Emily Dickinson, one of the greatest, and most mythologized, of American poets. Cutting through the myths of Dickinson, we will attempt to get to the truth of Dickinson by careful readings of her poetry and archival investigations of its historical and material contexts. Assignments will include short weekly papers, presentations, and a substantial final research project. *Units: 6.*

Also listed as Gender Studies 477

Prerequisite: Junior standing or one course in English at the 200-level or above, or consent of instructor.

ENG 478: 19TH C AFRICAN-AMER 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 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 481: JOYCE'S ULYSSES

An intensive study of *Ulysses*, covering the entire novel. Discussions will focus on Joyce's experiments with language and narration, his exploration of human psychology and sexuality, and (time permitting) his unique sense of humor. Seminar with short papers. *Units: 6.*

Prerequisite: Junior standing or consent of instructor

ENG 483: AMERICAN MEMOIR

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 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 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 through 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 504: MULTIETHNIC AMERICAN LITERATURE

A study of selected works reflecting the ethnic and cultural diversity of American literature, with primary attention to minority voices and experiences. Selected texts will center on a specific theme such as hybridity, migration, or belonging. Works are taught in their literary, historical, and cultural context, critical readings will also be incorporated. Students will complete several short writing assignments and a researched term paper. *Units: 6.*

Also listed as Ethnic Studies 504

Prerequisite: ENG 150 or the equivalent

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: NARRATIVES OF INEQUALITY

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 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 568: POETRY AS PRACTICE

This workshop-based course is for advanced poetry students who would like to delve more deeply into the craft of poetry. The course will include intensive readings in contemporary poetry and poetics, frequent poetry workshops, and a practical introduction to the world of publishing. Students will produce a substantial poetry portfolio and will write several short papers and craft professional documents related to poetry publication. Recommended for students interested in applying to graduate programs in poetry. *Units: 6.*

Prerequisite: ENG 370 and ENG 565

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: 1 TO 98.*

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: 1 TO 98.*

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: 1 TO 98.*

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: 1 TO 98.*

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: 1 TO 98.*

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: 1 TO 98.*

Prerequisite: Counter Registration Required.

ENVIRONMENTAL STUDIES

Professors:	M. Bjornerud (<i>Walter Schober Professor of Environmental Studies Geosciences</i>), J. Clark (<i>Geosciences</i>), B. De Stasio (<i>Dennis and Charlot Nelson Singleton Professor of Biological Sciences Biology</i>), A. Knudsen (<i>Geosciences</i>) (<i>on leave term(s) III</i>), M. Rico (<i>History</i>) (<i>on leave term(s) I, II</i>), C. Skran (<i>Edwin & Ruth West Professorship of Economics and Social Science Government</i>), M. Stoneking (<i>Physics</i>)
Associate professors:	J. Brozek (<i>Stephen Edward Scarff Professor of International Affairs Government, chair</i>), D. Donohoue (<i>Chemistry</i>), D. Gerard (<i>The John R. Kimberly Distinguished Professor of the American Economic System Economics</i>) (<i>on leave term(s) III</i>), A. Hakes (<i>Biology</i>) (<i>on leave term(s) II</i>), W. Hixon (<i>Gordon R. Clapp Chair of American Studies Government</i>), S. Purkey (<i>Bee Connell Mielke Professor of Education Education</i>), J. Sedlock (<i>Biology</i>)
Assistant professors:	I. Del Toro (<i>Biology</i>), D. Joyner (<i>Studio Art</i>), C. Kervin (<i>Freshman Studies</i>), R. Ribbons (<i>Geosciences</i>)
Instructor:	S. Colon (<i>Hurvis NEH Fellow in the Humanities</i>)

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.

Required for the major in environmental studies

Students who major in environmental studies will learn to apply methods and concepts from multiple disciplines to analyze environmental problems, to evaluate the quality of data and arguments, and to model environmental systems.

The major in environmental studies requires the following:

1. Core courses:

- a. ENST 150: *Introduction to Environmental Science with Lab*
- b. ENST 151: *Introduction to Environmental Policy*
- c. ENST 300: *Symposium on Environmental Topics*
- d. ENST 650: *Environmental Studies Senior Seminar*
- e. One of the following:
 - MATH 107: *Elementary Statistics*
 - MATH 217: *Applied Statistical Methods*
 - BIOL 170: *Integrative Biology: Experimental Design and Statistics*
 - ANTH 207: *Quantitative Analysis in Anthropology*
 - GOVT 271: *Research Methods in Political Science*
2. Perspectives from science:
Three additional 6-unit 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:
 - a. ECON 280: *Environmental Economics*
 - b. GOVT 270: *Global Environmental Politics* or GOVT 380: *Introduction to Public Policy*
4. Perspectives from history, society, and culture:
One course selected from the following courses (ENST 200: *Topics in Environmental Studies* may be used to satisfy this requirement with approval of the student's advisor).
 - ENST 127: *Environmental Justice and Citizenship*
 - RLST 205: *Religion and the Biosphere*
 - ANTH 310: *Ecological Anthropology*
 - HIST 355: *History of the American Environment*
 - PHIL 360: *Environmental Ethics*
 - THAR 387: *Let Us Arise: Ireland's Deep Time*
 - EDST 400: *The Environment, Community, and Education*
 - ENGL 522: *Literature and the Environment*
5. Disciplinary focus:
Three additional six-unit courses numbered 200 or above in a single department--government, economics, anthropology, biology, chemistry, geosciences, physics, or philosophy, selected in consultation with the advisor. Units earned in independent study may not be used to satisfy this requirement.
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 approved by the advisor.

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.

Required for the minor in environmental studies

1. Required core courses:
 - a. ENST 150: *Introduction to Environmental Science with Lab*
 - b. ENST 151: *Introduction to Environmental Policy*
 - c. ENST 300: *Symposium on Environmental Topics*
2. One 6-unit natural science course cross-listed with ENST and one course each from the following two categories:
 - a. Perspectives from policy: ECON 280, GOVT 270, or GOVT 380
 - b. Perspectives from history, society, and culture: ANTH 310, EDST 400, HIST 355, or PHIL 360Environmental studies courses taken through Lawrence-approved off-campus programs may also fulfill this requirement with approval of the environmental studies program.

No more than one course may be applied simultaneously toward completion of this minor and a student's major.

Teacher certification in environmental science or broad-field science

Students can seek certification to teach environmental science at the secondary level. Students must take EDST/ENST 400 and should fulfill the science-track requirements of the environmental studies major or, preferably, major in one of the natural sciences and minor in environmental studies. Students also have the option of seeking broad-field science certification by completing the major and a minimum of two courses in each of two other science disciplines and at least one course in each of the remaining sciences. Students who plan to seek teacher certification should review the requirements in the Education section of the catalog and meet with the director of teacher education, preferably before the end of the sophomore year.

Courses - Environmental Studies

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 127: *ENVIRONMENTAL JUSTICE AND CITIZENSHIP*

Environmental degradation impacts some individuals and communities more than others: the poor, people of

color, and certain nonhuman species and landscapes bear the brunt of our collective actions. This seminar pairs literary texts (novels, short stories and poems) with nonfiction essays on topics ranging from food production to indigenous rights. We will discuss and write about how these texts impact our understanding of fairness, justice, rights and responsibility. *Units: 6.*

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. 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

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: 1 TO 98.*

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: 1 TO 98.*

Prerequisite: Counter Registration Required.

ENST 200: TOPICS IN ENVIRONMENTAL STUDIES

Study of a particular topic of current interest in environmental studies. Topics will vary with each offering of the course, and may include field research, community engagement, or other experiential learning opportunities. Course may be repeated when topic is different.

Topic for Fall 2019- Environmental Documentary

Environmental documentary has emerged as an important and popular genre in cinema. This course focuses on films that have been used to leverage social change by raising awareness of the world's growing environmental crisis as well as the social inequalities that force poor and marginalized communities to endure higher levels of environmental risk. Through screenings, readings, attention to grassroots environmental and community development movements by visual artists, this course engages the role of creative work in

educating and shifting public opinion on environmental conditions and inequities. *Units: 1 TO 6.*

ENST 202: GEOLOGY AND HEALTH

A course investigating the links between geology and health, with a particular focus on environmental issues in urban areas and ties to the field of environmental justice. The course considers issues such as human lead exposure from soil and water, and the links between air pollution and asthma. This course includes a lab component in which students will be collecting and analyzing soil, air, and water samples. *Units: 6.*

Also listed as Geology 213

Prerequisite: GEOL 110, ENST 150, or CHEM 116

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 Economics 208, Government 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 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. Explores 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 229: GENERAL ECOLOGY (LECTURE ONLY)

An introduction to the interactions between organisms and the environment. Explores 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 only. *Units: 6.*

Also listed as Biology 229

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 Geosciences 210

Prerequisite: GEOL 110

ENST 235: CLIMATE AND CLIMATE CHANGE

In this class we will cover the fundamental scientific knowledge about climate, and the long-term patterns and variation in climates over Earth's history. Students will be able to evaluate and explain major climate drivers in the past, and how past and future human activities are altering climates at both local and global scales. *Units: 6.*

Also listed as Geosciences 214

Prerequisite: GEOL 110 or GEOS 110 or GEOL 150 or GEOS 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.*

Prerequisite: GEOL 110; high school physics recommended

ENST 240: THE MATERIAL WORLD: GEOCHEMISTRY OF MINERALS, ROCKS AND WATERS

Low-temperature geochemical processes drive the formation, weathering, and alteration of rocks and minerals and govern the composition of waters at the Earth's surface. In studying these principles, we will investigate questions about the Earth's environment from both modern systems and deep geological time. Course includes a three-day field trip to northern Wisconsin in the middle of the term. One lab per week. *Units: 6.*

Also listed as Geosciences 240

Prerequisite: GEOL 110 or GEOS 110 and CHEM 115; concurrent enrollment in GEOS 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 252: SUSTAINABLE CITIES

How can cities be sustainable? The increasing urbanization of the world's population, shift to service-driven economies, and growing diversity of cities make this question pressing and complicated. This course introduces economic, environmental, and social dimensions of the urban sustainability problem and explores responses to it through a two-week December study trip to London and Amsterdam and winter term studies and poster presentations. Program fee is required. Students pay their own airfare. *Units: 3.*

Also listed as Government 252, Economics 252

Prerequisite: An introductory course in GOVT, ECON, ENST or GLST, 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 265: BIOGEOCHEMISTRY

This course explores fundamental cycles between earth's major reservoirs of nutrients such as nitrogen, phosphorus, carbon and water. Through lecture and group presentations, students will gain a solid understanding of the fundamentals of biogeochemical cycles and the mechanism underlying the biological transformations of those elements. Lecture and laboratory. *Units: 6.*

Also listed as Biology 265, Geology 265

Prerequisite: BIOL 130 or GEOL 110

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 Winter 2020: The Great Lakes

The Great Lakes contain one fifth of the Earth's fresh surface water. Since they were carved by glaciers, these lakes have been an important and unique ecosystem and have supported human populations for the last 10,000 years. This amazing watershed provides more than 35 million people with water and other necessities. However, these lakes are also environmentally sensitive, with problems of nutrient loading, invasive species, mining and industrial runoff, and water quantity being just some of the many environmental questions facing the Great Lakes today. This course will draw connections between the scientific, policy, and human elements of some of these environmental issues. Students should plan to attend a weekend trip to Bjorklunden as we explore what makes these lakes truly great. *Units: 6.*

Prerequisite: ENST 150, sophomore standing

ENST 305: MEDIEVAL ECOLOGIES: ART, NATURE, AND THE ENVIRONMENT

This class investigates intersections among people, arts, and the environment in European regions during the Middle Ages (c. 400-1400). Readings draw broadly from primary sources in translation, ecocritical studies, and environmental histories and dovetail with close examinations of images, objects, monuments, and sites across varied medieval landscapes. We question what constitutes medieval ecologies and consider their profound relevance for today's world. *Units: 6.*

Also listed as Art History 305

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 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 Government 401, Economics 206

Prerequisite: ENST 300, GOVT 248, GOVT 500 and RLST 240

ENST 320: SEMINAR IN SELECTED TOPIC IN ENVIRONMENTAL STUDIES

A course designed to offer students an opportunity to study important issues in environmental studies not covered in other regularly offered courses. Activities may include the reading and analysis of material from primary literature, consideration of interdisciplinary connection, and field and laboratory activities.

Topic for Winter 2019: Community Read of Death and Life of the Great Lakes

Units: 1 TO 98.

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: EARTH SURFACE PROCESSES

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 Geosciences 360

Prerequisite: GEOL/GEOS 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 370: *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.*

Also listed as Religious Studies 205

Prerequisite: Sophomore standing

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 380: ECOLOGICAL MODELING

An integrated lecture and computer laboratory introduction to the process of developing mathematical descriptions of the interactions between components of a population, community, or ecosystem, and the use of computer simulation as a tool for understanding ecology and natural resource management. Topics include population growth, predator-prey and competitor interactions, biogeochemical cycling, and mass balance in ecosystems. *Units: 6.*

Also listed as Biology 380

Prerequisite: At least one of the following: BIOL 229, BIOL 230, BIOL 245, BIOL 330, BIOL 335 or BIOL 345

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: 1 TO 98.*

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: 1 TO 98.*

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: 1 TO 98.*

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: 1 TO 98.*

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 411: ECOLOGICAL ENERGETICS (LECTURE ONLY)

Study of the transfer and transformation of energy or energy-containing materials between and within organisms and populations. Discussions will cover food web structure and function across marine, freshwater and terrestrial environments. Part of the Marine Biology Term. Lecture only. *Units: 6.*

Also listed as Biology 433

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 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: MUCO 212 or MUCO 202 or ENST 127 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: 1 TO 98.*

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: 1 TO 98.*

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: 1 TO 98.*

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: 1 TO 98.*

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: 1 TO 98.*

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: 1 TO 98.*

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: 1 TO 98.*

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: 1 TO 98.*

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: 1 TO 98.*

Prerequisite: Counter Registration Required.

ETHNIC STUDIES

Associate professors: A. Balsekar (*Government*) (on leave term(s) II, III), E. Carlson (*Studio Art*), C. Daughtry (*Anthropology*), S. Downing (*Conservatory of Music*), J. Encarnacion (*Conservatory of Music*), K. Hoffmann (*English, chair*), L. Khor (*English*) (on leave term(s) III), B. Miller (*Conservatory of Music*), A. Ongiri (*Jill Beck Director of Film Studies Professorship Film Studies*), S. Purkey (*Bee Connell Mielke Professor of Education Education*), M. Range (*English*)

Assistant professors: V. Plumly (*German*), J. Smith (on leave term(s) I, II, III), B. Zinsli (*Studio Art*)

Ethnic Studies at Lawrence is the critical and interdisciplinary examination of race and ethnicity. Through a focus on the experiences and expressions of people of color in and beyond the U.S., students explore current and historical issues pertaining to race and ethnicity in both domestic and global contexts. Students learn how ethnic groups identify themselves on the basis of national origin, family heritage, shared historical experience, customs and traditions, and/or language. They critically examine how constructions of race and racism are still embedded in institutions and everyday life. Students gain skills enhancing their own ability to negotiate multi-ethnic and interracial relationships and to thrive in diverse communities and workplaces.

The Ethnic Studies major offers foundational courses that introduce students to central concepts and current approaches to Ethnic Studies theory and methods. In consultation with an Ethnic Studies faculty advisor, students will select a set of electives that reflect their individual interest in certain topics or current debates, specific ethno-racial communities, geographic areas, or historical time periods. In a community-based learning experience, students will bridge academic learning and “real-world” practice through service learning, internships, volunteer work, or student-teaching. Finally, for their *Senior Experience*, students may choose from three options designed to bring reflection and focus to their Ethnic Studies experience.

Required for the major in ethnic studies

Students who major in ethnic studies will learn to critically review debates over definitions of race and ethnicity. They will learn to articulate a variety of disciplinary perspectives and will demonstrate familiarity with a range of theoretical approaches in discussions of race and ethnicity. And they will relate the impact of race and ethnicity on the lives of people in contemporary society.

The major in ethnic studies requires the following:

1. The following introductory courses:
 - a. ETST 110: *Introduction to Ethnic Studies*
 - b. ETST 210: *Expressions of Ethnicity*
2. The following theory and methods courses:
 - a. ETST 301: *Theories of Race and Ethnicity*
 - b. ETST 302: *Research Methods in Ethnic Studies*
3. Five six-unit elective courses, representing coursework from at least two different departments and including at least two upper-division courses numbered in the 400s-500s.
4. Required social justice or community-based learning experience in an off-campus site (local, domestic, or

global) accompanied by a reflection

- a. A non-credit bearing requirement, students may fulfill this through work-study, volunteering, or service-learning in a community or organization. Students may fulfill this requirement for elective credit if completed as part of an internship or community-based learning. The Ethnic Studies Advisory Committee approves social justice or community-based learning proposals and evaluates them upon completion.

Senior Experience in ethnic studies

In consultation with an Ethnic Studies faculty advisor, students may choose one of three senior capstone options:

1. ETST 600: *Senior Seminar*
2. Off-campus program experience incorporating a major research project
3. Student teaching practicum teaching English to speakers of other languages OR Teaching in ethnically diverse K-12 classrooms or programs

Required for the minor in ethnic studies

1. ETST 110: *Introduction to Ethnic Studies*
2. One of the following courses:
 - a. ETST 210: *Expressions of Ethnicity*
 - b. ETST 301: *Theories of Race and Ethnicity*
 - c. ETST 302: *Research Methods with Communities of Color*
3. Three six-unit electives drawn from at least two departments and reflecting individual interest in certain topics or current debates, specific ethno-racial communities, geographic areas, or historical time periods.
4. One six-unit upper-division seminar (courses numbered in the 400s-500s)

Courses - Ethnic Studies

ETST 110: *INTRODUCTION TO ETHNIC STUDIES*

Introducing interdisciplinary approaches to the study of race and ethnicity in mostly U.S. history and contemporary social issues. Topics including the emergence of ethnic studies as an interdisciplinary field; racial and ethnic formations in relation to colonization, slavery and migration; immigration; and resistance and social movements. Students learn through lecture/discussion with papers, presentations and exams. *Units: 6.*

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 History 160, East Asian Studies 140

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: 1 TO 98.*

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: 1 TO 98.*

Prerequisite: Counter Registration Required

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 272: SOCIAL PSYCHOLOGY OF PREJUDICE

This course explores social psychology through the lens of research and theory on prejudice and discrimination. What are prejudice's causes, consequences, and cures? We will examine theories related to personality, emotion, cognition, and perception that help to explain generalized and specific prejudices (e.g., sexism/heterosexism, racism, ethnocentrism, anti-Semitism). Students will be assessed through exams and papers. Intended as an alternative to PSYC 270. *Units: 6.*

Also listed as Psychology 272

Prerequisite: PSYC 100 or sophomore standing

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 284: BORDER CROSSINGS IN CHILDREN'S AND YOUNG ADULT LITERATURE

This seminar uses the concept of crossing borders--im/emigrating, transgressing boundaries, occupying margins--as a focus for critical exploration of children's and young adult literature. What should books for young people be and do? How do these texts participate in systems of power and developing social identities? Critical readings draw on literary, ethnic, gender, and disability studies. Discussion, short papers, and final paper/project. *Units: 6.*

Also listed as Education Studies 282

Prerequisite: Sophomore Standing

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 an examination of painting, sculpture, public monuments, photography, advertising, and performance. *Units: 6.*

Also listed as Art History 272

Prerequisite: Sophomore standing

ETST 300: 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 301: THEORIES OF RACE AND ETHNICITY

This seminar examines and critiques prominent theories/theorists of race and ethnicity. We review the origins of the concept of race and discuss both the biological myth and social reality of race. We survey primordialist, constructivist, assimilationist, and conflict theories of race and ethnicity; structural, intersectional, culturalist and critical approaches; and the re-emergence of biological theories of race in the genomic age. *Units: 6.*

Prerequisite: Sophomore standing or consent of instructor

ETST 302: RESEARCH METHODS IN ETHNIC STUDIES

An introduction to a variety of methodological ways of investigating our social world. We focus on applied (or public) ways of conducting research that explicitly inform social policy, programs, and practice on issues related to race and ethnicity. We work in collaborative research environments, understanding how research can be conducted both for the sake of research and to improve the lives of people. *Units: 6.*

Prerequisite: Sophomore standing and a course in ethnic studies; ETST 110 recommended

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. *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 318: RACE AND RELIGION

This course examines how religious cultures and discourses contributed to the emergence of the concept of race, racial classification, and processes of 'racialization'; how biblical interpretation both justified and contested the transatlantic slave trade; and how anti-Black racism relates to anti-Semitism. The course examines the history of doctrines on indigenous peoples, race science, and exploitation, and the dynamics of race and ethnicity in Israel and Palestine. Lecture/discussion with final paper. *Units: 6.*

Also listed as Religious Studies 381

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 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 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 346: INDIGENOUS MUSIC & ART: IDENTITY, LOSS AND HEALING

An interdisciplinary examination of contemporary music and art from various Indigenous communities of North and South America. This course explores the ways the traditional arts help shape cultural identity and provide an outward expression for loss and healing. All course readings and performances are by contemporary indigenous authors, artists and musicians. Weekly written work, discussion and a multimedia project *Units: 6.*

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 365: BLACK AND LATIN@ SOCIOLOGY

Through lecture and discussion, this course compares and contrasts the diverse experiences of Blacks and Latin@ in the United States. Some topics include historical background, racial and ethnic formation, systemic racism, discrimination immigration, racial/class/gender and sexuality intersections, language discrimination and group conflict and cooperation. Students will review critically important literature, do weekly assignments and submit a final project. *Units: 6.*

Prerequisite: Sophomore standing or consent of instructor

ETST 370: SOCIOLOGY OF THE U.S./MEXICAN BORDER

This lecture and discussion course introduces sociological understandings of the U.S./Mexico border. More than a geographical divide, the border has a power and a force that structures and patterns human behavior, identity, and belonging for people who live near it, cross it, locate it in their memory, and see its effects on their family and friends. Students test understandings through presentations, exams and final projects. *Units: 6.*

Prerequisite: Sophomore standing or consent of instructor

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 German 447, Film Studies 447

Prerequisite: GER 312 or consent of the instructor

ETST 390: TUTORIAL IN ETHNIC STUDIES

Units: 1 TO 98.

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: 1 TO 98.*

Prerequisite: Counter Registration Required.

ETST 392: THE AFRICAN AND BLACK AMERICAN EXPERIENCE

This comparative literature course examines the representations of the African and Black American experience in literature. It explores how their subaltern status on the continent and the US has been instrumental in shaping the spirit of resistance that subtend the works of writers from both literary traditions. We will examine the thematic intersections between these literatures and analyse how writers deal with colonialism, slavery, race, ethnicity, the question of belonging and humanism. This course will only count for French major/minor units with an accompanying 3 unit tutorial in French arranged with instructor. *Units: 6.*

Also listed as French 392, Global Studies 392

Prerequisite: Non for non-majors or minors in French & Francophone Studies For majors or minors in French & Francophone Studies: one 300-level French course or instructor's consent. This course will only count for French major/minor units with an accompanying 3 unit tutorial in French arranged with instructor.

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: 1 TO 98.*

Prerequisite: Counter Registration Required

ETST 399: INDEPENDENT STUDY IN ETHNIC STUDIES

Units: 1 TO 98.

Prerequisite: Counter Registration Required.

ETST 400: SOCIOLOGY OF LATINX AMERICANS

The course provides students with a broad knowledge about Latina/os frequently omitted from the common curriculum, centered in the experiences of Latina/os. Topics include race/ethnicity, gender, politics, religion, education, labor, immigration, and major historical events like the Chicano and Puerto Rican civil rights movements and the social and demographic characteristics of Latina/os. Reading quizzes, exam, and project. *Units: 6.*

Prerequisite: Sophomore standing

ETST 401: SOCIOLOGY OF BLACK AMERICANS

This course examines sociological perspectives as they pertain to Black Americans. we will explore the nexus between historical and contemporary situations of African Americans in the United States in an attempt to unearth the various ways in which these strands of thought intersect at both individual and institutional levels.

Readings, group projects, final exam and project. *Units: 6.*

Prerequisite: Sophomore standing

ETST 407: SPANISH IN THE U.S.

A first approach to the study of Spanish in the United States through different lenses, including (but not limited to) the history of Spanish and its speakers in the U.S., a demographic overview of its varieties, sociopolitical factors surrounding its use, linguistic phenomena resulting from contact with English, and educational approaches to learning Spanish as a heritage language. Written assignments and exams. *Units: 6.*

Also listed as Linguistics 407, Spanish 407

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

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. *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. *Fulfills Seminar Requirement (G & C) Units: 6.*

Also listed as History 415

Prerequisite: Sophomore standing

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 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: MUCO 212 or MUCO 202 or consent of instructor.

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 504: MULTIETHNIC AMERICAN LITERATURE

A study of selected works reflecting the ethnic and cultural diversity of American literature, with primary attention to minority voices and experiences. Selected texts will center on a specific theme such as hybridity, migration, or belonging. Works are taught in their literary, historical, and cultural context, critical readings will also be incorporated. Students will complete several short writing assignments and a researched term paper. *Units: 6.*

Also listed as English 504

Prerequisite: ENG 150 or the equivalent

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 514: READING THE BORDER: GENDER, TEXTS AND PERFORMANCE

This course will focus on textual and cultural (re)presentations—including narratives, performance, film, photography and genre-defying texts—of the Central American-Mexico-U.S. borders, where spaces, race, violence and ethnicity become gendered. The course will cover the mid-1980s until contemporary times, a period tempered by the events of 9/11, as well as more recent political discourses focused on the border. Seminar with papers and a final project. *Units: 6.*

Also listed as Spanish 514

Prerequisite: SPAN 300-level course or equivalent official placement

ETST 515: RUINING THE IMAGINARY OF PARADISE: ECO-CRITICISM IN THE SPANISH-SPEAKING CARIBBEAN

This seminar examines the history and cultural expressions of the Spanish-speaking Caribbean--both the

insular and the continental areas--from an eco-critical perspective. Parting from the so-called discovery, conquest and colonization and moving through slavery, independence and postcolonial movements, the course provides an account of the exploitative processes of imperial powers that have imagined the Caribbean as a tropical paradise. Lecture/discussion with papers. *Units: 6.*

Also listed as Spanish 515

Prerequisite: 400-level course in Spanish or consent of instructor

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: NARRATIVES OF INEQUALITY

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

Prerequisite: One 300-level Spanish course, its equivalent, or consent of instructor

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, Césaire, 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: 1 TO 98.

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: 1 TO 98.*

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: 1 TO 98.*

Prerequisite: Counter Registration Required

ETST 599: *INDEPENDENT STUDY IN ETHNIC STUDIES*

Units: 1 TO 98.

Prerequisite: Counter Registration Required.

ETST 600: *SENIOR SEMINAR*

Seniors confer with the instructor during winter and spring term of their junior year to select specific topics related to a shared theme. At the start of the seminar, students read and discuss shared texts as they pursue individual projects on race and ethnicity that reflect their own topical, theoretical, and methodological interests. *Units: 6.*

Prerequisite: ETST 110 and ETST 302

ETST 690: *TUTORIAL IN ETHNIC STUDIES*

Units: 1 TO 98.

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: 1 TO 98.*

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: 1 TO 98.*

Prerequisite: Counter Registration Required

ETST 699: INDEPENDENT STUDY IN ETHNIC STUDIES

Units: 1 TO 98.

Prerequisite: Counter Registration Required.

FILM STUDIES

Professors:	P. Cohen (<i>Patricia Hamar Boldt Professor of Liberal Studies History</i>), B. Peterson (<i>German</i>), R. Tapia (<i>Spanish</i>)
Visiting professor:	L. Baybrook
Associate professors:	A. Guenther-Pal (<i>German</i>) (<i>on leave term(s) II, III</i>), J. McQuinn (<i>Conservatory of Music</i>), A. Ongiri (<i>Jill Beck Director of Film Studies Professorship, chair</i>), S. Purkey (<i>Bee Connell Mielke Professor of Education Education</i>), P. Thomas (<i>Russian</i>)
Assistant professor:	A. Haydock

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* or FIST 211: *Film History II*
 - ii. Film Theory: FIST 402: *Film Theory and Criticism*
 - iii. Filmmaking: FIST 370: *Avant-Doc* or FIST 371: *Documentary Forms*
 - c. Six elective courses
 - d. A *Senior Experience* project that allows students to create either a film or a research paper as a final project

Senior Experience in film studies

Students majoring in film studies will enroll in either the senior research or production seminar that culminates

in a *Senior Experience*. The *Senior Experience* will be at least one term and may be more depending on the route the student pursues. The experience will allow students to create either a visual culture project or a research paper as a final project. If the student creates a visual culture project, it should be accompanied by a written statement as to the goals and outcomes of the project. Students interested in pursuing an interdisciplinary *Senior Experience* that integrates their interests in film studies with another major are strongly encouraged to consult with their advisors and relevant department chairs to plan and negotiate their overall *Senior Experience* as early as possible.

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 categories:
 - i. Film History: FIST 210: *Film History I* or FIST 211: *Film History II*
 - ii. Film Theory: FIST 402: *Film Theory and Criticism* or a designated theory course
 - iii. Filmmaking: FIST 370: *Avant-Doc* or FIST 371: *Documentary Forms*
 - c. Two electives in film studies

Courses - Film Studies

FIST 100: *INTRODUCTION TO FILM STUDIES*

An introduction to both cinema studies and film/video production, this course will provide an overview of historical, analytical, and theoretical approaches to cinema and introduce a broad range of basic production skills including the fundamentals of nonlinear editing. Through hands-on work and the study of a diverse selection of films rooted in different cultures, times, and ideologies, students will begin to develop the critical means for engaging with cinema and culture in discussion, writing, and creative work. *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.*

Also listed as Studio Art 120

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: 1 TO 98.*

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 212: WRITER VS. DIRECTOR: THE BATTLE BETWEEN LITERATURE & FILM

This course examines questions of identity, gender, nationality, civic duty, scientific inquiry, and/or historical progress from the perspectives of two complimentary—but also competing—media. Through scene analysis, students will learn to identify the distinctive marks of literary vs. cinematic form, evaluate the formal choices that writers and directors make, and apply the achievements of literary and cinematic art to shared ethical and existential concerns. *Units: 6.*

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.*

Also listed as Studio Art 223

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.*

Also listed as Studio Art 224

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

A class where students make projects that engage the outside world via digital media. Lectures, discussions, readings, and critiques will investigate contemporary interdisciplinary practices and the nature of creativity. Students will be taught the basics of design thinking, leading to conceptual-development, planning, and production. Students work individually or collaboratively on documentary, video, performance, installation, graphic novels, podcasts and web projects. Mac-based. *Units: 6.*

Also listed as Studio Art 245

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

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 Fall 2019: How I Became a Russian

This course is structured around the recent Russian TV series «Как я стал русским» (“How I Became a Russian”). Together with Alex, an American journalist in Moscow, students will discover the complexities of

contemporary Russian life. How to relate to you colleagues at work? How to rent an apartment in Moscow? How to interact with police? When and how to give a bribe? What are the cultural norms regarding dating? What are some superstitions that you shouldn't question? Students will learn and practice a host of colloquial expressions and idioms. The course has a special concentration on the advanced skills of narration, description and comparison. *Units: 6.*

Also listed as Russian 287

Prerequisite: RUSS 250 or consent of instructor

FIST 290: INTRODUCTION TO GAME STUDIES

This course will provide students with an introduction to game studies through the close reading of scholarly literature and playing of games from a critical perspective. An emphasis will be placed on the ways video game reflect culture while exploring topics of diversity and representation. Students will participate in class discussion, conduct academic research, and apply knowledge by creating a game. *Units: 6.*

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 2020: 16mm Filmmaking

In this hands-on course, students will learn the fundamentals of 16mm motion picture production and post-production, exploring both traditional and contemporary workflows with an emphasis on artistic use of the medium. *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.*

Also listed as Studio Art 319

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 Ethnic Studies 425, Gender Studies 325

Prerequisite: Sophomore standing or consent of instructor

FIST 330: INTRODUCTION TO LATIN AMERICAN AND SPANISH 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 advanced courses in the Spanish program. *Units: 6.*

Also listed as 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 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 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 Russian 354, History 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 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 Chinese and Japanese 360, East Asian Studies 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 Parfum*, and paintings by H.R. Giger. *Units: 6.*

Also listed as German 462, Gender Studies 362

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.*

Also listed as Studio Art 372

Prerequisite: FIST 100 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.*

Also listed as Studio Art 371

Prerequisite: FIST 100 or consent of instructor

FIST 380: ARTISANAL ANIMATION

This course explores the history and contemporary practice of artisanal and experimental animation through hands-on workshops, film and video animation projects, readings, screenings, discussion, and critique. Topics include significant artists and movements, fundamental animation principles, optical toys, direct 16mm

animation, rotoscoping, sound design for animation, 2D computer animation using Photoshop, and several stop-motion techniques using animation stands and Dragonframe software. Not open to students who have earned credit for the FIST 318 topic Artisanal Animation. *Units: 6.*

Prerequisite: FIST 100 or consent of instructor

FIST 390: TUTORIAL IN FILM STUDIES

Units: 1 TO 98.

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: 1 TO 98.*

Prerequisite: Counter Registration Required.

FIST 399: INDEPENDENT STUDY IN FILM STUDIES

Units: 1 TO 98.

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 History 400, Gender Studies 423

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 must 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 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. *Units: 6.*

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. *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 212 or 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 German 447, Ethnic Studies 382

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. *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 Gaité's *The Back Room*, as well as films by Lucrecia Martel, Victor Erice, Pablo Larraín, 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: 1 TO 98.

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: 1 TO 98.*

Prerequisite: Counter Registration Required.

FIST 599: INDEPENDENT STUDY IN FILM STUDIES

Units: 1 TO 98.

Prerequisite: Counter Registration Required.

FIST 601: SENIOR RESEARCH SEMINAR

Intended to serve as a capstone experience for film studies students with a research concentration. The seminar will explore research methodologies related to research in film history and theory. *Units: 6.*

Prerequisite: Senior standing and declared major in film studies

FIST 602: SENIOR PRODUCTION SEMINAR I

The seminar will serve as a critique group for senior film projects and explore practical issues pertinent to contemporary film practice. *Units: 3.*

Prerequisite: Senior standing and a declared major in film studies

FIST 603: SENIOR PRODUCTION SEMINAR II

The seminar will serve as a critique group for senior film projects and explore practical issues pertinent to contemporary film practice. *Units: 3.*

Prerequisite: FIST 602, senior standing and declared major in film studies

FIST 690: TUTORIAL IN FILM STUDIES

Units: 1 TO 98.

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: 1 TO 98.*

Prerequisite: Counter Registration Required.

FIST 699: INDEPENDENT STUDY IN FILM STUDIES

Units: 1 TO 98.

Prerequisite: Counter Registration Required.

FRENCH

Professor:	E. Hoft-March (<i>Milwaukee-Downer College and College Endowment Association Professorship French and Francophone Studies</i>)
Associate professor:	D. Chang (<i>Margaret Banta Humleker Professor of French Cultural Studies French and Francophone Studies</i>)
Visiting assistant professor:	A. Galambosh (<i>French and Francophone Studies</i>)
Instructor:	C. Ice (<i>French and Francophone Studies</i>)

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 major in French and Francophone studies

Students who complete the major in French and Francophone Studies will demonstrate proficiency in all four language skills (listening, speaking, reading, and writing) at the intermediate-high to advanced-low level according to the American Council of Teachers of Foreign Languages (ACTFL) guidelines. Moreover, they will analyze critically primary texts in the French language and demonstrate knowledge of the diversity of the French-speaking world. By the culmination of the major, they will be able to apply one or more critical/theoretical approaches to original inquiry in the discipline of French and Francophone Studies and to explain the interconnectedness of various aspects of cultural production articulating French and Francophone identity.

Students complete the major by taking a minimum of 60 units beyond FREN 202, including:

1. 12 to 18 units at the 300 level,
2. at least 12 units at the 400 level,
3. at least 12 units at the 500 level, and
4. FREN 600: *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.

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, or teacher 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.

Required for the minor in French

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.

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.

Teacher certification in French (K-12)

French majors can seek certification to teach French at the elementary and secondary levels. To be certified, students must spend a term in a French-speaking country studying the language and culture and must pass an oral and writing proficiency test. Students can add an endorsement in a second area (such as another language or English as a second language) by completing the appropriate minor. Students who plan to seek teacher certification should review the requirements in the Education section of the catalog and meet with the director of teacher education, preferably before the end of the sophomore year.

Off-campus study

The department urges students to take advantage of the international study programs in France, Senegal, Morocco, 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 [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.

Courses - French

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: 1 TO 98.*

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 275: ADVANCED CONVERSATION AND COMPOSITION: LES MOTS ET LES IMAGES (WORDS AND IMAGES)

In this course students advance their communicative competence and confidence through discussion and analysis of texts, films, and works of art. The course promotes intensive building of vocabulary, perfecting of grammar, and understanding of the subtleties of word and structure choices in context. Students will gain a deeper knowledge of lifestyles, history, and artistic achievement of the French-speaking world. Activities include discussions, presentations, role-plays, and written assignments. *Units: 6.*

Prerequisite: FREN 202 or instructor approval.

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: CINEMATICALY 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: 1 TO 98.*

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: 1 TO 98.*

Prerequisite: Counter Registration Required.

FREN 392: THE AFRICAN AND BLACK AMERICAN EXPERIENCE

This comparative literature course examines the representations of the African and Black American experience in literature. It explores how their subaltern status on the continent and the US has been instrumental in shaping the spirit of resistance that subtend the works of writers from both literary traditions. We will examine the thematic intersections between these literatures and analyse how writers deal with colonialism, slavery, race, ethnicity, the question of belonging and humanism. This course will only count for French major/minor units with an accompanying 3 unit tutorial in French arranged with instructor. *Units: 6.*

Also listed as Ethnic Studies 392, Global Studies 392

Prerequisite: Non for non-majors or minors in French & Francophone Studies For majors or minors in French & Francophone Studies: one 300-level French course or instructor's consent. This course will only count for French major/minor units with an accompanying 3 unit tutorial in French arranged with instructor.

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: 1 TO 98.*

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 must 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: SENEGALESE LITERATURE

The Senegalese novel is among the most important in Francophone Africa with classic authors such as Abdoulaye Sadj, Malick Fall, and Aminata Sow Fall. This course focuses on the study of the novels of these and other authors from Saint-Louis, a city in the North of Senegal that is richly steeped in the history of the country. It critically analyzes their socio-cultural themes 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, Djébar, 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 525: LA CHOSE FRANCO-ARABE: THE FRANCO-ARAB THING

This seminar draws on France's fraught history as a colonial power and its cultivated self-image as an evolved European nation with a distinct cultural standing. The course's primary focus will be the current influence of the Middle East and North Africa on France and French hopes and fears for its national identity. Literary readings, films, and news media will inform students' presentations and essays. *Units: 6.*

Prerequisite: 300-level French course 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, Césaire, 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: 1 TO 98.

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: 1 TO 98.*

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: 1 TO 98.*

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: 1 TO 98.

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: 1 TO 98.*

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: 1 TO 98.*

Prerequisite: Counter Registration Required.

FRESHMAN STUDIES

Associate professor: T. Spurgin (*Bonnie Glidden Buchanan Professor of English Literature English, chair*) (on leave term(s) III)

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 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 Milgram'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 develop the skills needed for success in more advanced courses.

Courses - Freshman Studies

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

GENDER STUDIES

Professors:	T. Gottfried (<i>Psychology</i>), B. Haines (<i>Psychology</i>), E. Hoft-March (<i>Milwaukee-Downer College and College Endowment Association Professorship French and Francophone Studies</i>), B. Peterson (<i>German</i>), M. Rico (<i>History</i>) (on leave term(s) I, II)
Associate professors:	C. Daughtry (<i>Anthropology</i>), A. Guenther-Pal (<i>German</i>) (on leave term(s) II, III), L. Murali (<i>Anthropology</i>), M. Pickett (<i>Physics</i>), K. Privatt (<i>James G. and Elthel M. Barber Professor of Theatre and Drama Theatre Arts</i>)
Assistant professors:	I. Albrecht (<i>Philosophy</i>), K. Schweighofer (<i>Dean of Faculty Office</i>)
Instructors:	H. Boyd Kramer (<i>Dean of Faculty Office</i>), M. Wegehaupt (<i>Dean of Faculty Office</i>)

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

Students who major in gender studies will be able to describe scholarly debates over definitions of gender and explain why gender studies emphasizes the culturally constructed nature of gender. They will articulate a variety of disciplinary perspectives on gender and demonstrate familiarity with a range of theoretical models in gender studies, and they will apply one or more theoretical models in gender studies to an original scholarly inquiry.

The major in gender studies requires:

1. Two core courses:
 - a. GEST 100 *Introduction to Gender Studies*
 - b. GEST 240 *Methods in Gender Studies*
2. Either GEST 300 *Queer Theory* or GEST 301 *Intersectional Feminist Theories*
3. One course from ANTH/HIST category (GEST 110: *Gender and Feminism in Historical Perspective* or GEST 350: *Anthropology of Gender*)
4. One course from PSYC/BIOL category (GEST 180: *The Biology of Human Reproduction* or GEST 270: *The Psychology of Gender*)
5. One GEST lower-level course (100/200 level)
6. Four additional 6-unit courses cross-listed in GEST or with approval of advisor; at least one must be at level 400 or above
7. A 600-level senior capstone project OR large project in a comparable course as a *Senior Experience*
8. No more than 6 units of independent study may be substituted for one course

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.

Required for the minor in gender studies

1. Two core courses:
 - a. GEST 100 *Introduction to Gender Studies*
 - b. GEST 240 *Methods in Gender Studies*
2. Either GEST 300 *Queer Theory* or GEST 301 *Intersectional Feminist Theories*
3. Three additional 6-unit courses with gender content:
 - a. Two must be cross-listed in GEST, and one may be a GEST-component course (requires advisor and instructor approval)
 - b. At least two of the courses must be 200-level or above
 - c. Six units of independent study may 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.

Courses - Gender Studies

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: 1 TO 98.*

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: 1 TO 98.*

Prerequisite: Counter Registration Required

GEST 210: GENDER, SPORTS AND SOCIETY

This lecture/discussion course applies the interdisciplinary study of gender--the social creation and cultural representation of femininity and masculinity--to sport cultures. The course addresses how sports are shaped by gender, race, class and sexuality. Exams and projects engage topics including athletic bodies, social stratification, media, fandom, nationality and citizenship, ability and disability, sport economics, fitness and body image. *Units: 6.*

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 240: METHODS IN GENDER STUDIES

This course explores Gender Studies knowledge production, including devising research questions, data gathering, writing practices, and analytical approaches. We explore the origins and ideas behind feminist and queer approaches to historical research, literary analysis, ethnography and oral history, science studies, and cultural analysis, and how methodologies combine in interdisciplinary scholarship. Students will strengthen Gender Studies understanding while developing writing skills through a research paper. *Units: 6.*

Prerequisite: GEST 100 or any two GEST courses

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. *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 301: INTERSECTIONAL FEMINIST THEORIES

What is feminism? What are its central tenets, and how have they changed? How do they affect me now? These questions and more animate our exploration of feminist theory and practice, culminating in a final independent paper. The course includes core texts in feminist theory, with particular attention to standpoint theory, essentialism and constructionism, women-of-color feminisms, intersectionality, and work in Western and non-Western feminisms. *Units: 6.*

Prerequisite: GEST 100 and either GEST 240 or two GEST courses numbered 100-299, or 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 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 History 300, Film Studies 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 course explores how the female body and the gendering of space has been addressed in murals, paintings, performance, film, and popular culture during the course of East Asian art history. We will discuss how social and political issues were defined through images of bodies in Japan, Korea, and China in the context of national identity formation, historical reconstruction, subjectivity, and sexuality. Students will also work to develop and refine the quality of their communication skills by presenting and debating their ideas throughout the course. *Units: 6.*

Also listed as Art History 345, East Asian Studies 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 353: *WOMEN IN BUDDHISM*

This discussion-based course investigates the ways in which women and gender minorities participate in Buddhist culture around the world. By reading texts by and about Buddhist women, this course will explore the extent to which gender affects social status, leadership roles, and access to education in Buddhist communities in South Asia, East Asia, and the United States. *Units: 6.*

Also listed as Religious Studies 353

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 Parfum*, and paintings by H.R. Giger. *Units: 6.*

Also listed as German 462, Film Studies 362

Prerequisite: GER 312

GEST 390: *TUTORIAL STUDIES IN GENDER STUDIES*

Advanced study, arranged and carried out under the direction of an advisor. *Units: 1 TO 98.*

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: 1 TO 98.*

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: 1 TO 98.*

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: 1 TO 98.*

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 212 or 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 History 400, Film Studies 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 477: DICKINSON

In this lecture/discussion course, we will grapple with the difficult poetry of Emily Dickinson, one of the greatest, and most mythologized, of American poets. Cutting through the myths of Dickinson, we will attempt to get to the truth of Dickinson by careful readings of her poetry and archival investigations of its historical and material contexts. Assignments will include short weekly papers, presentations, and a substantial final research project. *Units: 6.*

Also listed as English 477

Prerequisite: Junior standing or one course in English at the 200-level or above, 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: MUCO 212 or MUCO 202 or GEST 100 or GLST 100 or consent of instructor.

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, Djébar, 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 course examines social development with a particular focus on gender issues. Topics include gender identity in intersection with other types of identity development (e.g., ethnicity), sex education, gender role socialization, sexual orientation development, and parenting. *Units: 6.*

Also listed as Psychology 560

Prerequisite: PSYC 260 or 265, or PSYC 310, or consent of instructor

GEST 590: TUTORIAL STUDIES IN GENDER STUDIES

Advanced study, arranged and carried out under the direction of an advisor. *Units: 1 TO 98.*

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: 1 TO 98.*

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: 1 TO 98.*

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: 1 TO 98.*

Prerequisite: Counter Registration Required.

GEST 690: TUTORIAL STUDIES IN GENDER STUDIES

Advanced study, arranged and carried out under the direction of an advisor. *Units: 1 TO 98.*

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: 1 TO 98.*

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: 1 TO 98.*

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: 1 TO 98.*

Prerequisite: Counter Registration Required.

GEOSCIENCES

Professors: M. Bjornerud (*Walter Schober Professor of Environmental Studies*), J. Clark (*chair term III*), A. Knudsen (*chair terms I and II*) (*on leave term(s) III*)

Assistant professor: R. Ribbons

If “geosciences” makes you think of dusty collections of rocks, minerals and old bones, visit the Lawrence geosciences department. You will discover a thriving group of faculty members and students who consider the geosciences to be a way of seeing the Earth, a lens through which the planet’s past and present come simultaneously into focus.

Lawrence geosciences 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 geosciences 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 geosciences 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, a major in geosciences is ideal for a liberal arts degree. The discipline draws not only upon one’s observational and analytical abilities but also upon one’s aesthetic and creative instincts.

Required for the major in geosciences

Students who major in geosciences will learn to visualize earth processes over temporal and spatial scales, conduct research from hypothesis testing to data analysis and interpretation, and communicate scientific information proficiently in both written and spoken form.

The major in geosciences requires the following:

1. Required foundational courses
 - a. One of the following introductory geosciences courses:
 - i. GEOS 110 *Introduction to the Geosciences*

- ii. GEOS 125 *Natural Hazards*
 - iii. GEOS 150 *Introduction to Environmental Science*
- b. GEOS 210 *History of Earth and Life*
- c. GEOS 240 *The Material World: Geochemistry of Minerals, Rocks, and Water*
- d. One of the following:
 - i. GEOS 360 *Earth Surface Processes*
 - ii. GEOS 370 *Tectonophysics*
- 2. Three courses from the following:
 - a. GEOS 214 *Climate and Climate Change*
 - b. GEOS 250 *Hot Rocks: Magmatism and Metamorphism*
 - c. GEOS 265 *Biogeochemistry*
 - d. GEOS 314 *Soil Science*
 - e. GEOS 340 *Advanced Geochemistry*
 - f. GEOS 360 *Earth Surface Processes*
 - g. GEOS 370 *Tectonophysics*
 - h. GEOS 430 *Watershed Hydrology*
- 3. Nine additional units in the geosciences in courses numbered 200 or higher. The following courses may also be used to meet this requirement: CHEM 212, ANTH 220, BIOL 235, or BIOL 420.
- 4. Courses in other sciences and mathematics
 - a. Introductory lab courses from two of the other natural sciences:
 - i. CHEM 115 or 116
 - ii. PHYS 141 or 151
 - iii. BIOL 130 or 150 or 230
 - b. One course from mathematics or focused on statistics:
 - i. MATH 107 or 117 or 120 or 140 or 207, or BIOL 170
- 5. Courses for the *Senior Experience*:
 - a. GEOS 580 *Junior Seminar* (3 units)
 - b. GEOS 620 *Senior Capstone* (3 units)

Required for the interdisciplinary major in natural sciences in geosciences and a secondary discipline

Geosciences students who have strong secondary interests in physics, chemistry, or biology may construct a major involving geosciences and one of these sciences using the interdisciplinary major in the natural sciences.

The requirements for the interdisciplinary major with geosciences as the primary field are:

- 1. One of the following introductory geosciences courses:
 - a. GEOS 110: *Introduction to the Geosciences*,
 - b. GEOS 125: *Natural Hazards*, or
 - c. GEOS 150: *Introduction to Environmental Science*
- 2. GEOS 210: *History of Earth and Life*
- 3. PHYS 141: *Principles of Classical, Relativistic, and Quantum Mechanics* and 151: *Principles of Classical Physics*

4. Either of the following:
 - a. BIOL 130: *Integrative Biology: Cells to Organisms*, 150: *Integrative Biology: Organisms to Ecosystems*, and 170: *Integrative Biology: Experimental Design and Statistics*
 - b. CHEM 115: *Principles of Chemistry: Structure and Reactivity* and 116: *Principles of Chemistry: Energetics and Dynamics*
5. At least 10 additional six-unit courses in the sciences (biology, chemistry, geosciences, and physics) numbered 200 or above, with at least five in the geosciences and at least three in the secondary discipline
6. Courses for the *Senior Experience*:
 - a. GEOS 580 *Junior Seminar* (3 units)
 - b. GEOS 620 *Senior Capstone* (3 units)

Senior Experience in geosciences

The *Senior Experience* in geosciences comprises two 3-unit courses (GEOS 580 and 620), typically offered in the spring term of the junior year and the winter term of the senior year respectively.

The junior seminar (GEOS 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 geosciences faculty, each student identifies a substantive research question and designs a plan by which to investigate that question.

In the senior capstone (GEOS 620), students work with faculty mentors to carry out these research plans, sometimes building upon work that they conducted during summer research on campus, in the field, or through programs at other universities as well as independent study work. By the end of GEOS 620, each student presents their research results and analyses to the department as a whole. Some students opt to continue their capstone research throughout their senior year as an honors project.

Required for the minor in geosciences

1. One of the following introductory geosciences courses:
 - a. GEOS 110: *Introduction to the Geosciences*
 - b. GEOS 125: *Natural Hazards*
 - c. GEOS 150: *Introduction to Environmental Science*
2. GEOS 210: *History of Earth and Life*
3. Any two of the following:
 - a. GEOS 214: *Climate and Climate Change*
 - b. GEOS 240: *The Material World: Geochemistry of Minerals, Rocks, and Water*
 - c. GEOS 250: *Hot Rocks: Magmatism and Metamorphism*
 - d. GEOS 265: *Biogeochemistry*
 - e. GEOS 314: *Soil Science*
 - f. GEOS 340: *Advanced Geochemistry*

- g. GEOS 360: *Earth Surface Processes*
 - h. GEOS 370: *Tectonophysics*
 - i. GEOS 430: *Watershed Hydrology*
4. An additional twelve units in geosciences courses numbered 200 or higher

Teacher certification in geosciences/earth science or broad-field science

Students can seek teacher certification to teach geosciences/earth science at the secondary level. Certification requires a major in geosciences with courses in astronomy and oceanography and other science subjects. Students also have the option of seeking broad-field science certification by completing a minimum of two courses in each of two other science disciplines and at least one course in each of the remaining sciences. Students who plan to seek teacher certification should review the requirements in the Education section of the catalog and meet with the director of teacher education, preferably before the end of the sophomore year.

Courses - Geosciences

GEOS 110: *INTRODUCTION TO THE GEOSCIENCES*

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.*

GEOS 125: *NATURAL HAZARDS*

Natural disasters are commonplace and are becoming increasingly costly in terms of economic impact and loss of human life. Through readings, lectures, and interactive labs we examine the root causes of natural hazards such as landslides, flooding, earthquakes, and tsunamis. We consider also the role humans have in elevating common hazards into humanitarian disasters, including the potential impact of global climate change on future events. *Units: 6.*

GEOS 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. This course may not be taken on a Satisfactory/Unsatisfactory basis. *Units: 6.*

Also listed as Geology 150

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

GEOS 191: *DIRECTED STUDY IN GEOSCIENCES*

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: 1 TO 98.*

Prerequisite: Counter Registration Required.

GEOS 195: *INTERNSHIP IN GEOSCIENCES*

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 geoscience 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: 1 TO 98.*

Prerequisite: Counter Registration Required.

GEOS 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/GEOS 110, or GEOL/GEOS 125, or GEOL/GEOS 150

GEOS 213: *GEOLOGY AND HEALTH*

NEED FROM DEPT (no longer lab course) *Units: 6.*

Prerequisite: GEOL/GEOS 110, ENST 150, or CHEM 116

GEOS 214: *CLIMATE AND CLIMATE CHANGE*

In this class we will cover the fundamental scientific knowledge about climate, and the long-term patterns and variation in climates over Earth's history. Students will be able to evaluate and explain major climate drivers in the past, and how past and future human activities are altering climates at both local and global scales. *Units: 6.*

Also listed as Environmental Studies 235

Prerequisite: GEOL 110 or GEOS 110 or GEOL 150 or GEOS 150

GEOS 240: *THE MATERIAL WORLD: GEOCHEMISTRY OF MINERALS, ROCKS AND WATERS*

Low-temperature geochemical processes drive the formation, weathering, and alteration of rocks and minerals and govern the composition of waters at the Earth's surface. In studying these principles, we will investigate questions about the Earth's environment from both modern systems and deep geological time. Course includes a three-day field trip to northern Wisconsin in the middle of the term. One lab per week. *Units: 6.*

Also listed as Environmental Studies 240

Prerequisite: GEOL/GEOS 110 or GEOL/GEOS 125, or GEOL/GEOS 150, and CHEM 115

GEOS 314: *SOIL SCIENCE*

Taking a deeper look at the world beneath our feet, this class focuses on soil formation and development over time and the interactions between soils and other components of the Earth system. We explore the linkages between above-ground and below-ground biotic communities and how they biotic and physical worlds interact with geology to provide the fruitful resource of soil. Exams and laboratory providing hands-on experience with soils. *Units: 6.*

Prerequisite: GEOS 110, or ENST 150, or instructor approval

GEOS 360: EARTH SURFACE PROCESSES

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/GEOS 110 and 240 or consent of instructor; PHYS 141 or 151 recommended.

GEOS 370: TECTONOPHYSICS

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/GEOS 240 or consent of instructor

GEOS 390: TUTORIAL IN GEOSCIENCE

Advanced work, arranged and carried out in consultation with an instructor. *Units: 1 TO 98.*

Prerequisite: Counter Registration Required.

GEOS 391: DIRECTED STUDY IN GEOSCIENCES

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: 1 TO 98.*

Prerequisite: Counter Registration Required.

GEOS 395: INTERNSHIP IN GEOSCIENCES

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 geoscience 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: 1 TO 98.*

Prerequisite: Counter Registration Required.

GEOS 399: INDEPENDENT STUDY IN GEOSCIENCE

Advanced research, arranged in consultation with the department. Students considering an honors project should register for this course, for one or more terms. *Units: 1 TO 98.*

Prerequisite: Counter Registration Required.

GEOS 520: SEMINAR IN SELECTED TOPICS IN GEOLOGY

An opportunity for students to read and analyze primary literature on significant topics in geology. *Units: 1 TO 98.*

Prerequisite: Open to students with a declared major in the natural sciences

GEOS 550: SEMINAR IN FIELD GEOSCIENCE

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, the Rocky Mountains, the Lake Superior Region, Hawaii, or Puerto Rico. May be repeated for credit when topic is different. *Units: 3.*

Prerequisite: GEOL/GEOS 110, or GEOL/GEOS 125, or GEOL/GEOS 150, and consent of instructor

GEOS 580: JUNIOR SEMINAR IN GEOLOGY

The goal of the Junior Seminar is to engage geosciences majors in the scientific process. The course begins with consideration of the history of the geosciences 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 (GEOS 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 or geosciences major or minor and junior standing, or consent of instructor.

GEOS 590: TUTORIAL IN GEOSCIENCE

Advanced work, arranged and carried out in consultation with an instructor. *Units: 1 TO 98.*

Prerequisite: Counter Registration Required.

GEOS 591: DIRECTED STUDY IN GEOSCIENCES

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: 1 TO 98.*

Prerequisite: Counter Registration Required.

GEOS 595: INTERNSHIP IN GEOSCIENCES

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 geoscience 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: 1 TO 98.*

Prerequisite: Counter Registration Required.

GEOS 599: INDEPENDENT STUDY IN GEOSCIENCE

Units: 1 TO 98.

GEOS 690: TUTORIAL IN GEOSCIENCE

Advanced work, arranged and carried out in consultation with an instructor. *Units: 1 TO 98.*

Prerequisite: Counter Registration Required.

GEOS 691: DIRECTED STUDY IN GEOSCIENCES

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: 1 TO 98.*

Prerequisite: Counter Registration Required.

GEOS 695: INTERNSHIP IN GEOSCIENCE

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 geoscience 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: 1 TO 98.*

Prerequisite: Counter Registration Required.

GEOS 699: INDEPENDENT STUDY IN GEOSCIENCE

Advanced research, arranged in consultation with the department. Students considering an honors project should register for this course, for one or more terms. *Units: 1 TO 98.*

Prerequisite: Counter Registration Required.

GERMAN

Professor:	B. Peterson (<i>chair terms II and III</i>)
Associate professor:	A. Guenther-Pal (<i>chair term I</i>) (<i>on leave term(s) II, III</i>)
Assistant professor:	V. Plumly
Visiting assistant professor:	M. Carone

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 world. The German-speaking countries are changing in ways that shatter old prejudices and make German Studies an exciting and diverse discipline to explore. With at least 20 percent of Germans having a migrant background, it is no wonder that some of the most interesting literature, music, art, film and other forms of cultural expression offers a breadth of multi-cultural perspectives.

The German Studies department at Lawrence University assists students not just in learning the German language, but also becoming familiar with the literature, history, and culture, including popular culture—film, television and popular literature--of German-speaking countries. 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 Studies 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 Studies program insists that language is always part of a cultural nexus. Lawrence's German Studies program is designed to help students develop proficiency in all four language skills: listening, speaking, reading, and writing. Beginning and intermediate instruction always integrates pertinent cultural material. 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. Once the cultural and linguistic foundations have been laid, students embark on a deeper exploration of German culture, history, and society. The German Studies department at Lawrence embraces the notion of German cultural studies. Students will also be exposed to a wider variety of cultural artifacts—film, television, nonfiction texts, popular narratives, etc.—and geographic locations (diaspora) than might be the case in more traditional German language and literature programs.

We offer many opportunities for students to 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 the course *Berlin: Experiencing a Great City*. On campus students can maintain a connection to things German through the department's lunch and dinner tables, which are all facilitated by our language assistants, as well as other departmental programming.

Required for the major in German

Students who complete the major in German will demonstrate proficiency in the four language skills (listening, speaking, reading and writing) at the intermediate-high to advanced-low level according to American Council of Teachers of Foreign Languages (ACTFL) guidelines. They will show an ability to deal independently with a variety of German literary and cultural texts and to summarize main arguments and plot in these texts and to situate texts in their literary, historical, and cultural context. At the culmination of the major, students will develop and pursue one or more questions relevant to the discipline of German studies using literary and cultural texts as a primary resource.

The major in German requires:

1. 60 units beyond GER 202, including GER 285: *Advanced Composition and Conversation* and GER 312: *Reading Texts and Contexts*. At least 36 of these units must be taken at Lawrence. Only 12 units taught in English may count toward the major, but tutorials in German taken in conjunction with courses taught in English 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 (see *Senior Experience* below).
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:
 - a. a brief statement in which students evaluate their development as German majors
 - b. a list of courses taken for the major
 - c. sample pages of *Lesejournale* from all German courses numbered 300 and above taken at Lawrence
 - d. four papers from upper-level courses, two of which may be from courses taken abroad
 - e. a copy of the capstone paper

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 teacher certification should work with all concerned departments to assess the feasibility of an interdisciplinary capstone.

Required for the minor in German

1. Thirty-six units beyond GER 202, including GER 285: *Advanced Composition and Conversation* and GER 312: *Reading Texts and Contexts*. 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.

Teacher certification in German (K-12)

German majors can seek certification to teach German at the elementary and secondary levels. To be certified, students must spend a term in a German-speaking country studying the language and culture and must pass an oral and writing proficiency test. Students can add an endorsement in a second area (such as another language or English as a second language) by completing the appropriate minor. Students who plan to seek teacher certification should review the requirements in the Education Studies section of the catalog and meet with the director of teacher education, preferably before the end of the sophomore year.

Courses - German

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: 1 TO 98.*

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 works from broader continental contexts (Africa, Asia, Europe) and more modern adaptations. Students will be introduced to various interpretative approaches (e.g. feminist, Marxist, psychoanalytic, postcolonial, structuralist) that will enable them to analyze tale types, themes, and motives across cultures. Taught in English. Course will count toward the humanities general education requirement for BA and BA/BMus 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 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 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 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: 1 TO 98.*

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: 1 TO 98.*

Prerequisite: Counter Registration Required.

GER 395: *INTERSHIP 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: 1 TO 98.*

Prerequisite: Counter Registration Required.

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 Winter 2020: From Caligari to Cabaret: The Culture of the Weimar Republic

This course explores the main literary, aesthetic and cultural trends from Germany's Weimar Republic, 1918-1933, a politically turbulent era that gave rise to one of the most fertile and interesting periods of cultural production in German history. We will examine works of literature, film, visual art, cultural criticism, and music as well as cultural phenomena such as fashion, feminism, the "Third Sex." Taught in German. *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 Honigsmann. May be repeated when topic is different.

Topic for Spring 2020: Modern German-Jewish Identities

This course examines German Jews' simultaneous belonging to and alienation from German identity. By way of modern literary, cultural, and aesthetic works, it interrogates the German national imaginary, assimilation,

crises of modernity, German-Jewish self-positioning, and German-Jews' relationship to Germany today. Selected topics include: queering identity, women writing in exile, and post-memory. *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 Parfum*, and paintings by H.R. Giger. *Units: 6.*

Also listed as Gender Studies 362, Film Studies 362

Prerequisite: GER 312

GER 465: TOPICS IN CONTEMPORARY GERMAN CULTURE

This course explores recent developments in German culture: recent literature, visual culture, music and other arts, as well as topics from politics and society. *Units: 6.*

Prerequisite: GER 312

GER 590: TUTORIAL STUDIES IN GERMAN

Individual study arranged and carried out in close consultation with an instructor. *Units: 1 TO 98.*

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: 1 TO 98.*

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: 1 TO 98.*

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 TO 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: 1 TO 98.*

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: 1 TO 98.*

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: 1 TO 98.*

Prerequisite: Counter Registration Required.

GLOBAL STUDIES

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 language competency 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);
 - b. Three six-unit courses from the social sciences at the introductory or intermediate level (course numbers 100-300 or above);
 - 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. 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. 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.

5. Completion of the *Senior Experience* in global studies (see below).

GLOBAL STUDIES TRACKS

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*

Global 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, 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 352: *Colonialism and Global Structures*

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*

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*
- GOVT 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 - Global Studies

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.*

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

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: 1 TO 98.*

GLST 217: *HUMANITARIANISM AND VIOLENCE IN RELIGIOUS TRADITIONS*

This course will examine the religious motivations that have led religious groups to embrace global norms like human rights or reject them and turn to violence. We will examine liberation theology in Latin America and the writings of extremist thinker Sayyid Qutb. Much of the class will be centered on case studies such as Myanmar's Rohingya crisis where religion, immigration, and questions of human rights are at play. Offered in conjunction with Ripon College, with online interactions and travel to local places of worship. *Units: 6.*

Also listed as Religious Studies 217

Prerequisite: Sophomore standing

GLST 220: *TOPICS IN GLOBAL STUDIES*

An intermediate course with a rotating topic determined by faculty in the Global Studies program. Topics will be wide-ranging, but will include a global perspective and contribute to one of the four global studies thematic tracks (human security, global cities, nations and identities, or arts and exchange). May be repeated when topic is different. *Units: 6.*

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.*

GLST 273: LONDON, A CITY SHAPED BY MIGRATION

This class studies the lasting effects of migration on London as a global city. We will analyze historic and current influxes of people and how they have changed the structure, identity, and culture of London. Students will explore London neighborhoods and meet people who have found a new home here. Assignments and experiential learning will allow students to fully engage with London in a meaningful way. *Offered at the London Centre. Units: 6.*

Also listed as History 273

Prerequisite: Must be attending the Lawrence London Centre.

GLST 291: FLD EXPERIENCE GLOBAL STUDIES

This topics course will allow students to experience sites that highlight global issues (political, religious, environmental, or cultural) through a one- or two-week field experience accompanied by at least one professor. Students should register for this course in the term prior to the planned travel. Some field experiences will require registration in the term following the field experience in order to complete a research project.

Topic for 2018-19: Four Communities of Senegal

This class prepares students for a December trip to Senegal. It will give students the opportunity to experience the largest slave trading center on the Atlantic coast, and spend time in the current capital, Dakar. Students will learn about the lasting legacy of colonialism, the practice of Islam in Africa, and the challenges of urbanization in developing countries. This course will be conducted in English. Students will complete and present independent research during winter term. *Units: 3.*

GLST 352: COLONIALISM AND GLOBAL STRUCTURES

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.*

Also listed as Religious Studies 352

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: 1 TO 98.*

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: 1 TO 98.*

GLST 392: THE AFRICAN AND BLACK AMERICAN EXPERIENCE

This comparative literature course examines the representations of the African and Black American experience in literature. It explores how their subaltern status on the continent and the US has been instrumental in

shaping the spirit of resistance that subtend the works of writers from both literary traditions. We will examine the thematic intersections between these literatures and analyse how writers deal with colonialism, slavery, race, ethnicity, the question of belonging and humanism. This course will only count for French major/minor units with an accompanying 3 unit tutorial in French arranged with instructor. *Units: 6.*

Also listed as French 392, Ethnic Studies 392

Prerequisite: Non for non-majors or minors in French & Francophone Studies For majors or minors in French & Francophone Studies: one 300-level French course or instructor's consent. This course will only count for French major/minor units with an accompanying 3 unit tutorial in French arranged with instructor.

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: 1 TO 98.*

GLST 420: ADVANCED TOPICS IN GLOBAL STUDIES

An advanced discussion-focused course with a rotating topic determined by faculty in the global studies program. Topics will be wide-ranging, but will include a global perspective and contribute to one of the four global studies thematic tracks (human security, global cities, nations and identities, or arts and exchange). May be repeated when topic is different. *Units: 6.*

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: 1 TO 98.*

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: 1 TO 98.*

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: 1 TO 98.*

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: 1 TO 98.*

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: 1 TO 98.*

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: 1 TO 98.*

GOVERNMENT

Professors:	M. Adenwalla, A. Shober, C. Skran (<i>Edwin & Ruth West Professorship of Economics and Social Science</i>)
Associate professors:	A. Balsekar (<i>on leave term(s) II, III</i>), J. Brozek (<i>Stephen Edward Scarff Professor of International Affairs</i>), W. Hixon (<i>Gordon R. Clapp Chair of American Studies, chair</i>), S. Wulf (<i>on leave term(s) I</i>)
Visiting assistant professor:	D. Duncombe

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 major in government

Students who major in government will learn how to explain, interpret, and evaluate political institutions, policies, behaviors and beliefs. They will do so by using discipline-appropriate methods to answer questions concerning American politics, comparative politics, international politics, and political theory, and they will complete the major by undertaking a *Senior Experience* course in which they provide an original answer to a significant question concerning government.

Government majors must complete either of the following two tracks:

REQUIRED FOR THE MAJOR IN GOVERNMENT: 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 322: *Liberty and Constitutional Democracy*
 - GOVT 405: *Individuality and Community*
 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.

The general track requires at least eleven six-unit courses, and at most two 100-level courses may count toward the major. Students may count one cross-listed course in economics toward the major.

REQUIRED FOR THE MAJOR IN GOVERNMENT: 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. Three additional six-unit elective courses (see paragraph below)
9. *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.

The international relations track requires at least eleven six-unit courses, and at most three 100-level courses may count toward the major. One of the electives must be a course with a comparative or international focus offered by a department outside of government, and 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. Students may count one cross-listed course in economics, in addition to the above course, toward

the major. 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.

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.

Required for the minor in government

1. GOVT 110: *Introduction to Political Science*
2. The following courses, three of which must be numbered 200 or above:
 - a. One six-unit course in American politics
 - b. One six-unit course in political theory
 - c. Two six-unit courses from the fields of comparative politics and international relations
3. One six-unit course in government at the advanced level (numbered 400 or above), excluding tutorials and independent studies

Teacher certification in social studies

Government majors can seek certification to teach government/political science or broad-field social studies at the secondary level. For certification in broad-field social studies, students must complete the government major and a minimum of two courses each in two other social studies (anthropology/sociology, economics, history, or psychology) and at least one course in each of the remaining social studies. Students are strongly encouraged to take a course in U.S. history and a course in global history. A course in environmental studies is also required. Students who plan to seek teacher certification should review the requirements in the Education section of the catalog and meet with the director of teacher education, preferably before the end of the sophomore year.

Off-campus study

Government students are encouraged to consider the [Washington Semester](#) in the Off-Campus Programs section of the catalog.

Courses - Government

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: 1 TO 98.*

Prerequisite: Counter Registration Required.

GOVT 195: INTERSHIP 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: 1 TO 98.*

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 203: LATIN AMERICAN ECONOMIC DEVELOPMENT

This course combines economic theory, policy and historical accounts to understand the forces shaping Latin American economic development. Students will gain an understanding of major theories and trends in Latin American development while analyzing specific development issues, including equitable growth, agriculture, migration, gender equity, education, and health. Students will complete thoughtful critiques of readings, problem sets analyzing real data, and in-depth evaluations of specific issues. *Units: 6.*

Also listed as Economics 203

Prerequisite: ECON 100

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. *Units: 1 TO 99.*

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 Economics 208, Environmental Studies 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 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 security. Students will work with a team to propose an entrepreneurial solution to one such problem. *Units: 6.*

Also listed as Innovation & Entrepreneurship 245

Prerequisite: Sophomore standing or consent of instructor

GOVT 252: SUSTAINABLE CITIES

How can cities be sustainable? The increasing urbanization of the world's population, shift to service-driven economies, and growing diversity of cities make this question pressing and complicated. This course introduces economic, environmental, and social dimensions of the urban sustainability problem and explores responses to it through a two-week December study trip to London and Amsterdam and winter term studies and poster presentations. Program fee is required. Students pay their own airfare. *Units: 3.*

Also listed as Environmental Studies 252, Economics 252

Prerequisite: An introductory course in GOVT, ECON, ENST or GLST, 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. Students should take this course in their sophomore or junior year. *Units: 6.*

Prerequisite: GOVT 110 or consent of instructor; seniors must obtain 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

GOVT 275: GLOBAL ECONOMIC RELATIONS

This course covers the major concepts utilized in the field of international political economy. Major issues covered include debates about globalization, trade policy and free-trade agreements, monetary policy and currency regulation, aid and development, immigration policy and labor migration, global corporations, and international institutions such as the World Bank, IMF, and WTO. *Units: 6.*

Also listed as Economics 202

Prerequisite: Sophomore standing and ECON 100. GOVT 140 or GOVT 340 recommended.

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

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 322: LIBERTY AND CONSTITUTIONAL DEMOCRACY

This course addresses philosophical and legal questions about liberty and constitutional democracy. To what extent should people be free to live, speak, interact, and employ property as they please? Should the scope of individual rights be defined by legal experts, majority rule, or something else? To what extent does American constitutional law guarantee such rights? Discussions with written assignments and/or exams and evaluations of class participation. *Units: 6.*

Prerequisite: 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 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: 1 TO 98.*

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: 1 TO 98.*

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: 1 TO 98.*

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: 1 TO 98.*

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 Economics 206, Environmental Studies 311

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 Fall 2019: War and Pop Culture

How should we try understand the close relationship between war and popular culture? This course an interdisciplinary approach to explore a wide range of topics under the umbrella of war, including terrorism, dehumanization, torture, nuclear deterrence, and more. In particular, we will examine how these topics are represented in films, television, graphic novels, video games and literature, as well as how pop culture representations square with academic literature on the same topic. *Units: 6.*

Prerequisite: GOVT 140 or GOVT 340

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. *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 2019: 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. There will be a particular emphasis on qualitative research methods, including interview techniques. Students will write an original research paper on the topic of their choice, ideally

expanding a paper that they have previously written.

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: 1 TO 98.*

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: 1 TO 98.*

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: 1 TO 98.*

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: 1 TO 98.*

Prerequisite: Counter Registration Required.

GOVT 690: *TUTORIAL STUDIES IN GOVERNMENT*

Advanced study, arranged and carried out under the direction of an instructor. *Units: 1 TO 98.*

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: 1 TO 98.*

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: 1 TO 98.*

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: 1 TO 98.*

Prerequisite: Counter Registration Required.

HISTORY

Professors:	P. Cohen (<i>Patricia Hamar Boldt Professor of Liberal Studies</i>), J. Frederick (<i>on leave term(s) I</i>), J. Podair (<i>Robert S. French Professor of American Studies</i>) (<i>on leave term(s) II, III</i>), M. Rico (<i>on leave term(s) I, II</i>)
Associate professors:	P. Blitstein, E. Kern (<i>chair</i>)
Assistant professor:	B. Vance
Instructor:	M. Wegehaupt (<i>Dean of Faculty Office</i>)

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 major in history

Students who major in history will learn to marshal historical facts, engage in critical historical analysis, and evaluate differing historiographical traditions as they gain an understanding of the variability of human experience.

The major in history requires the following:

1. A sequence of three courses 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. HIST 101: *Introduction to Historical Methods* taken during the freshman or sophomore year.
 - b. HIST 620: *Historiography* taken during the junior year.
 - c. HIST 650: *The Practice of History* taken during the senior year. Exceptions may be granted for majors who petition to complete a piece of advanced and original historical research in a suitable off-campus program.
2. Seven additional courses to broaden and deepen historical knowledge. One must be a seminar or independent study in which students will begin a research project to be completed in HIST 650.
 - a. One six-unit course from each of the following three categories: North America (NA), Europe (E), and Global and Comparative (G&C).
 - b. One course that covers materials up to the year 1750.
 - c. One course designated as an advanced seminar or independent study (400-599) during the junior year or during the Fall Term of the 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.

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.

Required for the minor in history

1. One introductory course in history (100-199).
2. Five additional courses in history.
 - a. No more than one may be an introductory course (100-199).
 - b. At least one must be an advanced seminar or independent study (400-599).

Teacher certification in history or broad-field social studies

History majors can seek certification to teach history or broad-field social studies at the secondary level. For certification in broad-field social studies, students must complete the history major and a minimum of two courses each in two other social studies (anthropology/sociology, economics, government/political science, or psychology) and at least one course in each of the remaining social studies. A course in environmental studies is also required. Students who plan to seek teacher certification should review the requirements in the Education section of the catalog and meet with the director of teacher education, preferably before the end of the sophomore year.

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.

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 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.

Courses - History

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. (G & C) *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 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 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: 1 TO 98.*

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: 1 TO 98.*

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 202: *INTRODUCTION TO PUBLIC HISTORY*

Introduction to the broad variety of activities and locations developed by historians to reach the general public, such as museums, libraries, and archives, historic preservation, documentary filmmaking, oral history, podcasting, historical editing, and community activism. This course examines public historians’ theoretical and ethical concerns in addition to developing relevant skills. Emphasis on experiential learning via field trips, interviews with practitioners, and individual and group projects. *Units: 6.*

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 241: 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.*

Also listed as Classics 280

HIST 242: 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.*

Also listed as Classics 305

Prerequisite: Sophomore standing or consent of instructor

HIST 246: MODERN BRITAIN, 1688 TO THE PRESENT

This course surveys the history of Great Britain from the political upheavals of 1688 to the present day. Emphasis will be on broad political and economic themes: the development of parliamentary democracy, the growth of modern industrial capitalism, and the extension and eventual collapse of the British Empire. We will also examine some of the major cultural and intellectual achievements of the period. (E) *Units: 6.*

Prerequisite: Sophomore standing

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 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. *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 273: LONDON, A CITY SHAPED BY MIGRATION

This class studies the lasting effects of migration on London as a global city. We will analyze historic and current influxes of people and how they have changed the structure, identity, and culture of London. Students will explore London neighborhoods and meet people who have found a new home here. Assignments and experiential learning will allow students to fully engage with London in a meaningful way. *Offered at the London Centre. Units: 6.*

Also listed as Global Studies 273

Prerequisite: Must be attending the Lawrence London Centre.

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. (G & C) *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 Union, 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 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. (NA) *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 Russian 354, Film Studies 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 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. (G & C or E) *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. *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 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 from 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. (G & C) *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: 1 TO 98.*

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: 1 TO 98.*

Prerequisite: Counter Registration Required.

HIST 395: *INTERSHIP 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: 1 TO 98.*

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: 1 TO 98.*

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. *Fulfills Seminar Requirement (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 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: Sophomore Standing

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 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. *Fulfills seminar requirement.* (NA) *Units: 6.*

Prerequisite: Sophomore standing

HIST 476: TOPICS IN THE HISTORY OF THE AMERICAS

This seminar explores the history of the Americas (primarily outside the United States). May be repeated when topic is different. *Units: 6.*

Prerequisite: Junior Standing

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 or consent of instructor

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 482: GLOBAL CITY: THE HISTORY OF NEW YORK

This seminar will examine the rise of New York City to global preeminence over the past four centuries as an entrepot and incubator of commerce, culture and people. It will emphasize the challenges of building unity and community in a city marked by racial, class, ethnic, religious and gender difference. Students will produce a substantial research paper on an aspect of the city's history. *Fulfills seminar requirement.* (NA) *Units: 6.*

Prerequisite: Sophomore standing

HIST 485: TOPICS IN INTERNATIONAL AND COMPARATIVE HISTORY

An advanced seminar in modern international and/or comparative history. The course combines review of key theoretical and historiographical issues with research and analysis of primary sources. Possible topics include: Secret Intelligence in the Twentieth and Twenty-First Centuries; the History of the Cold War; and the

International History of the Second World War. (G&C) Fulfills seminar requirement. May be repeated when topic is different. *Units: 6.*

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 498: ADVANCED TOPICS IN HISTORY

A seminar that provides in-depth study of a specific topic in history. May be repeated when topic changes.

Units: 6.

Prerequisite: Sophomore 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 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: 1 TO 98.*

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: 1 TO 98.*

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: 1 TO 98.*

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: 1 TO 98.*

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: 1 TO 98.*

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: 1 TO 98.*

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: 1 TO 98.*

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: 1 TO 98.*

Prerequisite: Counter Registration Required.

INNOVATION & ENTREPRENEURSHIP

Professors:	C. Skran (<i>Edwin & Ruth West Professorship of Economics and Social Science Government, chair</i>), T. Troy (<i>J. Thomas and Julie E. Hurvis Professor of Theatre and Drama Theatre Arts</i>)
Associate professors:	A. Galambos (<i>Dwight and Marjorie Peterson Professor of Innovation Economics</i>), B. Pertl (<i>Conservatory of Music</i>)
Visiting assistant professor:	M. Clayville (<i>Conservatory of Music</i>)
Instructor:	G. Vaughan (<i>Economics</i>)
Lecturer:	A. Stewart (<i>Economics</i>)

Program description

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 interdisciplinary area in innovation and entrepreneurship

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 212: *Corporate Finance*
 - Other courses in which aspects of innovation or entrepreneurship are central
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*
 - ART 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, or KidsGive; 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.

Courses - Innovation & Entrepreneurship

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: 1 TO 98.

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 may include a written report appropriate to the discipline. Course grades are based on this academic work and participation in a group project. *Units: 1 TO 98.*

Prerequisite: Counter Registration Required

I-E 212: *CORPORATE FINANCE*

This course studies the function of finance and the flow of funds within the corporation. Topics include financial analysis, decision making, capital acquisition and use, and strategic planning. Three competencies will be

emphasized: numeracy through financial analysis, decision-making based on financial information, and communication skills through conveying analyses and decisions to the end user (the board, shareholders, other stake holders). Lecture with case studies assignments, and exams. *Units: 6.*

Also listed as Economics 212

Prerequisite: I-E 110

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 security. Students will work with a team to propose an entrepreneurial solution to one such problem. *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: 1 TO 3.*

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 295: TOPICS IN INNOVATION AND ENTREPRENEURSHIP

Topics will vary from year-to-year. May be repeated when topic is different.

Topic for Fall 2019: Sports Entrepreneurship

The purpose of this course is to introduce students to the history and development of sports entrepreneurship

and innovation. Students will be exposed to a diverse variety of opportunities in the areas of contemporary sports management as they explore concepts such as; sales and marketing, supervisory management, facilities management, media/public relations, along with ethical challenges in intercollegiate and professional sports.

Units: 6.

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 245

I-E 390: TUTORIAL IN INNOVATION & ENTREPRENEURSHIP

Units: 1 TO 98.

Prerequisite: Counter Registration Required

I-E 391: DIRECTED STUDY IN INNOVATION & ENTREPRENEURSHIP

Units: 1 TO 98.

Prerequisite: Counter Registration Required

I-E 395: 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 may include a written report appropriate to the discipline. Course grades are based on this academic work and participation in a group project. *Units: 1 TO 98.*

Prerequisite: Counter Registration Required

I-E 399: INDEPENDENT STUDY IN INNOVATION & ENTREPRENEURSHIP

Units: 1 TO 98.

Prerequisite: Counter Registration Required

I-E 495: ADVANCED TOPICS IN INNOVATION AND ENTREPRENEURSHIP

This course will offer opportunities to explore special topics in Innovation and Entrepreneurship. Topics will be taught at an advanced level, so the course will build on previous work in Innovation and Entrepreneurship. May be repeated when topic is different. *Units: 6.*

Prerequisite: I-E 300 or consent of instructor

I-E 590: TUTORIAL IN INNOVATION & ENTREPRENEURSHIP

Units: 1 TO 98.

Prerequisite: Counter Registration Required

I-E 591: DIRECTED STUDY IN INNOVATION & ENTREPRENEURSHIP

Units: 1 TO 98.

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 may include a written report appropriate to the discipline. Course grades are based on this academic work and participation in a group project. *Units: 1 TO 98.*

Prerequisite: Counter Registration Required

I-E 599: INDEPENDENT STUDY IN INNOVATION & ENTREPRENEURSHIP

Units: 1 TO 98.

Prerequisite: Counter Registration Required

I-E 690: TUTORIAL IN INNOVATION & ENTREPRENEURSHIP

Units: 1 TO 98.

Prerequisite: Counter Registration Required

I-E 691: DIRECTED STUDY IN INNOVATION & ENTREPRENEURSHIP

Units: 1 TO 98.

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 may include a written report appropriate to the discipline. Course grades are based on this academic work and participation in a group project. *Units: 1 TO 98.*

Prerequisite: Counter Registration Required

I-E 699: INDEPENDENT STUDY IN INNOVATION & ENTREPRENEURSHIP

Units: 1 TO 98.

Prerequisite: Counter Registration Required

LATIN AMERICAN STUDIES

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:
 - ECON 203: *Latin American Economic Development*
 - 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*
 - HIST 476: *Top: Disasters That Made The Americas*
 - 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.
- At least 60 percent of the units must be taken on the Appleton campus.

Courses - Latin American Studies

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.*

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

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 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

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

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 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 430: INTRODUCTION TO LATIN AMERICAN AND SPANISH 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 advanced courses in the Spanish program. *Units: 6.*

Also listed as Film Studies 330

Prerequisite: SPAN 300-level class or its equivalent, official placement, or consent of instructor

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 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 Martín Gaité's *The Back Room*, as well as films by Lucrecia Martel, Víctor Erice, Pablo Larraín, 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

LINGUISTICS

Professors:	T. Gottfried (<i>Psychology</i>), K. Sung (<i>Chinese and Japanese, chair terms I and III</i>) (on leave term(s) II), B. Williams (<i>Education, chair term II</i>)
Associate professors:	L. Murali (<i>Anthropology</i>), M. Phelan (<i>Philosophy</i>)
Visiting assistant professor:	A. Galambosh (<i>French and Francophone Studies</i>)
Instructors:	A. Adler (<i>Chinese and Japanese</i>), Y. Chiu (<i>Schmidt Fellow Chinese and Japanese</i>), C. Despres-Berry (<i>Center for Academic Success</i>)

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 major in linguistics

A student who completes the major in linguistics will generate an important research question or purpose and explain its relevance to linguistics, demonstrate understanding of theories and methods involved in answering questions about language, and present and discuss findings of linguistic research, both others' and their own.

The major in linguistics requires the following:

1. LING 150: *Introduction to Linguistics*
2. The following courses:
 - LING 340: *Introduction to Syntax*
 - LING 350: *Introduction to Phonology*
 - Either LING 380: *Introduction to Morphology* or LING 335: *Introduction to Lexical Semantics*
3. One of the following courses:
 - LING 325: *Introduction to Sociolinguistics*
 - LING 400: *Philosophy of Language*
 - LING 405: *How to Do Things With Words*
 - LING 470: *Cognitive Linguistics*
4. Four additional courses in linguistics, which could include additional courses from #2 or 3. Students are encouraged to select courses that develop an area of emphasis leading to the *Senior Experience*.
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* and an independent study to satisfy the *Senior Experience* requirement.

Senior Experience in linguistics

The *Senior Experience* in the linguistics program consists of LING 650: *Senior Seminar* 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.

Required for the minor in linguistics

1. LING 150: *Introduction to Linguistics*
2. Two of the following:
 - LING 340: *Introduction to Syntax*
 - LING 350: *Introduction to Phonology*
 - Either LING 380: *Introduction to Morphology* or LING 335: *Introduction to Lexical Semantics*
3. One of the following:
 - LING 325: *Introduction to Sociolinguistics*
 - LING 400: *Philosophy of Language*
 - LING 405: *How to Do Things with Words*
 - LING 470: *Cognitive Linguistics*
4. Two additional courses in linguistics, which could include additional courses from #2 or 3.

Required for the minor in teaching English as a second language

1. Three courses in linguistics:
 - a. LING 150: *Introduction to Linguistics*
 - b. LING 360: *Second Language Acquisition*
 - c. A course or directed study 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*

Students pursuing teacher certification in English as a second language should consult the Education section of the catalog for additional certification requirements.

Courses - Linguistics

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 160: 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.*

Also listed as Philosophy 150

Prerequisite: Recommended for freshmen and sophomores

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: 1 TO 98.*

Prerequisite: Counter Registration Required.

LING 208: MACHINE LEARNING

An overview of techniques used to discover structural patterns and make predictions using complex datasets that are prevalent in today's world. The central machine learning tasks of classification, clustering, and regression will be explored, along with methods for training models and evaluating predictions. This course will be taught in a workshop format. Assignments will involve the use of statistical software. *Units: 6.*

Also listed as Computer Science 208

Prerequisite: One course in mathematics or computer science, or BIOL 170, or consent of instructor.

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 232: SIGNIFYING IDENTITY: THE SEMIOTICS OF EMBODYING MUSICAL GENRE AFFILIATIONS

The exploration of how people embody and display their identities as they relate to musical genres. From Doc Martens to zoot suits, body mod to makeup, we will learn about the semiotics of musical genre affiliations, paying attention to how embodied expressions of affiliation intersect with different aspects of identities such as ethnicity, queerness, or race. Class includes discussions, projects, and speakers.

Units: 6.

Also listed as Musicology 232, Anthropology 332

Prerequisite: Sophomore Standing

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.*

Also listed as Anthropology 331

Prerequisite: LING 150 or ANTH 110

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 different 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 377: INTRODUCTION TO SPANISH LINGUISTICS

This course offers an introduction to linguistics based on data from Spanish. We study the sound system of Spanish, the structure of its words, and how its sentences are formed and interpreted. We also consider how Spanish has changed over time and how it differs depending on where it is spoken. Written assignments and exams. *Units: 6.*

Also listed as Spanish 350

Prerequisite: SPAN 202, its equivalent, or consent of the instructor

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: 1 TO 98.*

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: 1 TO 98.*

Prerequisite: Counter Registration Required.

LING 399: INDEPENDENT STUDY IN LINGUISTICS

Available to advanced students of linguistics. *Units: 1 TO 98.*

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 407: SPANISH IN THE U.S.

A first approach to the study of Spanish in the United States through different lenses, including (but not limited to) the history of Spanish and its speakers in the U.S., a demographic overview of its varieties, sociopolitical factors surrounding its use, linguistic phenomena resulting from contact with English, and educational approaches to learning Spanish as a heritage language. Written assignments and exams. *Units: 6.*

Also listed as Ethnic Studies 407, Spanish 407

Prerequisite: 300-level course in Spanish or consent of 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, conversation 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*

Course examines how people know, produce, and understand language in all its diversity, using cognitive science and sociocultural approaches. Topics include first and second language learning of speech patterns, words, sentence structure, discourse rules, and the various social functions and expressions of language. Student discussion and presentations, reading quizzes, and a critical literature review paper. May be repeated when topic is different. *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 532: TOPICS IN LINGUISTIC ANTHROPOLOGY

An examination of a particular topic in linguistic anthropology. The specific topic being investigated will change from year to year. Students are expected to do advance reading and independent research. Course may be repeated when topic is different. *Units: 6.*

Also listed as Anthropology 530

Prerequisite: ANTH 330 or LING 325 and junior standing, or consent of instructor

LING 590: TUTORIAL STUDIES IN LINGUISTICS

Available to advanced students of linguistics. *Units: 1 TO 98.*

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: 1 TO 98.*

Prerequisite: Counter Registration Required.

LING 599: INDEPENDENT STUDY IN LINGUISTICS

Available to advanced students of linguistics. *Units: 1 TO 98.*

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: 1 TO 98.*

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: 1 TO 98.*

Prerequisite: Counter Registration Required.

LING 699: INDEPENDENT STUDY IN LINGUISTICS

Available to advanced students of linguistics. *Units: 1 TO 98.*

Prerequisite: Counter Registration Required.

MATHEMATICS

Professors:	S. Corry (<i>chair</i>), K. Krebsbach (<i>on leave term(s) I</i>), A. Parks, B. Pourciau (<i>on leave term(s) I, II, III</i>)
Associate professor:	J. Gregg
Assistant professors:	A. Chakraborty, J. Rana (<i>on leave term(s) III</i>), A. Sage, E. Sattler

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 offers a mathematics major and, in conjunction with the economics department, an interdisciplinary major in mathematics-economics. The department's computer science major is described separately under [Computer Science](#).

Our core sophomore sequence provides majors with a firm foundation in 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 or mathematics-economics 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.

Required for the major in mathematics

Students who major in mathematics will develop the ability to learn mathematics independently, to express mathematical knowledge clearly and cogently, and to understand, critique, and construct mathematical arguments. They will apply the principles of careful argumentation—agree on meaning before debating truth, expose all (especially hidden) assumptions, abstract from examples, seek the underlying structure, apply logic pristinely—to critique arguments in other fields.

The major in mathematics requires the following:

1. Complete or place out of the calculus sequence: MATH 140: *Calculus I*, MATH 155: *Multivariable Calculus*, and MATH 200: *Complex Sequences and Series*
2. One of the following:
 - MATH 210: *Differential Equations with Linear Algebra*,
 - MATH 220: *Applied Combinatorics*, or
 - MATH 240: *Probability*
3. One computer science course numbered 110 or above (excluding 170)
4. MATH 300: *Foundations of Algebra* and 310: *Foundations of Analysis*
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.

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, 545, 550, 555, 560, 565, and 600
- Computer science: 420, 435, 525, 555, 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, 525, 530, 535, 545, 550, and 600

Required for the interdisciplinary major in mathematics-economics

Students who complete the major in mathematics-economics will pursue the outcomes described for the economics and mathematics majors with an explicit focus on economics in constructing and critiquing mathematical arguments. Students pursuing the major must have an advisor in each department.

The major in mathematics-economics requires the following:

1. The mathematics component of the major is:

The following mathematics courses:

- MATH 140: *Calculus I*
- MATH 155: *Multivariable Calculus*
- MATH 200: *Complex Sequences and Series*
- MATH 240: *Probability*
- MATH 300: *Foundations of Algebra*
- MATH 310: *Foundations of Analysis*
- Either MATH 435: *Optimization* or MATH 445: *Mathematical Statistics*
- Six 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: *Introductory Economics*
- The following theory courses (majors must take all three courses prior to completion of the junior year; the economics department must approve any exception):
 - ECON 300: *Microeconomics*
 - ECON 320: *Macroeconomics*
 - ECON 380: *Econometrics*
- 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.

Senior Experience in mathematics or mathematics-economics

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.

For mathematics 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*.

Required for the minor in mathematics

1. The calculus sequence:

- a. MATH 140: *Calculus I*
- b. MATH 155: *Multivariable Calculus*

- c. MATH 200: *Complex Sequences and Series*
- 2. One of the following:
 - MATH 210: *Differential Equations with Linear Algebra*,
 - MATH 220: *Applied Combinatorics*, or
 - MATH 240: *Probability*
- 3. MATH 300: *Foundations of Algebra* and MATH 310: *Foundations of Analysis*
- 4. 6 units in any one upper-level mathematics course numbered from 400 to 600

Teacher certification in mathematics

Mathematics majors can seek certification to teach math at the secondary level. Students can add an endorsement in a second area by completing an appropriate minor. Students who plan to seek teacher certification should review the requirements in the Education section of the catalog and meet with the director of teacher education, preferably before the end of the sophomore year.

Course numbering

Typically, courses numbered below 400 are offered each year, while courses numbered 400 or higher are offered every other year.

First-year courses

The department offers two calculus sequences: MATH 140, 155, 200 (*Calculus I, Multivariable Calculus, Complex Sequences and Series*) and MATH 120, 130 (*Applied Calculus I, II*). Students intending to major in computer science, physics, or chemistry must complete *Calculus I* and *Multivariable Calculus*. Students intending to major in mathematics must take all three courses: *Calculus I, Multivariable Calculus, and Complex Sequences and Series*. Properly prepared students should enter the 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 calculus sequence should consult their advisor and the mathematics department as soon as possible. In every case, all students intending to enroll in MATH 140, 155, or 200 must take the ALEKS online diagnostic exam covering topics in pre-calculus, and a score of at least 75% is required for enrollment. Students who score below 75% may receive supplemental instruction through the Center for Academic Success to improve their score.

The *Applied Calculus I, II* sequence is designed to introduce students to the applied mathematics used in the social and life sciences. This sequence demands less technical proficiency than does the regular calculus sequence. Good performance in high school mathematics through the junior year should be adequate preparation.

Advanced placement

Advanced placement in the calculus 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. 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.

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 or directed studies 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.

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 receive a stipend and 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.

Courses - Mathematics

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: Completion of 54 units in Lawrence courses or consent of instructor

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

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. *Units: 6.*

Prerequisite: Four years of high school mathematics and minimum score on ALEKS online diagnostic exam, as set by the department.

MATH 155: MULTIVARIABLE CALCULUS

Techniques of integration, vector algebra in the plane and space, matrix algebra, functions of several variables, partial derivatives, double and triple integration, optimization. *Units: 6.*

Prerequisite: MATH 140 or equivalent, appropriate score on the departmental placement exam

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: 1 TO 98.*

Prerequisite: Counter Registration Required.

MATH 200: COMPLEX SEQUENCES AND SERIES

Complex numbers, sequences, convergence, series, power series, additional topics chosen from analysis, geometry, differential equations, and applied mathematics *Units: 6.*

Prerequisite: MATH 155

MATH 208: MACHINE LEARNING

An overview of techniques used to discover structural patterns and make predictions using complex datasets that are prevalent in today's world. The central machine learning tasks of classification, clustering, and regression will be explored, along with methods for training models and evaluating predictions. This course will be taught in a workshop format. Assignments will involve the use of statistical software. *Units: 6.*

Prerequisite: One course in mathematics or computer science, or BIOL 170, or consent of instructor

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, or BIOL 170, or PSYC 170

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 230: DISCRETE MATHEMATICS

An introduction to mathematical reasoning and proof in the context of discrete structures relevant to the study of computer science. Topics include induction, sets, relations and functions, graph theory, combinatorics, and probability. *Units: 6.*

Prerequisite: MATH 155

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 250: LINEAR ALGEBRA

The study of vector spaces, linear transformations, matrices, and applications. Topics include linear independence, dimension, rank-nullity, change of basis, eigenvectors and eigenvalues, determinants, and inner products. *Units: 6.*

Prerequisite: MATH 200

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 350: ORDINARY DIFFERENTIAL EQUATIONS

A study of ordinary differential equations and applications. Topics include standard techniques for special types of equations, linear and non-linear systems, existence and uniqueness, and qualitative behavior. *Units: 6.*

Prerequisite: MATH 250

MATH 390: TUTORIAL STUDIES IN MATHEMATICS

Advanced work in mathematics on topics not covered in regular offerings. *Units: 1 TO 98.*

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: 1 TO 98.*

Prerequisite: Counter Registration Required.

MATH 395: INTERNSHIP IN MATHEMATICS

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: 1 TO 98.*

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: 1 TO 98.*

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 210 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 240

MATH 450: BAYESIAN STATISTICS

A study of the Bayesian statistical philosophy, contrasting it with the traditional frequentist approach taught in other statistics courses. Topics include Bayes' Theorem, prior and posterior probability distributions, hierarchical models, and Markov Chain Monte Carlo methods. The course will involve a mixture of lecture, discussion, and use of statistical software. Requirements include exams, a project, and assignments involving the use of statistical software. *Units: 6.*

Prerequisite: MATH 240

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: TOPICS ALGEBRA & COMBINATORICS

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: 1 TO 98.*

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: 1 TO 98.*

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: 1 TO 98.*

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: 1 TO 98.*

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: 1 TO 98.*

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: 1 TO 98.*

Prerequisite: Counter Registration Required.

MUSEUM STUDIES

Professors:	P. Peregrine (<i>Anthropology</i>), M. Rico (<i>History</i>) (on leave term(s) I, II), B. Rinehart (<i>Studio Art</i>)
Associate professors:	A. Fleshman (<i>Chemistry</i>), J. Sedlock (<i>Biology</i>)
Assistant professors:	L. Rosenberg Foley (<i>Library and Media Center</i>), B. Zinsli (<i>Studio Art</i>)

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 complex and diverse 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. One core course: ARHI 315: *Introduction to the Art Museum*
2. Four additional six-unit courses with significant museum studies content, selected in consultation with museum studies faculty. See the list of courses on the [Museum Studies IA page](#) for suggested courses that could fulfill this requirement.
3. At least one of the following:
 - Six units of ANTH 422: *Archaeological Collections Management*
 - Six units of independent study in the Wriston Art Gallery or the University Archives
 - A six-unit academic internship at a museum, historic site, or similar institution, from an appropriate academic department

Courses - Museum Studies

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.*

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.*

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.*

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.*

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

DECM 126: *DIGITAL CURATORIAL PRACTICE*

This course will introduce students to the intellectual and practical elements of curatorial work and incorporate tools drawn from the digital liberal arts. Participants will research and curate their own online exhibition drawn from the university's interdisciplinary digital collections on the Omeka open-access platform. Course work will include readings on contemporary curatorial practice, research into digital collections, and the production of metadata for their exhibition. *Units: 3.*

DECM 135: *ARCHIVAL DISCOVERY*

An in-depth exploration of archives and archival research. The course will address the theory and practice of locating, contextualizing, interpreting, and using archival primary sources. Students will work directly with collections in the University Archives and produce a digital project based on their research. *Units: 3.*

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

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

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; concurrent enrollment in CHEM 211 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.*

Prerequisite: GEOL 110 or GEOS 125

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

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. When this course is scheduled at 8-noon TR, class will dismiss early for scheduled convocations. *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.*

ART 222: ARTIST BOOKS

Artist books are explored in a variety of forms including accordions, exposed and non-adhesive bindings, pop-

ups, box making and alternative structures. Letterpress along with other forms of printmaking and surface treatments will be used. Techniques of cutting, folding, sewing, gluing, printing and working in dimension are examined in detail. Unique content is expected for each project. *Units: 6.*

Prerequisite: ART 100 or ART 110

DECM 223: ADOBE CREATIVE SUITE

This workshop is an introduction to the Adobe Creative Suite programs including Photoshop, InDesign, and Illustrator. The class is project centered, allowing each student to explore the multi-faceted and contemporary nature of each program. Methods in image construction, graphic design, typography, application, and output will be explored in detail. *Units: 3.*

BIOL 230: GENERAL ECOLOGY

An introduction to the interactions between organisms and the environment. Explores 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

ARHI 240: FROM ROMANTICISM TO POST-IMPRESSIONISM: ART OF THE 19TH CENTURY

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 101 or 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

ARHI 244: REPRESENTING IDENTITY IN 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

ART 245: INTERARTS: NEW MEDIA PROJECTS

A class where students make projects that engage the outside world via digital media. Lectures, discussions, readings, and critiques will investigate contemporary interdisciplinary practices and the nature of creativity. Students will be taught the basics of design thinking, leading to conceptual-development, planning, and production. Students work individually or collaboratively on documentary, video, performance, installation, graphic novels, podcasts and web projects. Mac-based. *Units: 6.*

Also listed as Film Studies 245

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

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

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 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

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 Winter 2020: The Great Lakes

The Great Lakes contain one fifth of the Earth's fresh surface water. Since they were carved by glaciers, these lakes have been an important and unique ecosystem and have supported human populations for the last 10,000 years. This amazing watershed provides more than 35 million people with water and other necessities. However, these lakes are also environmentally sensitive, with problems of nutrient loading, invasive species,

mining and industrial runoff, and water quantity being just some of the many environmental questions facing the Great Lakes today. This course will draw connections between the scientific, policy, and human elements of some of these environmental issues. Students should plan to attend a weekend trip to Bjorklunden as we explore what makes these lakes truly great. *Units: 6.*

Prerequisite: ENST 150, sophomore standing

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: CRITICAL QUESTIONS IN ART TODAY

A study of art since 1960. Students will examine a diverse range of art works and the theories and strategies that have informed their production and exhibition. Students will learn about how artists today respond to such issues as gender, racial and ethnic identity, globalization, market capitalism, and new media and technology. *Units: 6.*

Prerequisite: ARHI 101 or sophomore standing

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

ART 322: INTERMEDIATE ARTIST BOOKS

A continuation of ART 222, exploring historical and contemporary bindings, and letterpress printing with an emphasis on conceptual ties between structure, process, and function. Additional surface treatments and printing techniques are used in conjunction with altered, collaborative, dimensional, movable books, and historical binding. More advanced techniques of binding, printing, and working in dimension are examined in detail to enhance the conceptual and visual narrative inherent to this sequential medium. *Units: 6.*

Prerequisite: ART 222

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

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.*

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

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.

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 when the topic is different. Not open to students who have previously received or need to receive credit for ARHI 301 with the same topic. *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. Not open to students who have previously received or need to receive credit for ARHI 420 with the same topic. *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. Students are expected to carry out independent research, culminating in a research paper. The topic will change periodically. Course may be repeated when topic is different. Not open to students who have previous received credit for ARHI 341. *Units: 6.*

Prerequisite: One 200-level course in art history 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 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.

Topic for Spring 2020: The Philosophy of the Play

Maria Montessori wrote that “the work of the child is play.” But is play also the work of all humans, child or adult? In this seminar students will examine the concept of play by reading philosophers on play, observing children and adults at play, and considering the role of play in human flourishing. Students will engage in discussion, reflective writing, and collaborative projects. *Units: 6.*

Prerequisite: Sophomore standing and one course in education studies or instructor approval

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. Not open to students who have previously received credit or need to receive credit for ARHI 381. *Units: 6.*

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

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.

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. *Units: 6.*

Prerequisite: ANTH 120 and junior standing or consent of instructor

ART 522: ADVANCED ARTIST BOOKS

A continuation of ART 322, exploring advanced research into combining book making techniques, with exploration of formal, theoretical and technical issues related to artist books 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. *Units: 6.*

Prerequisite: ART 322

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

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

ARHI 660: CRITICAL THEORIES IN VISUAL AND MATERIAL CULTURE

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

Music

Professors:	S. Jordheim, C. Kautsky (<i>George and Marjorie Olsen Chandler Professor of Music</i>) (<i>on leave term(s) II</i>), K. Leigh-Post, A. Mast (<i>Kimberly-Clark Professor of Music</i>), M. Mizrahi, D. Richeson, J. Stannard
Associate professors:	I. Bates, D. Bell, G. Biringer, S. Ceballos, J. Daniel (<i>on leave term(s) II</i>), S. Downing, J. Encarnacion, S. George, W. Gu, J. Holiday (<i>on leave term(s) II</i>), E. Lesser, N. Lewis, J. McQuinn, J. Metcalf, M. Michelic (<i>on leave term(s) I</i>), B. Miller, A. Padilla, B. Pertl, S. Sieck, S. Spears, A. Srinivasan (<i>on leave term(s) I</i>), P. Swan (<i>on leave term(s) III</i>), M. Urness, C. Woodruff (<i>Director of Opera Studies</i>)
Assistant professors:	M. Arau, H. Contreras, A. Crooks, M. Dupere (<i>on leave term(s) II</i>), A. Ellsworth, E. Gomez, R. Perry
Visiting assistant professors:	M. Clayville, J. Gates, E. Scheinberg
Instructors:	M. Ambrosio, J. Benson, A. Boeckman, P. Darling, D. DiBella, M. Erickson, S. McCardell, M. Paek, C. Rath, M. Turner, M. Van De Loo
Lecturers:	D. Adnyana, A. Boncher, N. Buchman (<i>Lawrence Community Music School</i>), B. Carrothers, L. Dempster, B. Hauer (<i>Audio Rec Tech Engr & Lect Rec</i>), S. Jordheim, S. Peplin, J. Planet, L. Ramagopal Pertl, C. Walby (<i>Lawrence Community Music School</i>), N. Wysock, E. Zabrowski

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 major in music

Students who major in music will acquire:

1. Technical skills requisite for artistic self-expression in at least one major performance area at a level appropriate for the particular music concentration.
2. An overview understanding of the repertory in their major performance area and the ability to perform from a cross-section of that repertory.
3. The ability to read at sight with fluency demonstrating both general musicianship and, in the major performance area, a level of skill relevant to professional standards appropriate for the particular music concentration.
4. Knowledge and skills sufficient to work as a leader and in collaboration on matters of musical interpretation. Rehearsal and conducting skills are required as appropriate to the particular music concentration.
5. Keyboard competency.
6. Growth in artistry, technical skills, collaborative competence and knowledge of repertory through regular ensemble experiences.

The major requires 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 211, 212 (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](#)").

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.

Required for the minor in music

1. Music theory: 18 units in
 - 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 in MUCO 211, 212
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

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 per-term fee for private lessons and the use of practice facilities is charged to non-music majors (see Tuition, Fees, and Financial Assistance). For students who drop private instruction prior to the end of the second week of the term, a refund will be given 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.

NATURAL SCIENCES (INTERDISCIPLINARY MAJOR)

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, geosciences, 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. Interdisciplinary combinations of biology and chemistry have been replaced by the biochemistry major.

Required for the interdisciplinary major in natural sciences in a primary discipline and secondary discipline

1. Introductory requirement: An introductory sequence in physics and two additional introductory sequences chosen from those in biology, chemistry, and geosciences so that sequences in both the primary and the secondary disciplines are included. The introductory sequences are:

Biology:

- BIOL 130: *Integrative Biology: Cells to Organisms*
- BIOL 150: *Integrative Biology: Organisms to Ecosystems*
- BIOL 170: *Integrative Biology: Experimental Design and Statistics*

Chemistry:

- CHEM 115: *Principles of Chemistry: Structure and Reactivity*
- CHEM 116: *Principles of Chemistry: Energetics and Dynamics*

Geosciences:

- GEOS 110: *Introductory Geology*
- GEOS 210: *History of the Earth and Life*

Physics:

- PHYS 151: *Principles of Classical Physics*
- PHYS 160: *Principles of Modern Physics*

or, with the permission of both the primary and the secondary departments:

- PHYS 141: *Principles of Classical, Relativistic, and Quantum Mechanics*
- PHYS 151: *Principles of Classical Physics*

1. Intermediate/advanced requirement: At least ten six-unit courses in the sciences (biology, chemistry, geosciences, 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.
2. Participation in a *Senior Experience* as defined by the department of the primary discipline.

NEUROSCIENCE

Neuroscience

The field of neuroscience uses an interdisciplinary approach to study the brain and nervous system. Humans and other 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 major in neuroscience

Students who complete the major in neuroscience will be able to explain the connection between nervous system structure/organization and sensory and motor pathway functions. They will relate molecular/cellular processes to electrophysiological activity and describe how behavior is a result of combined activity of neural networks. By the culmination of the major, they will integrate research literature on a specific topic into a meaningful analysis.

The major in neuroscience requires the following:

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: Energetics and Dynamics*
 - f. NESC 200: *Introduction to Neuroscience*
 - g. PSYC 350: *Psychopharmacology and Behavior*
 - h. PSYC 420: *Clinical and Affective Neuroscience*
2. Two courses from the cellular/molecular course group:
 - BIOL 325: *Cell Biology*
 - BIOL 354: *Molecular Biology*
 - BIOL 444 or CHEM 340: *Biochemistry I*
 - BIOL 453: *Developmental Biology*
 - PSYC 282: *Neuroscience Research Techniques*
3. Two courses from the behavioral/organismal course group:

BIOL 200: *Animal Behavior*

- BIOL 240: *Morphogenesis of the Vertebrates*
- PSYC 290: *Developmental Psychopathology*
- PSYC 320: *Addiction*
- PSYC 370: *Perception*
- PSYC 365: *Brain and Behavior*

4. A statistics-based class from one of the following:

- BIOL 170: *Integrative Biology: Experimental Design and Statistics*
- MATH 107: *Elementary Statistics*
- MATH 217: *Applied Statistical Methods*
- PSYC 170: *Statistics in Psychology*

5. *Senior Experience* as described below

Senior Experience in neuroscience

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 or the biology senior capstone. Departmental and instructor approval are required to take a senior capstone. Alternatively, a student may elect to conduct a neuroscience independent study as their *Senior Experience*. This option requires a student to complete the following:

- 12 units of independent study *or* 6 units of independent study and a summer research experience on the same project.
- A 15-20 page research paper* on the project submitted by the Wednesday before midterm reading period in Spring Term of senior year.
- An oral presentation* and exam with neuroscience faculty, to be scheduled by the first day of Spring Term, senior year.
- Presentation of the project at an appropriate research conference approved by the research advisor.

Students must formally declare which option they will chose for their *Senior Experience* no later than the first day of Spring Term in their junior year. If choosing the biology or psychology *Senior Experience* option, [a contract](#) will be signed with the academic advisor and department chair. If choosing the neuroscience independent study option, [a contract](#) will be signed with the academic advisor and research advisor.

**If the independent study option becomes an honors project, the honors thesis and oral exam will satisfy these requirements. Scheduling for the independent study option will follow the honors scheduling guidelines.*

Required for the minor in neuroscience

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. NESC 200: *Introduction to Neuroscience*
- g. PSYC 420: *Clinical and Affective Neuroscience*

2. A statistics-based class from one of the following:

- BIOL 170: *Integrative Biology: Experimental Design and Statistics*
- MATH 107: *Elementary Statistics*
- MATH 217: *Applied Statistical Methods*
- PSYC 170: *Statistics in Psychology*

*Prerequisite for BIOL 340/PSYC 580 is one of the following:

- BIOL 242 and one PSYC course, or
- PSYC 360 and one BIOL course, or
- consent of the instructor

Courses - Neuroscience

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: Completion of 54 units in Lawrence courses or consent of instructor

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

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. Phylogenetic 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

PSYC 170: STATISTICS IN PSYCHOLOGY

This course introduces statistical methods applied in psychological research. It will cover topics such as hypothesis testing, analysis of variance, and sampling distributions, and provide basic training in the computer package SPSS. The course aims to enable students to design and test research questions in psychology and to improve students' understanding of published research. Quizzes, exams, and a group report. Intended for psychology majors. *Units: 6.*

Prerequisite: PSYC 100 or equivalent

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

NESC 200: INTRODUCTION TO NEUROSCIENCE

This lecture- and discussion-based course provides an introduction to the structure and function of the nervous system. Basic principles of neurobiology from the anatomical to cellular level are discussed to develop an understanding of how these biological factors are associated with human behaviors. Includes group projects and exams. Not open to students who took PSYC 360. *Units: 6.*

Prerequisite: BIOL 130

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

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

PSYC 282: NEUROSCIENCE RESEARCH TECHNIQUES

A lecture course with a laboratory component that will explore basic neuroscience research techniques, experimental design, data analysis, scientific writing, laboratory safety, and ethical practices in animal research. During the laboratory students will participate in hands-on research performing various histological techniques including microscopy, working with laboratory animals, and designing and conducting behavioral experiments. Written assignments, presentation, and exams. *Units: 6.*

Prerequisite: One course in psychology or biology

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 disorders, depression, and self-harm. *Units: 6.*

Prerequisite: PSYC 100 or sophomore standing

PSYC 320: ADDICTION

This course explores the effects of addictive substances on the brain from a neurobiological perspective. It will describe the factors associated with the development of addiction, the changes that occur in the addicted brain, and how science is informing treatment. We will answer popular questions about addiction, including "Is addiction a disease or moral failure?" and "Can people have an addictive personality?" Quizzes, exams, and a paper. *Units: 6.*

Prerequisite: NESC 200 or one course in psychology or biology, AND sophomore standing

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: BIOL 130 and BIOL 150, BIOL 170 recommended

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 Winter 2020: Neuroimmunology

Neuroimmunology is the study of the interactions between the nervous and immune systems. This course will explore the interaction of these two systems under homeostatic conditions as well as during disease states. Specific topics to be included may include: infections and cancers of the brain, communication between the nervous and immune systems, and neurodegenerative and neuroimmune disorders. The course will utilize mainly primary literature and include discussions, presentations, and writing assignments. *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

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

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

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

PSYC 365: BRAIN AND BEHAVIOR (WITH LABORATORY)

A lecture course with a laboratory that explores the neurobiological mechanisms associated with complex

behaviors. Topics range from hormonal regulation of behavior to learning and memory, motivation, and emotion, sleep, appetitive behaviors, and various psychological disorders. Assessments include exams, presentations, laboratory reports, and participation. Not open to students who took PSYC 360 or PSYC 525. *Units: 6.*

Prerequisite: NESC 200 or instructor approval.

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 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

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

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. *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

PHILOSOPHY

Professor:	J. Dreher (<i>Lee Claflin-Robert S. Ingraham Professor Emeritus of Philosophy</i>)
Associate professor:	M. Phelan (<i>chair</i>)
Assistant professors:	I. Albrecht, C. Armstrong
Instructor:	A. Elliott (<i>Uihlein Fellow of Ethics</i>)

Courses in philosophy develop skills in reading analytically, thinking critically, and arguing cogently. In addition, they provide students with valuable insights into many of the major issues confronting us in a rapidly changing world.

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 or advanced course in philosophy without having taken an introductory course (numbered 100-199). 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 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 major in philosophy

Students who major in philosophy will learn to appreciate the formal features of arguments. They will acquire a clear sense of the development of philosophy and critically engage issues in metaphysics and epistemology and in ethics and value theory, and they will learn to relate philosophy to other areas of study.

The major in philosophy requires the following:

1. PHIL 150 *Symbolic Logic* or 420 *Topics in Logic*; majors are strongly encouraged to satisfy this requirement early
2. At least two core courses in the history of philosophy:
 - a. PHIL 200: *History of Philosophy: Plato and Aristotle*
 - b. PHIL 210: *History of Philosophy: Descartes, Locke, and Leibniz*
 - c. PHIL 220: *History of Philosophy: Berkeley, Hume, Kant, and Mill*
 - d. PHIL 227: *History of Philosophy: New Narratives from 17th and 18th Century Women Philosophers*
 - e. PHIL 230: *History of Philosophy: Early Analytic Philosophy*
 - f. PHIL 240: *History of Philosophy: The American Pragmatists*
 - g. PHIL 275: *Existentialism*
 - h. PHIL 283: *Chinese Philosophy*
3. One course in epistemology:
 - a. PHIL 300: *Epistemology*
 - b. PHIL 305: *Experimental Philosophy*
 - c. PHIL 330: *Philosophy of Science*
 - d. PHIL 332: *The Ethics of Religious Beliefs*
 - e. PHIL 405: *How to Do Things With Words*
4. One course in metaphysics:
 - a. PHIL 310: *Metaphysics*
 - b. PHIL 340: *Philosophy of Art*
 - c. PHIL 400: *Philosophy of Language*
 - d. PHIL 410: *Philosophy of Mind*
5. One course in ethics:
 - a. PHIL 280: *Women and Friendship*
 - b. PHIL 320: *Ethics*
 - c. PHIL 325: *Metaethics*
 - d. PHIL 347: *Valuing Art: The Philosophy and Psychology of Aesthetic Appreciation*
 - e. PHIL 350: *Political Philosophy*
 - f. PHIL 360: *Environmental Ethics*
 - g. PHIL 365: *Compassion and Other Virtues*
 - h. PHIL 370: *Advanced Studies in Bioethics*
 - i. PHIL 375: *Philosophy of Sex and Love*
 - j. PHIL 380: *Ethics of Technology*
 - k. PHIL 385: *Value Theory*
 - l. PHIL 430: *Philosophy of Law*
 - m. PHIL 440: *Morality, Rationality, and Self-Interest*
6. 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.
7. One dimensions of diversity (D) course offered in the philosophy department, which may also satisfy one of

the above requirements.

8. PHIL 600 *Studies in Philosophy* as a Senior Experience

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.

Required for the minor in philosophy

1. Six 6-unit courses in philosophy, including:
 - a. At least two courses in the history of philosophy, from among:
 - i. PHIL 200: *History of Philosophy: Plato and Aristotle*
 - ii. PHIL 210: *History of Philosophy: Descartes, Locke, and Leibniz*
 - iii. PHIL 220: *History of Philosophy: Berkeley, Hume, Kant, and Mill*
 - iv. PHIL 227: *History of Philosophy: New Narratives from 17th and 18th Century Women Philosophers*
 - v. PHIL 230: *History of Philosophy: Early Analytic Philosophy*
 - vi. PHIL 240: *History of Philosophy: The American Pragmatists*
 - vii. PHIL 275: *Existentialism*
 - viii. PHIL 283: *Chinese Philosophy*
 - b. At least three courses outside the history of philosophy numbered 250 or above.
2. C average in the minor.

Students pursuing a minor in philosophy are encouraged to choose a member of the philosophy department as an informal advisor.

Courses - Philosophy

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.*

Also listed as Cognitive Science 105

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? Not open to students who have previously received credit for Philosophy 316. *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 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.*

Also listed as Linguistics 160

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: 1 TO 98.*

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 283: CHINESE PHILOSOPHY

A survey of topics in Chinese philosophy, which may include Classical Chinese philosophy, Buddhism and religion and comparative philosophy. We will discuss how the quickly changing historical and political climates affect the major schools of thought and influence pertinent philosophical questions for the region or topic. Assignments include papers and in-class assignments/presentations. *Units: 6.*

Also listed as East Asian Studies 283

Prerequisite: Sophomore standing 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 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 316: *Food ETHICS*

We will examine some of the hard ethical questions facing policymakers and individuals with respect to food production and distribution: 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? This course is designed for Philosophy and Environmental Studies majors to pursue research projects. Not open to students who have previously received credit for Philosophy 115. *Units: 6.*

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 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 345: *TOPICS IN PHILOSOPHY*

The specific topic investigated changes with each term. Student responsibilities may include evaluation of primary and secondary sources, short assignments, class activities, research, and essay writing. *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

Philosophers from classical to contemporary times have offered responses to the question of what makes a society just. This course examines a selection of those responses, with attention to general issues such as what a just distribution of resources requires and what makes a state's authority legitimate. Specific topics under discussion might include poverty relief, access to education and other social goods, health care, punishment, freedom of speech, gun control, war, immigration, and international relations. *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 topics 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: 1 TO 98.*

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: 1 TO 98.*

Prerequisite: Counter Registration Required.

PHIL 399: INDEPENDENT STUDY IN PHILOSOPHY

Advanced students of philosophy may elect one or more terms. *Units: 1 TO 98.*

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: 1 TO 98.*

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: 1 TO 98.*

Prerequisite: Counter Registration Required.

PHIL 599: INDEPENDENT STUDY IN PHILOSOPHY

Advanced students of philosophy may elect one or more terms. *Units: 1 TO 98.*

Prerequisite: Counter Registration Required.

PHIL 600: STUDIES IN PHILOSOPHY

Specific topics for the year will be published as classes are scheduled. *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: 1 TO 98.*

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: 1 TO 98.*

Prerequisite: Counter Registration Required.

PHIL 699: INDEPENDENT STUDY IN PHILOSOPHY

Advanced students of philosophy may elect one or more terms. *Units: 1 TO 98.*

Prerequisite: Counter Registration Required.

PHYSICS

Professor:	M. Stoneking
Associate professors:	J. Collett, D. Martin, M. Pickett (<i>chair</i>)
Visiting assistant professors:	M. Koker, T. Zu

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, potentially 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, potentially 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 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 major in physics

Students who major in physics will master the concepts in the fundamental subject areas of classical mechanics, electromagnetism, quantum mechanics, and statistical mechanics. They will apply analytical, computational, and experimental methods to solve physics problems and will complete a scientific investigation and effectively communicate findings in oral and written form.

The major in physics requires the following:

1. The following courses:
 - a. PHYS 220: *Physical Electronics*
 - b. PHYS 225: *Computational Mechanics*
 - c. PHYS 230: *Electricity and Magnetism*

- d. PHYS 310: *Quantum Mechanics*
 - e. PHYS 320: *Thermal Physics*
 - f. PHYS 330: *Advanced Laboratory*
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: *Principles of Classical, Relativistic, and Quantum Mechanics*, PHYS 151: *Principles of Classical Physics*, and PHYS 160: *Principles of Modern Physics*. 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 geosciences are often elected. The prospective major should consult early and regularly with the faculty in the department.

Required for the interdisciplinary major in natural sciences in physics and a secondary discipline

Physics students who have strong secondary interests in biology, chemistry, or geosciences may construct a major involving physics and one of these sciences using the interdisciplinary major in the natural sciences.

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

1. PHYS 151: *Principles of Classical Physics* and PHYS 160: *Principles of Modern Physics*
2. Any two of the following, chosen to include the secondary discipline:
 - BIOL 130: *Integrative Biology: Cells to Organisms*, BIOL 150: *Integrative Biology: Organisms to Ecosystems*, and BIOL 170: *Integrative Biology: Experimental Design and Statistics*
 - CHEM 115: *Principles of Chemistry: Structure and Reactivity* and CHEM 116: *Principles of Chemistry: Energetics and Dynamics*, or equivalent
 - GEOS 110: *Introduction to the Geosciences* and GEOS 210: *History of the Earth and Life*
3. At least 10 six-unit courses in the sciences (biology, chemistry, geosciences, 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 the following:
 - a. PHYS 225: *Computational Mechanics*,
 - b. PHYS 230: *Electricity and Magnetism*,
 - c. PHYS 310: *Quantum Mechanics*, and
 - d. PHYS 330: *Advanced Laboratory*.

4. *Senior Experience* in physics

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.

Required for the minor in physics

1. PHYS 151: *Principles of Classical Physics* and PHYS 160: *Principles of Modern Physics*
2. PHYS 225: *Computational Mechanics*
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

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.

Teacher certification in physics or broad-field science

Students can seek teacher certification to teach physics at the secondary level. Certification requires a major in physics with courses in other science subjects, and students may petition to substitute physics courses numbered below 199 for the two required physics electives. Students also have the option of seeking broad-field science certification by completing a minimum of two courses in each of two other science disciplines and at least one course in each of the remaining sciences. Students who plan to seek teacher certification should review the requirements in the Education section of the catalog and meet with the director of teacher education, preferably before the end of the sophomore year.

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.

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.

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.

Advanced placement

Students with strong backgrounds should seek advanced placement and credit, normally by submitting scores on the Physics Advanced Placement Examination. 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.

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 seek opportunities at Lawrence or elsewhere for full-time research during the summer after the junior year (or earlier). Students contemplating graduate studies in physics should discuss their plans early and often with members of the department.

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 or the Fall Term of the senior 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.

Courses - Physics

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. 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 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 119: *VICTORIAN ENGINEERING*

The Victorian era (1837-1901) saw tremendous advances in engineering: systems such as steam engines, steel bridges, underground railways and electrical lighting were developed or dramatically enhanced. Moreover, many of these systems are still in use in London. This course uses London as a unique laboratory to

investigate classical physics through field trips to engineering edifices combined with classroom discussion to expose the underlying science. *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: 1 TO 98.*

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 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

A laboratory course which treats geometrical optics, interference, diffraction, polarization, and various other topics in classical and contemporary optics. Students will be exposed to the techniques of a modern atomic molecular optics (AMO) laboratory. *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: 1 TO 98.*

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: 1 TO 98.*

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: 1 TO 98.*

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. *Units: 6.*

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: 1 TO 98.*

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: 1 TO 98.*

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: 1 TO 98.*

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: 1 TO 98.*

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: 1 TO 98.*

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: 1 TO 98.*

Prerequisite: Counter Registration Required.

PSYCHOLOGY

Professors:	P. Glick (<i>Henry Merritt Wriston Professor of the Social Sciences</i>) (on leave term(s) II), T. Gottfried, B. Haines, B. Hetzler, G. Metalsky
Associate professors:	M. Ansfield (<i>chair</i>), L. Hilt (on leave term(s) II, III)
Lecturer:	E. Becker (<i>Lecturer of Psychology</i>)

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 major in psychology

Students who major in psychology will learn to effectively communicate, orally and in writing, the content and explanatory power of current theoretically- and empirically-based knowledge in the psychological literature. They will demonstrate appropriate conceptual and methodological skills to test novel hypotheses and solve practical problems in psychology. And they will critically review the research literature on a topic of interest to draw valid and meaningful conclusions about the main findings.

The major in psychology requires the following:

1. PSYC 100: *Principles of Psychology*
2. One statistics course: PSYC 170: *Statistics in Psychology* or MATH 107: *Elementary Statistics*†
3. PSYC 280 and 281: *Research Methods I & II*
4. Two courses from each of the following groups:
 - a. Group I: PSYC 245: *Health Psychology*, 250: *Psychopathology* or 290: *Developmental Psychopathology*, 260: *Developmental Psychology* or 265: *Developmental Psychology (with laboratory)*, 270: *Social Psychology* or 272: *Social Psychology of Prejudice*
 - b. Group II: PSYC 320: *Addiction*, 340: *Cognitive Psychology (with laboratory)* or 342: *Cognitive Psychology*, 350: *Psychopharmacology and Behavior* or 365: *Brain and Behavior (with laboratory)*, 370: *Perception*
5. One of the following courses requiring an APA-style literature review, taken before the senior capstone: PSYC 335: *Clinical Psychology*, 355: *Child Clinical Psychology*, 460: *Adolescent Psychology*, 480: *Historical Origins and Contemporary Viewpoints of Psychology*, 540: *Topics in the Psychology of Language*, 560: *Topics in Gender and Social Development*, 570: *Topics in Prejudice*, or 580: *Topics in Neuroscience*††
6. One of the above courses must have a lab (viz., PSYC 265, 335, 340, 355, 365, 380).
7. One of the above courses must have a D or G diversity designation (i.e., 220: *The Holocaust*, 272: *Social Psychology of Prejudice*, 285: *Cross-Cultural Psychology*, 310: *Psychology of Gender*, 356: *Meditation: Psychological and Buddhist Perspectives*, 560: *Topics in Gender and Social Development*, 570: *Topics in Prejudice*).

8. PSYC 610: *Senior Capstone*

†Concurrent enrollment with PSYC 280 is preferred. For students also majoring in anthropology, ANTH 207 can fulfill the PSYC 170 or MATH 107 requirement. For students also majoring in biology or neuroscience, BIOL 170 can fulfill the PSYC 170 or MATH 107 requirement.

††If the course is cross-listed with another department and being taught by an instructor outside the psychology department, then check with the instructor prior to taking the course as to whether it would be acceptable to write the literature review using APA style. The literature review must be written in APA style to fulfill this 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, or teacher 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.

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* (PSYC 170 or 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 their 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 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 PSYC 170 or MATH 107 (*Statistics*) with PSYC 280 (*Research Methods I*) is preferred. Alternatively, PSYC 170 or MATH 107 (*Statistics*) 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: *Field Experience in Clinical Psychology*. 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 the Center for Career, Life and Community Engagement (920-832-6561), Beth Haines (920-832-6708), or Lori Hilt (920-832-7050).

Required for the minor in psychology

1. PSYC 100 *Principles of Psychology*
2. One statistics course: PSYC 170: *Statistics in Psychology* or MATH 107†
3. One course from each of the following groups:
 - a. Group I: PSYC 245: *Health Psychology*, 250: *Psychopathology*, 260: *Developmental Psychology*, 265: *Developmental Psychology (with laboratory)*, 270: *Social Psychology*, 272: *Social Psychology of Prejudice*, 290: *Developmental Psychopathology*
 - b. Group II: PSYC 320: *Addiction*, 340: *Cognitive Psychology (with laboratory)*, 342: *Cognitive Psychology*, 350: *Psychopharmacology and Behavior*, 365: *Brain and Behavior (with laboratory)*, 370: *Perception*
4. Two additional courses in psychology (12 units), one of which (6 units) must be numbered 300 or higher (not including 610).
5. One course must have a lab (viz., PSYC 265, 280/281††, 335: *Clinical Psychology*, 340, 355: *Child Clinical Psychology*, 365).

† For students also majoring in anthropology, ANTH 207 can fulfill the PSYC 170 or MATH 107 requirement; for students also majoring in biology or neuroscience, BIOL 170 can fulfill the PSYC 170 or MATH 107 requirement.

††Must complete both terms of PSYC 280/281 to meet this lab requirement.

Teacher certification in psychology or broad-field social studies

Psychology majors can seek certification to teach psychology or broad-field social studies at the secondary level. For certification in broad-field social studies, students must complete the psychology major and a minimum of two courses each in two other social studies (anthropology/sociology, economics, government/political science, or history) and at least one course in each of the remaining social studies. Students are strongly encouraged to take a course in U.S. history and a course in global history. A course in environmental studies is also required. Students who plan to seek teacher certification should review the requirements in the Education section of the catalog and meet with the director of teacher education, preferably before the end of the sophomore year.

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: *Historical Origins and Contemporary Viewpoints of Psychology*, and fully utilize the Center for Career, Life and Community Engagement 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 the Center for Career, Life and Community Engagement 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

The London Centre or Netherlands program have provided excellent opportunities for psychology majors (see Off-Campus Programs).

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 Statistics (PSYC 170 or MATH 107) requirement.

Courses - Psychology

PSYC 100: *PRINCIPLES OF PSYCHOLOGY*

An introduction to the science of mind and psychological processes 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 with careful consideration of how these topical areas contribute to an overall understanding of psychological processes. *Units: 6.*

PSYC 170: *STATISTICS IN PSYCHOLOGY*

This course introduces statistical methods applied in psychological research. It will cover topics such as hypothesis testing, analysis of variance, and sampling distributions, and provide basic training in the computer package SPSS. The course aims to enable students to design and test research questions in psychology and to improve students' understanding of published research. Quizzes, exams, and a group report. Intended for psychology majors. *Units: 6.*

Prerequisite: PSYC 100 or equivalent

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: 1 TO 98.*

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: 1 TO 98.*

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: 1 TO 98.

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 272: SOCIAL PSYCHOLOGY OF PREJUDICE

This course explores social psychology through the lens of research and theory on prejudice and discrimination. What are prejudice's causes, consequences, and cures? We will examine theories related to personality, emotion, cognition, and perception that help to explain generalized and specific prejudices (e.g., sexism/heterosexism, racism, ethnocentrism, anti-Semitism). Students will be assessed through exams and papers. Intended as an alternative to PSYC 270. *Units: 6.*

Also listed as Ethnic Studies 272

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 one of MATH 107, ANTH 207, PSYC 170, or BIOL 170

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 282: NEUROSCIENCE RESEARCH TECHNIQUES

A lecture course with a laboratory component that will explore basic neuroscience research techniques, experimental design, data analysis, scientific writing, laboratory safety, and ethical practices in animal research. During the laboratory students will participate in hands-on research performing various histological techniques including microscopy, working with laboratory animals, and designing and conducting behavioral experiments. Written assignments, presentation, and exams. *Units: 6.*

Prerequisite: One course in psychology or biology

PSYC 283: NEUROSCIENCE RESEARCH TECHNIQUES

An interactive lecture course that explores basic neuroscience research techniques, experimental design, data analysis, scientific writing, laboratory safety, and ethical practices in animal research. During some lectures students perform mini-experiments in techniques ranging from behavioral assays to microscopy. Student work is assessed through exams, writing assignments, a short oral presentation, and participation. *Units: 6.*

Prerequisite: One course in psychology or biology.

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 disorders, 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 320: ADDICTION

This course explores the effects of addictive substances on the brain from a neurobiological perspective. It will

describe the factors associated with the development of addiction, the changes that occur in the addicted brain, and how science is informing treatment. We will answer popular questions about addiction, including "Is addiction a disease or moral failure?" and "Can people have an addictive personality?" Quizzes, exams, and a paper. *Units: 6.*

Prerequisite: NESC 200 or one course in psychology or biology, AND sophomore standing

PSYC 335: CLINICAL PSYCHOLOGY

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 281 and PSYC 250 or 290

PSYC 340: COGNITIVE PSYCHOLOGY (WITH LABORATORY)

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 342: 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. Lecture, discussion and class demonstrations. Students will write short papers and take exams. *Units: 6.*

Prerequisite: PSYC 100 or sophomore standing

PSYC 345: DISTRIBUTED COGNITION AND THE EXTENDED MIND

The new science of the mind treats cognition as a distributed process involving the brain, body, and world. This seminar explores the role of material settings and tools, bodily engagement, social interaction, and cultural processes in human reasoning, problem solving, and learning. Students will write short papers examining aspects of cognitive activity in real-world settings. *Units: 6.*

Also listed as Education Studies 345, Anthropology 345, Cognitive Science 345

Prerequisite: PHIL 105 recommended

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 356: MEDITATION: PSYCHOLOGICAL AND BUDDHIST PERSPECTIVES

This seminar-style course investigates the theory and practice of meditation from psychological and Buddhist perspectives. Topics to be considered include the effects of meditation on the brain, mindfulness, compassion, and the secularization of religious practices. Course meetings will focus on discussion of readings and experiential learning. Assessment will involve quizzes, reflection on experiential practice, and papers. *Units: 6.*

Also listed as Religious Studies 356

Prerequisite: Sophomore standing or instructor approval.

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 365: BRAIN AND BEHAVIOR (WITH LABORATORY)

A lecture course with a laboratory that explores the neurobiological mechanisms associated with complex behaviors. Topics range from hormonal regulation of behavior to learning and memory, motivation, and emotion, sleep, appetitive behaviors, and various psychological disorders. Assessments include exams, presentations, laboratory reports, and participation. Not open to students who took PSYC 360 or PSYC 525. *Units: 6.*

Prerequisite: NESC 200 or instructor approval.

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: 1 TO 98.*

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: 1 TO 98.*

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: 1 TO 98.*

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: 1 TO 98.*

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 is 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 540: TOPICS IN THE PSYCHOLOGY OF LANGUAGE

Course examines how people know, produce, and understand language in all its diversity, using cognitive science and sociocultural approaches. Topics include first and second language learning of speech patterns, words, sentence structure, discourse rules, and the various social functions and expressions of language. Student discussion and presentations, reading quizzes, and a critical literature review paper. May be repeated when topic is different. *Units: 6.*

Also listed as Linguistics 450

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

PSYC 560: TOPICS IN GENDER AND SOCIAL DEVELOPMENT

This course examines social development with a particular focus on gender issues. Topics include gender identity in intersection with other types of identity development (e.g., ethnicity), sex education, gender role socialization, sexual orientation development, and parenting. *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. *Units: 6.*

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. *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: 1 TO 98.*

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: 1 TO 98.*

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: 1 TO 98.*

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: 1 TO 98.*

Prerequisite: Counter Registration Required.

PSYC 610: SENIOR CAPSTONE

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: 1 TO 98.*

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: 1 TO 98.*

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: 1 TO 98.*

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: 1 TO 98.*

Prerequisite: Counter Registration Required.

RELIGIOUS STUDIES

Professor:	K. Carr (<i>McNaughton Rosebush Professor of Liberal Studies, chair</i>)
Associate professor:	M. Smith (<i>on leave term(s) II</i>)
Assistant professor:	C. Kassor (<i>on leave term(s) I</i>)
Visiting assistant professor:	A. Silva Knuppel

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, spiritual and legal 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 *Rationality and Religious Belief* and *Religion of Ancient Egypt*.

Required for the major in religious studies

Students who complete the major in religious studies will understand and explain the basic historical development of at least two different religious traditions, as well as some of their complexities, specifically that religious traditions are dynamic evolving phenomena with multiple interpretive strands. They will understand and explain basic elements of at least three theories or approaches to the academic study of religion and use this knowledge to analyze religious traditions and draw their own conclusions, producing clear, thesis-driven papers reflecting these skills.

The major in religious studies requires the following:

1. RLST 100: *Introduction to Religious Studies*
2. Three 200-level courses on religious traditions: Hinduism, Buddhism, Christianity, Islam, Judaism, or Ancient Egypt
3. Two 300-level theory courses
4. One 400- or 500-level seminar
5. Two electives in religious studies
6. RLST 610: *Senior Projects*

Independent studies/tutorials may be used to fulfill only the elective requirement.

Majors must complete a senior capstone project, which includes taking the *Senior Projects* course and presenting at the religious studies symposium at the end of spring term of their senior year.

Senior Experience in religious studies

The *Senior Experience* in religious studies consists of a one-term seminar (RLST 610, taught in the winter term) that gives students the opportunity to complete a project (usually a paper, but other formats are possible) that builds upon the previous course work and academic experiences of the student. The class also offers students an introduction to several theoretical perspectives that will enable them to see their project from a broadly comparative perspective. Additionally, students are required to participate in a departmental symposium, in which student work is presented and discussed by majors, minors, and faculty. Students pursuing double majors, double degrees, or teacher certification are strongly encouraged to consult with their advisors and relevant departments to plan and negotiate their overall *Senior Experience* as early as possible.

Required for the minor in religious studies

The minor in religious studies is intended to enable students to concentrate on a religious tradition connected to their area of interest. The requirement of both an introductory course and at least one course outside their chosen tradition ensures that religious studies minors develop some expertise in the overall study of religion. The minor requires a minimum of five courses (30 units), which include:

1. RLST 100: *Introduction to Religious Studies*
2. Two courses (12 units) in one of the following areas: Buddhism, Islam, or Christianity
3. A 400- or 500-level seminar course
4. One additional six-unit course outside the chosen area

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.

Courses - Religious Studies

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 140: *INTERFAITH DIALOGUE*

As our experiences of religious and spiritual life become increasingly diverse, narrative process has become essential to understand the rich landscape of multiple faiths. Students will explore the scope of the interfaith

movement, consider dialogue as one tool for interfaith encounter, and practice constructing and sharing their own spiritual narratives. Our shared goal is an interfaith dialogue where deep listening and honest speaking lead to surprising discoveries. Discussion course with written assignments and a class project. *Units: 6.*

RLST 150: INTRODUCTION TO THE BIBLE

The purpose of this course is to survey the various genres of the 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: 1 TO 98.*

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.*

Also listed as Environmental Studies 370

Prerequisite: Sophomore standing

RLST 206: MARTYRS, MYSTICS, SINNERS AND SAINTS: AN INTRODUCTION TO CHRISTIANITY

An introductory survey of primarily western Christianity. Our focus will be on selected "classic" works written by Christians over the last two thousand years. Discussion with occasional lectures. Assignments include short papers (3-5 pages) and in-class tests. *Units: 6.*

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 211: RELIGION AND COMICS

This discussion-based course examines the role of comics and sequential art in religious traditions and explores religious themes in contemporary comics and graphic novels. By analyzing comics and related scholarship in the emerging field of comics studies, students will investigate the complex relationships between religion, images and culture. In addition to writing formal essays, students will also create their own digital comics. *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 216: *BUDDHISM IN EAST ASIA*

An introductory survey of Buddhist thought and practice in China and Japan. The history of key Buddhist concepts and schools in East Asia is the primary focus. Readings include translations from East Asian Buddhist canonical works. *Units: 6.*

Also listed as East Asian Studies 216

RLST 217: *HUMANITARIANISM & VIOLENCE*

This course will examine the religious motivations that have led religious groups to embrace global norms like human rights or reject them and turn to violence. We will examine liberation theology in Latin America and the writings of extremist thinker Sayyid Qutb. Much of the class will be centered on case studies such as Myanmar's Rohingya crisis where religion, immigration, and questions of human rights are at play. Offered in conjunction with Ripon College, with online interactions and travel to local places of worship. *Units: 6.*

Also listed as Global Studies 217

Prerequisite: Sophomore standing

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 228: *YOGA: THEORY AND PRACTICE*

This course examines the history of yogic traditions in South Asia and explores contemporary developments of yoga practices around the world. In addition to studying primary texts and secondary literature students will also be instructed in basic pranayama (breathing) and asana (posture) practices by a qualified instructor. Students will write essays analyzing course materials through the lens of their own experiences with yoga practice. *Units: 6.*

Prerequisite: Sophomore Standing

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*

The rhetoric surrounding technology invokes revolution and newness, but the products and services fit with the individualism of American (and global) views of self and society. We will examine both the positive visions offered by tech thinkers like Steward Brand and Ray Kurzweil, as well as the destructive results that occur as corporations “move fast and break things.” Students will complete a video critique of a digital platform. *Units: 6.*

Prerequisite: Sophomore standing

RLST 265: *ARABIAN NIGHTS*

The Arabian Nights, or 1,001 Nights, offers a unique glimpse into medieval Islam. Our readings from these tales will be supplemented with travel narratives and Sufi texts building on this storytelling tradition. The course provides an expansive view of the Islamic tradition and a chance to think critically about later perceptions of the Middle East. Students will complete an interpretive paper or digital mapping project. *Units: 6.*

RLST 276: *NONVIOLENCE: RELIGIOUS ROOTS*

What are the religious roots and impulses that have created nonviolent movements? This course investigates components of several religious traditions that shaped the leaders and followers of nonviolent movements and communities, including Mahatma Gandhi in Hinduism, Badsha Kahn in Islam, the Anabaptist movement in Christianity, and movements in the indigenous community. Discussion with written assignments and a group project. *Units: 6.*

RLST 281: *TOPICS IN RELIGIOUS STUDIES*

This course represents an exploration of a topic in religious studies. Topics will emphasize contemporary questions and experiential learning. Assignments will emphasize experiential learning and discussion. May be repeated when topic is different. *Units: 6.*

RLST 291: *FIELD EXPERIENCE IN RELIGIOUS STUDIES*

This course provides the opportunity to experience a major religious tradition through a one- or two-week field experience accompanied by a professor. Class members will visit significant historical and contemporary sites and meet with practitioners during a break between terms. Students must register for the course in the term prior to travel and in the subsequent term, when they will complete a project. Travel program fee plus airfare.

Topic for Fall 2019 and Winter 2020: Buddhism in Asia

This course will examine religion and globalization in Asia, with a special focus on Buddhism. During the fall term, students will be introduced to the history and philosophy of Buddhism as it originated in India and spread across the Indian subcontinent and throughout Southeast, East, and Central Asia. Between the fall and winter terms, we will travel to India and Thailand, where students will spend several weeks learning about contemporary Buddhism and its interactions with other communities and religious traditions. Students will complete and present independent research during the winter term. *Units: 3.*

RLST 305: ATHEISM, AGNOSTICISM, AND NIHILISM

This course is an examination of three contemporary positions which typically claim to be anti- or non-religious in orientation. We will explore the historical origins of each view (or, more precisely, each cluster of views) as well as analyzing its coherence and intelligibility. *Units: 6.*

Prerequisite: Sophomore standing

RLST 326: NIETZSCHE AND 19TH-CENTURY CRITIQUES OF RELIGION

An examination of the thought of Friedrich Nietzsche, focusing on his critique of Christianity and his general theory of religion, as well as what Paul Ricoeur calls his "hermeneutics of suspicion." Some discussion of other 19th-century critiques of religion (e.g., Feuerbach, Marx) will be included to provide historical context and contrast. Seminar with short papers and in-class presentations. *Units: 6.*

Prerequisite: Sophomore standing or consent of instructor

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 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 Wiggelsworth, and other minor and post-Puritan poets. *Units: 6.*

Also listed as English 443

Prerequisite: Sophomore standing

RLST 352: COLONIALISM AND GLOBAL STRUCTURES

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.*

Also listed as Global Studies 352

Prerequisite: Sophomore standing

RLST 353: *WOMEN IN BUDDHISM*

This discussion-based course investigates the ways in which women and gender minorities participate in Buddhist culture around the world. By reading texts by and about Buddhist women, this course will explore the extent to which gender affects social status, leadership roles, and access to education in Buddhist communities in South Asia, East Asia, and the United States. *Units: 6.*

Also listed as Gender Studies 353

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 356: *MEDITATION: PSYCHOLOGICAL AND BUDDHIST PERSPECTIVES*

This seminar-style course investigates the theory and practice of meditation from psychological and Buddhist perspectives. Topics to be considered include the effects of meditation on the brain, mindfulness, compassion, and the secularization of religious practices. Course meetings will focus on discussion of readings and experiential learning. Assessment will involve quizzes, reflection on experiential practice, and papers. *Units: 6.*

Also listed as Psychology 356

Prerequisite: Sophomore standing or instructor approval.

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 381: *RACE AND RELIGION*

This course examines how religious cultures and discourses contributed to the emergence of the concept of race, racial classification, and processes of 'racialization'; how biblical interpretation both justified and contested the transatlantic slave trade; and how anti-Black racism relates to anti-Semitism. The course examines the history of doctrines on indigenous peoples, race science, and exploitation, and the dynamics of race and ethnicity in Israel and Palestine. Lecture/discussion with final paper. *Units: 6.*

Also listed as Ethnic Studies 318

Prerequisite: Sophomore standing

RLST 390: *TUTORIAL STUDIES IN RELIGIOUS STUDIES*

Advanced research, arranged and carried out under the direction of an instructor. *Units: 1 TO 98.*

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: 1 TO 98.*

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: 1 TO 98.*

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. *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 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 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 545: ADVANCED TOPICS IN RELIGIOUS STUDIES

This topics course offers advanced students a seminar in a topic related to a foundations/gateway course offered in the same term. Students engage with more challenging readings and pursue their own scholarship, presenting their research in the companion gateway course as the opportunity arises. Students may have previously taken the companion gateway course but may not enroll concurrently in that course. May be repeated when topic is different. *Units: 6.*

Prerequisite: Instructor approval required

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 course will examine the transformations of Islam that have accompanied globalization. Our focus will be roughly split between the theoretical perspective on globalization offered by Olivier Roy and the work of Laila Ahmed on gender in contemporary Islam. Students will develop and write a major research paper. *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: 1 TO 98.*

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: 1 TO 98.*

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: 1 TO 98.*

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: 1 TO 98.*

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: 1 TO 98.*

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: 1 TO 98.*

Prerequisite: Counter Registration Required.

RUSSIAN

Associate professor:	P. Thomas (<i>chair</i>)
Assistant professor:	V. Kononova (<i>on leave term(s) I</i>)
Instructor:	E. Krizenesky

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, or with the NGO "Poruch," based in Kyiv, Ukraine.

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 major in Russian studies

Students who complete the major in Russian studies will demonstrate competence in the four language skills (listening, speaking, reading, and writing) at the intermediate-high to advanced-low level according to the American Council of Teachers of Foreign Languages (ACTFL) guidelines. They will situate major figures, events, and institutions from Russian culture within their cultural and historical contexts. They will marshal and interpret historical facts about Russia and deal independently and critically with complex fictional, nonfictional, and filmic texts in Russian.

1. First-year language courses: RUSS 101, 102, 201 (or the equivalent)
2. Second-year language courses: RUSS 211, 212, 250 (or the equivalent)
3. Two courses in Russian literature and culture, 300-level or above
4. Two courses in Russian 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. In most cases, this project will be completed in RUSS 650, the senior seminar. Students are expected 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 by taking RUSS 280, 281 and 287, studying in Russia and/or in an intensive summer language program offered in the U.S., and attending weekly meetings of Russian Table and RUSS 340, a conversation-based current-events tutorial.

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 major in Russian language and literature

Students who complete the major in Russian language and literature will demonstrate similar language competence as the Russian studies major, with a greater emphasis on literary versus cultural-historical study.

The major in Russian language and literature requires the following:

1. First-year language courses: RUSS 101, 102, 201 (or the equivalent)
2. Second-year language courses: 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 are 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.

Senior Experience in Russian

The Russian department's *Senior Experience* consists of a senior-level research project that further develops work done in another course. Students complete their projects in RUSS 650, the senior seminar.

The research project allows students to explore a problem or question deeply and over an extended period of time. While completing this project, students marshal the linguistic skills, cultural and historical knowledge, and analytical methods they have developed while pursuing the Russian major. Finally, students present their research to the larger community at the Harrison Symposium, lecture recitals, theatrical productions, poster presentations, and other venues.

As part of the process of reviewing their work as Russian majors, students are also asked to 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 teacher certification should work with all concerned departments to assess the feasibility of an interdisciplinary capstone.

Required for the minor in Russian

1. First-year language courses: RUSS 101, 102, 201 (or the equivalent)
2. Second-year language courses: RUSS 211, 212, 250 (or the equivalent)
3. Two courses in Russian literature, culture, or history, 300-level or above

Teacher certification in Russian (K-12)

Russian majors can seek certification to teach Russian at the elementary and secondary levels. To be certified, students must spend a term in a Russian-speaking country studying the language and culture and must pass an oral and writing proficiency test. Students can add an endorsement in a second area (such as another language or English as a second language) by completing the appropriate minor. Students who plan to seek teacher certification should review the requirements in the Education section of the catalog and meet with the director of teacher education, preferably before the end of the sophomore year.

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.

Courses - Russian

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 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: 1 TO 98.*

Prerequisite: Counter Registration Required.

RUSS 195: *INTERSHIP 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 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 English 245

Prerequisite: Sophomore standing

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 Winter 2020: 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 Petrushevskaya). Topics include family and marriage, choice of a career and lifestyle, identity crisis, and personal growth. We will also familiarize ourselves with influential women in contemporary arts, science, sports, and politics. Through regular readings, class discussions, writing assignments, and presentations 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 2020: Great Patriotic War

In this course, advanced students of Russian will read, watch, and discuss a variety of materials related to the Great Patriotic War (1941-1945)—one of the most traumatic events in the history of twentieth-century Russia. Students will learn about important battles and heroes of the war, read excerpts from war memoirs, look at examples of wartime propaganda, and watch films. We will pay special attention to the question of cultural memory: how is the war remembered and commemorated today? What role does the state play in such

commemorations, and how does the society respond to the state efforts? Students will advance their Russian skills through regular reading, writing, and presentation assignments. *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 Fall 2019: How I Became a Russian

This course is structured around the recent Russian TV series «Как я стал русским» (“How I Became a Russian”). Together with Alex, an American journalist in Moscow, students will discover the complexities of contemporary Russian life. How to relate to your colleagues at work? How to rent an apartment in Moscow? How to interact with police? When and how to give a bribe? What are the cultural norms regarding dating? What are some superstitions that you shouldn’t question? Students will learn and practice a host of colloquial expressions and idioms. The course has a special concentration on the advanced skills of narration, description and comparison. *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 304: SLAVIC SCIENCE FICTION

This course examines science fiction works from the Slavic world, with concentration on Russia and the Soviet Union. We will explore how Slavic authors reflected on technological progress, humankind's place in the universe, social and political experiments, etc. Lecture/seminar. Taught in English translation. 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 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 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 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 315: TOPICS IN DOSTOEVSKY AND TOLSTOY (IN ENGLISH)

This course explores the works, thought, and impact of Fyodor Dostoevsky and Lev Tolstoy. Possible topics include: *Crimes and Punishments*, *Spirituality and Religion*, *History and Narrative*, *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. May be repeated when topic is different. *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 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 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: 1 TO 98.*

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: 1 TO 98.*

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: 1 TO 98.*

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: 1 TO 98.*

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: 1 TO 98.*

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: 1 TO 98.*

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: 1 TO 98.*

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: 1 TO 98.*

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: 1 TO 98.

Prerequisite: Counter Registration Required.

SPANISH

Professors:	G. Fares, R. Tapia
Visiting professor:	I. Alvarez
Associate professor:	M. Allan (<i>chair</i>)
Assistant professors:	T. Jimenez-Anglada, M. Rodriguez Guerra
Instructor:	C. Herrera

INTRODUCTION

More than 572 million people speak Spanish around the world and over 50 million in the United States, where it is the second language of business and communication. The Spanish program at Lawrence educates students to reach a high level of academic achievement, linguistic and cultural competence, and preparation for success. Spanish majors and minors graduate from Lawrence with an advanced level of proficiency in intercultural communication in Spanish. They benefit personally and intellectually from four years of interdisciplinary study and international experience, often in combination with another major or minor. Learning about different cultural perspectives and becoming expert communicators in Spanish prepares students to succeed in a diverse society and become versatile participants in the job market.

Spanish faculty from Spain, Argentina, Chile, Puerto Rico, and the United States offer a wide range of courses on the Spanish language and the cultures of Latin America, Spain, and the Latinx communities of the United States. All materials, discussions, and assignments are in Spanish unless specified otherwise. In courses numbered at the 300, 400, and 500 levels students examine significant topics on the cultural products, practices and perspectives of multiple Spanish-speaking countries and communities. Students take interdisciplinary courses on literature, film and television, art history, urban and national spaces, linguistics and translation. Along the way, they become independent thinkers, expert analysts, and bilingual communicators who are well prepared for lives of achievement after Lawrence.

LEARNING GOALS

The Spanish program's goals focus on the national standards for 21st century skills and the 5 C's in World-Readiness Standards for Learning Languages: communication, cultures, connections, comparisons, and communities. Students who graduate with a major or minor in Spanish acquire the following skills and knowledge:

- Advanced communicative ability in Spanish.
- Deep knowledge of different countries and communities through their cultural products, practices and perspectives.
- The capability to establish advanced connections with additional bodies of knowledge, cultures and peoples.
- The ability to make sophisticated cross-cultural 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 in both English and Spanish, and to participate critically in multilingual communities.

PLACEMENT

Interested students should start taking Spanish in their first term (or year) at Lawrence. The SPAN 101, 102 and 201 sequence of courses is only offered once a year (fall, winter and spring). SPAN 201 is also offered in the fall. New students should take the [placement exam](#) immediately and check prerequisites for each course on Voyager before registering.

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.

More information about meeting the language competency requirement can be found under Academic Procedures & Regulations.

Required for the major in Spanish

Students who complete the major will develop the following abilities in Spanish:

- *Communication:* Use information from written and aural sources to present a synthesis and express opinions, in writing and orally. Participate in interpersonal and presentational communication, both in writing

and orally. Use language that is semantically and grammatically accurate according to a given context.

- *Culture*: Know and understand different cultures through their literatures, visual arts, films, and other cultural artifacts. Recognize cultural elements implicit in oral and written texts; demonstrate understanding of practices, perspectives, and products of the cultures studied.
- *Connections, comparisons, and communities*: Make comparisons between Spanish and the student's native language and between the cultures in Spanish-speaking countries and the student's own culture, and participate critically in multilingual communities.

The major in Spanish requires the following:

1. Spanish 202 or one Spanish class numbered at the 300 level (depending on [placement](#))
2. Two additional Spanish courses numbered at the 300 level
3. Two Spanish courses numbered at the 400 level
4. Four Spanish courses numbered at the 500 level
5. One elective, to choose from:
 - a. One Spanish course numbered at the 400 level or above
 - b. Six units of academic internship
 - c. One of the following approved courses in other departments or programs:
 - ARHI 230: *Baroque Art*
 - EDUC 563: *Foreign Language Methods*
 - ETST 355: *Black and Latin @ Sociology*
 - ETST 426: *Black, Brown, and Queer in Film*
 - HIST 155: *Gender in Latin American History 1490-1800*
 - HIST 178: *Colonial Latin American History*
 - HIST 179: *Modern Latin American History*
 - HIST 260: *Culture & Power in Renaissance Europe*
 - HIST 261: *Rebellion & Discipline in Reformation Europe*
 - HIST 275: *Europe 1851-1990*
 - HIST 371: *Rise & Fall of American Empires*
 - HIST 374: *Visions of the Conquest*
 - HIST 378: *Ethnicity in Latin America*
 - HIST 422: *Revolt & Revolution in Latin America*
 - LING 150: *Introduction to Linguistics*
 - ECON 203: *Latin American Economic Development*
 - ENG 150: *Literary Analysis*
 - ENG 448: *Enlightenment Selves*
 - ENG 525: *Contemporary Critical Theory*
6. Completion of at least eight courses in the major that have Spanish as the sole or primary language of instruction, communication, and coursework.
7. Completion of at least five courses for the major on campus, including two Spanish 500-level classes. (See "Off-campus study" section for equivalence of off-campus courses.)
8. Approval of the completed *Senior Experience*: Spanish multimedia portfolio (see [Moodle page "SPAN e-ports"](#) for detailed information).

Senior Experience in Spanish

The Spanish department's *Senior Experience* consists of a multimedia portfolio that provides measurable evidence of the academic work, cultural competence, and communication 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.

Spanish majors are required to submit their multimedia portfolio in the required electronic format to the Spanish department by the end of the fifth week of their final term at Lawrence. Spanish faculty evaluators will assess the portfolio and communicate the outcome of their evaluation to the students before the end 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 2-3 page essay in Spanish, which will include the following:

- An individualized portfolio theme
- A description of the content of the portfolio
- A narrative in which the student:
 - Evaluates their intellectual development as a Spanish major and reflects on the improvement gained throughout their career at Lawrence
 - Explains the selection of materials for the portfolio and connects each component to their academic interests and future goals.

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. The other two samples must be revised and thoroughly edited in order to reflect the student's current level of proficiency.

1. Two spoken samples (two-minutes each) prepared and recorded independently by the student in a computer lab.
 - a. Speech Sample #1: A five-minute audio recording of an academic presentation in Spanish.
 - b. Speech Sample #2: A five-minute multimedia oral presentation about an off-campus experience dedicated to the development of intercultural proficiency such as a study abroad, internship, volunteer, or language immersion program that involved regular and sustained interaction with members of a Spanish-speaking community. It should include no fewer than 5 original photos, accompanied by an unscripted spoken narration in Spanish.

Submitted and approved portfolio materials can become part of a rotating showcase of students' work made available to on- and off- campus communities through departmental or *Senior Experience* websites

The entire portfolio must be submitted in electronic format through the required channels.

Important: Students must register to take an Independent Study (SPAN 699) for one (1) unit (S/U) with their assigned faculty evaluator(s) during their final term at Lawrence.

Required for the minor in Spanish

1. Spanish 202 or one Spanish course numbered at the 300 level (depending on [placement](#))
2. One Spanish course numbered at the 300 level
3. One Spanish course numbered at the 400 level
4. Two Spanish courses numbered at the 500 level
5. One elective, to choose from:
 - a. One Spanish course numbered at the 400 level or above
 - b. Six units of academic internship
 - c. One of the following approved courses in other departments or programs:
 - ARHI 230: *Baroque Art*
 - EDUC 563: *Foreign Language Methods*
 - ETST 355: *Black and Latin @ Sociology*
 - ETST 426: *Black, Brown and Queer in Film*
 - HIST 155: *Gender in Latin American History 1490-1800*
 - HIST 178: *Colonial Latin American History*
 - HIST 179: *Modern Latin American History*
 - HIST 260: *Culture & Power in Renaissance Europe*
 - HIST 261: *Rebellion & Discipline in Reformation Europe*
 - HIST 275: *Europe 1851-1990*
 - HIST 371: *Rise & Fall of American Empires*
 - HIST 374: *Visions of the Conquest*
 - HIST 378: *Ethnicity in Latin America*
 - HIST 422: *Revolt & Revolution in Latin America*
 - LING 150: *Introduction to Linguistics*
 - ECON 203: *Latin American Economic Development*
 - ENG 150: *Literary Analysis*
 - ENG 448: *Enlightenment Selves*
 - ENG 525: *Contemporary Critical Theory*
6. Completion of at least five courses in the minor that have Spanish as the sole or primary language of instruction, communication, and coursework.
7. Completion of least three courses in the minor on campus. (See "Off-campus study" section for equivalence of approved off-campus courses.)

Teacher certification in Spanish (K-12)

Spanish majors can seek certification to teach Spanish at the elementary and secondary levels. To be certified,

students must study in a Spanish-speaking country for one term, and they must also pass an oral and writing proficiency test. Students can add an endorsement for a second area (such as another language or English as a second language) by completing the appropriate minor. Students who plan to seek teacher certification should review the requirements in the Education section of the catalog and meet with the director of teacher education before the end of their second year.

Course numbering

Courses numbered SPAN 101-201 are standards-based, proficiency-oriented Spanish language and culture classes. Their goal is to have students achieve an intermediate level of linguistic and cultural proficiency in accordance with the 5 Cs in national standards: Communication, Culture, Connections, Comparisons and Communities. Any SPAN 200-level class satisfies the general education requirement in language competency (SPAN 200, 201 or 202). Courses numbered 202 and above can satisfy requirements for a minor or major in Spanish.

SPAN 202 is a high-intermediate proficiency course that provides continued development of a student's written and oral expression in Spanish, as well as knowledge and analysis of pertinent cultural and linguistic topics.

The content of 300/400/500 courses and seminars is connected to the research interests and areas of expertise of each faculty member. Courses numbered in the 300s provide communicative and intellectual development through the introductory study of specific areas of knowledge (literature, film, news media, linguistics, etc.) 400-level courses allow a more advanced exploration of cultural, socio-political, artistic, filmic and literary areas. Courses at the 500 level are seminars for advanced majors and minors, and they delve into very specific academic topics. In all courses, students are expected to actively participate in academic discussions and produce scholarly work appropriate for each stage in their education.

Tutorial studies and independent projects can be pursued in courses numbered in the 390s and 590s, subject to faculty availability. Spanish does not offer tutorials or directed studies below the 300 level. 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.

The *Senior Experience* requires registration for a one-unit independent study with the assigned evaluator(s) (SPAN 699 Spanish Multimedia Portfolio). This project allows students to connect, reflect on, and demonstrate different areas of knowledge and proficiency achieved in the major. SPAN 699 is graded S/U.

All learners of Spanish as a second language, as well as native and heritage speakers of Spanish, are strongly encouraged to take the online placement exam and enroll in Spanish courses at the recommended level.

Off-campus study

The Spanish department strongly advises its majors and minors to participate in sponsored academic programs in Spain or Latin America, although off-campus study is *not* required for completion of a Spanish major or

minor. Other students are also encouraged to participate.

TRANSFERRING OFF-CAMPUS CREDITS TO COMPLETE MAJOR OR MINOR REQUIREMENTS IN SPANISH

Conversion of semester credits to Lawrence units:

- 3 credit hours = 5 units
- 4 credit hours = 7 units

Lawrence course levels and types of equivalent classes off campus:

A detailed chart of specific off-campus courses and their corresponding course level at Lawrence can be on the [Advising](#) section of the Spanish website or by clicking on [this link](#). Below are the general guidelines for these equivalencies:

Spanish 202

- A high-intermediate Spanish language and culture course (i.e. courses solely focused on improving communicative proficiency in Spanish and general knowledge of cultural products, practices and perspectives in Spanish-speaking communities). Similar in difficulty to Spanish 202.

Spanish 300-level

- A low-advanced Spanish course focused on introductory linguistic analysis (e.g. advanced grammar). It generally includes short writing assignments (1-2 pages) and brief oral presentations. Similar in difficulty to Spanish 300-level courses on campus.
- A low-advanced Spanish course focused on *basic* literary, artistic, filmic and/or cultural analysis, narrative writing or similar. It generally includes short writing assignments (1-2 pages) and/or brief oral presentations. Similar in difficulty to 300-level courses on campus.

Spanish 400-level

- An advanced Spanish class with a focus on the history, political system, music, art, environment or society of the host country or region. It generally includes medium-length writing assignments (3-5 pages) and/or more specialized oral presentations. Similar in difficulty to 400-level courses on campus.
- A course taught in Spanish in a discipline other than Hispanic Studies (e.g. GOVT, ECON, PSYC, ENST, BIOL, ARHI, HIST, EDUC, etc.) Important: Contact the appropriate department in advance if you want these credits to satisfy requirements in a program other than Spanish.
- An interdisciplinary course with an internship, volunteering, professional shadowing or field study component that requires a significant amount of oral and written communication in Spanish outside of class, as well as reporting and research work in Spanish, as appropriate.

Spanish 500-level

- A seminar-type Spanish class with an advanced focus on a specific topic or time period in the cultural production (e.g. literature, cinema television or similar cultural narratives) of Latin America, Spain or other

Latinx communities. Readings and assignments have a strong theoretical component and must be equivalent in length and difficulty to those in Spanish 500-level classes on campus.

- A seminar-type Spanish class in advanced linguistics. Readings and assignments must be equivalent in difficulty to those in Spanish 500-level classes on campus.

IMPORTANT: If students take off-campus courses that do not fit any of the categories above (e.g. courses with a primary focus on pre-professional training or recreational activities), these credits may transfer as general Lawrence units, but they cannot fulfill major or minor requirements in Spanish. *Students must always obtain the approval of their Spanish advisor or the Spanish chair for applying off-campus credit to the completion of requirements for the major or minor.*

Courses - Spanish

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: 1 TO 98.*

Prerequisite: Counter Registration Required.

SPAN 195: INTERNSHIP IN SPANISH

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: 1 TO 98.*

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 \$500 non-refundable deposit is required for registration and will be deducted from tuition (\$9,435 for 2019). Students interested in living on campus should contact the Campus Life office. Session dates for Summer 2019: June 20-July 31

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: SPAN 202 or its equivalent, official placement, 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 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 350: INTRODUCTION TO SPANISH LINGUISTICS

This course offers an introduction to linguistics based on data from Spanish. We study the sound system of Spanish, the structure of its words, and how its sentences are formed and interpreted. We also consider how Spanish has changed over time and how it differs depending on where it is spoken. Written assignments and exams. *Units: 6.*

Also listed as Linguistics 377

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: 1 TO 98.*

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: 1 TO 98.*

Prerequisite: Counter Registration Required.

SPAN 395: INTERNSHIP IN SPANISH

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: 1 TO 98.*

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: 1 TO 98.*

Prerequisite: Counter Registration Required.

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 407: SPANISH IN THE U.S.

A first approach to the study of Spanish in the United States through different lenses, including (but not limited to) the history of Spanish and its speakers in the U.S., a demographic overview of its varieties, sociopolitical factors surrounding its use, linguistic phenomena resulting from contact with English, and educational approaches to learning Spanish as a heritage language. Written assignments and exams. *Units: 6.*

Also listed as Linguistics 407, Ethnic Studies 407

Prerequisite: 300-level course in Spanish 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 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.*

Also listed as Theatre Arts 442

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 430: INTRODUCTION TO LATIN AMERICAN AND SPANISH 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 advanced courses in the Spanish program. *Units: 6.*

Also listed as Film Studies 330

Prerequisite: SPAN 300-level class or its equivalent, official placement, or consent of instructor

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 concurrently 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 485: 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 300-level Spanish course, its equivalent, 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 ROMANTICISM 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 514: *READING THE BORDER: GENDER, TEXTS AND PERFORMANCE*

This course will focus on textual and cultural (re)presentations—including narratives, performance, film, photography and genre-defying texts—of the Central American-Mexico-U.S. borders, where spaces, race, violence and ethnicity become gendered. The course will cover the mid-1980s until contemporary times, a period tempered by the events of 9/11, as well as more recent political discourses focused on the border. Seminar with papers and a final project. *Units: 6.*

Also listed as Ethnic Studies 514

Prerequisite: SPAN 300-level course or equivalent official placement

SPAN 515: *RUINING THE IMAGINARY OF PARADISE: ECO-CRITICISM IN THE SPANISH-SPEAKING CARIBBEAN*

This seminar examines the history and cultural expressions of the Spanish-speaking Caribbean--both the insular and the continental areas--from an eco-critical perspective. Parting from the so-called discovery, conquest and colonization and moving through slavery, independence and postcolonial movements, the course provides an account of the exploitative processes of imperial powers that have imagined the Caribbean as a tropical paradise. Lecture/discussion with papers. *Units: 6.*

Also listed as Ethnic Studies 515

Prerequisite: 400-level course in Spanish 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 Fall 2020: Sor Juana- Writings and Rewritings

A renowned poet and scholar, Sor Juana Ines de la Cruz is known, somewhat ironically, as the "tenth Muse" of Mexico. In this class, we will study her writings as well as the heterogeneous corpus that she has inspired. After exploring her rich, complex oeuvre, we will consider how the nation has grappled with her legacy- and with her extraordinary place at the center of its canon- over the past 4 centuries. *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 561: *JORGE LUIS BORGES*

A seminar course on Borges' literary works in historical and cultural context. The course will explore Borges' short stories, and examine their multidisciplinary resonances from film and visual arts to physics and linguistics, among others. Seminar with exams, presentations, and papers. In Spanish. *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 Gaité's *The Back Room*, as well as films by Lucrecia Martel, Victor Erice, Pablo Larraín, 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 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: 1 TO 98.*

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: 1 TO 98.*

Prerequisite: Counter Registration Required.

SPAN 595: INTERNSHIP IN SPANISH

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: 1 TO 98.*

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: 1 TO 98.*

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: 1 TO 98.*

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: 1 TO 98.

Prerequisite: Counter Registration Required.

SPAN 695: INTERNSHIP IN SPANISH

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: 1 TO 98.*

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: 1 TO 98.

Prerequisite: Counter Registration Required.

THEATRE ARTS

Professor:	T. Troy (<i>J. Thomas and Julie E. Hurvis Professor of Theatre and Drama</i>)
Associate professor:	K. Privatt (<i>James G. and Elthel M. Barber Professor of Theatre and Drama, chair</i>)
Visiting assistant professor:	A. Sherkow
Instructors:	K. Kopischke, M. Roderio, D. Schuchart
Lecturer:	A. Rose

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 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.

The core curriculum in our major mirrors our general belief that all young theatre-makers must encounter the complementary disciplines of performance, production practice, and dramatic literature and theatre history. We invite students to 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.

Students are strongly encouraged to participate in one or more off-campus programs, such as the Lawrence London Centre or the Gaiety School of Acting in Dublin, to deepen their understanding of the various areas of concentration prior to designing their senior projects.

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 they hope 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, resumés, or portfolio presentations are appropriately prepared.

Required for the major in theatre arts

Students who major in Theatre Arts will develop abilities in the following areas:

- *Literature and history*: a) recognize major dramatic forms and understand the historical context from which they arose; b) interrogate a text (question closely, in a formal manner); and c) integrate systematic research to support creative choices.
- *Design and technical theatre*: a) design a performance environment; and b) synthesize cultural history.
- *Performance*: a) skillfully prepare a live theatrical performance; and b) execute and then evaluate a live performance.

The major in theatre arts requires the following:

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 or continue a generalist approach. No more than twelve units of tutorials may be counted in the theatre arts major.
9. Senior project including enrollment in THAR 687 (1 unit)

Focus on performance

Additional courses in performance study include *Movement & Text*, *Acting II*, *Play Directing*, and 12 additional units in performance-related courses, including voice and dance.

Focus on design and technical theatre

Additional production-related courses include *Costume Design*, *Set Design*, *Lighting Design*, *Advanced Design Studio*, and courses in theater technology.

Focus on 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.

Senior Experience in theatre arts

The required Senior Experience 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 beginning of Spring 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.
- Presenting a staged reading of a play. Preparation for staged readings usually consists 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 teaching certification.

Required for the minor in theatre arts

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)

Teacher certification in theatre arts

Theatre arts majors can seek certification to teach theatre arts at the secondary level. Students can add an endorsement in a second area (such as English as a second language) by completing the appropriate minor. Students who plan to seek teacher certification should review the requirements in the Education section of the catalog and meet with the director of teacher education, preferably before the end of the sophomore year.

Courses - Theatre Arts

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*

This project-based course encourages students to explore the variety of artistic capabilities required to create theatre. Operating as both a means to inspire a deeper appreciation of the art form and to provide a foundation for theatre making at Lawrence, students in this class will interact artistically with a variety of short format plays. Through meeting with guest artists and experimenting with acting, playwriting and design, students will understand how play texts serve as a blueprint for performance and often illuminate larger social and cultural issues. *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.*

Also listed as Dance 143

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.*

Also listed as Dance 147

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.*

Also listed as Dance 149

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 185: MOVEMENT AND TEXT

This studio-based introductory course examines the interplay of physical movement with verbal and written texts. Using choreographic approaches and improvisational structures, students will investigate how to mine a theatrical text for its range of expression, embodiment, and compositional qualities, and to examine the kinesthetic body as a text. *Units: 6.*

Also listed as Dance 185

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: 1 TO 98.*

Prerequisite: Counter Registration Required.

THAR 195: *INTERSHIP 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: 1 TO 98.*

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. *Units: 3.*

Also listed as Dance 220

THAR 221: *DANCE STUDIES: GLOBAL PERSPECTIVES*

This course introduces major concepts, approaches and issues in the study of dance as a cultural, historical and artistic practice. By examining key texts in dance studies, viewing dance films and engaging in the practice of dancing, students will investigate how moving bodies shaped history while considering dance as a form of cultural identity and political power. *Units: 6.*

Also listed as Dance 221

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 231: *DESIGN AND PRODUCTION*

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: 1 TO 3.*

Also listed as Innovation & Entrepreneurship 255, Economics 255

Prerequisite: Sophomore standing

THAR 257: DIVERSITY ON THE LONDON STAGE

This seminar discusses how London theatre is addressing diversity with regard to race, ethnic background, gender, sexuality, religion, disability, and mental health. We will see theatre productions at different London theatres, analyze both performances and play texts, and talk with theatre practitioners about their work. In reviews, presentations, projects, and a paper, students will demonstrate their individual engagement with London. *Offered at the London Centre. Units: 6.*

Prerequisite: Open to students attending the London Centre only

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.*

Also listed as Music Repertoire-Perf Study 310

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 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 Music Education and Pedagogy 340

Prerequisite: Sophomore standing

THAR 344: *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 THAR 444/CLAS 423. Not open to students who have received credit for THAR 444/CLAS 423 or who need to receive credit for THAR 444/CLAS 423. *Units: 6.*

Also listed as Classics 323

Prerequisite: CLAS 225 or three years of high school Greek

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.*

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 advanced courses in the Spanish program. *Units: 6.*

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 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 Classics 363, English 263

Prerequisite: Sophomore standing or consent of instructor

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 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: 1 TO 98.*

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: 1 TO 98.*

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: 1 TO 98.*

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: 1 TO 98.*

Prerequisite: Counter Registration Required.

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: PLAYWRITING

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 430: ALEXANDER TECHNIQUE II: FOR PERFORMERS

This studio-style class applies Alexander Movement Technique (AMT) to performance broadly defined as an activity completed for an audience. Students will work on performance and rehearsal/practice techniques with hands-on guidance from the teacher and will also serve as trained observers for their colleagues. May be taken for 3 or 6 units. *Units: 3 OR 6.*

Also listed as Music Repertoire-Perf Study 430

Prerequisite: THAR 310

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 442: 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.*

Also listed as Spanish 420

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

THAR 477: ACTING III

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: PREMODERN

Study of the acting of a particular period or style typically focused on the challenges of pre-modern or alternative texts, based on the techniques acquired in Theatre Arts 187. *Units: 6.*

Prerequisite: 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 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: 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 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: 1 TO 98.*

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: 1 TO 98.*

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: 1 TO 98.*

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: 1 TO 98.*

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: 1 TO 98.*

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: 1 TO 98.*

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: 1 TO 98.*

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: 1 TO 98.*

Prerequisite: Counter Registration Required.

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.

Courses - University 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

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: 2 OR 3.*

Prerequisite: Student must be a participant in the Summer Institute.

UNIC 110: *ESL: LEARNING IN THE LIBERAL ARTS*

An introduction to learning in the liberal arts tradition. Through the study of works representing multiple disciplines, including selections from current *Freshman Studies* texts, this course prepares students with limited English proficiency to fully engage in learning in the liberal arts. (This course can be taken prior to FRST 100 and does not count toward the Freshman Studies requirement.) *Units: 6.*

Prerequisite: Open only to visiting exchange students and students in the pathway 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 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 175: TOPICS IN PRECALCULUS

This course provides an opportunity for students to learn/review necessary topics from precalculus in preparation for the study of calculus at Lawrence. *Units: 6 Units: 6.*

UNIC 185: NEW DIGITAL TOOLS OF THE LIBERAL ARTS

Introduction to digital medial used in the humanities, STEM, and social sciences. Lectures, studio, and hands-on experience will develop familiarity with open-source tools for data visualization, text analysis, GIS mapping and metadata, as well as introduce the structure of information and the cultural impact of digital media. Assignments include digital projects, presentations, and a final portfolio. *Units: 3.*

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

This course focuses on developing speaking and listening skills in English. May be taken for 3 or 6 units. *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. *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: 3.*

Prerequisite: Open only to students in the Waseda Visiting Student program

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. *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. *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: 2.*

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 271: PRACTICING LEADERSHIP

This course provides an opportunity for purposeful leadership development, connecting the liberal arts, performing arts, and athletics. Students will cultivate introspection and a growth mindset through study and practice of leadership, develop effective communication skills, and articulate a personal philosophy of leadership informed by relevant scholarship. Seminar course: guest speakers, discussion, reflective and analytical writing, and a term-length project focused on a real-world leadership challenge. *Units: 6.*

Prerequisite: 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

UNIC 401: COMPASSION: THEORY, PRACTICE, POLITICS

What are the paths and obstacles to living a compassionate life? Can attempts to act compassionately in public life succeed? How can we cultivate an ethic of compassion towards ourselves and others? In this seminar we will discuss readings from a range of disciplines, genres, and spiritual traditions. Requirements include short papers, experiments with strategies for more compassionate living, and a final project. *Units: 6.*

Prerequisite: Junior standing or consent of instructor

UNIC 409: THE MEANING OF LIFE

Seminar course featuring focused readings paired with conversations with members of the Lawrence and Fox Valley communities concerning life's big questions: How do such activities as work, service, community, political engagement, spiritual faith and family make life meaningful? Which pursuits in life warrant more time and energy than others? How do we know we're choosing the right paths? Student discussion with short papers. *Units: 6.*

Prerequisite: Junior standing

CONSERVATORY OF MUSIC

Professors:	S. Jordheim, C. Kautsky (<i>George and Marjorie Olsen Chandler Professor of Music</i>) (<i>on leave term(s) II</i>), K. Leigh-Post, A. Mast (<i>Kimberly-Clark Professor of Music</i>), M. Mizrahi, D. Richeson, J. Stannard
Associate professors:	I. Bates, D. Bell, G. Biringer, S. Ceballos, J. Daniel (<i>on leave term(s) II</i>), S. Downing, J. Encarnacion, S. George, W. Gu, J. Holiday (<i>on leave term(s) II</i>), E. Lesser, N. Lewis, J. McQuinn, J. Metcalf, M. Michelic (<i>on leave term(s) I</i>), B. Miller, A. Padilla, B. Pertl, S. Sieck, S. Spears, A. Srinivasan (<i>on leave term(s) I</i>), P. Swan (<i>on leave term(s) III</i>), M. Urness, C. Woodruff (<i>Director of Opera Studies</i>)
Assistant professors:	M. Arau, H. Contreras, A. Crooks, M. Dupere (<i>on leave term(s) II</i>), A. Ellsworth, E. Gomez, R. Perry
Visiting assistant professors:	M. Clayville, J. Gates, E. Scheinberg
Instructors:	M. Ambrosio, J. Benson, A. Boeckman, P. Darling, D. DiBella, M. Erickson, S. McCardell, M. Paek, C. Rath, M. Turner, M. Van De Loo
Lecturers:	D. Adnyana, A. Boncher, N. Buchman (<i>Lawrence Community Music School</i>), B. Carrothers, L. Dempster, B. Hauer (<i>Audio Rec Tech Engr & Lect Rec</i>), S. Jordheim, S. Peplin, J. Planet, L. Ramagopal Pertl, C. Walby (<i>Lawrence Community Music School</i>), N. Wysock, E. Zabrowski

Conservatory of Music

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 Bachelor of Music 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.

Requirements for the Bachelor of Music degree

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 internshipsThe additional 12 units may be selected from any department.
3. Completion of 12 units of *Freshman Studies*, normally taken during the fall and winter terms of the first year
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 211 and 212
 - 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](#).

Completion of a minor or interdisciplinary area is optional. If a minor is declared, a 2.000 grade-point average in the minor (all courses taken in the minor department, program, or area and any other courses required for the minor) is required to complete the minor and have it recorded on the academic record.

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 requirements with the exception that coursework from other institutions may not be used to fulfill requirement a. (writing intensive).

Performance Major

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 391: Directed Study *Organ Pedagogy* (3 units)
 - b. MURP 391: Directed Study *Organ Design and Literature* (6 units)
 - c. Keyboard skills: MURP 301, 302: *Functional Skills for Keyboard Majors*
 - d. MUEP 380: *Conducting Principles* (6 units)
3. 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

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: *Concert Choir* or 275: *Cantata*

- b. 6 additional units in a major choral ensemble
- c. 2 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. 1 unit selected from: THAR 355: *Theatre Production*, THAR 357: *Musical Theatre Production*, MUEN 278: *Opera 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, 252, or 333 (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

Brass and Woodwinds: flute, oboe, clarinet, saxophone, bassoon, horn, trumpet, trombone, euphonium, tuba

- 1. Brass/Woodwind 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 (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: 15 units
 - a. 6 units in MUEN 285: *Wind Ensemble* or MUEN 287: *Symphonic Band*
 - 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 of wind ensemble, symphonic band, IGLU or symphony orchestra; 3 terms of chamber music
 - Strings: 9 terms symphony orchestra or IGLU; 3 terms chamber music
 - Piano: 3 terms symphony orchestra, wind ensemble, symphonic band, concert choir, women's choir, chorale or IGLU; 3 terms supervised accompanying
 - Guitar: 3 terms symphony orchestra, wind ensemble, symphonic band, concert choir, women's choir, chorale, IGLU 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: 10 units
 - a. MURP 420: *Collaborative Piano: Vocal* (3 units)
 - b. MURP 425: *Collaborative Piano: Instrumental* (3 units)
 - c. MURP 599: *Independent Study-Collaborative Piano* (1 unit)
 - 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; 1 unit per term for 3 terms)
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* (1 unit)
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.

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 admission to music education and for certification to teach music, and students must demonstrate content knowledge through either a 3.00 major GPA or a passing score on the *Praxis II: Music Content Knowledge* test before they may student teach. A passing score on the edTPA, a teacher performance assessment completed during student teaching, is required for certification for licensure. Students seeking licensure should 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 (see Tuition, Fees, and Financial Assistance). Students must have completed all graduation requirements except student teaching, and 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 350: *Ethnicity, Cultural Diversity, and Education* (6 units)
 - c. EDST 440: *Sociology of 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. Students are reminded that at least 60 units outside music are required for the degree.
 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 certification and licensure in Wisconsin and other states. 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. A culminating product of the student teaching experience is a final teaching portfolio that includes a teacher performance assessment (edTPA), reflective essay, and final student teaching evaluations, which together provide evidence 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: 25-27 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* (3 units)
 - 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: 31-33 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 307: *Orchestration for the Music Educator* (1 unit)
 - d. MUEP 336: *Guitar and Recorder for the Music Educator* (1 unit)
 - e. MUEP 340/THAR 340: *Musical Theatre Production Overview* (3 units)
 - f. MUEP 402: *Choral Techniques I* (6 units)
 - g. 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 unit)
 - 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.

Music Composition

Required for 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; participation in an ensemble is required every term in residence on the Appleton campus, as specified by the following requirements:
 - a. 6 units selected from wind ensemble, symphonic band, symphony orchestra, or a major choral ensemble
 - b. 6 additional units selected in consultation with the composition faculty

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.

Required for the 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):
 - MUTH 421: *Theory and Analysis of Music from 1900-1945* (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* (6 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.

Music Theory

Required for 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. MUTH 421: *Theory and Analysis of Music since 1900* (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. One term of MUCA 345: *Composition* (3 units)
3. Any one of the following courses: (6 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; participation in an ensemble is required every term in residence on the Appleton

campus, as specified by the following requirements:

- a. 6 units selected from wind ensemble, symphonic band, symphony orchestra, or a major choral ensemble
 - b. 6 additional units in any ensemble
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)

Required for the minor in music theory

Four upper-level MUTH courses (24 units):

1. One course in counterpoint (6 units), either:
 - MUTH 400: *Renaissance Counterpoint*, or
 - MUTH 401: *Counterpoint in the Style of J.S. Bach I*
2. MUTH 421: *Theory and Analysis of Music since 1900* (6 units)
3. MUTH 520: *Schenkerian Analysis* (6 units)
4. One iteration of MUTH 550: *Topics in Music Theory and Analysis* (6 units)

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, Opera Theatre, Wind Ensemble, Symphonic Band, Symphony Orchestra, IGLU, Gamelan, Hybrid Ensemble, Jazz Ensemble, and Jazz Band.

Bachelor of Arts/Bachelor of Music Degree

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, theory, or 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 and the director of teacher education.

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. December Term does not count as a term toward this requirement. 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. Completion of 12 units of *Freshman Studies*, normally taken in the fall and winter terms of the first year.
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

See [divisions within the university](#) under Structure of the Curriculum.

- 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 and encouraged to declare a major by spring term of the sophomore year, when they advance register for junior-year courses.
- 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 211 and 212
 - 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. Completion of a designated *Senior Experience* course or activity within the chosen majors for each degree.
- 8. 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 in the major department or program and any other courses required for the major)
 - c. 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
9. Completion of required terms and units in residence as specified by the university residence requirements.

Completion of a minor or interdisciplinary area is optional. If a minor is declared, a 2.000 grade-point average in the minor (all courses taken in the minor department, program, or area and any other courses required for the minor) is required to complete the minor and have it recorded on the academic record.

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 (Advanced Placement [AP], International Baccalaureate [IB], or A-levels) may be used as appropriate to fulfill diversity or competency requirements; such credit may not be used to fulfill distribution requirements. Coursework from other institutions may not be used to fulfill the writing or speaking competency requirement.

Courses - Music Composition & Arranging

MUCA 100: *FUNDAMENTALS OF COMPOSITION*

An introduction to the craft of contemporary classical composition. Intended for composition majors, theory majors, and other students interested in music composition. Weekly compositions are supplemented by listening, analysis, and writing assignments. *Units: 6.*

Prerequisite: MUTH 201 or MUTH 100

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: 1 TO 98.*

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: 1 TO 98.*

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 or consent of instructor

MUCA 390: TUTORIAL STUDIES IN MUSIC COMPOSITION AND ARRANGING

Units: 1 TO 98.

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: 1 TO 98.*

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: 1 TO 98.*

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: 1 TO 98.*

MUCA 400: TOPICS IN MUSIC COMPOSITION

Selected topics in contemporary music, intended for composition majors and other students interested in music composition. *Units: 6.*

Prerequisite: MUTH 301 or consent of instructor

MUCA 411: ORCHESTRATION I

Capabilities and uses of strings, woodwinds and horn; notational practices; scoring for chamber orchestra. *Units: 6.*

Prerequisite: MUTH 301 and two terms of MUCA 345 or consent of instructor

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: 1 TO 98.

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: 1 TO 98.*

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: 1 TO 98.*

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: 1 TO 98.*

Prerequisite: Counter Registration Required.

MUCA 690: *TUTORIAL STUDIES IN MUSIC COMPOSITION AND ARRANGING*

Units: 1 TO 98.

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: 1 TO 98.*

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: 1 TO 98.*

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: 1 TO 98.*

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 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 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 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.*

Also listed as Theatre Arts 143

MUDA 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.*

Also listed as Theatre Arts 145

MUDA 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.*

Also listed as Theatre Arts 147

MUDA 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.*

Also listed as Theatre Arts 149

MUDA 185: MOVEMENT AND TEXT

This studio-based introductory course examines the interplay of physical movement with verbal and written texts. Using choreographic approaches and improvisational structures, students will investigate how to mine a theatrical text for its range of expression, embodiment, and compositional qualities, and to examine the kinesthetic body as a text. *Units: 6.*

Also listed as Theatre Arts 185

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: 1 TO 98.*

MUDA 220: TOPICS IN MOVEMENT/PERFORMANCE

Topics in this series vary from year to year. May be repeated when topic is different. *Units: 3.*

Also listed as Theatre Arts 220

MUDA 221: DANCE STUDIES: GLOBAL PERSPECTIVES

This course introduces major concepts, approaches and issues in the study of dance as a cultural, historical

and artistic practice. By examining key texts in dance studies, viewing dance films and engaging in the practice of dancing, students will investigate how moving bodies shaped history while considering dance as a form of cultural identity and political power. *Units: 6.*

Also listed as Theatre Arts 221

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: 1 TO 98.*

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: 1 TO 98.*

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: 1 TO 98.*

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: 1 TO 98.*

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: 1 TO 98.*

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: 1 TO 98.*

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: 1 TO 98.*

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: 1 TO 98.*

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: 1 TO 98.*

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: 1 TO 98.*

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: 1 TO 98.*

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 brass instrument technique, pedagogy, and lesson planning. *Units: 1.*

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 336: *GUITAR 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: 1 TO 98.

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: 1 TO 98.*

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: 1 TO 98.*

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: 1 TO 98.*

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

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

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: 1 TO 98.

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: 1 TO 98.*

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: 1 TO 98.*

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: 1 TO 98.*

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: 1 TO 98.

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: 1 TO 98.*

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: 1 TO 98.*

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: 1 TO 98.*

Prerequisite: Counter Registration Required.

Courses - Music Ensemble Performance

MUEN 203: *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.*

Prerequisite: Registration occurs through the ensemble request process in Voyager.

MUEN 205: *DANCE COLLECTIVE ENSEMBLE*

This dance performance ensemble is collectively driven and uses dance as an art form to change spaces, shift perspectives, and challenge boundaries. Sparked by experience with Articulating the Solo Body, Contact Improvisation, Ensemble Thinking and/or other Lawrence post-modern dance classes, Dance Collective Ensemble works together using movement and improvisation as foundation for weekly studio practice, building community, and creating performances across campus. May be repeated for credit. *Units: 1.*

Prerequisite: Registration occurs through the ensemble request process in Voyager. An audition may be required.

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.

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 231: KINKAVIWO ENSEMBLE

Open to all students by audition. African drum and dance ensemble performing music from the Ewe people of Ghana. May be repeated for credit. *Units: 1.*

Prerequisite: Registration occurs through the ensemble request process in Voyager. An audition may be required.

MUEN 232: TAMBO TOKÉ

Open to all students by audition. Drum and song ensemble dedicated to performing Afro-Cuban music. May be repeated for credit. *Units: 1.*

Prerequisite: Registration occurs through the ensemble request process in Voyager. An audition may be required.

MUEN 233: SAMBISTAS ENSEMBLE

Open to all students by audition. Brazilian drum ensemble. 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 278: OPERA PRODUCTION

Practicum in Opera Production. May be repeated for credit. *Units: 1.*

Prerequisite: Registration occurs through the ensemble request process in Voyager.

MUEN 280: PERFORMANCE SKILLS FOR SINGERS

Introduction to the craft of the singing actor. Stage/audition protocol; expressive movement; gesture; character analysis; subtext; blocking. Students must prepare song for analysis and performance. May not be repeated. *Units: 1.*

Prerequisite: Students may not register for ensemble study using Voyager; registration will be handled by ensemble directors at the beginning of each term.

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 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.

MUEN 440: ADVANCED CHAMBER MUSIC STUDIES

Year-long study and performance of advanced chamber music repertoire for an ensemble chosen by audition. May be repeated for credit. *Units:* 1.

Prerequisite: 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 Fall 2019: Big Works, Big Questions*

This course introduces some of the big questions and methodologies that are central to the discipline of music history. Students will explore in depth a small number of musical works of the Western classical and popular traditions: one sacred choral work, one opera, one symphony, one ballet, one concept album. Students will develop critical listening skill and the ability to articulate observations and ideas about musical texts and performances. No previous music instruction or expertise is assumed. Course has no prerequisites. *Units: 6.*

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 received, 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 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. 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 180: 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.*

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: 1 TO 98.*

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: 1 TO 98.*

Prerequisite: Counter Registration Required

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 2019: 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. *Units: 6.*

Prerequisite: Sophomore standing

MUCO 211: INTRODUCTION TO MUSICOLOGIES I

This course is the first in a two-term sequence that takes an interdisciplinary approach to the study of music, drawing upon fields such as ethnomusicology, music history, popular music studies, sound studies, cultural studies, music hermeneutics, gender studies, critical race theory, post-colonial studies, historiography and performance studies. We will explore musical styles, practices, functions, meanings and values in cross-cultural and transhistorical contexts. We will develop--and think critically about--the power of engaging actively, intensively and creatively with questions, ideas and sources. *Units: 6.*

Prerequisite: MUTH 251 or consent of instructor

MUCO 212: INTRODUCTION TO MUSICOLOGIES II

This course is the second in a two-term sequence that takes an interdisciplinary approach to the study of music, drawing upon fields such as ethnomusicology, music history, popular music studies, sound studies, cultural studies, music hermeneutics, gender studies, critical race theory, post-colonial studies, historiography and performance studies. We will explore musical styles, practices, functions, meanings and values in cross-cultural and transhistorical contexts. We will develop--and think critically about--the power of engaging actively, intensively and creatively with questions, ideas and sources. *Units: 6.*

Prerequisite: MUCO 211

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 225: MUSIC IN THE MONASTERY

This course examines intersections of music and art in pre- and early-modern monasteries. Students will gain facility analyzing visual and musical traditions as we explore themes such as the cosmos and community, gender, and the Christian body politic. Students will learn about varied disciplinary approaches to chant and polyphony, architecture and sculpture, the politics of enclosure, and practices of faith and spirituality, among

other topics. *Units: 6.*

Also listed as Art History 225

Prerequisite: Sophomore Standing

MUCO 232: SIGNIFYING IDENTITY: THE SEMIOTICS OF EMBODYING MUSICAL GENRE AFFILIATIONS

The exploration of how people embody and display their identities as they relate to musical genres. From Doc Martens to zoot suits, body mod to makeup, we will learn about the semiotics of musical genre affiliations, paying attention to how embodied expressions of affiliation intersect with different aspects of identities such as ethnicity, queerness, or race. Class includes discussions, projects, and speakers. *Units: 6.*

Also listed as Linguistics 232, Anthropology 332

Prerequisite: Sophomore Standing

MUCO 390: TUTORIAL IN STUDIES MUSICOLOGY

Units: 1 TO 98.

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: 1 TO 98.*

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: 1 TO 98.*

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: 1 TO 98.*

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, and that it is a universal language. This study will also assess the extent that music is a social activity informed by cultural context and will consider music from a broad variety of styles and cultures. *Units: 6.*

Prerequisite: MUCO 212 or consent of instructor

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 212 or 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 212 or 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 212 or 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. *Units: 6.*

Prerequisite: MUCO 212 or 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 212 or 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 2019: 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 212 or 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 212 or 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 212 or 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 212 or 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 212 or MUCO 202

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 212 or MUCO 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 Fall 2019: Music of India

We will explore aspects of North and South Indian classical musics and dance in this course, and touch on folk and popular musics as well. Students will become familiar with Indian tuning systems, rhythmic patterns, formal structures, and performance practices. We will examine music's role in society in India as well as among diasporic populations, and investigate music's connections to other areas of artistic, social, spiritual, and political life. *Units: 6.*

Prerequisite: MUCO 212 or MUCO 202 or consent of instructor

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: MUCO 212 or MUCO 202 or consent of instructor.

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: MUCO 212 or MUCO 202 or consent of 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: MUCO 212 or MUCO 202 or GEST 100 or GLST 100 or consent of instructor.

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: MUCO 212 or MUCO 202 or ENST 127 or consent of instructor

MUCO 495: METHODS, THEORIES, AND DEBATES IN 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: MUCO 212 or MUCO 202 or ANTH 110 or consent of instructor

MUCO 590: TUTORIAL IN STUDIES MUSICOLOGY

Units: 1 TO 98.

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: 1 TO 98.*

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: 1 TO 98.*

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: 1 TO 98.*

Prerequisite: Counter Registration Required

MUCO 690: TUTORIAL IN STUDIES MUSICOLOGY

Units: 1 TO 98.

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: 1 TO 98.*

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: 1 TO 98.*

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: 1 TO 98.*

Prerequisite: Counter Registration Required

Courses - Applied Music Indiv Instruct

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: 1 TO 98.*

Prerequisite: Counter Registration Required

MUIN 195: INTERNSHIP IN INDIV PERF INSTR

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: 1 TO 98.*

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: 3 TO 6.*

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: 1 TO 98.

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: 1 TO 98.*

Prerequisite: Counter Registration Required

MUIN 590: TUTORIAL IN INDIVIDUAL PERFORMANCE INSTRUCTION

Units: 1 TO 98.

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: 1 TO 98.*

Prerequisite: Counter Registration Required

MUIN 599: INDEPENDENT STUDY IN INDIVIDUAL PERFORMANCE INSTRUCTION

Units: 1 TO 98.

Prerequisite: Counter Registration Required.

MUIN 690: TUTORIAL IN INDIVIDUAL PERFORMANCE INSTRUCTION

Units: 1 TO 98.

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: 1 TO 98.*

Prerequisite: Counter Registration Required

MUIN 699: INDEPENDENT STUDY IN INDIVIDUAL PERFORMANCE INSTRUCTION

Units: 1 TO 98.

Prerequisite: Counter Registration Required.

Courses - Music Repertoire-Perf 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 102: ELEMENTARY GUITAR

A beginning course intended for students with little or no experience with the guitar. The purpose of this class is to provide a broad experience with the instrument. Students will learn to read music notation, use a variety of

techniques and become familiar with several different styles of guitar music (Classical, Blues, Flamenco and Rock). Guitars will be provided if needed. Course may be repeated for up to 6 units. *Units: 2.*

MURP 103: *ELEMENTARY VOICE*

A beginning voice course for students without formal vocal study and those returning to vocal study after an extended absence. Study of body alignment, breath, onset, phonation, diction, and song interpretation. Does not satisfy requirements for any music major. May be repeated for credit. *Units: 1.*

Prerequisite: Instructor Approval

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: 1 TO 6.*

MURP 120: *DEEP LISTENING LAB*

In this hands-on studio course, we will discover what it means to actively and deeply listen, and how expansive listening encourages one's creative impulse. using the works of Pauline Oliveros, John Cage, John Muir and others as a starting point, we will explore the vast yet nuanced world of sound, deep listening, and the creative act. Open to all creative explorers. *Units: 3.*

MURP 121: *SOUND LAB*

This immersive, experiential topics course will explore specific musical topics through a variety of approaches and methodologies. Critical listening and analysis of musical works, class visits from culture bearers, research and class readings, along with song writing, composing, improvisation, performing, and recording will all play a part in the exploration of a particular music tradition. Learning will be assessed through active participation, written assignments, creative assignments and a final project. May be repeated when topic is different. *Units: 3.*

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 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: 1 TO 98.*

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: 1 TO 98.*

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 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.*

Also listed as Theatre Arts 310

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.

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: 1 TO 98.

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: 1 TO 98.*

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: 1 TO 98.*

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: 1 TO 98.*

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 430: ALEXANDER TECHNIQUE II: FOR PERFORMERS

This studio-style class applies Alexander Movement Technique (AMT) to performance broadly defined as an activity completed for an audience. Students will work on performance and rehearsal/practice techniques with hands-on guidance from the teacher and will also serve as trained observers for their colleagues. May be taken for 3 or 6 units. *Units: 3 OR 6.*

Also listed as Theatre Arts 430

Prerequisite: THAR 310

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 590: TUTORIAL STUDIES IN MUSIC REPERTOIRE AND PERFORMANCE

Units: 1 TO 98.

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: 1 TO 98.*

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: 1 TO 98.*

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: 1 TO 98.*

Prerequisite: Counter Registration Required.

MURP 690: *TUTORIAL STUDIES IN MUSIC REPERTOIRE AND PERFORMANCE*

Units: 1 TO 98.

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: 1 TO 98.*

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: 1 TO 98.*

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: 1 TO 98.*

Prerequisite: Counter Registration Required.

Courses - Music Theory

MUTH 100: *MUSIC THEORY FOR THE NON-MAJOR*

An introduction to the fundamentals of music theory—notation, scales, intervals, chords, keys, basic harmony and counterpoint—and their practical application in analysis, composition, and performance. No previous musical experience required. Course 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 expanded version of MUTH 202, this course provides a comprehensive introduction to tonal harmony, counterpoint, and associated formal procedures in conjunction with a thorough grounding in music fundamentals. . 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: 1.*

Prerequisite: Placement Corequisites: MUTH 151, 171 Credit does not count toward the B. Mus. degree

MUTH 162: AURAL SKILLS FUNDAMENTALS 2

Ear training commensurate with MUTH 152. Melodic, harmonic, and contrapuntal dictation, error detection, and aural perception of basic formal procedures. Credit does not count toward the B.Mus. degree. Corequisites: MUTH 152, 172. *Units: 1.*

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: 1 TO 98.*

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: 1 TO 98.*

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. 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. Placement determined by corequisite course placement. 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. 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 Corequisites: 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 Corequisites: 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 Corequisites: 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. 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. May be repeated for credit. *Units: 1.*

Prerequisite: MUTH 321

MUTH 350: TOPICS IN MUSIC ANALYSIS

Intermediate studies in music theory and analysis, focusing on a particular theoretical model, analytical approach, or corpus of works. 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: 1 TO 98.*

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: 1 TO 98.*

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: 1 TO 98.*

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: 1 TO 98.*

Prerequisite: Counter Registration Required.

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 SINCE 1900*

Study of a range of advanced analytical approaches to selected works composed between ca. 1900 and the present. *Units: 6.*

Prerequisite: MUTH 301

MUTH 520: *SCHENKERIAN ANALYSIS*

An introduction to the theory and analytical techniques of Heinrich Schenker (1868-1935), one of the most influential twentieth-century theorists of tonal music. The course explores Schenkerian concepts of prolongation, composing-out, structural levels, and linear progression as applied to significant works of tonal music from Bach to Brahms, providing as well a thorough grounding in Schenker's elegant techniques of graphic analysis. *Units: 6.*

Prerequisite: MUTH 301 or consent of instructor

MUTH 550: *TOPICS IN MUSIC ANALYSIS*

Advanced studies in music theory and analysis, focusing on a particular theoretical model, analytical approach, or corpus of works. Topics vary from year to year. Course may be repeated when the topic is different. *Units: 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: 1 TO 98.*

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: 1 TO 98.*

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: 1 TO 98.*

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: 1 TO 98.*

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: 1 TO 98.*

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: 1 TO 98.*

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: 1 TO 98.*

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: 1 TO 98.*

Prerequisite: Counter Registration Required.

DECEMBER TERM

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 are enrichment courses that are not 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 courses have separate tuition plus room and board if the course is on campus. On-campus courses may also charge a small course fee for supplies or travel expenses. Travel courses charge a program fee for lodging, ground transportation, museums/tours, travel insurance, and most meals; students are responsible for their own airfare to and from the course site.

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 - December Term

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? From a French encyclopedia. We will step outside the usual economics curriculum and study real firms around us. Through site visits and 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. Includes several day trips. *Units: 3.*

Prerequisite: ECON 100

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." You don't need to be an actor to thrive in this course, just curious and a bit brave. *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, and popular commentary, and students will undertake cooking projects based on course themes. Additional course fee: \$20 *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: *DIGITAL CURATORIAL PRACTICE*

This course will introduce students to the intellectual and practical elements of curatorial work and incorporate tools drawn from the digital liberal arts. Participants will research and curate their own online exhibition drawn from the university's interdisciplinary digital collections on the Omeka open-access platform. Course work will include readings on contemporary curatorial practice, research into digital collections, and the production of metadata for their exhibition. *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.

Deadline for registration is September 22, 2017. *Units: 3.*

Prerequisite: Instructor's approval and a series of readings

DECM 129: *THE HISTORY OF VIDEO GAMES: 1977-1996*

This course will explore 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 on the original consoles 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 135: *ARCHIVAL DISCOVERY*

An in-depth exploration of archives and archival research. The course will address the theory and practice of locating, contextualizing, interpreting, and using archival primary sources. Students will work directly with collections in the University Archives and produce a digital project based on their research. *Units: 3.*

DECM 136: CONTEMPORARY APOCALYPSE NARRATIVES

Pandemics, environmental disasters, zombie invasions: stories about catastrophes are more popular than ever. We will consider several examples of the genre in literature and film and ask: What cultural and political anxieties do these works explore? How do representations of apocalypse draw on science and religion? Can these stories spur change, or do they falsely reassure us? Students will also complete short creative projects. *Units: 3.*

DECM 137: WRITING YOUR LIFE

An intensive writing seminar for those seeking to write memoir, creative non-fiction, or other self-reflective prose. We will be writing, reading, and editing shorter daily pieces while developing a major theme or idea. *Units: 3.*

DECM 138: LOVING LITERATURE: FICTION, FAN FICTION, AND FANS OF FICTION

This course explores the hows and whys of literary affection: what do we mean when we say we "love" a book or writer? Why are authors like Jane Austen still beloved centuries after their deaths? We'll focus on a couple of historical examples of literary love, and students also will investigate their own affections as part of a final project on a writer or book of their choice. *Units: 3.*

DECM 139: COLOR, LIGHTING, AND ILLUSION

This course explores the human perception of color and light with practical projects using flat paper, painting, simple sculptures, lighting, and our daily environment. In the studio we will make three colors look like four, four colors look like three, and flat objects look plastic. New skills and understanding will culminate in creating visual art pieces. The final class will be a showing and discussion of the work with the public. *Units: 3.*

DECM 140: HAPPINESS: MEDITATION AND SCIENCE

What is happiness and how is it achieved? This course will examine some core ideas of Buddhist philosophy of mind and investigate the ways in which they are being studied and employed by psychologists, neuroscientists, and cognitive scientists. In addition to course readings, students will be instructed in basic meditation practices and expected to keep a meditation practice for the duration of the course. *Units: 3.*

DECM 141: MAKE IT STICK: USING THE LEARNING SCIENCES TO IMPROVE MEMORY

In this seminar, students will study findings from the learning sciences and apply them in exercises designed to enhance learning and memory. Students will use the results of these exercises to explore the success of various learning strategies and discuss how they might be applied in their other Lawrence courses. *Units: 3.*

DECM 142: PRESIDENTIAL POWER IN TRUMP'S AMERICA

The course focuses on U.S. public policy, specifically presidential control (or lack thereof) of administrative agencies such as the EPA, FDA, and others that some consider to be the "deep state." Readings and class discussion will provide an overview of the basic workings of relevant U.S. political institutions, followed by focus on policy making (and unmaking) within the Trump Administration. Content quizzes and a regulation project based on policy formation in a student's area of interest. *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, ground 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. Additional 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 223: *ADOBE CREATIVE SUITE*

This workshop is an introduction to the Adobe Creative Suite programs including Photoshop, InDesign, and Illustrator. The class is project centered, allowing each student to explore the multi-faceted and contemporary nature of each program. Methods in image construction, graphic design, typography, application, and output will be explored in detail. *Units: 3.*

DECM 224: *INTRODUCTION TO R AND EXCEL FOR DATA ANALYSIS*

Careful data analysis has become central to decision-making in areas from politics to sports to medicine. This introduction to collecting, cleaning, and manipulating messy, real-world data with R and Excel will emphasize reproducible, documented analysis. The course will also introduce graphing and programming concepts that pertain to data analysis. Familiarity with basic statistics is a plus but not required. *Units: 3.*

DECM 225: *A GOOD LIFE*

What is a good life? How do I live it? This is an opportunity to engage with these questions by exploring how others have tried to answer them. We will read about different ways of living, experiment with some of those practices ourselves, and reflect on them in writing. We will also talk with invited guests about how they try to answer these questions. *Units: 3.*

DECM 226: *ANCIENT COIN PUBLICATION PROJECT*

Students will research and publish ancient Greek and Roman coins from the University's collection. The current online version of the catalogue of the collection has been viewed by more than 4.2 million visitors; the goal of

the project is to make the rest of the collection available to the public. *Units: 3.*

DECM 227: *HONG KONG: SUSTAINABILITY, LIVABILITY, AND URBAN DESIGN*

This combined discussion-and-travel course examines sustainable, livable urban design through the lens of contemporary Hong Kong. We will spend one week on campus reading and preparing, followed by five days in Hong Kong for on-the-ground study, including meetings with local NGOs, government officials, and business leaders. Travel expenses (including international flights, lodging, and meals) are covered by a grant from the Henry Luce Foundation. Registration deadline: June 1. *Units: 3.*

DECM 228: *PLAGUE, WAR, AND FIRE: DISASTERS AND THE MAKING OF LONDON*

Between 1642 and 1666 London experienced war, plague, and fire. This travel study course examines these catastrophes, and explores how the city's responses shaped the future of not merely London, but other cities across the globe. We will visit numerous museums and historical sites, and consider how London responded to crisis, commemorated it, and confronted it again when German bombs fell during the twentieth century. Estimated additional fees beyond tuition are \$2,500. *Units: 3.*

DECM 229: *BEBOP LANGUAGE AND INNOVATION*

This course will explore how to improvise using bebop language. Study of solo transcriptions of Charlie Parker, Dizzy Gillespie, and Clifford Brown, and analysis of a variety of bebop chord progressions. Application of improvisational concepts such as bebop scales, broken chords, approach notes and resolutions, linear and chromatic connections, accents, rhythmic variations, and phrasing. Learning assessed through active participation, performance assignments, and a final project. All instruments welcome. *Units: 3.*

Prerequisite: Ability to play over major, minor blues, and II-V-I chord progressions. Good ear, intermediate technique, and basic knowledge of modes of major harmony.

DECM 230: *THE BLUES: ANALYSIS AND APPLICATION*

A study of Blues styles and their evolution. Historical study of the Blues as a complete and complex form, examining basic harmonic movement, chord progression reharmonizations, and rhythmic and melodic construction. Analysis of solo transcriptions from Robert Johnson, Miles Davis, and John Coltrane, and application of improvisational concepts growing out of early blues tradition. Learning assessed through active participation, performing assignments, and a final project. For instrumentalists only. *Units: 3.*

Prerequisite: Ability to play over major, minor, dominant 7th, and II-V-I chord progressions. Good ear, intermediate technique, and basic knowledge of modes of major harmony.

DECM 231: *PERFORMING FROM THE INSIDE OUT*

Musicians in this performance-based workshop explore the mind-body connection through improvisation exercises, activating techniques, strategies from performance psychology, discussion of assigned readings, and in-class performances. Engaged participation will lead to heightened expression, mental focus, musical communication, spontaneity, and self-confidence in solo and group performance. Emphasis will be placed on overcoming barriers to success in performance such as anxiety and muscle tension. *Units: 3.*

Prerequisite: Enrolled students must have one short solo piece, etude, or song prepared to present in the first class meeting and be capable of preparing and performing an additional short work late in the course.

DECM 232: *ENTREPRENEURSHIP IN LONDON: FROM THE MAYFLOWER TO BREXIT*

An introduction to entrepreneurship in London. Students will have the opportunity to visit a number of

entrepreneurial ventures, both financial and social. Starting with the 'merchant adventurers' who helped to finance the launch of the Mayflower in 1620 and continuing to contemporary financial and social entrepreneurs active in London today, the course will show the political and economic dimensions of entrepreneurial ventures over time. *Units: 3.*

Prerequisite: Instructor approval.

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

STUDENT-INITIATED COURSES AND PROGRAMS

Individualized Learning

Students may customize their learning through student-initiated courses and student-designed majors as described below.

Student-initiated courses

Students may pursue in-depth learning in areas of interest through tutorials, independent study, or academic internships. Students may also pursue directed study or writing-for-credit under the direction of a Lawrence faculty member. Non-music majors may request private music lessons by audition or interview and with an additional fee.

TUTORIAL (390-FOUNDATION/GATEWAY, 590-ADVANCED, 690-CAPSTONE)

A tutorial is a primarily student-driven course of study undertaken by an individual student or small group 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 focus on presentation and critique of student work. 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.

INDEPENDENT STUDY (399-FOUNDATION/GATEWAY, 599-ADVANCED, 699-CAPSTONE)

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. Students who continue an independent study 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.

ACADEMIC INTERNSHIP (395-FOUNDATION/GATEWAY, 595-ADVANCED, 695-CAPSTONE)

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. Students in academic internships engage in unpaid or paid work or service experiences with intentional learning objectives that relate to their academic interests and promote reflection throughout the experience. The academic component includes readings related to the substance of the internship, discussions with the faculty supervisor, and a written report appropriate to the discipline. For departments that do not offer an academic internship (course number 395, 595, or 695), a student may apply for an academic internship to the Instruction Committee by midterm reading period of the term before the start of the internship. Students may take a maximum of 12 units of academic internship in fulfillment of their degree requirements, and it is recommended that internships not integral to the major be graded S/U only. Application forms for student-designed academic internships may be obtained from the Registrar's Office; the Center for Academic Success; the Center for Career, Life, and Community Engagement; and the Main Hall, Briggs Hall, Conservatory, and Wriston Art Center offices.

DIRECTED STUDY (191-INTRODUCTORY, 391-FOUNDATION/GATEWAY, 591-ADVANCED, 691-CAPSTONE)

Directed study follows a syllabus set by the instructor and 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. The main goal is knowledge or skill acquisition, not research or creative work. Students may meet frequently with the instructor 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.

WRITING FOR CREDIT

Students may write for credit (with permission of the instructor) in any course in the curriculum other than tutorials, independent study, academic internships, directed study, or *Freshman Studies*. The student 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.

MUSIC LESSONS

Private instruction for non-music majors is available by permission of the instructor based on audition or interview and faculty schedules. Additional fees apply for lessons and the use of practice facilities. Group piano lessons are also available. Information is available in the Conservatory of Music office.

Student-designed major

A student-designed major provides the opportunity for a student to develop an area of concentration outside

established programs for interdisciplinary or department 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 integration of disparate yet related areas that fall within the proposed major. A student-designed major must align with the liberal arts mission of the university and be based on areas of faculty expertise and regularly offered courses.

A student-designed major should not be proposed in areas better served by existing majors and minors, and usually a maximum of 18 units in any other major, minor, or IA the student is completing may be included in a student-designed major. A student-designed major should not rely heavily on tutorials, independent studies, or a single faculty member, so usually no more than 18 units in student-initiated courses may be included in the major, including the *Senior Experience*. A reduced version of an existing major will not be approved.

The procedure for establishing a student-designed major is relatively simple:

1. The student elects a topic area and identifies a member of the faculty who is willing to act as advisor.
2. With help from the advisor, the student prepares an Application for a Student-Designed Major identifying a title for the major, listing required courses and electives, and proposing a *Senior Experience*. The student also prepares a statement on how the proposed major forms a coherent field of study, how it addresses the student's educational goals, and why these goals cannot be accomplished with existing majors, minors, or interdisciplinary areas. Proposed coursework should include 10 to 12 courses with a *Senior Experience*, and courses should be reasonably distributed across the introductory, intermediate, and advanced levels. The student should confirm with department chairs that proposed courses will be offered in the terms indicated in the student's tentative plan.
3. The advisor and the student invite two other members of the faculty who support the proposed major to serve as the advisory panel for the major. The panel oversees the program and approves minor changes in course selections or topics for the *Senior Experience*. One member of the panel should be designated as an alternate advisor in case the principal advisor goes on leave or is abroad. If the *Senior Experience* will be done as an independent study, the student also needs the commitment of a faculty member for that independent study.
4. The student submits the Application for a Student-Designed Major, endorsed by the faculty advisor and panel, to the Instruction Committee (for the Bachelor of Arts degree) or the Conservatory Administration Committee (for the Bachelor of Music degree) before the end of Term I of the student's junior year. Students seeking 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 or Conservatory Administration Committee reviews the application and the student's academic history, takes action on the proposed major, and communicates its action to the registrar, the student, the faculty advisor, and members of the panel.
6. Once the major has been approved, the student submits a Declaration of Major, Minor, or Interdisciplinary Area form to the registrar's office, checking the box for "student-designed major" along with any other boxes that are applicable (such as for a minor or interdisciplinary area).
7. After the major has been approved and declared, small changes such as a course substitution or change in the Senior Experience topic or advisor can be approved by the three-person faculty panel, whereupon an updated list of major requirements should be provided to the registrar. More significant restructuring of the major or changes in its requirements must be approved by the Instruction Committee.

HONORS

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 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 Honors in Independent Study at graduation in three levels: *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, the advisor 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 a full-time faculty member with academic rank (instructor, assistant professor, professor, etc.) or a part-time tenured faculty member. 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 and the honors projects Moodle site. 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, a performance, or a 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. *The artistic work and the accompanying written portion will be evaluated equally by the examining committee according to the criteria for honors.* 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 archival copy. Materials will be archived in physical form as well as in *Lux*, the Lawrence University 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.
- The project will be evaluated on its artistic merits, for which the accompanying essay provides context, and on the subsequent oral examination. The essay must fulfill the criteria for Honors in Independent Study and 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 projects submitted for Honors in Independent Study:

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.

PROJECTS IN THE ARTS

The above criteria are used in evaluating all Honors in Independent Study projects, including the brief essay written for a project in the arts. The paper for a project in the arts must fulfill all of the criteria for Honors in Independent study and be clearly organized and well-written, contain appropriate documentation when needed, and display a high quality of thought and presentation. The criteria listed above will be used to evaluate the project itself, the accompanying essay, and the oral examination.

OFF-CAMPUS PROGRAMS

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 options

A student 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. This meeting can help the student establish academic goals, explore off-campus options, and discuss logistical issues such as timing of participation and the application process.

An interested student should also discuss their desire to study off-campus with their faculty advisor. The advisor can help the student select a program that matches their academic preparation and interests as well as consider ways that the student may be able to integrate their off-campus study into their curriculum at Lawrence.

Students can also get information about off-campus study options when representatives from affiliated programs visit campus in fall and winter terms, in 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, 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 their financial aid package toward

their off-campus program.

There are also many opportunities for funding in addition to a student's regular Lawrence financial aid package. The [off-campus study funding](#) page will help students identify funding 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 Off-Campus Programs Committee and, in the case of affiliated programs, acceptance by the program sponsor. Students must apply using the Lawrence Off-Campus Programs online application system. The application deadline for most affiliated programs for the upcoming summer and following academic year is in late January, and a few programs have earlier application deadlines. Applications for the London Centre and the Francophone Seminar in Dakar, Senegal, have typically been due early in spring term.

Approval

Lawrence approval for off-campus study participation is granted 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.

Students may elect to participate in 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 and should seek approval for transfer credit prior to committing to the program.

Eligibility criteria and application evaluation

A student is *ineligible* for off-campus study if any of the following apply:

- the student will not achieve sophomore status prior to participation in the off-campus program;
- the student 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;
- the student 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
- the student has a demonstrated history of behavioral issues inappropriate for off-campus study.

In exceptional circumstances, final determination of eligibility can be made by petitioning the Faculty

Applications for off-campus study are evaluated using the following criteria:

1. 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.
2. The student's record shows evidence of college-level preparation and academic achievement appropriate to the proposed program.
3. In situations where Lawrence limits participation, qualified students proposing their first off-campus program will be given priority over qualified students proposing participation in an additional program.

Off-campus study approval wait lists

In order to budget effectively for the institutional costs associated with off-campus study, Lawrence may establish an annual cap on the number of students who may participate in affiliated programs. If there are more suitable applicants than the annual cap allows the Off-Campus Programs Committee 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) can be 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 maybe 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.

Financial aid and off-campus study

To promote equitable access to off-campus study, Lawrence University provides financial assistance to students who wish to participate in one of Lawrence's approved off-campus programs by allowing Lawrence institutional financial aid to apply.

Off-campus program charges and financial aid

Lawrence University students participating in Lawrence-approved off-campus programs will be billed regular Lawrence tuition for programs equal in length to a Lawrence term or the off-campus program's semester tuition for programs longer than 12 weeks. If the program tuition is higher than the applicable Lawrence term or off-campus semester tuition, the student will be billed the differential tuition amount. In addition to tuition and in lieu

of on-campus room and board, Lawrence University students will be billed the program fee assessed by the off-campus program they are attending. The program fee typically covers all or a portion of housing and food expenses and may include costs for local transportation, excursions, etc.

ACM tuition remission (TREP) and Lawrence University tuition remission (LUTR)

Per the Associated Colleges of the Midwest TREP policy document, ACM TREP benefits are applicable only toward the cost of Lawrence-administered programs, which include the London Centre and Francophone Seminar in Dakar, Senegal. For ACM TREP recipients opting to participate in a Lawrence-approved affiliated program, Lawrence will continue to provide the Lawrence University-funded portion of the TREP benefit but will not bill the home college for their portion of the benefit.

Lawrence University Tuition Remission (LUTR) will apply toward the cost of all Lawrence-administered and Lawrence-approved affiliated off-campus programs; however, the benefit will be capped at the payment rate for a regular term of tuition and will not be adjusted for differential or higher tuition.

Additional cost information

The cost for some off-campus study programs may be greater than the cost of studying for the same period of time on campus, and a student should also consider out-of-pocket expenses when selecting a program. Any student considering off-campus study is encouraged to meet with the Financial Aid office, which has comprehensive cost estimates for all Lawrence-approved programs.

Any student who will need financial assistance to fund an off-campus study program should submit the Free Application for Federal Student Aid (FAFSA) as early as possible during the year preceding their proposed program. Even those who do not qualify for need-based aid may wish to investigate ways to offset the expense through either an unsubsidized Stafford Student Loan or a parental PLUS loan. Students considering these options should also submit the FAFSA.

Students are also encouraged to pursue outside scholarship opportunities to assist with the incremental cost of off-campus programs. Additional scholarships (LU-dedicated funding for study abroad, scholarships from program providers, and outside scholarships) are supplemental to the Lawrence financial aid award. See the [off-campus study funding page](#) for more information about scholarships and funding options for off-campus study.

Billing, deposits, & refunds

Students participating in LU-sponsored or -affiliated off-campus programs are invoiced through their Lawrence student account for tuition and billable program fees.

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, cancellation, and withdrawal policies of our partner institutions. Once a student accepts placement in a program, the program provider begins preparation for their participation. If, after a student commits to a program, they withdraw or do not participate for any reason, most program providers hold the individual student accountable for some or all of the costs incurred on their behalf. Students should make themselves aware of the policies of the organization providing their program.

Mandatory international health and evacuation insurance

Students participating on a Lawrence-sponsored or -affiliated international off-campus program are required to carry the Lawrence University international health and evacuation insurance policy administered by Cultural Insurance Services International (CISI). The only exception to this requirement is for students on programs provided by IES, who will not be enrolled in the LU group coverage through CISI. It is presumed that this coverage is in addition to whatever medical insurance coverage the student already holds, and it has been factored into the comprehensive cost estimates for the international off-campus study programs.

CISI 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 health emergency.

The Off-Campus Programs office automatically enrolls students in the CISI insurance. The fee (currently \$42 per month of coverage) is charged to the student's Lawrence account along with the program fees.

Student travel to countries or areas with heightened risk

Lawrence University supports international travel as an essential means of providing invaluable learning opportunities for our students. We recognize, though, that international travel involves the potential for risks which may or may not be present within the United States. Lawrence strongly recommends that all students familiarize themselves with the travel information available from the [U.S. State Department](#) and [Centers for Disease Control \(CDC\)](#) 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 advisory levels, which range from 1 to 4.

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 for travel to a country or area of a country if a State Department level 4 travel advisory is in place for the host country or area. Any student travel to a country or area with a State Department level 3 travel advisory and/or a CDC level 3 travel warning must be proposed and approved through the exemption petition process outlined below. Lawrence does not support students

participating in off-campus study programs or international travel in countries with these levels of caution. Any student intending to travel to a country with an overall State Department level 1 or 2 travel advisory but with level 3 or 4 areas/regions within the country must provide a separate signed statement declaring that the student will not enter those areas.

Lawrence reserves the right to cancel support of travel based on extenuating circumstances. If cancellation is necessary, the institution will work to provide alternate programming when feasible. Withdrawal of approval for an affiliated program bars a student from receiving Lawrence credit for the program and from applying institutional financial aid or funding to the program costs.

In order to make certain that a student may make an informed decision regarding participation in 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 is feasible. This policy applies to students attending programs where such a warning or advisory level 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).

Students or faculty travel leaders who have a compelling educational reason for student travel to such countries may submit a petition for an individual exemption from this policy through the Off-Campus Programs office. Information about this petition process is available below.

In the event that an advisory or alert of this level is instituted while a student is in-country, Lawrence will consider the situation to determine if program participation should continue, be adapted, or be suspended. Lawrence will be in contact with impacted students and work with the travel assistance service of the international insurance that is required of all students traveling internationally with Lawrence support. Security evacuations are highly unusual, and the travel assistance company determines whether a political, security, natural disaster, or medical evacuation is necessary. If emergency evacuation becomes necessary, Lawrence will work with the evacuation service and impacted students to coordinate this. If a student refuses to comply with an evacuation, the University maintains the right to withdraw financial support and may institute disciplinary action.

The authority to cancel Lawrence support of international travel to particular countries according to this policy can be exercised by the provost or delegate, director of off-campus programs, or vice president for student life or delegate. When possible, these parties will confer and come to a decision in consultation with each other. In circumstances necessitating a quick response, this decision may be made by one or two of these parties.

Exemption petition process

Lawrence considers the health and safety of student participants to be the highest priority. Petitions for exemption to the Policy on Student Travel to Countries with Heightened Risk will be thoroughly considered. Petitions will be reviewed by a committee that includes the director of off-campus programs, the provost or delegate, the vice president for student life or delegate, and university counsel when necessary. The committee will (1) review plans to ensure individual safety while traveling in a country with this level of warning, and (2) determine whether Lawrence will support travel to this area in light of the risks of the location.

Student travel to a country or area of a country with a State Department level 3 travel advisory and/or CDC level 3 travel warning is allowed only with an approved exemption granted through this exemption process. A petition for an exemption for travel to a country or area of a country with a State Department level 4 travel advisory will be considered only in instances of an international student seeking support to travel to their home country and should follow the exemption proposal process.

The petition for exemption should be submitted to the Off-Campus Programs office along with all supporting materials as far in advance as possible and no later than six weeks before the proposed travel. Standard practice is that the committee will make a decision within two weeks of submission. If an exemption is granted, all paperwork to register international travel and make arrangements for insurance enrollment will follow the regular timelines. If an exemption is granted, each participant will be required to review, sign, and return an additional 'Assumption of Risk for Travel to Countries with Heightened Risk' form.

If the petition for an exemption is not approved, the student or group will not be allowed to travel to the country with Lawrence advice, support, credit, or funding. Permission for travel with Lawrence sponsorship or support may be denied at any time, and decisions may be reversed if the political climate or security situation changes after a petition for exemption is initially granted.

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.

http://www.studiesabroad.com/programs/country/argentina/city/buenos_aires

Austria

Vienna Austria

IES Vienna offers a broad curriculum in the humanities and social sciences. Programs include European Society and Culture; Music; Business, Economics, and International Relations; Psychology 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 (requires on-site audition), 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.

<http://www.iesabroad.org/IES/Programs/Austria/Vienna/vienna.html>

Botswana

Botswana

Programs Offered: Arts and Sciences; Community Public Health. The CIEE program in Botswana provides experience in Sub-Saharan Africa for students from a range of backgrounds, offering direct university enrollment options at the University of Botswana. Students can choose from two tracks of this program: Arts and Sciences or Community Public Health. Students in the Arts and Sciences track take courses at the University of Botswana from a broad range of disciplinary backgrounds. There is also an internship option for students in a wide array of fields. Community Public Health students take some courses at the local university in addition to CIEE courses focused on public health and a community health practicum.

Duration: Semester

No previous language study required. Minimum GPA of 2.75.

<https://www.ciee.org/go-abroad/college-study-abroad/locations/africa/botswana>

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

Completion of French 202 or the equivalent.

Please contact the Off-Campus Programs office about your interest in this program by the start of winter term in the year prior to your proposed participation in this program.

Chile

Santiago Chile

Program Focus: Politics, Social Justice, and Language. 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

Completion of Spanish 202 or equivalent.

<https://www.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

Minimum of one year of college-level Chinese is required. Two years preferred. Minimum of 2.7 GPA.

This program may have an early application deadline. If interested in pursuing this program, please contact the Off-Campus Programs office early for more information.

<http://my.hamilton.edu/china/intensive-language>

China

Shanghai

Focus: Perspectives on Contemporary China. The CET Shanghai program gives students without previous Chinese language background an opportunity to explore a range of topics in Shanghai, with particular strength in the Social Sciences. The program includes housing in dormitories with local roommates, an internship in a wide array of fields, and elective classes. The program is located at Donghua University's downtown Shanghai campus.

Duration: Summer, Year, Semester

No previous language study required. Minimum GPA of 3.0

Costa Rica

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

No previous language study required. At least one college-level course in ecology, biology, or environmental studies/science required.

<http://www.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 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 in addition to program coursework. Students are placed in homestays to facilitate language development and community integration.

Duration: Year, Semester

Spanish 202 or the equivalent required. Applicants must have junior or senior status during the program.

<https://umabroad.umn.edu/programs/americas/msid-ecuador/>

Ecuador

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

Minimum of Spanish 202 or equivalent. For Direct Enrollment track of the program, students will need to have completed two to three classes beyond Spanish 202.

<https://www.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

No previous language study required. Minimum GPA of 3.0. Most participants are juniors or seniors but applications for sophomore year are considered.

As of Summer 2018, the United States Department of State lists Egypt as a Level 2 Travel Advisory overall; however, there are Level 4 Travel Advisories within the country in various regions. Please contact the Off-Campus Programs Office for more information.

<https://www.aucegypt.edu/academics/undergraduate-studies>

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

French 202 or equivalent required.

France

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

French 202 or equivalent required.

http://www.iesabroad.org/IES/Programs/France/Paris/French_Studies_Program/parisFrenchStudies.html

Germany

Berlin Germany - Language and 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

German 202 or equivalent required.

<http://www.iesabroad.org/IES/Programs/Germany/Berlin/Language/berlinLanguage.html>

Germany

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. Students travel approximately 22 days to gain exposure to the European Union and beyond. Each new country allows you to develop an understanding of the European Union, its history, and its institutions. In addition, students participate in a weekend-long model EU simulation. Internship opportunities are also available.

Duration: Semester

No previous language study is required.

<http://www.iesabroad.org/study-abroad/programs/european-union#sthash.i2XTQYE2.dpbs>

Germany

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

German 202 or equivalent required.

<https://www.iesabroad.org/IES/Programs/Germany/Freiburg/freiburgLanguage.html>

Ghana

Ghana: Arts & Sciences

The CIEE program in Ghana gives students from a broad range of disciplinary backgrounds an opportunity to study in a Sub-Saharan African, urban setting at the University of Ghana which is the oldest and largest university in the country. CIEE Ghana offers a variety of opportunities for students who wish to study and engage with their location through an internship or conducting an independent study.

Duration: Semester

No previous language study required. Minimum GPA of 2.5 required. It is recommended that students have taken college-level courses related to African Studies.

<https://www.ciee.org/go-abroad/college-study-abroad/programs/ghana/legon/arts-sciences>

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

No previous language study required.

<http://www.cyathens.org/>

Hungary

Budapest Semesters in Mathematics & Mathematics Education

This program allows students to study mathematics and mathematics education with eminent Hungarian instructors in Budapest. Hungary has a long tradition of excellence in mathematics education. The Budapest Semester in Mathematics track provides advanced mathematics coursework. The Budapest Semester in Mathematics Education track of this program allows students to combine mathematics courses from the BSM track with education methods classes and observation opportunities. 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. See <https://bsmeducation.com/> as well as the main program URL.

Duration: Year, Semester

No previous language study required. Applicants in the Mathematics track must have completed at least one semester of Abstract Algebra or Real Analysis (a first course in the Theory of Analysis) prior to attending the program.

<http://www.budapestsemesters.com/>

India

Buddhist Studies in Bodh Gaya, India

Explore and study Buddhism in India through interdisciplinary courses and Buddhist meditation traditions. At the heart of the Buddhist Studies in India program is the desire to allow students to explore this subject from as many different points of view as possible. Western academic models are systematically used in the core courses, while Buddhist philosophies are tested in the Meditation Traditions course. Students take courses in philosophy, Buddhist culture, and language. All students conduct rigorous independent research in the field. The program is located in Bodh Gaya which is a unique pilgrimage center in northern India.

Duration: Semester

No previous language study required.

<https://apps.carleton.edu/global-engagement/buddhist-studies-india/>

India

Contemporary India

The IFSA-Butler Contemporary India program gives students from a broad range of disciplinary backgrounds an opportunity to explore unique issues facing the world's largest democracy as a multi-cultural society and rising superpower. Elective courses include topics on social justice, development economics, social entrepreneurship, and public health. All students complete an intensive field-based component by doing either an internship, directed research project, or film project. Students live in a homestay to become part of an Indian family's life and traditions.

Duration: Year, Semester

Minimum GPA of 2.5 required.

<https://www.ifsa-butler.org/program/contemporary-india/>

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.

https://www.iesabroad.org/IES/Programs/Ireland/Dublin/Direct_Enrollment/DE_Universities/gsaProfile.html

Italy

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

No previous language study required. 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.

http://globaled.duke.edu/programs/rome_ICCS

Italy

Milan - Music: Voice, Composition, and Instrumental

The IES Milan - Music: Voice, Composition, and Instrumental program offers an opportunity to combine highly customized musical instruction with beginning and intermediate language study and area-studies courses taught in English.

Duration: Semester

No previous language study is required. Approved only for B.Mus. and B.A. Music students to pursue music study.

<http://www.iesabroad.org/study-abroad/programs/milan-music-tradition-innovation>

Italy

Rome Italy

ISA Rome offers students the opportunity to enroll at the American University of Rome. 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. 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. Students are housed in shared apartments in neighborhoods close to the university campus.

Duration: Year, Semester

Previous language study is encouraged but not required.

<http://www.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 and a month-long cultural internship provides an invaluable education in Japanese culture.

Duration: Year, Semester

At least one term of Japanese study is required, and preference is given to applicants who will be participating during their junior year. Selection is competitive and a minimum GPA of 3.0 strictly required.

This program has an early application deadline. Be in touch with the Off-Campus Programs office to discuss the early deadline in fall term of the academic year prior to the proposed study.

<https://japanstudy.earlham.edu/>

Japan

Tokyo Japan - Language & Culture program

IES Tokyo offers an opportunity to study Japanese language 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.

Duration: Year, Semester

Previous language study is not required though it is strongly recommended.

<http://www.iesabroad.org/study-abroad/programs/tokyo-language-culture-new>

Jordan

Area & Arabic Language Studies in Jordan

The AMIDEAST Area & Arabic Language Studies program in Amman, Jordan provides students with an immersive cultural and academic experience in Jordan as well as opportunities to explore a variety of topics related to the Middle East. Students take Arabic language classes available at all proficiency levels and elective classes in a variety of subject areas. This program offers content courses taught in English from a range of disciplines while also offering high-quality Arabic instruction. Students can opt to take the community-based learning course which places students in local organizations and workplace settings.

Duration: Semester

No previous language study required.

<https://www.amideast.org/our-work/education-abroad-in-the-mena/abroad-programs/semester-programs/area->

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, such as entrepreneurship, health, human rights, and sustainability. Students interested in the theoretical and practical implications of international development and social justice study firsthand the challenges faced by developing countries. The program consists of two components: seven weeks engaging in coursework in Nairobi, followed by six weeks gaining hands-on experience by participating in a community-based internship or conducting a research project with a local grassroots organization. Students are placed in a home stay to facilitate community integration.

Duration: Semester

No previous language study required. Applicants must have junior or senior status during the program.

As of Summer 2018, the United States Department of State lists Kenya as a Level 2 Travel Advisory overall; however, there are Level 3 and 4 Travel Advisories within the country in various regions, as well as within the city of Nairobi where part of the program will take place. Please contact the Off-Campus Programs Office for more information.

<http://umabroad.umn.edu/programs/africa/msid-kenya>

Madagascar

SUNY Madagascar Semester

The Madagascar Semester through Stony Brook University offers students interested in anthropology, tropical biology, primatology, or ecology an option for field study in biodiverse Ranomafana National Park at the Centre ValBio research station. During the program, students enroll in courses that allow for the study of primatology, the comparison of ecosystems in Madagascar, culture and language of Madagascar, and an Independent Study. Further information about Centre ValBio and the program is available:

<https://www.stonybrook.edu/commcms/studyabroad/outgoing/programs/current-year/academic-year/madagascar/madagascar-in-fall>.

Duration: Semester

No previous language study is required. This program is open to juniors and seniors, though, well qualified sophomores may be considered.

<https://www.stonybrook.edu/commcms/centre-valbio/education/studyabroad.html>

Morocco

Area & Arabic Language Studies in Morocco

The AMIDEAST Area & Arabic Language Studies program in Rabat, Morocco provides students with an immersive cultural and academic experience in Morocco as well as opportunities to explore a variety of topics related to the Middle East. Students take Arabic language classes available at all proficiency levels and elective classes in a variety of subject areas. 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

No previous language study is required. Most participants will be juniors or seniors, though, applications for sophomore year are considered as well.

<https://www.amideast.org/our-work/education-abroad-in-the-mena/abroad-programs/semester-programs/area-and-arabic-language-studies/morocco>

Netherlands

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

No previous language study required. Applicants must be music majors and have junior or senior standing by the beginning of the program. Audition and additional application material required. Final admission decisions rest with the Amsterdam School of Music. Admission to this program is competitive.

<http://www.iesabroad.org/study-abroad/programs/amsterdam-direct-enrollment-conservatorium-van-amsterdam>

Netherlands

Amsterdam: Psychology and Sciences

Students take courses at the Vrije Universiteit Amsterdam (VU Amsterdam) which is known for its strong science programs, particularly global health, biomedicine, and neuroscience, as well as offering courses in psychology, earth sciences, and other areas. Students have the option of taking elective courses taught through IES's Study Abroad center. VU courses are taught in English.

Duration: Year, Semester

No previous language study required. Minimum GPA of 3.0 preferred. GPA of 2.9 or lower will not be considered. Students with a cumulative GPA between 2.9 and 3.0 will be asked to supply additional application materials.

<https://www.iesabroad.org/programs/amsterdam-psychology-sciences>

Netherlands

Amsterdam: Social Sciences and Humanities

The IES Amsterdam: Social Sciences and Humanities program combines coursework at the prestigious Universiteit van Amsterdam (UvA) with courses taken at the IES Abroad Center. With a strong focus on internationalism, the UvA offers a wide range of courses in many areas of study, including Conflict & Cultural Diversity, Globalization & International Relations, Migration Studies, and Sociology. At the IES Abroad Center, you will choose from offerings in Art History, Studio Art, Gender Studies, Dutch language, and other subjects taught by international faculty from diverse backgrounds and disciplines.

Duration: Year, Semester

No previous language study is required. Minimum GPA of 3.0 preferred. GPA of 2.9 considered with additional application materials. 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 decision lies with the host university.

<https://www.iesabroad.org/programs/amsterdam-social-sciences-humanities>

Netherlands

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.

Students interested in applying to this program should contact the Off-Campus Programs office and the Physics department.

<https://www.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

<https://www.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. More advanced and heritage speakers may be able to replace Russian language credits with academic courses.

Duration: Summer, Year, Semester

Two years of college-level Russian language are required.

<http://www.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

Completion of French 202 or the equivalent. The course Destination Dakar is required in the term preceding the seminar term.

Application deadline in Winter Term the year preceding the seminar term.

http://www.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

Completion of Spanish 202 or equivalent 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.

<http://www.studiesabroad.com/programs/country/spain/city/granada>

Spain

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. Students may take courses in Spanish or English, depending on their abilities.

Duration: Summer, Year, Semester

Two semesters of college-level Spanish are required.

<http://www.iesabroad.org/study-abroad/programs/salamanca-study-salamanca>

Tanzania

Ecology and Anthropology in Tanzania

Ecology and Anthropology in Tanzania combines field research with cultural immersion in East Africa and is designed to help students learn about the centrality, the methods, and the rewards of field work in both the social and natural sciences. Over the course of the program, students will live with local host families in the Usa River community near Arusha and take classes in ecology, cultural anthropology, and Swahili. Excursions and

field trips to sites such as local Maasai villages and national parks (Serengeti, Tarangire, and Mount Kilimanjaro) provide unique opportunities to learn about and interact with the people, wildlife, and landscape of Northern Tanzania. The culmination of the program is research conducted under the guidance of regional experts, with the goal of serving student scholarship and contributing to a larger community benefit in Tanzania.

Duration: Semester

No previous language study required.

<https://apps.carleton.edu/global-engagement/ecology-tanzania/>

United Kingdom

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 2-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 available to through an additional selection process. Music students are able to arrange 3-unit S/U music lessons for credit.

Duration: Term

Application deadline in Winter Term the academic year prior to study abroad.

<http://www.lawrence.edu/academics/offcampus/london/>

United Kingdom

Northern Ireland: Democracy & Social Change

Based in Derry/Londonderry, this program of the Higher Education Consortium for Urban Affairs (HECUA) allows students interested in peace and conflict studies to examine firsthand the transition from conflict to sustainable democracy through classroom study, comparative field trips, and an internship placement.

Duration: Semester

United Kingdom

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

Minimum GPA of 3.7. Applicants must have junior or senior standing at the beginning of the program. This program is often competitive and the final admission decision lies with the host university.

This program has an early application deadline. Be in touch with the Off-Campus Programs office to discuss the early deadline in fall term of the academic year prior to the proposed study.

<http://studyabroad.arcadia.edu/find-a-program/programs-by-country/england/university-of-oxford/>

United Kingdom

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.

<http://studyabroad.arcadia.edu/find-a-program/programs-by-country/england/university-of-york/>

United States

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

<https://www.coe.edu/academics/coe-difference-centers-and-programs/off-campus-study/wilderness-field-station>

United States

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.

<http://www.acm.edu/programs/14/newberry/index.html>

United States

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.

<http://www.acm.edu/programs/15/oakridge/index.html>

United States

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

<http://www.sea.edu>

United States

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.

<https://www.mbl.edu/ses/>

United States

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.

This program has an early application deadline. Be in touch with the education department to discuss the early

deadline in fall term of the year prior to your proposed participation in this program.

<https://www.chicagocenter.org/student-teaching-program>

United States

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

<http://www.american.edu/spexs/washingtonsemester/index.cfm>

ACADEMIC PROCEDURES AND REGULATIONS

Academic responsibilities

OPPORTUNITIES, OBLIGATIONS, AND RESPONSIBILITIES

Academic procedures and regulations, together with degree, program, and course requirements and the honor system 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 degree requirements and maintaining satisfactory academic progress. Students are expected to be thoroughly familiar with the contents of the course catalog, the student handbook, and other contracts and official notices of the university. Degree requirements and requirements for majors, minors, or interdisciplinary areas are set by specific catalog year, while academic regulations and procedures are effective as of the date they are approved by the university unless otherwise noted.

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 student handbook.

CATALOG OF RECORD

Students complete degree requirements using the course catalog in effect at the time they matriculate as degree-seeking students. Students have the option of choosing a different year's course catalog as their catalog of record. The catalog of record must be from the student's period of enrollment as a degree-seeking student. The catalog of record is used to certify all degree requirements, including majors, minors, interdisciplinary areas, and general education. Students may not satisfy requirements from more than one catalog. Students should consult with their academic advisors and with department chairs and program directors regarding the applicability of current course offerings to the requirements they intend to complete.

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 Wellness 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 AS A KEY TO SUCCESS

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 or injury. Students who miss class for illness or injury 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, Wellness Services can e-mail notice to the instructors). If a student misses the equivalent of two weeks of classes or a similar number of assignments, then the student and the instructor should meet with the Dean of Academic Success to discuss whether the student will be able to complete the course or, especially late in the term, needs to withdraw or arrange for an incomplete.

Students with known health conditions that could affect their course work should meet with their instructors at the start of term to plan how to deal with problems that might arise. They should notify instructors in advance if they will be absent for medical testing or treatment and should alert instructors right away if they are too ill to come to class or to complete an assignment. If students are unable to meet their course requirements, they should contact the Dean of Academic Success to arrange a withdrawal or incomplete.

Personal crisis. Personal crises, such as accidents, trauma, 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 Wellness, Student Life, 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.

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, department chairs and program directors, or the Center for Academic Success for further advice.

Honor system

HONOR CODE

To maintain the atmosphere of mutual trust and confidence among students and faculty and to ensure that students are judged according to their own merits, the Lawrence University community has established the following Honor Code:

No Lawrence student will unfairly advance their own academic performance or in any way limit or impede the academic pursuits of other students of the Lawrence community.

The Lawrence community firmly believes in the value of the academic atmosphere that 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, particularly as the Honor Council provides extensive information to all students. The council does not consider ignorance or negligence as an excuse

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 hereby reaffirm the Lawrence University Honor Code" (or "IHRTLUHC") followed by their signature on all submitted work or by providing an equivalent indication on work submitted electronically.

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, the member has two options:

- contact the faculty member involved, the Honor Council Advisor (appointed by the Provost), or a member of the Honor Council; or
- discuss the concern 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 Honor System Charter and related information on the Honor System webpage.

Accommodations for students with disabilities

NONDISCRIMINATION ON THE BASIS OF DISABILITY

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.

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

In compliance with Section 504 of the Rehabilitation Act of 1973 and the Americans with Disabilities Act of 1990 (amended in 2008), Lawrence 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 ACADEMIC ACCOMMODATIONS

Students who have a disability covered by the Americans with Disabilities Act are entitled to academic accommodations. In keeping with the university's educational philosophy emphasizing student independence and responsibility, requests for accommodations must be initiated by the student. No 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 should be made as early as possible.

To request academic accommodations, a student should meet with the director of accessibility 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 director.

Accommodations are not retroactive, so they should be arranged during the first week of the term to ensure they are in place when needed. Any testing accommodations must be requested at least one week 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--fall, winter, and spring--plus an optional December term (described in the catalog under "December Term"). Each regular 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. Students may register for up to 22 units (exclusive of music ensembles) without overload approval or fees.

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
- 9:50–11:00 a.m. MWF
- 11:10 a.m.–12:20 p.m. MWF
- 12:30–1:40 p.m. MWF
- 1:50–3:00 p.m. MWF
- 3:10–4:20 p.m. MWF
- 9:00–10:50 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

A per-unit fee is assessed for 23 or more units in a single term, exclusive of music ensembles, up to the maximum load of 27 units. Every student who qualifies to overload may take a single term at 23-24 units during their time at Lawrence with no additional charge, and during that term the per-unit fee will be charged for 25 units or more. Overload fees are not refunded if a student withdraws from a course after the class change period, in which case the course counts as attempted units and remains on the transcript with a W.

To qualify to overload, a student must be in good academic standing, have a "B" average for the preceding three terms, and have permission from their academic advisor. Registration for overloads occurs at the start of the term during the class change period. To register for an overload, a student submits a Request to Overload form with the advisor's signature to the Registrar's Office, and once the approval has been entered into the system, the student adds the extra course(s) in Voyager. A petition is required to register for an overload after the class change period, and no petitions to overload with late registration will be accepted after the course withdrawal deadline, which is the second Friday after midterm reading period.

Fewer than 15 units in a term (including music ensembles) is considered an underload. At times a student might find it educationally advantageous to reduce their course load for one or more terms. A student considering a reduced load should consult with their academic advisor 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. A student with less than a full course load may be charged tuition on the incremental fee plan (see Tuition, Fees, and Financial Assistance).

Registration

The schedule of classes for current and future terms is published online at <http://www.lawrence.edu/s/registrar/catalog>, and announcements about registration and course offerings are sent to students at their Lawrence e-mail address. Registration is conducted through the Voyager system, which is accessible both on and off campus. Instructions can be found at <http://www.lawrence.edu/s/registrar/registration>. Students can view their registration status and assigned registration time in Voyager.

Before registering for classes, students must meet with their academic advisor and obtain any required course approvals from instructors. They must also clear any other registration holds (Registrar's Office, Financial Services, Wellness Services, or deans). Students with a registration hold should contact the appropriate office directly.

Students are responsible for checking their registration at the start of each term and maintaining 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 fee to correct registration errors (see "Petitions and Fees for Late Registration" below).

ADVANCE REGISTRATION FOR DEGREE-SEEKING STUDENTS

Advance registration for the next academic year begins in the Spring Term. All continuing, degree-seeking students are eligible to register at this time and should consult with their academic advisor about their plans before the registration period opens. Continuing students must have advance-registered for classes in order to participate in the housing selection process.

Advance registration for new first-year students, transfer students, visiting-exchange students, and Waseda Program students occurs in the summer. Course planning and registration information is sent to new students, who are invited to schedule an online meeting with an academic advisor to select courses for the fall term. During Welcome Week, new students meet with their academic advisor and complete their course registration using the Voyager system. Students entering Lawrence in the middle of the academic year register at the beginning of the term in which they first enroll.

TERM REGISTRATION FOR DEGREE-SEEKING STUDENTS

All students are expected to be properly registered for the current term by the end of the class change period, which is the first five days of classes. To add or drop classes, a student must first clear all registration holds. To add a limited-enrollment class, a student must wait for the instructor to enter approval in Voyager, and then the student may register for the class. Special registration forms for student-initiated courses, supervised accompanying, or the S/U option must also be submitted before the end of the class change period. After this period, a class may be added or dropped only by petition to the Faculty Subcommittee on Administration, and late fees and overload restrictions apply.

After the class change period, the registration system remains open for future terms so that students may make class changes or add their name to class waitlists for the upcoming term. Registration for continuing students is closed during the summer, when there are advance registration periods for incoming first-year and transfer students.

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 high school students in the Early College Credit Program (ECCP), college graduates seeking teacher certification, and members of the local community taking courses for personal growth. Non-degree students must meet with their academic advisor and obtain the approval of each instructor before they can register through the Voyager system. Priority is given to degree-seeking students when classes are over-subscribed.

PETITIONS AND FEES FOR LATE REGISTRATION

Students who need to correct a registration error after the start-of-term class change period has ended must petition the Faculty Subcommittee on Administration. The deadline for submitting a petition to correct course registration is the last day of classes of the third regular term (not including December Term) following the term for which the change is being requested (that is, within one calendar year). To discourage unapproved overloads, no petition to add a course as an overload will be accepted after the class withdrawal deadline for the term in which the course is taken (see "Overloads/Underloads"). When the Faculty Subcommittee on Administration approves a late correction to class registration, the following fees apply:

- \$25 per late class cancellation or addition approved from the sixth day of classes through the class withdrawal deadline (the second Friday after midterm reading period), up to a maximum of \$200 for the term.
- \$50 per late class cancellation or addition approved after the class withdrawal deadline 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, or a delay in placement due to an audition, placement test, or similar requirement. The student is responsible for documenting the exceptional circumstance as part of the petition.

Courses and exams

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 class standing, a list of specific courses to have been completed, a description of skill level previously achieved, or some combination of these. 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 is expected that 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 approval. Students who believe transfer credit or credit from advanced-placement examinations should be applied to the prerequisites also *must* contact the instructor for approval 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.

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, and no examinations or tests may be given in class or as take-home exercises during the last week of classes. It is a faculty member's prerogative to establish the conditions for their particular exam. If no specifications are given, the exam will be taken in class without books, notes, or discussion among the students, and without the aid of technology.

An examination schedule is published by the registrar before the fifth week of the term. 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. 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. Students who have three examinations on the same day may request a change of time for one of them. Students may also petition for a change of exam times for reasons of health, family considerations, or summer academic programs. Petitions to change final exams for travel purposes will not be approved.

WITHDRAWING FROM A COURSE

Students are permitted to withdraw from a course after the class change period through the second Friday after midterm reading period (about two weeks before the last day of classes). The course instructor and the student's faculty advisor must sign the withdrawal form, which is available from the registrar's office. A grade of W is recorded on the student's record and has no effect on grade-point averages. A course withdrawal does not reduce the number of units used for billing purposes.

A student must petition the Faculty Subcommittee on Administration to withdraw 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 their career at Lawrence, or
- the student is on probation or strict probation, or
- the student has been referred to or sanctioned by the Honor Council for a matter related to the course, or
- the student is requesting to withdraw after the withdrawal deadline.

Withdrawing from a course reduces a student's active course load for the term. Changing the active course load to less than full time (fewer than 15 units for a single term) can affect the status of a student visa, eligibility for financial aid and scholarships, eligibility for veteran's benefits, athletic eligibility, insurance, and other matters that require full-time student status. Students should investigate the possible consequences before submitting a course withdrawal form. International students should consult international student services. Students receiving scholarships, financial aid, or veteran's benefits should consult the financial aid office. Athletes should contact their coaches. All students should check their insurance requirements.

REQUESTING AN INCOMPLETE

Students are expected to complete the work in each course by the deadlines established by the instructor, and the final deadline for any work is the scheduled exam time. However, a grade of incomplete may be awarded at the discretion of the dean of academic success, working in partnership with the instructor, if requested by the student, under the following guidelines:

1. approximately 70% or more of all course requirements have been completed (even if not yet graded); and
2. unforeseen circumstances beyond the student's control (usually restricted to serious and sudden physical or mental illness, family emergency, or unpreventable lab or practicum issues) impede completion of the remaining work for the course by the term deadline.

Poor planning, having a significant amount of work to complete at the end of the term, desiring extra time to do higher quality work, or failing to back up work are not, in fairness to other students, considered circumstances beyond a student's control. Instructors and students with questions about whether the conditions for an incomplete are met should consult with the dean of academic success.

Incompletes are normally granted at or near the end of the term. Students must initiate the process to request an incomplete by meeting with the dean of academic success before the scheduled final exam time. If the course does not have a scheduled exam time, the student must meet with the dean before the last exam time of the term. If the conditions for an incomplete are met, the dean of academic success will send the instructor an Incomplete Information Form to specify the work to be completed.

For fall, winter, spring and summer terms, students have four weeks after the last day of classes to complete an incomplete. For December term, students have one week after the last day of classes to complete an incomplete. Extensions are granted only in rare cases with extraordinary extenuating circumstances such as significant medical issues or family emergencies. Documentation must be provided to the dean of academic success before a decision is made. Extensions require the approval of both the course instructor and the dean of academic success.

If the student does not submit the remaining work by the incomplete deadline, the student will receive a course grade based on completed work with zero credit for any missing work.

Exceptions to the above guidelines are at the discretion of the dean of academic success.

Grading system

GRADING SCALE AND GRADE SYMBOLS

Grade	Description	Computation of grade points
A	Excellent	4 x value of the course
A–	Excellent	3.75 x value of the course
B+	Good	3.25 x value of the course
B	Good	3 x value of the course
B–	Good	2.75 x value of the course
C+	Satisfactory	2.25 x value of the course
C	Satisfactory	2 x value of the course
C–	Satisfactory	1.75 x value of the course
D+	Passing, but unsatisfactory	1.25 x value of the course
D	Passing, but unsatisfactory	1 x value of the course
D–	Passing, but unsatisfactory	0.75 x value of the course
F	Failing	0 x value of the course
W	Withdrew	No course credit. Does not affect grade-point averages.
S	Satisfactory	Equivalent to a C– or better. Course credit. Does not affect grade-point averages.
U	Unsatisfactory	Equivalent to D+ or below. No course credit. Does not affect grade-point averages.

I	Incomplete	Course work remains to be completed by a set deadline after the end of term. An incomplete is granted by the dean of academic success for extenuating circumstances (severe illness or emergency) where most of a course has been completed. The incomplete grade (I) is replaced by the earned course grade after the work is completed or the deadline has lapsed.
IP	In Progress	Designates a tutorial or independent study that will continue in the subsequent term (the student must register in the next term for the same course number and title). The IP is 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 taken 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.
R or #	Repeated Course	Credit is not applied to degree. Grade is not used in computation of degree GPA and major or minor GPA. Original course grade does remain in composite 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 than 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 Satisfactory/Unsatisfactory (S/U) grading option is provided to encourage students to explore new academic disciplines. A student must designate the S/U option for a course by the end of the class change period at the start of the term. At any time during the term or after the course has been completed, the student may change the basis of grading from S/U to letter grade (A-F) to have the letter grade recorded on the transcript and included in grade-point averages. Students may not change from a letter grade to S/U.

Instructors submit letter grades (A-F) for all courses that are not offered S/U only, and the registrar then converts the letter grade to S or U for any student who has elected the S/U option. A grade of C- or above becomes Satisfactory (S); a grade of D+ or below becomes Unsatisfactory (U). A Satisfactory grade provides course credit, while an Unsatisfactory grade does not. Neither grade affects grade-point averages.

Students who have completed 54 units may elect to take one class per term on an S/U basis. The class must be outside the major/minor department or program and other major/minor required courses except as noted below:

- Students with a minor in Chinese may take a course in Japanese on an S/U basis, and students with a minor in Japanese may take a course in Chinese on an S/U basis.
- Students with a minor in Latin may take a course in Greek on an S/U basis, and 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, and students with a minor in art history may take a course in studio art 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.

Owing to the COVID-19 emergency, the following change to the S/U policy was approved for the Spring 2020 term only:

- **All** students may take any or all courses S/U during Spring 2020, even if the course(s) are required for the student's major, minor, or degree requirements. Courses taught in Spring 2020 will **not** count toward the limit on S/U courses students may take overall. Students will be able to mask any grade from Spring 2020 up until the fifth day of the Fall 2020 term. That is, they will not need to decide to take a course S/U until after grades for Spring 2020 have been reported.

REPEATING COURSES

Students are permitted to repeat courses in which a grade of F is received. A student must submit a Repeated Course form to the registrar's office to exercise this option. When a course is repeated, the second grade is recorded on the academic record and the original F is replaced by R. Only the second grade is counted in the degree GPA and major or minor GPA, while both the original F and repeat grade are counted in the composite GPA (see "Grade Point Averages").

A student who receives a second F in a repeated course should nevertheless exercise the option to have the second F replace the first F so that only the second F will count in the degree GPA and major or minor GPA. The student may then elect to repeat the course again for another replacement grade, if desired.

A student who withdraws from a class (W) has not completed the course and is free to take it again. Only grades for completed courses count in grade-point averages.

GRADE REPORTING AND TRANSCRIPTS

Grades become visible to students, academic advisors, and administrative staff 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 through their Voyager account, giving permission to release the transcript to a third party. Charges for an official transcript vary according to delivery method; specific fees are explained in the Voyager transcript ordering process on the registrar's office website. Students should be aware that official transcripts will not be sent after the last day of classes until grades for the term

have been posted and academic progress review is complete. Official transcript requests are usually fulfilled within 3-5 work days. Students are free to use their Voyager list of courses and grades as an unofficial document in cases where an official transcript is not required.

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 a major and optional minor or interdisciplinary area

DECLARATION OF A MAJOR

Students are strongly urged to declare a major by the end of 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 no later than the beginning of the junior year and may do so at any time by completing a Declaration of Major, Minor, or Interdisciplinary Area form available in the registrar's office. Students must also have an academic advisor in their major department no later than the beginning of the junior year. Neither declaring a major nor changing advisors should preclude a student from seeking additional counsel about their course of study from any member of the faculty, especially from the chair or director of a department or program in which the student is completing a minor, interdisciplinary area, or teacher certification.

If a student-designed major has been approved by the Instruction Committee, it must also be declared on the Declaration of Major, Minor, or Interdisciplinary Area form by checking the "student-designed major, B.A." box. The approved major requirements are kept on file in the registrar's office.

DECLARATION OF A MINOR OR INTERDISCIPLINARY AREA (IF DESIRED)

In addition to a major, a student may choose to complete the requirements for a minor or interdisciplinary area. A student may indicate the intent to pursue a minor or interdisciplinary area on the Declaration of Major, Minor, or Interdisciplinary Area form available in the registrar's office. An advisor in the minor or IA is not required, and students are encouraged to consult with the appropriate department chair or program director about their course selections.

TEACHER CERTIFICATION (IF DESIRED)

A student who wishes to pursue teacher certification must apply for admission to the teacher education program. See the Education section of the catalog for more information.

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 and take nationally administered examinations in many subject areas. Lawrence awards 6 units in the appropriate area 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 total. Individual departments may decide to award additional credit.

Credit awarded for advanced-placement examinations may be used to fulfill general education competency and diversity requirements as appropriate, though not distribution requirements, which require courses to be taken at a college or university. Individual departments or programs will determine whether advanced-placement

credit fulfills major or minor requirements and where to place students who wish to undertake further work in the discipline or field.

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 for each IB higher-level examination and 3 units for each subsidiary-level examination. Students who have not earned an IB diploma but have completed individual IB examinations may receive 6 units for each higher-level examination. A maximum of 48 units 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.

Credit awarded for IB examinations may be used to fulfill general education competency and diversity requirements as appropriate, though not distribution requirements, which require courses to be taken at a college or university. Individual departments or programs will determine whether IB credit fulfills major or minor requirements and where to place students who wish to undertake further work in the discipline or field.

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. Grade reports or transcripts submitted by students are not accepted. Students may be asked to provide course descriptions, syllabi, or other information if a determination cannot be made from the transcript or report information alone.

Coursework from other institutions may be used to satisfy general education distribution, diversity, and foreign language and quantitative reasoning competency requirements where appropriate, though not the writing or speaking competency requirement, which must be completed at Lawrence. 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.

Only courses applicable to the programs and degrees offered by Lawrence and graded at a C- or better will be transferred. Credit is granted on the basis of 6 Lawrence units for three-and-one-third semester hours or five quarter hours, so a three-credit semester course is normally credited as 5 units at Lawrence. Transfer credit and transfer grades are used only in the computation of the composite GPA, not in the degree GPA or major or minor GPA (see "Grade Point Averages").

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 units 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 composite grade-point average; a notation of courses that may be transferred pending completion of work, review of course descriptions and syllabi, and/or review by a Lawrence department; a notation of courses denied for transfer credit due to unsatisfactory grades or because the content is not applicable to a Lawrence degree; a statement of the work required for graduation; and a statement of the student's academic class standing on entry. Depending on work transferred and the major selected at Lawrence, a transfer student may need to complete additional units beyond the minimum required for a Lawrence degree in order to fulfill all degree requirements.

Transfer of credit for continuing students

A Lawrence student who wishes to attend summer school or undertake a period of study at another institution must petition the Faculty Subcommittee on Administration for approval of the proposed courses for transfer credit. The petition must include the title and description of each course; the length of the session or term and, for summer work, the number of hours of participation in class, laboratory, field, or studio; and statements of support from the student's academic advisor and from the chair of the department or director of the program that would offer the course were it part of the Lawrence curriculum. A syllabus may be requested if needed to determine whether a course can be approved for transfer credit. Normally no more than 12 Lawrence units may be earned in a summer session.

Transfer credit will be applied to degree requirements as appropriate based on the subject of the course. If the student would like the transfer credit to fulfill a particular general education requirement, this should be stated in the petition, and a syllabus may be needed to make this determination. It is expected that the student and academic advisor will have reviewed the implications of transfer credit for degree and residence requirements. Transfer credit is used only in computing the student's composite GPA and will not affect the degree GPA or major or minor GPA.

The Faculty Subcommittee on Administration will notify the student of courses approved for transfer with satisfactory grades. 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 official documentation to be sent to Lawrence upon completion of the work as described under "Transfer Credit" above.

Completion of the language competency requirement

Lawrence's general education requirements include competency in a language other than English. The language must be a natural language that is natively spoken or signed by one or more linguistic communities. Students demonstrate proficiency in listening, speaking, reading, and writing. For non-written languages, students demonstrate proficiency in listening and speaking only. For classical languages (Latin and Ancient Greek), students demonstrate proficiency in reading and writing only. Students may demonstrate proficiency through coursework, examination, or documentation as described below.

Approval of transfer credit, arrangement of testing, review of documentation, and certification of satisfying the

language competency requirement are under the purview of the language coalition, a coalition of the language departments at Lawrence. Ask any language department faculty member for the name of the current language coalition chair.

COURSEWORK

- Completing a Lawrence University language course at the level of 200 or above (for the Bachelor of Arts degree or B.A./B.Mus. double degree) or 102 or above (for the Bachelor of Music degree).
- Completing a course at the appropriate level in a Lawrence-affiliated off-campus program with a language component. A list of programs with qualifying courses is available through the off-campus programs office.
- Receiving transfer credit for a course at the appropriate level completed at another college or university (see "Transfer Credit"). The petition for transfer credit should request that the course satisfy the language competency requirement. The Faculty Subcommittee on Administration will request approval from the language coalition chair.

EXAMINATION

- 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 requirement is satisfied. Degree credit is not awarded for these examinations.
- Passing a proficiency examination in a language not taught at Lawrence. The testing may be facilitated locally by the chair of the language coalition. Where a suitable option is not available, a student may petition the Faculty Subcommittee on Administration to use an evaluation administered and certified by an outside authority who will (a) identify the 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 (or listening and speaking for a non-written language). The student should contact the chair of the language coalition for help preparing the petition and confirming the acceptability of the outside authority.
- 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 six units of credit.
- For Spanish only: 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.

DOCUMENTATION

- Presenting a diploma or letter from a principal or headmaster (not related to the student) certifying that the student graduated from a high school where instruction was primarily conducted in a language other than English. The student should petition the Faculty Subcommittee on Administration to have the documentation satisfy the language requirement. The student is encouraged to contact the chair of the language coalition for help preparing the petition and confirming the acceptability of the documentation.

Native speakers whose high school program was conducted primarily in English will need to demonstrate proficiency through examination or, where examination is not possible, documentation attesting to the student's language skill from an authority (not related to the student) approved by the chair of the language coalition.

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 45 units and have a minimum degree GPA of 1.75. Students who do not meet these guidelines or who receive failing grades or other indications of unsatisfactory progress may be placed on Notice, placed on Academic Probation, placed on Academic Suspension, or Required to Withdraw from the university. Academic performance in December Term does 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.

Additional information on policies governing academic progress and standing is contained in "Academic Standing Policy," which may be obtained from the Registrar.

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. A B.Mus. student who wishes to transfer to the B.A. degree program should direct the petition to the Faculty Subcommittee on Administration. A B.A. student who wishes to transfer to the B.Mus. degree program should direct the petition to the Conservatory Committee on Administration.

Any student considering transferring to a different degree program should consult with their academic advisor, the dean or associate 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. A student who transfers to a different program after the second year of study will usually need to extend the time required to complete the degree.

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. No petition is required.

CONFERRING OF DEGREES AND GRADUATION

Lawrence confers degrees at the end of fall and spring terms but holds its Commencement once a year in June. Degrees are not conferred automatically. A student must indicate their intent to graduate by completing a form distributed by the registrar's office. Once a student submits an Intent to Graduate form, a process will begin to audit the student's record to be sure all degree requirements are met prior to the degree being conferred. All grades, official transcripts, and other certifying documents, such as the major/minor/interdisciplinary area completion form(s), 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, and a student may participate in Commencement only once. A student who expects to finish requirements and receive the degree after fall term may petition to participate in Commencement the June before the degree is conferred. A student enrolled in an affiliated cooperative degree program who has completed the required units at Lawrence and the first year at the professional school may petition to participate in Commencement with the matriculation class, as may a student entering Lawrence's year-long elementary teaching apprenticeship who has completed all degree requirements and is deferring conferral of the degree. A petition 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 is 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 are released only for students whose accounts with Financial Services are clear.

Academic honors

THE 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 the academic year once all grades have been recorded. For a student to be included on the Dean's List, the student's record must meet the following qualifications:

1. The student must have earned at least 36 units in Lawrence courses during the academic year. Lawrence courses include courses taken on the Appleton campus or in a Lawrence-sponsored or affiliated off-campus program.
2. The student must have earned a GPA of at least 3.500 in those courses, with no unsatisfactory grades (D+, D, D-, F, or U).

For students with pending grades due to incompletes or off-campus study, inclusion on the Dean's List will be determined once all grades for Lawrence courses are received.

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 on the basis of their 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 at three levels—*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

A student's eligibility to receive Honors in Course is based on performance in courses taken at Lawrence or as part of Lawrence-approved off-campus programs (degree GPA) and on the student's entire academic record including courses taken at other colleges or universities (composite GPA). The committee uses as guidelines the following grade-point averages:

- 3.500 to 3.749 for *cum laude*
- 3.750 to 3.899 for *magna cum laude*

- 3.900 to 4.000 for *summa cum laude*

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 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

A student may earn Honors in Independent Study through the successful completion and defense of an honors project. Honors in Independent Study are awarded at the levels of *cum laude*, *magna cum laude*, and *summa cum laude* based on criteria listed under "Honors Projects" in the *Course Catalog*.

Petitions and grievances

PETITIONS FOR EXCEPTIONS TO UNIVERSITY 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. Note that petitions for late registration changes or overloads have deadlines described under "Registration."
- 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.

A petition should contain a clear and detailed statement of what is being requested and the reasons for the request, including extenuating circumstances (accident, illness, family emergency, etc.). An academic petition should be prepared with assistance from the academic advisor and/or the dean of academic success and others who may be involved, such as a course instructor, department chair or program director, registrar, or dean, whose signatures may be required. For guidance on what to include in a petition, students are encouraged to read the academic petition form available on the registrar's website and to consult with the dean of academic success.

Any academic matters that remain in dispute will be decided by 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 community 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 life 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

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. First-year candidates are required to submit secondary school transcripts and a teacher's recommendation along with the application and secondary school report. Lawrence will consider, but does not require, SAT or ACT scores for admission. 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 B.A./B.Mus. 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. They may audition on additional instruments if they choose.

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 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.

Lawrence also accepts qualified applicants for early admission who are prepared to graduate from high school at the end of their junior year.

For information on residence requirements for each degree program, please see [Residence Requirements](#) under Degree Requirements in the course catalog.

Application deadlines

There are four application deadlines for first-year students planning to enroll in September.

Early Decision: November 1 (notification by December 1)

Early Action I: November 1 (notification by December 15)
Early Action II: December 1 (notification by January 25)
Regular Decision: January 15 (notification by April 1)

Students admitted through Early Decision are expected to enroll at Lawrence and to submit their enrollment deposit by December 15. All other admitted students have until the May 1 National Candidates Reply Date to choose to accept or decline Lawrence's offer of admission.

Transfer students are welcome members of our community and offer perspectives that enrich their own educational experience as well as those of other students. A student should apply for transfer admission if they have attempted at least 12 credit hours at another college or university after high school completion or completed an associate of arts or science degree. We take a holistic approach to admission and scholarship consideration for all students. We accept transfer students for any of our three terms but highly encourage students to apply for fall or winter terms, which have start dates that align more closely with a traditional semester calendar.

Fall Term: Rolling admission with a July 1 priority deadline
Winter Term: November 1 (notification November 15)
Spring Term: February 1 (notification February 15)

TUITION, FEES AND FINANCIAL ASSISTANCE

Overload fees

Students who are degree-seeking and are registered for more than 22 units (excluding music ensembles) in an academic term will be charged additional tuition. \$1,357 per unit is the fee charged for academic year 2019–20. The per-unit fee is waived for 23-24 units for the first overload only (the fee is still charged for 25 units or more) so that every eligible student may overload once up to 24 units at no additional cost.

Students who are non-degree seeking and are registered for more than 22 units in an academic term will be charged additional tuition. \$1,357 per unit is the fee charged for academic year 2019-20. Music ensembles will *not* be excluded from the unit calculation as they are for degree-seeking students. Non-degree-seeking students are not eligible for a fee waiver for any overload.

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). If a student withdraws from a course after the class change period has ended and then adds a directed study or tutorial to maintain full-time student status, the added course will count as additional units and may result in overload fees. **Failure to successfully complete and earn credit for all registered courses will not cancel or modify any overload fees that have been assessed.**

For information on eligibility to overload, see "overloads/underloads" under Academic Procedures and Regulations.

Housing deposit

Continuing students are required to pay a non-refundable \$200 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 action of the dean of students or designee, judicial board, or honor council.

Other fees and costs

- 13th-term student teaching fee: \$1,878 for Lawrence undergraduates who have met all other graduation

requirements (see Education)

- Music lesson fee for non-music majors: \$310 per term for a half-hour of instruction per week
- Textbook cost: Approximately \$300 per term

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 includes 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.

December Term

December Term courses have separate tuition and fees for room and board. For December 2019, tuition is \$1,805, and room and board for on-campus courses is \$600. 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. Lawrence need-based scholarships are available for December term; eligibility will be determined by the Financial Aid 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 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, \$5,406 per three-term year; single occupancy, \$6,126 per three-term year. Changes of occupancy will be reflected on student accounts as they occur. Residence hall rooms are provided with essential furniture, and students must provide their own linens.

All residential students are required to have a board plan. The board plans vary in price, number of meals per week, and culinary cash values per term. 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 obligation of the university to provide room and board to resident students ceases after breakfast on the day following the last examination at the end of each 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. Separate fees are charged for room and board during the optional December Term and for campus housing in the summer. 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

Student account balances reflect adjustments for merit awards and financial aid awards based upon receipt of signed Lawrence financial aid awards that have been accepted by a student. 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.

Student account statements are generated electronically via CASHNet around the 15th of every month. Students can access their account statements through Voyager and can also grant access to others, who will receive login information once they are set up by the student. CASHNet also offers a "dynamic billing" function, which allows students and authorized users to see live student account balance information and activity. Students are responsible for accessing their billing information in CASHNet, and 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 not paid term fees as agreed under a 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.

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: August 15
Winter Term: December 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). Under the law, a Return of Title IV (R2T4) calculation must be completed for students who withdraw from the university or who fail to earn a grade during the term.

- "Leave of absence" is a term used to identify a situation in which a student intends to take one or more terms off with the intent of returning to Lawrence after a specified time. This is a temporary status with a firm and stated intention of returning.
- "Withdrawal" is a term used to identify a situation in which a student is leaving the university with no intention of returning.

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 leave of absence or withdrawal prior to the first day of classes for any term. Written notification of leave of absence or withdrawal must be directed to the dean of academic success. 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.

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 leave of absence or withdrawal from the dean of academic success. Students who wish to request this change of status or to discuss it as an option should make an appointment with the dean of academic success before completing the required form. If granted permission for a leave or withdrawal, 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 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. Students who cease attending their scheduled classes without completing the official process for a leave or withdrawal are subject to the same refund policy as students who follow the policy.

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 2019–20 academic year, the 60-percent dates are:

Term I: October 28, 2019

Term II: February 18, 2020

Term III: May 12, 2020

For students who notify the university of their intent to take a leave or withdraw, the student's official withdrawal date is the earliest of:

- the date of last academic activity;
- the date the student began the withdrawal or leave process; or
- the date the student notified the Center for Academic Success of their intent to withdraw.

For students who withdraw without notifying the university, the withdrawal date is determined as follows: The Center for Academic Success contacts the student's instructors in an attempt to identify the student's last date of attendance or academic activity. If this information is not obtained, the midpoint of the term is used as the withdrawal date.

If the total Title IV grant and/or loan funds earned by the student is less than the amount disbursed to the student, the difference between the disbursed amount and earned funds will be returned to the appropriate Title IV aid program. The funds will be returned within 45 days from the date the university determined that a student withdrew in the order prescribed by federal regulations as outlined below:

1. Federal Direct Unsubsidized Loan
2. Federal Direct Subsidized Loan
3. Federal Direct PLUS Loan
4. Federal Pell Grant
5. Federal Supplemental Educational Opportunity Grant
6. Iraq and Afghanistan Service Grant

If the aid that has already been disbursed is less than the earned aid that could have been disbursed for the term, Lawrence will calculate a post-withdrawal disbursement. If the post-withdrawal disbursement includes loan funds, the student may elect to decline those funds. Students eligible for post-withdrawal disbursements will be notified of any additional disbursements via email and will have 14 days to respond. If the student does not respond within 14 days, Lawrence will assume the student does not want the loan funds and will cancel the post-withdrawal disbursement.

All institutional scholarship and grant aid will be adjusted *pro rata* based on the percentage of the term completed up to the 60% point of the term. Students attending beyond the 60% point of the term will be considered to have earned the full institutional aid.

A non-refundable \$200 fee will be assessed each time a student takes a leave of absence or withdraws from the university on or after the first day of classes for the 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 due to a student who has taken a leave or withdrawn will be processed within 30 days of the date the

university determined the student withdrew. Refunds will only be issued if all allowable tuition, fees, room, and board due to the university have been paid in full.

Credit balances

A credit balance on a student account is created when the student has funds remaining (either financial aid or personal) after all eligible charges to the 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 a refund of credit balances can expect to receive their refund approximately three weeks after the start of the term.

Credit balances due to overpayments made by wire transfer will remain on the student billing account for future charges or returned to the sending institution. Lawrence University will not act as an intermediary for transfer of funds through the credit balance refund process.

We encourage students to enroll online in CASHNet for electronic refunds (eRefund). Refunds will be processed and 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.

At the end of the academic year, graduating students receive a refund of any credit balance about three weeks after graduation. For continuing students, credit balances of less than \$200 are carried forward and applied to the next academic year, while credit balances of more than \$200 are refunded about three weeks after the last day of final exams. If a student is enrolled in eRefund, the entire credit is refunded. If a student chooses to receive the refund via check, only the amount greater than \$200 is refunded, minus a \$20 check-processing fee. Continuing students with a credit balance of more than \$200 may submit a request in writing to Student Accounts to have the full credit balance carried forward to the next academic year.

DIRECTORY

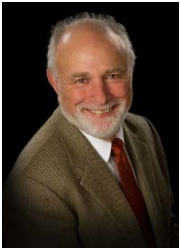
- **David C. Blowers**, chair
- **Cory L. Nettles**, vice chair
- **Sarah E. Schott**, secretary
- **Alice O. Boeckers**, assistant secretary
- **Julia H. Messitte**, assistant secretary
- **Mary Alma Noonan**, treasurer
- **Amy Price**, assistant treasurer

TRUSTEES



Sidney K. Ayabe '67

Owner, Ayabe Resolution
Honolulu, Hawaii



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Visiting Fellow in Governance Studies, The Brookings Institution
Bethesda, Maryland



David C. Blowers '82

President, National Services, Northern Trust
Lake Forest, Illinois



Mark Burstein (ex-officio)

President
Appleton, Wisconsin



Daniel T. Busiel '84

Senior Vice President and Chief Investment Officer, Trustmark
Glenview, Illinois



Louis B. Butler, Jr. '73

Attorney (Retired), Dewitt LLP
Milwaukee, Wisconsin



Shelley A. Davis '92

President/Executive Director, Forest Preserve Foundation
Chicago, Illinois



Joanna de Plas '94

Officer, Federal Reserve Bank of New York
New York, New York



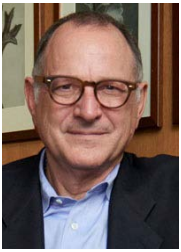
Dean G. DuMonthier '88

Managing Director - Client Portfolio Manager, Winslow Capital
Minneapolis, Minnesota



Richard G. Fessler '74

Professor of Neurosurgery, Rush University
Lake Forest, Illinois



Frederick Fisher
Architect, Frederick Fisher & Partners Architects
Los Angeles, California



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Director of Development, The Preuss School, University of California-San Diego
San Diego, California



Mei X. Gong '11
Market Manager, Mettler-Toledo, Inc.
Columbus, Ohio



Bao Ha '07
Future Technical Leaders, Northrop Grumman
McLean, Virginia



Susan Long Hall '76
President and Founder, 95 Percent Group, Inc.
Long Grove, Illinois



William O. Hochkammer '66
Attorney/Partner, Honigman LLP
Detroit, Michigan



Lydia A. Howarth '75

Community Volunteer
Nashville, Tennessee



John D. Huber '84

Professor of Political Science, Columbia University
New York, New York



Susan Stillman Kane '72

Community Volunteer
Swampscott, Massachusetts



Dennis L. Klaeser '80

Chief Financial Officer, TCF Financial Corporation
Glenview, Illinois



David N. Knapp '89

Senior VP/Senior Managing Director, Wealth Management, Northern Trust
Chicago, Illinois



Cheryl Wilson Kopecky '72

Elmhurst, Illinois



Barbara Smith Lawton '87

Former Lieutenant Governor of Wisconsin (2003-2011)
Madison, Wisconsin



Christopher W. Murray '75

Retired Officer, Department of State, U.S. Foreign Service
Ixelles, Belgium



Peter M. Musser '78

Manager, Angeline Properties, LLC
Seattle, Washington



Scott D. Myers '79

Managing Partner, Accenture (Retired)
Winnetka, Illinois



Cory L. Nettles '92

Founder and Managing Director, Generation Growth Capital, Inc.
Milwaukee, Wisconsin



Martha J. Olson '77

Former Corporate Officer and Group President, The Warnaco Group, Inc.
Darien, Connecticut



Robert F. Perille '80

Managing Member, Calvello Investments, LLC
Santa Monica, California



Sara A. Quandt '73

Professor/Epidemiology & Prevention, Wake Forest University
Winston Salem, North Carolina



Sarah E. Schott '97

former Chief Compliance Officer, Northwestern Mutual
Fox Point, Wisconsin



Abir Sen '97

CEO and Co-Founder, Gravie
Minneapolis, Minnesota



Charlot Nelson Singleton '67

Educator, Menlo Park City School District
Atherton, California



Jon Stellmacher

Senior VP and Chief of Staff and Administration (Retired), Thrivent Financial for Lutherans
Appleton, Wisconsin



Anton R. Valukas '65
Attorney, Jenner & Block
Evanston, Illinois



Stephanie H. Vrabec '80
Educator (Retired)
Menasha, Wisconsin



Evan M. Williams '10
Assistant Prof. of Music, Director of Instrumental Studies, Rhodes College
Memphis, Tennessee

EMERITI TRUSTEES

Edith G. Andrew
Orland Park, Illinois

Robert A. Anker '64
Retired
Carmel, Indiana

Peter R. Betzer '64
CEO Business Development Group
St. Petersburg Downtown Partnership, Inc.

Retired Professor of Marine Science
University of South Florida
Saint Petersburg, Florida

Renee Goral Boldt '85
Community Volunteer
Appleton, Wisconsin

Robert C. Buchanan '62
Retired

Appleton, Wisconsin

Margaret Carroll '61

Retired

Appleton, Wisconsin

Michael P. Cisler '78

Former CEO of JanSport, Inc.

Neenah, Wisconsin

John H. Ellerman '58

Retired

Phoenix, Arizona

James D. Ericson

Chairman, Northwestern Mutual

,

James L. Fetterly '58

Of Counsel, Robins Kaplan LLP

Minneapolis, Minnesota

Richard L. Gunderson

Retired

Spicer, Minnesota

Catheryn E. Hoehn '64

Counseling Consultant, Troy High School

Newport Beach, California

J. Thomas Hurvis '60

President/CEO, Old World Industries, LLC

Northbrook, Illinois

Harold E. Jordan '72

Greenwood, Virginia

Kim Hiatt Jordan '58

Santa Fe, New Mexico

Thomas C. Kayser '58

Retired, Robins Kaplan LLP

Saint Paul, Minnesota

Herbert V. Kohler, Jr.

Executive Chairman, Kohler Company

Kohler, Wisconsin

Harry M. Jansen Kraemer, Jr. '77

Executive Partner, Madison Dearborn Partners, LLC
Wilmette, Illinois

John A. Luke, Jr. '71

Non-executive chairman, WestRock Company
Richmond, Virginia

George W. Mead II

Chairman, Mead Witter Foundation, Inc.
Wisconsin Rapids, Wisconsin

Overton B. Parrish, Jr. '55

President and Chief Executive Officer, Phoenix Health Care, Inc.
Chicago, Illinois

Dwight A. Peterson '55

Retired Vice President and Treasurer, 3M Company
North Oaks, Minnesota

Jeffrey D. Riester '70

Attorney-Of Counsel, Godfrey & Kahn, S.C.
Appleton, Wisconsin

Nancy Scarff

Trustee, Stephen Edward Scarff Memorial Foundation
Los Altos, California

Robert J. Schaupp '51

President, P & S Investment Company, Inc.
Green Bay, Wisconsin

Cynthia Stiehl '89

Singer
Ephraim, Wisconsin

Priscilla Weaver '69

Retired, Mayer Brown
Jacksonville, Oregon

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

Dewa 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)

Assistant Professor of Philosophy

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

Tim 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

Isabel Alvarez

Visiting Professor of Spanish

Matt L. Ambrosio

Instructor of Music

Matthew E. Ansfield (2000)

Associate Professor of Psychology

University of Wisconsin-Madison, B.S.; University of Virginia, Ph.D.

Interest(s): social psychology

Matthew R. Arau (2014 -)

Assistant Professor of Music Education and Associate Director of Bands

University of Colorado Boulder DMA in Instrumental Conducting and Literature, May 2015 Southern Oregon

University MS in Arts and Letters in Music Education, August 2003 Lawrence University BM in 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.

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

Celia B. Barnes

Associate Professor of English

College of William and Mary, B.A.; Indiana University, M.A., Ph.D.

Interest(s): Eighteenth-century British literature; women's writing, letters, and diaries

Ian Bates (2011)

Associate 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, PhD

Elizabeth A. Becker (2011)

Assistant Professor of Psychology

Lawrence University, B.A., B.Mus.; University of Wisconsin-Madison, Ph.D. exp 2012

Interest(s): Neural and endocrine correlates of social behavior

David Bell (2005)

Associate Professor of Music

Oberlin College, B.Mus.; Northwestern University, M.Mus.

Interest(s): Marathon running

Bruce A. Bengtson

Lecturer of Music

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

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 Geosciences

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 Dean of the Faculty and 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, History of Intelligence and Espionage

Ann K. 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)

Instructor of Gender Studies

City College of New York, B.A. (English) City College of New York, M.A. (Writing)

Interest(s): transgender issues

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

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 education, student-centered 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

PhD Philosophy and Education; M.A.; Columbia University M.Ed Philosophy for Children; Montclair State

University B.A. Philosophy; Transylvania University

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).

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)

Associate Professor of Music

Colby College, B.A.; University of California, M.A., Ph.D.

Interest(s): musicology

Abhishek Chakraborty

Assistant Professor of Statistics

Dominica Chang (2007)

Margaret Banta Humleker Professor of French Cultural Studies and 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

Cory Chisel

Lecturer of Music

Yu-Lin Chiu (2012)

Schmidt Fellow and 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

Nicole Chodkowski

Visiting Assistant Professor of Biology

Jeffrey J. Clark (1998)

Professor of Geosciences and Special Assistant to the President

Middlebury College, B.A.; Johns Hopkins University, Ph.D.

Interest(s): geomorphology, earth surface processes, human influences on the environment

Michael Clayville

Visiting Assistant Professor of Music in Entrepreneurial Studies and Social Engagement

Mike Clement (2017)

Instructor of Chemistry

Marquette University, B.S.

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

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, atomic
physics, quantum information

Sigma Colon (2017)

Hurvis NEH Fellow in the Humanities

Yale University, Ph.D., M.Phil, M.A. American Studies; University of Arizona, M.A. History, B.A. English

Katherine Connelly

Lecturer

Tony Gerald Conrad (2012)

Visiting Professor of Art

University of Wisconsin-Milwaukee, M.F.A.

Horacio Contreras (2017)

Assistant Professor of Music - Cello

Conservatoire National de Région de Perpignan, Médaille d'Or; University of Michigan, M.M., D.M.A.

Interest(s): New Music; Cello Pedagogic Materials; Latin-American Classical Music

Scott Corry (2007)

Professor of Mathematics

Reed College, B.A.; University of Pennsylvania, Ph.D.

Interest(s): Number theory, algebraic geometry, combinatorics, and mathematical physics

Andrew J. Crooks (2017)

Assistant Professor of Music-Vocal Coach

University of Otago (New Zealand): BA (German), MusB (Piano, Oboe) Indiana University: MM (Choral

Conducting) University of Cincinnati College-Conservatory of Music: Artist Diploma (Opera Coaching)

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)

Instructor 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

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, 2009-2014, M.Sc., Ph.D. University of Copenhagen, Denmark- 2014-2016, Postdoctoral Research Fellow

Interest(s): Community Ecology, Biodiversity Science, Biogeography

Loren Dempster (2016)

Lecturer of Music

MM in Cello Performance from San Francisco Conservatory BA/BM in Cello Performance from University of Washington

Interest(s): Performance, Education, Improvisation, Composition, Electronic Music, Recording, Music For Dance

Cecile C. Despres-Berry (2002)

Instructor 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 DiBella (1996)

Instructor of Music

Rutgers University, B.A.; Westminster Choir College; Suzuki Institute, University of Maine-Orono

Interest(s): theory, sight-singing, organ

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

Deanna L. Donohoue (2013)

Associate Professor of Chemistry

Augustana College: B.A. in Chemistry, University of Miami: Ph.D. in Marine and Atmospheric Chemistry

Rachel M. Doughty

Visiting Instructor of Chemistry

Sonja Lynn Downing (2008)

Associate 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 Emeritus of Philosophy and 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

Dale L. Duesing (1992)

Artist-in-Residence

Lawrence University, B.Mus.; Hochschule für Musik, Munich, Artist Diploma

Interest(s): voice, opera

David E. Duncombe (2017)

Visiting Assistant Professor of Government

D.Phil, M.Phil., International Relations, Oxford University; MSc., Predictive Analytics, Northwestern University;

Asian Studies, BA, Northwestern University.

Interest(s): Travel, Skiing,

Emily J. Dupere

Lecturer of Music

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

Aaron P. Elliott

Uihlein Fellow of Ethics and Postdoctoral Fellow of Philosophy

Ann Ellsworth

Assistant Professor of Music: Horn

Jose L. Encarnacion (2011)

Associate Professor of Music and Director of Jazz Studies

Berkeley School of Music - BM, Music Performance Eastman School of Music - Masters of Music - Jazz

Studies and Contemporary Media

Interest(s): Improvisation, Music Theory, Arranging/Composition and World Music

Bryan E. Engelhardt

Visiting Associate Professor of Economics

Margaret Engman (2001)

Lecturer of Education
University of Wisconsin-Madison, B.S.
Interest(s): teacher education

Marty D. 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. in Languages and Literature, M.A. in Visual Arts; University of Pittsburgh, Ph.D. in Latin Ame
Interest(s): Latin American Cultural Studies, literature and visual arts. Border Studies. Latin@ Studies.

Anna Farrell
Waseda Program Assistant

Merton D. Finkler (1979)
John R. Kimberly Distinguished Professor Emeritus of 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

Dylan B. Fitz (2017-)
Associate Professor of Economics
Princeton University, A.B.; University of Wisconsin, Madison, M.A., Ph.D.
Interest(s): Development Economics; Social Policy; Effective Altruism; Political Economy; Risk, Learning, and Technology Adoption; Latin America; Brazil

Allison M. M. Fleshman (2013)
Associate Professor of Chemistry
University of Oklahoma: B.S. in Physics, University of Oklahoma: Ph.D. in Chemistry
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

Jake Frederick (2006)
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

Visiting Assistant Professor of French

University of Wisconsin-Madison, PhD (Linguistics); University of Northern Iowa, MA (French); UNI, MA (TESOL); Moscow State Linguistic University, BA (Linguistics, English and French, summa cum laude)

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

Bachelor of Music, Eastman School of Music (1992) Performer's Certificate, Eastman School of Music (1993)

Master of Music, Eastman School of Music (1993) Doctor of Musical Arts, University of Conne

David Gerard (2009)

John R. Kimberly Distinguished Professor of the American Economic System and Associate Professor of Economics

Grinnell College, B.A.; University of Illinois, M.S., Ph.D.

Interest(s): Institutional & Organizational Economics, Energy & the Environment, Regulation & 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 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

Esteli Gomez (2019)

Assistant Professor of Music

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 Computer Science

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

Catherine Gregory

Lecturer of Music

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)

Associate Professor of German

University of California at Santa Cruz, B.A.; University of Minnesota, M.A., Ph.D.

Interest(s): German cinema; 20th century German cultural studies; critical identity studies; radical pedagogies; film theory; equity, inclusion, and social justice in higher education

Beth A. Haines (1992)

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)

Associate Professor of Biology

Ph.D. Louisiana State University B.S. University of Illinois Urbana-Champaign

Interest(s): spatial ecology, herbivory, plant defense

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

Brent T. Hauer

Audio Recording Technology Engineer and Lecturer in Recording Arts

Anne Haydock (2014)

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

BA Music Education - Bluffton College, Bluffton, Ohio 1972 MM Music Education - Northwestern University, Evanston, IL 1973

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, Film, 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)

Associate 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 of 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

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

John T. Holiday, Jr. (Faculty Since 2017)

Associate Professor of Music - Voice

The Juilliard School - Artist Diploma in Opera Studies, 2014 The University of Cincinnati College-Conservatory of Music - Master Degree in Vocal Performance, 2012 Southern Methodist University Meado

Judith Humphries (2007)

Associate Professor of Biology

The Queen's University of Belfast, B.S., Ph.D.

Interest(s): parasitology, invertebrate immunology, gene regulation, snail neurobiology

Christopher D. Ice

Instructor of French

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)

Edward F. Mielke Professor of Medicine, Health and Society and Associate Professor of Anthropology
Pomona College, B.A.; University of California-Los Angeles, M.A., Ph.D.

Interest(s): medical anthropology, disability and culture, culture and aging, family, gender, Japan and East Asia

Mark Jenike (2004)

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

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

Danielle B. Joyner (Faculty Member since)

Assistant Professor of Art History

Constance 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)

George and Marjorie Olsen Chandler Professor of Music

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

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)

Assistant Professor of English and Director of Fellowships Advising

PhD (expected 2017)--Boston University (English Literature) MA--Boston University (English Literature) BA--

University of Wisconsin-Madison (English Literature; Spanish Language and Culture)

Interest(s): Twentieth-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

Jane M. Klein

Lecturer of Music

Christoph Knopfel

Lecturer

Andrew Knudsen (2003)

Professor of Geosciences

Hamilton College, B.A., University of Idaho, Ph.D.

Interest(s): environmental mineralogy, low-temperature geochemistry

James E Koch

Visiting Associate Professor of Psychology

Catherine G. Kodat

Provost and Dean of the Faculty

Margaret Koker (2018-)

Visiting Assistant Professor of Physics

Boston University, B.S.; University of Illinois, M.S.; Universitaet Stuttgart & Max Planck Institute, Dr. rer. nat.

Interest(s): synchrotron x-ray measurement techniques; mechanically induced material behavior; data analysis methods

Victoria Kononova (2015-)

Assistant Professor of Russian

Lomonosov Moscow State University, "specialist" diploma (B.A. and M.A. equivalent); University of Wisconsin-Madison, M.A. and Ph.D.

Interest(s): 19th-century Russian literature, theater, folklore, cultural history, nationalism, Russian and Soviet music

Karin Simonson Kopischke (2011)

Instructor of Theatre Arts and Costume Shop Supervisor

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)

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, translation and interpreting, Russian and Soviet Republic culinary history and cooking

Ashley Scott Layton

Lecturer

Karen Leigh-Post (1996)

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, and optimal performance.

Erin Lesser (2011)

Associate Professor of Flute

D.M.A., Manhattan School of Music, 2015 M.Mus, Manhattan School of Music, 2001 B. Mus, University of Ottawa, 1999

Nora A. Lewis (2018)

Associate Professor of Music: Oboe

Doctor of Music, Bienen School of Music, Northwestern University, 2007 Master of Music, Yale School of Music, 2001 Bachelor of Arts, philosophy, Lawrence University, 1999 Bachelor of Music, perform

Interest(s): Oboe, Oboe Pedagogy, Reed Making, Chamber Music, Aesthetics of Music

Jonathan Lhost (2014-)

Associate Professor of Economics

Amherst College, B.A.; University of Texas, M.S., Ph.D.

Interest(s): Industrial Organization, Game Theory, Microeconomics, Econometrics, Data Science

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

Debbie Lind

Lecturer of Music

Elyse C. Lucas (March 2015-Present)

Lecturer in Education

Bachelor of Arts - Lawrence University Class of 2010

Colette Lunday Brautigam

Digital Collections Librarian and Assistant Professor

University of Minnesota, B.A.; College of Saint Catherine, MLIS

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

Douglas S. Martin (2007)

Associate Professor of Physics

Pomona College, B.A.; University of Texas, Ph.D.

Interest(s): biological physics, molecular motors, cytoskeleton

Andrew Mast (2004)

Kimberly-Clark Professor of Music, 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

David E. McGlynn (2006)

Professor of English

Ph.D. University of Utah English Literature and Creative Writing, 2006 M.F.A. University of Utah Creative

Writing: Fiction, 2001 B.A. University of California, Irvine English and Philos

Randall McNeill (1999)

Otilia Buerger Professor of Classical Studies and 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

Andrew M. McSorley

Reference and Digital Liberal Arts Librarian and Assistant Professor

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

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)

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

Linda J. Morgan-Clement

Julie Esch Hurvis Dean of Spiritual and Religious Life

Lavanya H. Murali (2010)

Associate Professor of Anthropology

University of Delhi: B.A. (Hons.), M.A., M.Phil. (Sociology); University of Iowa: M.A., Ph.D. (Anthropology)

Interest(s): linguistic anthropology, sociolinguistics, ideologies about English, nationalism and belonging, gender and sexuality, decolonization, semiotics, discourse analysis, research methods, India, England

Rob Neilson (2003)

Frederick R. Layton Professor of Studio Art and 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

Shannon L. Newman

Visiting Assistant Professor of Biology

Amy Nottingham-Martin (2011)

Instructor of Freshman Studies, and Senior Experience Coordinator and Lecturer of Biology

MA, Children's Literature Simmons College BA, Theatre Pomona College

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

MFA in Dance from Hollins University/American Dance Festival BA in Psychology with minor in Theatre Dance

from University of California, San Diego

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): archaeology, geophysical methods, statistical analysis, cross-cultural research, cultural evolution, resilience theory, museum curation and exhibition

Rebecca A. Perry (2017)

Assistant Professor of Music-Music Theory

Brigham Young University, B.A.; Yale University, M.A., M.Phil., Ph.D.

Interest(s): sonata form, Russian art music, Prokofiev

Brian G. Pertl (2008)

Dean of the Conservatory of Music
Lawrence University, B.A., B.M.; Wesleyan University, M.A.
Interest(s): Ethnomusicology

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)

Associate Professor of Philosophy
Ouachita Baptist University, B.A.; The University of Utah, M.S.; The University of North Carolina-Chapel Hill, Ph.D.
Interest(s): Philosophies of mind, language, and cognitive science; figurative language; theory of mind; linguistic pragmatics

Kathryn R. Phillippi-Immel

Visiting Volunteer

Brian P. Piasecki (2011 -)

Associate 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 & molecular biology, evolutionary biology, and 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

Janet Planet (2007)

Lecturer of Music
Interest(s): Interests: vocal jazz

Vanessa D. Plumly (2019)

Assistant Professor of German
Bethany College, BA; University of Kentucky, MA; University of Cincinnati, PhD
Interest(s): Black German Studies, Jewish German Studies, Queer Studies, postwar and post-Wall Germany, film and visual culture, Fin-de-siècle Vienna

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

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

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

Leila A. Ramagopal Pertl

Music Education Instructor, Lawrence University & Performing Arts Director, Appleton Public Montessori & Harp Instructor, Lawrence Academy of Music & Music Education Curator, Mile of Music

Julie F. Rana (2017)

Assistant Professor of Mathematics

Undergraduate: Marlboro College, Graduate: University of Massachusetts, Amherst

Melissa H. Range (2014)

Associate Professor of English

B.A. University of Tennessee, M.F.A. Old Dominion University, M.T.S. Candler School of Theology, Ph.D. University of Missouri

Interest(s): Contemporary American poetry, 19th century poetry, abolitionist literature, African American poetry, political poetry, religious poetry, rhyme

Carl A. Rath (1978-1981; 2012 - pr)

Instructor

Lawrence University, 1971-75 B.M. with Distinction in Performance University of Denver Lamont School of

Muisc: M.A. in Music Performance

Ashley A. Reinke

Visiting Assistant Professor of Chemistry

Anna R. Reiser

Teacher of Piano and Lecturer of Music

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 (2016-)

Assistant Professor of Geosciences

University of Copenhagen, joint Ph.D. Forestry, Geosciences, and Natural Resources Conservation (2017)

University of Bangor, joint Ph.D. Forestry, Geosciences, and Natural Resources Management(2017)

Interest(s): Biogeochemistry, Soil biology, Forest ecology, Ecosystem and Community ecology,

Dendrochronology

Dane M. Richeson (1984)

Professor of Music

Ohio State University, B.Mus.; Ithaca College, M.Mus.

Interest(s): percussion

Monica Rico (2001)

Professor of History

University of California-Berkeley, B.A., M.A., Ph.D.

Interest(s): early America; the American West; gender and environment

Benjamin Rinehart (2006)

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

Monica B. Rodero

Instructor of Dance

Miriam Rodriguez Guerra

Assistant Professor of Spanish

Austin R. Rose

Technical Director & Lecturer of Theatre Arts

Lina B. Rosenberg Foley

University Archivist

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

Andrew J. Sage (2018)

Assistant Professor of Statistics

College of Wooster, B.A.; Miami University, M.S.; Iowa State University, M.S., Ph.D.

Interest(s): applied statistics, statistical machine learning, statistics education

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

Elizabeth K. Sattler (2018-)

Assistant Professor of Mathematics

North Dakota State University, B.S., Ph.D.

Interest(s): fractal geometry, symbolic dynamics, ergodic theory

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)

Visiting Assistant Professor of Music

A.B. with Honors in Music, University of California, Berkeley (2000) M.A. in Musicology, University of California, Los Angeles (2003) Ph.D in Musicology, University of California, Los Angeles (2007)

Interest(s): Music in the United States, Popular Music, History of Recorded Sound

Daniel S. Schuchart

Instructor of Dance

Katie Schweighofer (2018)

Assistant Professor of Gender Studies

Princeton University, B.A.; New York University, M.A.; Indiana University, M.A. and Ph.D.

Interest(s): histories of sex and gender, feminist and queer theory, LGBTQ studies, queer geography, gender and sport cultures

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)

Assistant Professor of English

Emory University, B.A. Classics (2002); Georgia State University, M.F.A (2009); The University of Missouri, PhD (2014)

Aaron M. Sherkow (Spring 2013)

Adjunct Assistant Professor of Theatre Arts

MFA in Theatre Design from Boston University '11, BA Theatre with a Minor in Music from Lawrence University '04

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)

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)

Associate Professor and Co-director of Choral Studies

A.B. (Music), University of Chicago M.M. and D.M.A. (Choral Conducting and Literature), University of Illinois at Urbana-Champaign

Interest(s): Inclusive pedagogy for choirs, diction pedagogy, vocal pedagogy

Anandi L. Silva Knuppel

Visiting Assistant Professor of Religious Studies

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, social entrepreneurship, sustainable development, African politics, European politics

Jesus G. Smith (2017-)

Assistant Professor of Ethnic Studies

University of Texas at El Paso B.A.; Ph.D. Texas A&M University

Interest(s): Race, Racism, Gender, Sexuality, Computer and Information Technology, Health

Martyn Smith (2006)

Associate Professor of Religious Studies

Prairie Bible College, Alberta, Canada, B.Th.; Fuller Seminary, M.A.; Emory University, Ph.D.
Interest(s): sacred space, religion and the environment, digital mapping, medieval Islam, Islam in America, global culture, travel narratives, close reading

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

Alan R. Stewart (2017)

Lecturer of Economics

University of Wisconsin - Madison, BS and MS Civil and Environmental Engineering University of Wisconsin Law School, JD

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, MFA in Studio Arts, University of Florida - Gainesville, Post baccalaureate in Ceramics, Massachusetts College of Art, BFA in Ceramics

Interest(s): Ceramics, Drawing, Figurative Sculpture

Kuo-ming Sung (1994)

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)

Professor of Spanish
Universidad de Granada, B.A.; University of Delaware, M.A.; Pennsylvania State University, Ph.D.
Interest(s): Contemporary Spanish and Latin American film and literature. Constructions of national identities in post-dictatorship Spain, Chile and Argentina. Modes of creation and reception in contemporary Ibero

Dan Taylor

Adjunct Lecturer

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; literature and history of the English Renaissance

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

Susie Thomas

Lecturer

Jacque Troy

Lecture in Theatre Arts

Timothy X. Troy (1997)

J. Thomas and Julie E. 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

Matthew L. Turner (2010)

Instructor
B.M. Lawrence University, 1989 M.M. New England Conservatory of Music, 1991
Interest(s): Improvisation, Jazz, Composition, Music Education, New Music, Avant-Garde, Experimental Music

Kelsey B.B. Uherka
Quantitative Skills Specialist

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 (1993)
Instructor of Music and Teacher of Piano
Lawrence University, B.Mus.; University of Oklahoma, M.Mus.
Interest(s): piano, piano pedagogy

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 Learning Technologies Librarian and Assistant Professor
Master of Library and Information Science from UW-Milwaukee, Bachelor of Science in Psychology from UW-Green Bay

Gary T. Vaughan (2009)
Coordinator of the Innovation and Entrepreneurship Program and Lecturer of Economics
University Wisconsin - Oshkosh Bachelor of Liberal Studies Silver Lake College of the Holy Family Masters of Science
Interest(s): Hiking the Ice Age Trail

Massimiliano Verita' (2005)
Instructor of Arabic, Italian and Religious Studies
University of Bologna, B.A., M.A.
Interest(s): Arabic/African/Italian language and literature

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,

Helen M. Walter

Lecturer

Matty Wegehaupt (2008)

Instructor of Gender Studies

University of Wisconsin, B.A.; University of California, M.A.; University of Michigan, M.A.

Interest(s): East Asian ancient and contemporary history, literature, and religion - with a focus on China and the Koreas. Ruism, Buddhism, Daoism, and other thought/practice in ancient East Asia. Anti-imperialism

Bob Williams (2004)

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

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, history of ideas, constitutional law

Nathan Wysock (2003)

Lecturer of Music

Illinois State University, B.Mus.; Eastman School of Music, M.Mus., D.M.A.

Interest(s): classical guitar

Esther Oh Zabrowski

Lecturer of Music

Beth A. Zinsli (2013-)

Assistant Professor of Art History, Curator of the Wriston Art Center Galleries and Museum Studies

Interdisciplinary Area Program Director

PhD: University of Wisconsin-Madison, 2014 MA: University of Wisconsin-Madison, 2007 BA: Lawrence University, 2002

Interest(s): History and Theory of Photography, Visual Culture Studies, Contemporary Art History, Museum Studies

Tianlong Zu

Visiting Assistant Professor of Physics

Minoo Adenwalla (1959)

Professor Emeritus of Government

University of Bombay, B.A.; Northwestern University, M.S., Ph.D.

Janet Anthony (1984)

George and Marjorie Olsen Chandler Professor Emerita 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.

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.; University of California-Berkeley, Ph.D.

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

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.; University of Wisconsin–Madison, M.A.

David John Burrows (2005)

Professor of Psychology and Director of Inclusive Pedagogy

Columbia University, B.A.; University of Toronto, M.A., Ph.D.

David M. Cook (1965-2008)

Professor Emeritus of Physics and Philetus E. Sawyer Professor Emeritus of Science

Rensselaer Polytechnic Institute, B.A.; Harvard University, M.S., Ph.D.

George Edward Damp

Associate Professor Emeritus of Music

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.

Mark L. Dintenfass (1968-2006)

Professor Emeritus of English
Columbia University, B.A., M.A.; University of Iowa, M.F.A.

Franklin M. Doeringer (1972-2007)

Professor Emeritus of History
Columbia University, B.A., Ph.D.

John P. Dreher (1963)

Lee Claflin-Robert S. Ingraham Professor Emeritus of Philosophy and Professor of Philosophy
St. Peter's College, B.A.; Fordham University, M.A.; University of Cologne; University of Chicago, Ph.D.

Merton D. Finkler (1979)

John R. Kimberly Distinguished Professor Emeritus of 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.

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 Eng, and Patricia H. Boldt Professor of Liberal Studies
University of North Dakota, B.A.; Stanford University, M.A., Ph.D.

Chong-do Hah (1961)

Professor Emeritus of Government
Indiana University, B.A., Ph.D.; University of Virginia, M.A

Bruce E. Hetzler (1976)

Professor of Psychology
DePauw University, B.A.; Northwestern University, M.A., Ph.D.

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.

Marjory Irvin (1947-87)

Professor Emerita of Music
Illinois Wesleyan University, Mus.B., Mus.M.; Juilliard School of Music; Aspen Institute of Music; American Conservatory; Indiana University

Kathleen Isaacson (1977)

Library

University of Wisconsin-Madison, B.A.; University of Wisconsin-Oshkosh, M.A.L.S.

Nick Keelan (1985)

Associate Professor Emeritus of Music

Henderson State University, B.M.E.; University of Northern Colorado, M.Mus.

Bonnie Koestner (2001)

Associate Professor Emerita of Music

Lawrence University, B.Mus.; University of Wisconsin-Madison, M.Mus.

John Koopman (1960-94)

Professor Emeritus of Music

Drake University, B.Mus.Ed., M.Mus.Ed.; Indiana University

Jules N. LaRocque

Professor Emeritus of Economics

Carol L. Lawton (1980)

Ottilia Buerger Professor Emerita of Classical Studies

Vassar College, B.A.; University of Pittsburgh, M.A.; Princeton University, M.F.A., Ph.D.

Robert Levy (1979-2005)

Trumpet Teacher

Ithaca College, B.S.; North Texas State University, M.M.E.

Jerrold P. Lokensgard (1967)

Robert McMillen Professor of Chemistry

Luther College, B.A.; University of Wisconsin-Madison, M.A., Ph.D.

Ruth M. Lunt (1992)

Associate Professor of German

Millersville State University, B.A.; University of Pittsburgh, M.A.; Princeton University, Ph.D.

Nicholas C. Maravolo (1966)

Professor of Biology

University of Chicago, B.S., M.S., Ph.D.

Hugo Martinez-Serros (1966-95)

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.

Howard Niblock (1981)
Professor of Music and Teacher of Oboe
University of Michigan, B.A.; Michigan State University, M.M.; University of Wisconsin-Madison

John C. Palmquist (1968-96)
Professor Emeritus of Geology
Augustana College, B.A.; University of Iowa, M.S., Ph.D.

Mary H. Poulson (1964-93)
Professor Emerita of Physical Education
Valparaiso University, B.A.; Miami University, M.Ed.; Colorado State College

Bradford G. Rence (1979)
Professor of Biology
University of Iowa, B.A.; University of California-Berkeley, Ph.D.

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.

Theodore W. Ross (1966-99)
Associate Professor Emeritus of Geology
Indiana University, B.S., M.A.; Washington State University, Ph.D.

Thomas C. Ryckman (1984)
Professor of Philosophy
University of Michigan, Flint, B.A.; University of Massachusetts, M.A., Ph.D.

Richard A. Sanerib, Jr. (1976)
Associate Professor of Mathematics
St. Anselm College, B.A.; University of Colorado, M.A., 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.; The University of Chicago, M.A., Ph.D.

Herbert K. Tjossem (1955-93)

Professor Emeritus of English

University of Minnesota, B.A.; The University of Chicago, M.A.; Yale University, Ph.D., University of Heidelberg

Patricia Vilches (2000)

Professor of Spanish and Italian

University of Illinois-Chicago, B.A.; University of Chicago, M.A., Ph.D.

Dirck Vorenkamp (1997)

Associate Professor Emeritus of Religious Studies

University of Tulsa, B.S.; University of Kansas, M.A.; University of Wisconsin-Madison, Ph.D.

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.

Dominique-Rene S. de Lerma

Visiting Adjunct Professor of Music

ACADEMIC CALENDAR

Current Academic Year

Fall Term (Term I) - 2020

September 8	Tuesday	Welcome Week commences Residence halls open for new students (8 a.m.)
September 11	Friday	First class meeting of <i>Freshman Studies</i>
September 11	Friday	Final advance registration for new students
September 12	Saturday	Residence halls open for returning students
September 14	Monday	First day of fall term classes
September 14-18	Monday-Friday	Registration & class change period
September 18	Friday	Last day to make class changes or select the S/U option for fall term classes
October 22-25	Thursday-Sunday	Mid-term reading period
November 6	Friday	Last day to withdraw from a fall term class
November 19	Thursday	Last day of fall term classes
November 20-21	Friday-Saturday	Reading period
November 22-24	Sunday-Tuesday	Final examinations
November 25	Wednesday	Residence halls close (noon)

December Term (D-Term) - 2020

November 29	Sunday	Residence halls open (9 a.m.)
November 30	Monday	First day of D-Term classes
November 30	Monday	Last day to make class changes or select the S/U option for D-Term classes
December 9	Wednesday	Last day to withdraw from a D-Term class
December 11	Friday	Last day of D-Term classes and final examinations
December 12-13	Saturday-Sunday	Closing event, if one is scheduled for the class
December 13	Sunday	Residence halls close (6 p.m.)

Winter Term (Term II) - 2021

January 3	Sunday	Residence halls open (9 a.m.)
January 4	Monday	First day of winter term classes
January 4-8	Monday-Friday	Registration & class change period
January 8	Friday	Last day to make class changes or select the S/U option for winter term classes
January 18	Monday	Martin Luther King, Jr., Day (no classes)
February 11-14	Thursday-Sunday	Mid-term reading period
February 26	Friday	Last day to withdraw from a winter term class
March 12	Friday	Last day of winter term classes
March 13-14	Saturday-Sunday	Reading period
March 15-17	Monday-Wednesday	Final examinations
March 18	Thursday	Residence halls close (noon)

Spring Term (Term III) - 2021

March 28	Sunday	Residence halls open (9 a.m.)
March 29	Monday	First day of spring term classes
March 29-April 2	Monday-Friday	Registration & class change period
April 2	Friday	Last day to make class changes or select the S/U option for spring term classes
May 6-9	Thursday-Sunday	Mid-term reading period
May 21	Friday	Last day to withdraw from a spring term class
May 31	Monday	Memorial Day (no classes)
June 4	Friday	Last day of spring term classes
June 5-6	Saturday-Sunday	Reading period
June 7-9	Monday-Wednesday	Final examinations
June 10	Thursday	Residence halls close for underclassmen (noon)
June 13	Sunday	Commencement
June 13	Sunday	Residence halls close for seniors (6 p.m.)

Next Academic Year

Fall Term (Term I) - 2019

September 9	Monday	Welcome Week commences Residence halls open for new students (8 a.m.)
September 13	Friday	First class meeting of <i>Freshman Studies</i>
September 13	Friday	Final advance registration for new students
September 14	Saturday	Residence halls open for returning students
September 16	Monday	First day of fall term classes
September 16-20	Monday-Friday	Registration & class change period
September 20	Friday	Last day to make class changes or select the S/U option for fall term classes
October 24-27	Thursday-Sunday	Midterm reading period
November 8	Friday	Last day to withdraw from a fall term class
November 21	Thursday	Last day of fall term classes
November 22-23	Friday-Saturday	Reading period
November 24-26	Sunday-Tuesday	Final examinations
November 27	Wednesday	Residence halls close (noon)

December Term (D-Term) - 2019

December 1	Sunday	Residence halls open (9 a.m.)
December 2	Monday	First day of D-Term classes
December 2	Monday	Last day to make class changes or select the S/U option for D-Term classes
December 11	Wednesday	Last day to withdraw from a D-Term class
December 13	Friday	Last day of D-Term classes and final examinations
December 14-15	Saturday-Sunday	Closing event, if one is scheduled for the class
December 15	Sunday	Residence halls close (6 p.m.)

Winter Term (Term II) - 2020

January 5	Sunday	Residence halls open (9 a.m.)
January 6	Monday	First day of winter term classes
January 6-10	Monday-Friday	Registration & class change period

January 10	Friday	Last day to make class changes or select the S/U option for winter term classes
January 20	Monday	Martin Luther King, Jr., Day (no classes)
February 13-16	Thursday-Sunday	Midterm reading period
February 28	Friday	Last day to withdraw from a winter term class
March 13	Friday	Last day of winter term classes
March 14-15	Saturday-Sunday	Reading period
March 16-18	Monday-Wednesday	Final examinations
March 19	Thursday	Residence halls close (noon)

Spring Term (Term III) - 2020

March 29	Sunday	Residence halls open (9 a.m.)
March 30	Monday	First day of spring term classes
March 30-April 3	Monday-Friday	Registration & class change period
April 3	Friday	Last day to make class changes or select the S/U option for spring term classes
May 7-10	Thursday-Sunday	Midterm reading period
May 22	Friday	Last day to withdraw from a spring term class
May 25	Monday	Memorial Day (no classes)
June 5	Friday	Last day of spring term classes
June 6-7	Saturday-Sunday	Reading period
June 8-10	Monday-Wednesday	Final examinations
June 11	Thursday	Residence halls close for underclassmen (noon)
June 14	Sunday	Commencement
June 14	Sunday	Residence halls close for seniors (6 p.m.)

Owing to the COVID-19 emergency, the first day of classes for the Spring 2020 term was changed to April 6, 2020.

ERRATA

Catalog Errata

Updated current-year academic calendar and S/U policy for Spring 2020 owing to COVID-19 emergency [07/23/20]

Corrected error in requirements for the minor in Chinese. [03/12/20]

Deleted section on transfer credit for work completed in high school consistent with faculty legislation approved on March 9, 2020 [03/11/20]

Updated language on transfer admissions [2/19/20]

Corrected academic accommodations deadlines policy. [1/27/2020]

Updated the Academic Progress section consistent with faculty legislation approved on November 21, 2019 [11/22/19]

Corrected required courses for the major and minor in psychology [10/11/19]

Corrected requirements of the minor in philosophy to indicate a C-average is required for completion. [9/18/19]

Clarified requirements of the major in philosophy (elective courses and second-major option). [9/18/09]

Added: Teacher certification in elementary education requires one course in environmental studies (ENST 150 is recommended). [9/16/09]

EDUC 563: *Elementary and Secondary Foreign Language Methods* has been retitled *Elementary and Secondary World Language Methods*. [9/16/09]

EDUC 565: *Methods, Materials, and Assessment in Teaching English to Speakers of Other Languages* has been retitled *Methods in Teaching English Language Learners*. [9/16/09]

Corrected spelling in requirements for the major in German. [9/13/19]

EDUC 412: *The Science of Reading* was added to the list of courses required for teacher certification in elementary education and course numbers were corrected. [8/30/19]

For the Bachelor of Arts in Music major and minor requirements the core musicology courses MUCO 201 and 202 were corrected to MUCO 211 and 212. MUCO 211 and 212 replaced MUCO 201 and 202 in the Conservatory of Music curriculum in 2018-19. [7/29/19]

For the Health Careers section, corrected the membership of the advisory committee and revised advising language. [7/29/19]

