# Dickinson College Academic Bulletin 

## As of July 1, 2011

Production of this bulletin is under the direction of the Office of Academic Affairs. Information given here is correct as of July 1, 2011. Revisions and current information are made regularly and may be found on the Dickinson College Web site: www.dickinson.edu/bulletin

Students entering the college in the academic year 2011-2012 should refer to this version of the Bulletin. The degree requirements which they must fulfill are listed on page 7.

The listing of a course or program in this bulletin does not constitute a guarantee or contract that the particular course or program will be offered during a given year.

Dickinson College is accredited by the Commission on Higher Education of the Middle States Association of Colleges and Schools, 3624 Market Street, Philadelphia, PA 19104, 267-2845000. The Commission on Higher Education is an institutional accrediting agency recognized by the U.S. Secretary of Education and the Commission on Recognition of Postsecondary Accreditation.

Other agencies accrediting or recognizing Dickinson are the University Senate of the United Methodist Church, the Pennsylvania Department of Education, and the American Chemical Society.

Dickinson College is a member of the Central Pennsylvania Consortium. The other members are Franklin \& Marshall College and Gettysburg College.

Dickinson College is an intellectual and social community that values justice, free inquiry, diversity, and equal opportunity. It is a fundamental policy of the college to respect pluralism and to promote tolerance, civility, and mutual understanding within its community. The college does not discriminate on such bases as race, color, sex, political and religious beliefs, marital status, age, sexual orientation, national and ethnic origins, veteran's status or disability.

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## Information About Dickinson

## Accreditation

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## The Mission of Dickinson College

Dickinson College was created explicitly for high purposes- to prepare young people, by means of a useful education in the liberal arts and sciences, for engaged lives of citizenship and leadership in the service of society. Founded by Dr. Benjamin Rush, a signer of the Declaration of Independence, the college was chartered in 1783, just days after the conclusion of the American Revolution with the specific purpose of preparing the citizens and leaders who would ensure the success of the new democracy. It was to offer a distinctively original form of American education - one that was rigorously rooted in the traditional liberal arts and was, at the same time, innovative, forward-looking and ultimately useful. It was a revolutionary education designed for a revolutionary age.

As we face the challenges and complexities of the 21st century, Dickinson continues to seek direction from this revolutionary heritage within a contemporary context. A Dickinson education prepares its graduates to become engaged citizens by incorporating a global vision that permeates the entire student experience, creating a community of inquiry that allows students to cross disciplinary boundaries and make new intellectual connections, and encouraging students to be enterprising and active by engaging their communities, the nation and the world.

Dickinson offers a liberal arts education that is distinctive in purpose and approach. Our founders intended Dickinson graduates to use their liberal arts education as a powerful agent of change to advance the lot of humankind. We expect no less today.

## Facts About the College

Character A nationally recognized selective liberal-arts-college - private, coeducational, and residential
History Founded by Benjamin Rush, the first college chartered in the newly-recognized United States of America in 1783. Named to honor John Dickinson, the penman of the American Revolution and a signer of the Constitution.

Location Carlisle, a historic town in south central Pennsylvania; part of the metropolitan region of Harrisburg, the state capital (regional population 656,781 )

Enrollment 2,357 full-time students, representing 40 states and 43 foreign countries
Faculty 239 faculty members; 93\% hold Ph.D.'s or the highest degree in their field
Student-Faculty Ratio 10:1
Average Class Size 17 students
Degrees Granted Bachelor of Arts and Bachelor of Science (42 majors)

Study Abroad Dickinson-sponsored centers and programs in twelve countries; many additional specialized options for off-campus and international study; more than half of all Dickinson students participate

Financial Aid In 2010-2011, Dickinson awarded $\$ 35.7$ million in grants; $62 \%$ of students received merit or needbased awards

Retention 90\% of the Class of 2013 returned for their sophomore year; 81\% of the Class of 2010 graduated in four years

Library Facilities The Waidner-Spahr Library collection contains over 510,151 printed books (including government documents), 241,843 electronic book titles, 1,897 current serial titles, and over 81,030 audiovisual materials (CDs, LPs, DVDs, and video cassettes). Librarians work actively with students to help them use collections to their fullest and to assist them in the research process.

Residential Facilities Dickinson offers a progressive residential life program in which students move into more independent living environments each year. First-year students begin in socially integrated residence halls, sophomores and juniors live in transitional housing (suites), and seniors live in independent apartment-style housing. In total the college has fifty-eight residences, including housing for students with special interests such as foreign languages, multicultural programs, the arts, and the environment.

Athletics A member of the Centennial Conference (NCAA Division III); 11 men's and 12 women's varsity sports, plus club and intramural sports

Extracurricular Features More than 110 clubs and activities, including music and drama groups, student publications, fraternities and sororities, and religious, political, special-interest, and community service organizations

## Statement on Diversity

Dickinson is deeply committed to diversity. Thirteen percent of our most recent incoming class are students of color. In fall 2009, 145 international students from forty-one countries were enrolled at Dickinson. Nine percent of our faculty members and seven percent of our administrative and service staff are persons of color.

Diversity in Student Life There are a number of student groups dedicated to the concerns of diversity and social justice. These include Abolish, Active Minds, African American Society (AAS), Amnesty International, Asian Social Interest Association (ASIA), Circolo Italiano (Italian Club), Club Afrique, Dickinson Desi Association, Earth Now!, Feminist Collective, French Club, German Club, Hillel, Interfaith, Latin American Club (LAC), Middle Eastern Club (MEC), Muslim Students Association (MSA), Newman Club, Portuguese Club, Russian Culture Club, South Asian Student Association, Spanish Club, Spectrum, Students for Social Action (SSA), Sustained Dialogue, Third Degree Steppers, Umoja, and the Zatae Longsdorff Center for Women. In addition, the Office of Diversity Initiatives (ODI) is a resource center open to the entire Dickinson community and charged with advancing Dickinson's commitment to broadening the understanding of - and building - a pluralistic society that promotes equality and integrity on the campus, in the community, and the world. The office provides individuals with the opportunity to broaden their views and enrich their cultural experiences through participation in diversity programs and training workshops. The office encourages and facilitates activities that allow students to voice their opinions, serve the community and advocate for making Dickinson a place that is reflective and responsive to our campus diversity. The Milton B. Asbell Center for Jewish Life, established in 2002, provides a central space for Jewish students to meet, socialize, celebrate the Sabbath and other Jewish holidays, take classes with visiting rabbis, and host interfaith dialogues with other religious groups on campus.

Diversity in the Curriculum The college's curriculum reflects a strong focus on issues of diversity defined in terms both of domestic and of global diversity. All students at Dickinson are required to take at least one course in US Cultural Diversity in order to graduate. They must also complete one course in "Comparative Civilizations" (the study of a culture other than that of the West) and become proficient in a foreign language. Dickinson's Center for

Community Studies also promotes diversity through fieldwork research projects that take Dickinson students into diverse cultures and environments within and outside the United States. Among the center's program are the American Mosaic, in which students devote an entire semester to community-oriented fieldwork, and the Global Mosaic, which extends fieldwork abroad. Overall, more than half of the Class of 2010 studied in a foreign country during their four years at Dickinson. Dickinson's Global Education program offers students opportunities to study in Africa, Central America, and Asia as well as the traditional programs in Europe. In addition, Dickinson's grant from the Freeman Foundation established a new professorship in Asian law and culture that takes a leadership role in advancing Asian Studies and infusing Asian and comparative materials into course work in other departments.

Diversity in Academic Resources Dickinson has devoted significant academic resources to diversity. The WaidnerSpahr library boasts one of the largest private collections of Asian Studies in the country, the Norman and Margaret Jacobs Collection. The collection includes over 20,000 volumes covering China, Japan, Korea, Vietnam, Thailand, India, and other Asian countries. The library also has an East Asian Reading Room with its own dedicated computer terminal, special reading materials, and Asian artifacts. The Trout Gallery possesses a substantial collection of African Art totaling slightly more than 600 pieces. The pieces represent a wide swath of Africa including Ethiopia, the Sepik River region, the Upper Volta, Burkina Fasso, Mali, Sudan, the Ivory Coast, Angola, Tanzania, Ghana, Benin, and other countries within Africa. The collections include various cultural materials such as sculptures, textiles, baskets, pottery, masks, and archeological materials.

## Requirements for the Degree

## For Students Matriculating Fall 2011 through Spring 2012

The general degree requirements introduce students to the special nature of inquiry in each of the three major divisions of learning (the arts \& humanities, the social sciences, and the laboratory sciences), to a variety of cultural and intellectual perspectives, and to the place of physical activity in their lives. The requirement for a major concentration of study in one area ensures that each student engages in complex levels of intellectual examination and inquiry.

It is the responsibility of the student to choose and satisfactorily complete courses that fulfill the requirements for graduation. Only those students who have completed all requirements for the degree are eligible to participate in the Commencement ceremony each May. The general course requirements are described below. The specific requirements for each major are listed in the sections describing the courses of study. A single course may be used to fulfill multiple general degree requirements, distribution requirements, cross cultural requirements and major requirements, except as restricted below. Degree requirements may not be fulfilled by combinations of half-courses; only full courses fulfill distribution and graduation requirements.

All students must pass 32 courses with a cumulative average of 2.00 . A student must complete a minimum of 16 courses on campus; twelve courses must be completed on campus after the student has matriculated and has declared a major. The final four courses or six of the last eight courses immediately preceding graduation must be completed on campus. To be considered "on campus" a student must be registered for a numbered course at Dickinson and must be physically on the Dickinson campus for this course work.

## General requirements for the degree:

1. First-year seminars The First-Year Seminar (FYS) introduces students to Dickinson as a "community of inquiry" by developing habits of mind essential to liberal learning. Through the study of a compelling issue or broad topic chosen by their faculty member, students will: 1) Critically analyze information and ideas; 2) Examine issues from multiple perspectives; 3) Discuss, debate and defend ideas, including one's own views, with clarity and reason; 4) Develop discernment, facility and ethical responsibility in using information, and 5) Create clear academic writing.

The small group seminar format of this course promotes discussion and interaction among students and between students and their professor. In addition, the professor serves as students' initial academic advisor. This course does not duplicate in content any other course in the curriculum and may not be used to fulfill any other graduation
requirement.
2. Writing Intensive Course A Writing Intensive Course is a regular academic course designed to integrate the teaching of writing with the teaching of subject matter. Courses with the "WR" designation are offered across the curriculum and may overlap with any other requirement for the degree. The major goals of any "WR" course include the practice of selected general forms of academic writing or the introduction of specific forms of writing common to the discipline or interdiscipline of the course. The course approaches writing as a process of planning, drafting, revising, and editing, and it encourages students to read assertively for content, forms, and conventions of the text and for rhetorical concerns such as author's purpose, audience, and context. Since this course works to reinforce and develop the general writing skills introduced in the First-Year Seminar, it is most often offered at the 200 or 300 level and should not normally be taken concurrently with the First-Year Seminar. A single course that fulfills this and other requirements may be used to fulfill each requirement, but counts as only one of the 32 required for graduation.
3. Quantitative Reasoning Course A Quantitative Reasoning Course is a regular academic course designed to provide a solid foundation for the interpretation and critical understanding of the world through numbers, logic, or deductive and analytical reasoning. Both words are carefully chosen: "quantitative" suggests having to do with numbers and relations and logic, while "reasoning" refers to the creation and interpretation of arguments. Courses that focus on the analysis of and drawing of inductive inferences from quantitative data as well as courses that concentrate on the formulation of deductive and analytical arguments can satisfy this requirement. "QR" courses can be offered from any department at the college. A single course that fulfills this requirement and other requirements may be used for each requirement (unless the other requirement is Division III, Lab Science), but counts as only one of the 32 required for graduation.

Each semester courses meeting the Writing Intensive and Quantitative Reasoning requirements are noted with an attribute when viewing the course offerings on the Registrar's Office Web page.
4. Distribution courses Distribution requirements engage students in the full breadth of liberal learning as represented by three fundamental branches of the academic curriculum: the Arts and Humanities, Social Sciences, and Laboratory Science. Arts and Humanities help us interpret the human experience through artistic and conceptual self-expression and through critical reflection. Social Sciences seek to describe, analyze, and interpret the ways in which people interact within and among the societies they have created. Laboratory Science aims at understanding the character of the natural order through investigation of the basic structures and regularities in the planet Earth and universe.

A single course may be used to fulfill the distribution requirement in only one division. A single course that fulfills a distribution requirement and other general and/or cross-cultural requirements may be used to fulfill each requirement, but counts as only one of the 32 required for graduation.

Division I: Arts and Humanities (2 courses) Students must select two courses from two of the following three areas:
a. philosophy or religion; or Environmental Studies 111, Environmental Studies 215, East Asian Studies 205 or Women's and Gender Studies 101, depending upon topic.
b. literature in Chinese, English, French, German, Greek, Italian, Japanese, Latin, Russian, Spanish; or Women's and Gender Studies 101 or 201, depending upon topic.
c. art \& art history or classical archaeology, music, theatre, dance, Film Studies 101 or another film studies course (exclusive of history or media) and depending upon topic, or East Asian Studies 205, depending upon topic.

Division II: Social Sciences (2 courses) Students must select two courses, each from a different area or department within the social sciences. Those areas or departments are American studies, anthropology, economics, education, history (or classical history), political science, psychology, sociology, and Women's and Gender Studies 102, 200, or 202, or East Asian Studies 206.

Division III: Laboratory Science (2 courses) Two courses which may be from the same department: biology,
chemistry, computer science, environmental science, Earth sciences, physical science, and physics.
5. Cross-cultural studies The college requires three different types of course work to familiarize students with the ways in which the diversity of human cultures has shaped our world. These courses seek to prepare students to be effective citizens in an interdependent world and to be aware of the breadth of voices, perspectives, experiences, values, and cultures that constitute the rich tapestry of U.S. life and history.

Languages All students are required to demonstrate that they have completed work in a foreign language through the intermediate level. If the student's native tongue is not English, he or she may be excused from this requirement by the Provost/Dean of the college, who will give written notification to the Registrar's Office who will notify the student and the student's advisor. If the student has studied a language for two or more years in a secondary school, the student may be excused from the language requirement on the basis of a sufficiently high score on the College Board SAT II foreign language subject test in the language, with the permission of the appropriate language department. Intermediate language courses do not fulfill any other general or distribution requirements at the college. No exemptions of the language requirement will be provided.
U.S. Diversity To prepare students to function effectively in civic life and to help them gain a broader understanding of the commonalities and differences among cultures and values in the context of the making of American society, the college requires one course with a focus on U.S. diversity. U.S. diversity is a comparative course that focuses on the history of cultures based on race/ethnicity, gender, class, religion and/or sexual orientation. A single course that fulfills this and other requirements may be used to fulfill each requirement, but counts as only one of the 32 required for graduation.

Comparative Civilizations To deepen students' understanding of the diversity in cultures by introducing them to traditions other than those that have shaped the modern West, the college requires one course with a focus on the comparative study of civilizations. A single course which is designated as fulfilling this and other requirements may be used to fulfill each requirement, but counts as only one of the 32 required for graduation.

Each semester courses meeting the U.S. Diversity and Comparative Civilizations requirements are noted with an attribute when viewing the course offerings on the Registrar's Office Web page.
6. Physical education activities Satisfactory completion of four blocks of physical education is required: four fitness activity blocks or three fitness activity blocks and one cognitive physical education block. (Full block physical education courses fulfill only one block of credit.) Effective July 1, 2009, participants in intercollegiate sports will receive credit for one block of physical education for each season they play a varsity sport; ROTC students will receive credit for one block of physical education for each year they remain in the program. Selected sports club activities may also receive a maximum of two fitness blocks. Transfer students with junior standing with no physical education course work need to take only two blocks of physical education. Persons who enter Dickinson after at least two years of active military service will be awarded two fitness blocks toward the requirement. Physical education blocks carry no academic credit. Most meet for half-semester; all courses, even those meeting for the entire semester, count as one block.

Every student must complete the physical education requirement unless excused in writing by the Chairperson of the Physical Education Department. Students are expected to have completed the physical education requirement by the end of the first semester of their senior year.
7. Major Students should select a field of concentration from among those departments offering major fields of study, (See the Courses of Study, page 21) or should, by working with a faculty committee, design their own major field of study. (See The Self-Developed Interdisciplinary Major at Special Approaches to Study.) Majors consist of 9 to 15 courses.

The major is normally selected during the spring of the student's sophomore year. The departments determine the student's acceptance as a major upon the basis of stated criteria. The department assigns the accepted student to an advisor, using the student's preference as one of the bases for assignment. A student must be accepted for a major field of concentration by the time he or she earns junior standing. A student who does not have a declaration of a major on file in the Registrar's Office by the end of the semester in which the sixteenth course (counting towards the
degree) is completed may be required to withdraw from the college.
The student may also elect a minor field of study which usually consists of six courses of academic work specified by the department offering the minor. If a student completes a minor in one or more fields of concentration, this fact will be noted on the permanent record when the degree is posted.

If a student intends to major in more than one department, approval must be secured from each department. This student must develop a program in consultation with both departments, and therefore must be advised jointly by a member from each department and must secure approval of both advisors. The same course may be counted for more than one major except for courses under the self-developed major program. However, a student will receive only one degree.

Students who wish at any time to change a major must be accepted by the new department in accordance with normal procedures for declaring a major.

## Academic Honors

Latin Honors A student in any field who attains an average of 3.90-4.00 in the total program at Dickinson College shall be awarded the degree summa cum laude. A student who attains an average of 3.70-3.89 in the total program at Dickinson College shall be awarded the degree magna cum laude. A student who attains an average of $3.50-3.69$ in the total program at Dickinson College shall be awarded the degree cum laude.

Academic Honorary Societies: The Pennsylvania Alpha chapter of Phi Beta Kappa was established at Dickinson College on April 13, 1887. Election to membership is the highest academic honor available to a Dickinson student. To be considered, a student must first satisfy specific criteria (GPA, total number of courses, number of Dickinson graded courses) set for each of the two elections held annually. For each class, the number of students considered does not exceed 10 percent of the total number graduating in the class. Student members are elected primarily on the basis of academic achievement, broad cultural interests, and good character.

Alpha Lambda Delta, chartered at Dickinson in 1989, is a national academic honor society for students who have high academic achievement during their first year in college.

Additionally there are fifteen honor societies recognizing achievement in a specific field of study: Alpha Omicron Delta (Athletics), Alpha Psi Omega (Drama), Eta Sigma Phi (Classics), Omicron Delta Epsilon (Economics), Phi Alpha Theta (History), Pi Delta Phi (French), Pi Mu Epsilon (Mathematics), Pi Sigma Alpha (Political Science), Psi Chi (Psychology), Sigma Beta Delta (International Honor Society in Business Management \& Administration), Sigma Delta Pi (Spanish), Sigma Iota Rho (International Studies), Sigma Pi Sigma (Physics), Upsilon Pi Epsilon (Computer Science), Kappa Delta Pi (Education).

See Dean's List at Academic Policies and Procedures
See Honors in the Major at Special Approaches to Study and individual department majors.

## Courses of Study

Students may elect either of two broad approaches to the curriculum: the Bachelor of Arts or the Bachelor of Science. General graduation requirements are the same in either case. Only those students with a major in one of the natural or mathematical sciences may choose the Bachelor of Science rather than Bachelor of Arts, but the requirements for the major are the same in either case. Regardless of the number or type of majors a student completes, each student earns only one degree. Students also study in some depth at least one disciplined approach to knowledge. Dickinson students, therefore, develop a concentration in a major. The arts and humanities provide 10 such concentrations; in the social sciences there are six concentrations; the natural and mathematical sciences provide six. These 22 disciplinary majors represent the basic academic disciplines that outline the liberal arts. They are complemented by 20 interdisciplinary majors and two interdisciplinary certification program.

Major fields of concentration offered are: Africana Studies, American Studies, Anthropology, Archaeology, Art \&

Art History, Biochemistry \& Molecular Biology, Biology, Chemistry, Classical Studies, Computer Science, Dance \& Music, Earth Sciences, East Asian Studies, Economics, English, Environmental Science, Environmental Studies, French, German, History, International Business \& Management, International Studies, Italian Studies, Judaic Studies, Latin American, Latino \& Caribbean Studies, Law and Policy, Mathematics, Medieval \& Early Modern Studies, Middle East Studies, Music, Neuroscience, Philosophy, Physics, Policy Management, Political Science, Psychology, Religion, Russian, Sociology, Spanish, Theatre Arts, and Women's and Gender Studies.

In addition, minors are offered in Astronomy, Chinese, Creative Writing, Education, Film Studies, Italian, Japanese, and Linguistics.

Certificate programs can be completed in Health Studies and Security Studies.
Explanation of coding for course descriptions: when two course numbers, followed by a single description, are separated by a comma, either course may be taken without the other, although the two are normally taken together as a one-year course. When two course numbers, followed by a single description, are separated by a comma, and preceded by an asterisk, the first course may be taken without the second, although the two are normally taken together as a one-year course. The first course, however, is a prerequisite for the second.

## Special Approaches to Study

Tutorial Study<br>Independent Study and Research<br>Student/Faculty Collaborative Research<br>Honors in the Major<br>Integrated Independent Study/Research<br>Foreign Language Integration Option<br>Special Majors

Independent research and study, internships, special majors, and tutorial study encourage Dickinson students to pursue individual academic interests and allow students with the requisite ability and motivation to undertake more self-directed programs of study under faculty guidance.

## Tutorial Study, Independent Study and Research

The following options describe programs of tutorial study, independent study, and research possible in any academic area in which faculty have training and in which the student has the approval of the appropriate department or coordinating faculty committee. These general guidelines may vary among individual programs.

Tutorial Study Tutorial study is occasionally approved for students who, by agreement with the instructor, need to take a course listed in the bulletin on a one-to-one or limited enrollment basis. Such a need might be justified in the case of a course which is offered only on an alternate year basis or at some other frequency which would not allow for the completion of the student's program. Approved tutorial studies are added during the schedule adjustment period in the Registrar's Office.

Independent Study and Research for First-year Students First-year students who, on the basis of advanced placement, have qualified for credit in an introductory course (except foreign language courses below 230 and such other courses as may be designated by the departments) and desire to work more extensively at the survey or principles level of a discipline may enroll for a tutorially-directed course or half-course in independent study within the same body of knowledge.

A first-year student who wishes to take a second independent study, or a course of independent study or research on terms available to sophomores, juniors, and seniors, must petition the Committee on Academic Program and Standards, with supporting statements from the academic adviser and proposed supervisory instructor.

Independent Study for Sophomores, Juniors, and Seniors Independent studies allow a student to pursue an academic interest outside the listed course offerings. The study may include experimental work and reading and may culminate in several short papers, a single paper, or any other project acceptable to the supervising faculty member and the student. The work may be supervised by one or several instructors from one or several departments. Such interdepartmental studies must be approved beforehand by the Committee on Academic Program and Standards. Sophomores may undertake one independent study or research course and may, with the support of the student's academic advisor, petition the Committee on Academic Program and Standards for permission to take two independent studies or independent research courses in one semester. Juniors and seniors may undertake two such courses without special approval and may petition the Committee on Academic Program and Standards for additional independent study or research courses. In addition, the student must have a cumulative average of 2.00 or the permission of the Committee on Academic Program and Standards.

Independent Research for Sophomores, Juniors and Seniors Independent research allows a student to pursue an academic interest beyond the listed course offerings. The project should be designed as original research and practice in presenting the results of an investigation. This pursuit must culminate in the student's own contribution to a discipline, whether in the form of fully-supported conclusions or in the form of a creative effort. Students may initiate a research project independently or in consultation with supervising faculty from one or several departments. The final project must be presented to the advising faculty no later than two weeks prior to the end of the evaluation period. The program may be elected for a maximum credit of four full courses. Programs of independent research involving more than two such courses per semester must be approved by the Committee on Academic Program and Standards.

Student/Faculty Collaborative Research Student/Faculty Collaborative Research allows a student to conduct original research in close partnership with faculty collaborator(s). The project should be designed as an investigation yielding novel results that contribute to the area of study. With the faculty collaborator(s), students will develop the project and participate in all aspects of the research. It is expected that the faculty member will work closely with the student for at least half of the time the student is pursuing the research. The final project must be presented to the faculty collaborator(s) no later than one week prior to the end of the evaluation period. The course will typically earn one half or one full course credit per semester.

Honors in the Major Honors in the major are conferred at graduation upon students who meet the departmental standards for graduation with honors. Students conducting independent research described above shall be eligible to be voted honors in the major upon completion of the research. In assessing each candidate, the departments may conduct comprehensive examinations or may invite outside examiners. If, in the judgment of the department, a candidate meets the standards for graduation with honors, the designation will appear on the student's record. Honors are achieved through independent research described above unless another procedure for pursuing honors in that particular major has been approved. Consult the web page of the academic program and/or program contact person to clarify the procedure. For specifications regarding format for the honors thesis see the: Library Services web pages.

Integrated Independent Study and/or Independent Research for Juniors and Seniors This provision allows a student, with the guidance of his or her major department and any supporting departments, to plan an entire program either for the last two years of study or for the senior year. The program, which must be approved by the Committee on Academic Program and Standards, may combine independent study, independent research, and course participation. Work under the program normally proceeds without grade, but, upon the student's completing the plan, the supervising department will prepare a precise description of the work accomplished and an evaluation of its quality which will become part of the student's permanent record.

## Foreign Language Integration Option

A number of courses are designated each semester as carrying the foreign language integration option. These are courses in which students who wish to try their language skills in courses outside the language departments can choose to do some work in the designated foreign language. The amount and type of language work involved (readings from articles, newspapers or books and/or some paper writing) is determined by the professor in conjunction with the student. Foreign language work is tailored to meet the needs and language level of the
individual student. Typically, work in a foreign language is substituted for English language materials, so as not to constitute an added responsibility. Successful completion of the foreign language integration option is noted on a student's transcript, thus certifying the student has had extra training in the language. This option is entirely voluntary. Students who register for courses with this option are not required to do work in a foreign language and may take the courses on the regular basis. Evaluation of the foreign language integration work does not affect the student's grade in the course.

## Special Majors

Tutorial Departmental Major Some departments may approve superior students as tutorial majors. Such a program differs from independent studies and research in several ways. For one, the student is guided in a program in the component areas of an entire discipline for approximately two years. That program's balance is ensured by prior departmental approval. Secondly, the student is free to take regular courses in the student's major discipline with the approval of the tutor. Normally, the student will receive a letter grade for a 600 series course, but the Pass/Fail option is also available under the same restrictions as in standard courses.

The student meets on a regular basis with a tutor to discuss essays and readings dealing with particular problems posed by the tutor. Finally, the student sits for a comprehensive examination, both written and oral, administered by a committee composed of the department and one person outside the department. Normally, at least one-quarter of the student's final semester is given over to preparation for these examinations. One reexamination may be permitted within the calendar year. Students will be graded on the examination as having passed, failed, or passed with honors in the major. Approved students may register for up to four courses per semester under the tutorial rubric.

The Self-Developed Interdisciplinary Major The Dickinson College faculty represents in its members a diverse set of interests and perspectives that provides a considerable resource for those students who would like to develop a major around concerns that do not fall into traditional disciplinary areas. The option of a self-developed major is available to students who desire a somewhat different field of concentration which, although a recognized field of learning and relevant to the liberal arts, is not substantially addressed by any one department. Recent self-developed majors have included intellectual history, media studies, and global feminisms.

A student contemplating a self-developed major should prepare a proposal which includes those courses relevant to the topic and seek the written endorsement of four faculty members for the proposed major which consists of ten or more courses. Support from the chairpersons of the relevant departments in which the student contemplates course work for concentration is also required.

The student should meet with the Associate Provost for Curriculum to discuss the proposal. In preparation for that meeting, the student should provide the following information in the written proposal: 1) a general statement about his/her academic interest/goals; 2) why none of our majors/programs support his/her goals; 3) general information about the proposed academic program including the intellectual foundation for what the student wants to study as well as the specific courses that would help to meet those goals; 4) if this type of academic program exists elsewhere, the student should include the school and the specifics of those programs and how his/her program is the same or different from those and why.

The student will present the final proposal along with the completed self-developed major proposal form to the Subcommittee on Academic Standards for approval. The student in this program works closely with an appointed advisor. Changes desired in this program are submitted with the approval of the advisor in written form to the subcommittee for final approval. Under ordinary circumstances, a student accepted in a self-developed major may not apply any of the approved courses toward the completion of a departmental major or minor.

Upon the completion of every semester, each student involved in the self-developed major submits to the subcommittee (with a copy to the advisor) an evaluation statement of progress and commitment to the major as a whole, experience in individual courses, and work with the advisor. The advisor submits to the subcommittee, and to the student, an evaluation describing the student's progress, achievement, and commitment.

At the conclusion of the student's work, the transcript describes the major as follows: Self-Developed Major: (Title).

## Academic Policies and Procedures

## Information for Students Who are Enrolled for a Dickinson Degree

Enrollment and Course Request New students plan their course schedules in the summer prior to arriving on campus. Students will meet with an assigned faculty advisor during the orientation period of their first semester to discuss the schedule and the student's long-term academic goals. During each subsequent semester, students plan their course schedules with their adviser during the advising period which precedes registration. The course request period for spring semester occurs in late October/early November; the course request period for fall semester occurs in late March/early April. First-Year seminars are assigned on the basis of a preference questionnaire submitted by the student during the summer.

Calendar Courses are offered in two semesters, each totalling 15 weeks (including classes, a brief reading period, and final examinations). The fall semester begins in late August and concludes prior to the holidays. Students have a reading period of a few days after the end of classes in which to take stock of their work for the semester and prepare for the final examinations and papers which are scheduled at special times during the subsequent week. Spring semester begins near the end of January and runs through mid-May, following a similar pattern. The college offers a five-week summer school program each year in July and August. Classes meet daily, providing an intensive period of study. Students may register for a maximum of two courses per summer session. First-Year and sophomore students must meet with their advisers each semester for an advising session at which time they will receive an alternate PIN to be used during the course request period.

Class Size First-year seminars, all foreign language classes, courses on writing, and most upperclass seminars have class enrollments of approximately 15 students. A typical introductory course enrolls 35 students, most intermediate-level courses have 25 to 30 students, and 300-level courses usually enroll 25 students. Some introductory science course lectures enroll classes of 50 to 75 students, with accompanying laboratories for these courses conducted in sections of 12 to 28 ; others using a "workshop" approach meet for two hours of integrated lecture and lab for 20 to 25 students, three times a week. Advanced science classes and labs are usually under 25. Maximum class sizes are established in order to provide students with adequate opportunities to interact with their professors and with other students. As a result, students do not always gain access to their first choice of courses during a given course request period, and some majors are more difficult than others to initiate. Consistent with the college's commitment to overall balance, however, every effort is made to anticipate such problems and when necessary to open new course sections.

Course Load and Credit A normal schedule is four courses each semester. A student who wishes to carry fewer than three courses must receive permission to be part-time from the Registrar. A student's full or part-time status is determined at the end of the add/drop period. A student may register for up to 4.5 course credits without special permission each semester. After successfully completing his or her first semester, a student may register twice for a semester load of five course credits during his or her Dickinson career; registration for a fifth course may be completed only during the Add/Drop period.

Each course, unless otherwise noted in the course description, is equivalent to four semester hours. Credit for courses is based on the assumption that at least three hours of study accompany each class period (excluding labs). Half courses exist in only a few departments and may meet either for only half the semester or on a half-time basis for the entire semester. Physical education courses and some military science courses carry no academic course credit.

Course Schedule Students are responsible for selecting the courses in which they enroll and for the election of courses which will satisfy the requirements for graduation. Only those students who have completed all requirements for the degree are eligible to participate in the Commencement ceremony each May. Students enroll in four courses each semester. Normally, a course meets three times a week for 50 minutes or twice a week for 75 minutes; some upper class seminars meet just once during the week for three hours. Some natural and mathematical science courses meet in two-hour lecture and laboratory workshops several times a week or schedule advanced laboratories or field trips in single afternoon blocks. This variety in the weekly schedule provides class times suited to differing teaching methods and to the requirements of specific subjects. For example, brief but frequent meetings
are often the best way to learn information, practice a skill, or discuss a series of related issues. Sometimes extended workshop sessions serve well the rhythms of a course that requires room to develop an idea or explore a problem or acquire a technique.

Changes in Course Schedules Students may make changes in their course registration during the first five days of the semester, referred to as the add/drop period. No change in registration is official until the student has made the change using the on-line registration system or confirmed the change in the Registrar's Office. Starting a course after the first few days of classes is usually not advisable. Students are expected to be properly registered for courses and in residence beginning on the first day of the semester. Students who fail to do so by the end of the add/drop period will be administratively withdrawn. Changes to or from the pass/fail option and in the use of the audit status require the instructor's permission. It is the responsibility of the student to obtain the instructor's signature on a form and return that form to the Registrar's Office before the end of the add/drop period.

Changes in Course Level Certain courses in the languages are offered at several levels. Students who find themselves enrolled at an inappropriate level in these courses may change level with the approval of the instructor during an additional period of approximately two and a half weeks. (See college calendar for exact date.)

Auditing Courses A student may attend a course without credit by registering to audit the course. The permission of the instructor is required. Audit registration occurs during the add/drop period. A student who has received credit for a course may retake the same course on an audit basis. Students who are enrolled for three or more courses may audit without an additional fee. The instructor stipulates the requirements of the course for all auditors early in the semester. Courses taken as audits do not appear on a student's transcript unless the instructor authorizes such an entry at the end of the semester.

Late Changes in Course Schedule Add/drop and change-in-level deadlines are significant points in the semester beyond which any change in schedule affects academic performance. For this reason, students who want to make additions or changes in the level of their registration after these deadlines must make their request by petitioning the Subcommittee on Academic Standards. A student may withdraw from courses until 10 class meeting days after Roll Call of each semester. After this period, withdrawal will require a full review before the Committee on Academic Program and Standards. Withdrawal from a course will be indicated by the entry of a "W" grade in the student's record. Withdrawal is not an option for physical education courses. The option to withdraw from a course and the use of "W" grades without prior review and approval by the Subcommittee on Academic Standards is limited to two courses during a student's Dickinson career. Withdrawals involving a change from full-time to part-time status will be accepted only if the change of status has received prior approval by the Registrar. A student may petition the standards committee to drop a course from the record only when, through no fault of the student, no substantial participation in the course has occurred.

Grading Professors evaluate student achievement by the traditional means of written comments on papers and exams as well as by assigning letter grades. They are also available to students for individual conferences, to answer questions or discuss complaints, and just to talk further about some important matter raised in class. Faculty report an evaluation of student performance twice each semester. At mid-semester (Roll Call), the following grades are reported for all students: "S" indicating satisfactory achievement to date (normally, work of "C" quality or above), "U" indicating unsatisfactory achievement (normally, work of "C-" or below), "I" indicating incomplete work outstanding, and "NE" indicating no evaluation made by the faculty member (applicable to an entire course or section). These roll call grades are available to students via the college Website and are sent to advisers and serve as a useful benchmark for progress; however, they do not become part of the student's permanent record. At the end of each semester final grades are reported which become part of the student's permanent record. Once a grade has been reported to the Registrar's Office, it may not be changed unless the change has been requested by the instructor and approved by the Provost/Dean of the College. Students who think that a final grade may be inaccurate should begin by contacting the professor as soon as possible. If the professor confirms that a calculation or data entry error has occurred, the professor will submit a grade change request to the Provost/Dean of the College. This request must be submitted no later than Roll Call of the subsequent semester.

Students who, after requesting and receiving from the faculty member a detailed explanation of a grade, think that an assigned grade represents unfair or capricious grading should contact the Department Chairperson who will investigate the charge and report findings to the Provost/Dean of the College for further action.

Most coursework, independent study, and independent research work are graded on an A through F grading scale incorporating pluses and minuses. A student's cumulative average is based on letter grades received in Dickinson courses and at other colleges in the Central Pennsylvania Consortium (Franklin and Marshall and Gettysburg). Two other grading options, pass/fail and credit/no credit, exist and are explained below.

A through F Grading: All courses are offered for a letter grade unless otherwise listed in the bulletin or in the course offerings online. The letter grades reflect the achievement of Dickinson students in the following manner: A, exceptionally high level of achievement; B, substantial level of achievement; C, satisfactory level of achievement, the minimum average grade required for graduation; D , minimal level of achievement required to receive course credit; F, unacceptable level of achievement. Plus (+) and minus (-) are gradations of the letter grade scale.

A student's cumulative average is based on the numerical value assigned to letter grades:
A 4.00
A-3.67
B+ 3.33
B 3.00
B- 2.67
C+ 2.33
C 2.00
C- 1.67
D+1.33
D 1.00
D- 0.67
F 0.00
Pass/Fail Grading: The pass/fail grading system in courses for academic credit is an option intended to encourage students to venture into new intellectual fields. This option is available on a limited basis to students after the first semester of their freshman year.

Under this system, "pass" is defined as work of a quality earning a grade of at least "C" and "fail" is defined as work of a quality earning a grade of "C-" or below unless the instructor indicates a different criterion for the grade of "pass." Taking a course on the pass/fail basis requires approval of the instructor. In courses numbered 300 and above, pass/fail may be taken by permission of the instructor only. It is the responsibility of each individual instructor to indicate at the beginning of the course the standards for passing and failing work in that course. Some departments may prohibit use of the pass/fail option in specific courses and, normally, pass/fail work should not be included among courses taken for the major or minor or certificate program requirements, or, effective with the Fall 2009 matriculating class, to satisfy any specific graduation requirement.

Courses taught on the credit/no credit system may not be taken on a pass/fail basis. Students may elect to take no more than one course on a pass/fail basis each semester and no more than a total of four pass/fail courses among the 32 required for graduation. Changes to or from a pass/fail grading basis must be made during the add/drop period.

Courses offered only as pass/fail (i.e., when the student has no option to take as a regularly graded course) are not included in the four course limit referenced above.

Credit/No Credit Grading: Credit/no credit grading, in contrast to the pass/fail system, is not the student's option. Each semester a few courses are offered on the credit/no credit basis at the request of the instructors and with the approval of the Subcommittee on Academic Standards. All students registering for a course offered for credit/no credit will be evaluated on that basis. Mastery of the course's objectives is considered a satisfactory completion of the course and results in a grade of "credit." Failure in the course results in a grade of "no credit." Normally, internships are offered on a credit/no credit basis. As with the pass/fail system, neither grade results in a change to the student's cumulative average. The option to enroll in credit/no credit courses is open to all students including first-semester first-year students (except internships, normally limited to juniors and seniors) with no maximum number of credit/no credit enrollments.

Incomplete Grades: A grade of "incomplete" may be reported only in cases in which illness or other serious emergency has prevented the student from completing the work for the marking period. No incomplete is in effect until a form has been filed with the Registrar that states the reasons under which it has been granted, contains an evaluation of the student's work to the date of the incomplete, and is signed by both student and instructor. An incomplete may not be reported because of negligence or procrastination on the part of the student. An incomplete grade must be cleared before Roll Call of the following semester unless an exception is granted by the Subcommittee on Academic Standards. In every case, the incomplete must be cleared before the end of the second semester following. If an incomplete has not been cleared within stipulated time limits, the appropriate grade indicating a lack of satisfactory completion will be recorded.

Grades in Year Courses: Independent Study and Independent Research registered for year-long activity, as well as several senior seminars, may receive either a letter grade for the term or an "S" grade with course credit. Upon completion of the second semester, an "S" grade may be converted to a letter grade along with the second semester's letter grade and credit.

Course Failure: A letter grade of "F," a "fail" under the pass/fail system, or a "no credit" under the credit/no credit system are all evaluations expressing failure in a course. The letter grade of "F" results in a reduction of the cumulative average, while "fail" and "no credit" do not change the average. A failed course may be retaken for credit. In the case of letter-graded courses, both the original grade and the new grade are calculated in the average. All failing grades continue to appear on the student's academic record regardless of course repetition.

Credit for Course Work at Other Institutions Course work submitted by transfer students is evaluated by the registrar after a preliminary and tentative appraisal has been performed by the admissions counselor. In general, coursework taken at accredited colleges or universities that parallels the curriculum at Dickinson is transferable provided grades of C ( 2.00 on a 4.00 scale) or better have been earned. College-level course work will be evaluated according to the following criteria: (1) must be listed on an official transcript of an accredited institution; (2) must be a minimum of 3 credit hours; (3) must indicate a grade of $C$ or better ( 2.0 on a 4.0 scale); (4) must have liberal arts content; (5) must be offered in a setting which allows for interaction between student and instructor (i.e., no credit will be awarded for correspondence, on-line or one-way video courses). A maximum of 16 courses may be accepted for transfer. Transfer students must then complete the remaining 16 courses toward graduation on campus. Students admitted as transfer students to Dickinson College with 12 courses (2nd semester Sophomores) may count up to a year of study abroad on Dickinson Programs toward the residency requirement and students who transfer with 16 courses (1st semester Juniors) may count a semester of study abroad on Dickinson Programs toward the residency requirement.

Dickinson students who desire to study away from campus for summer study or during the academic year must obtain prior approval of the program of study. College-level course work will be evaluated according to the following criteria: (1) must be listed on an official transcript of an accredited institution; (2) must be a minimum of 3 credit hours; (3) must indicate a grade of C or better ( 2.0 on a 4.0 scale); (4) must have liberal arts content; (5) must be offered in a setting which allows for interaction between student and instructor (i.e., no credit will be awarded for correspondence, on-line or one-way video courses). Students in good academic standing may receive up to a total of four transfer course credits for summer or January-term study at other approved institutions; they may be taken in a combination of one or more summers. Off-campus study during the academic year is normally limited to a maximum of four courses for one semester or eight courses for a full academic year.

In addition, off-campus study in the senior year, if it precludes a student from being on campus for six of the last eight courses, or the last four courses, preceding graduation, requires special approval from the Subcommittee on Academic Standards. Special approval is also necessary for participation in more than two semesters of study off campus or for participation in more than one off-campus program.

Final determination of credit and satisfaction of Dickinson distribution and language requirements will be determined by the Registrar. All courses intended to be considered for a major, minor or certificate program must receive additional approval and evaluation by the relevant academic department/program.

Repeat Policy Students may not repeat a course for which they have already posted credit. This applies to courses
taken at Dickinson for which a grade of D- or above was earned, as well as equivalent course content taken at another institution and transferred to Dickinson.

Dean's List Full-time degree-seeking students who, in a given semester, earn a superior academic average are named to the Dean's List. Academic qualification for inclusion on the Dean's List requires that the student earns a 3.70 academic average for the semester, with no grades lower than a C- and no incomplete grades. A minimum of three courses must be completed for a grade, and the student must have a cumulative grade-point average greater than 2.00. Students with records in violation of the community standards or who engage in other behaviors that the dean judges inimical to the mission of the college may be ineligible for the Dean's List. Students who are on "suspension", "stayed suspension" and/or affiliated with organizations banned by the college are typically ineligible for the Dean's List.

Progress toward the Degree: Normally, students complete either the B.A. or the B.S. degree programs in eight semesters by taking four courses per semester. Students are expected to meet all requirements for graduation in effect at the time of their matriculation. Responsibility rests with the student for the election of such courses that will satisfy the requirements of the college for graduation. Students accepted as first-time students are permitted a maximum of twelve (12) semesters of full-time study in which to complete a Bachelor's degree at Dickinson College. The maximum degree completion timeframe equivalency will be pro-rated for part-time and transfer students.

A minimum of 16 courses must be taken on the Dickinson campus. A student must be accepted for a major field of concentration by the time he or she earns junior standing. A student who does not have a major declaration form on file in the Registrar's Office by the end of the semester in which the sixteenth course (counting towards the degree) is completed may be required to withdraw from the college. Six of the last eight or the last four courses in a student's program must be taken on campus in order to fulfill the senior residence requirement. All course work taken at other institutions after admission as a degree candidate must have prior approval from the Registrar (for domestic study during summer school) or the Associate Provost of the College/Executive Director of Global Education (for international study at any time during the year and domestic study for an academic semester). A student must be in good standing and obtain prior approval to study at another institution during the academic year. Approval for this status can be granted for one semester or one year. Students may transfer up to one full year of academic work (a total of 9 courses) if prior approval of the program has been obtained.

## Academic Expectations

The faculty assumes that every student admitted to Dickinson will be able to qualify for graduation. However, the opportunity to continue at Dickinson is a privilege that a student must earn by academic achievement.

Qualitative Standards: The minimum cumulative grade point average for a first-year student to be in good academic standing is 1.75 . The minimum cumulative grade point average for all other students to be in good academic standing is 2.00. The Subcommittee on Academic Standards reviews student records and applies these standards on a case-by-case basis at the end of each semester grading period (fall, spring and summer). Normally, when a student's cumulative grade point average falls below the applicable minimum, $\mathrm{s} / \mathrm{he}$ will be required to withdraw. In order to graduate, a senior must have a minimum cumulative grade point average of 2.00 . Any student with a semester grade point average of 0.00 will be required to withdraw even if his or her cumulative grade point average remains above a 2.00. An upper class student with semester grade point averages below 2.00 for three consecutive semesters will be required to withdraw from the college, even if his or her cumulative grade point average remains above a 2.00 . At this level of performance the student will have failed to achieve quantitative progress. The Subcommittee on Academic Standards may warn a student if his or her semester average falls below the minimum required cumulative grade point average even when the cumulative grade point average allows the student to remain in good academic standing since continued performance at this level would remove student from good academic standing.

Quantitative Standards: In addition to maintaining the minimum grade point average, students are expected to make satisfactory quantitative progress toward the completion of degree requirements. Normally, when a student does not meet quantitative standards as described below, $\mathrm{s} /$ he will be required to withdraw from the college.

Full-time students are normally expected to complete at least 4 courses each semester and to progress one grade level each year. The Subcommittee on Academic Standards reviews student records and applies these standards at the end of the academic year when grades for spring semester are posted.

First-year students become sophomores when seven courses creditable toward graduation are completed. Sophomores achieve junior status after 15 courses. Juniors become seniors after 23 courses.

For students who fail to progress one grade level and for part-time students, satisfactory academic progress will be measured by comparing the number of courses attempted to the number completed successfully. Attempted courses include all withdrawals, incompletes, and failures. To be considered to be progressing satisfactorily, students must have completed successfully the following percentage of courses attempted:

First year students - 60 percent
sophomores - 70 percent
Juniors/Seniors - 80 percent

## Changes in Student Status

Voluntary Leave of Absence Students may request a leave of absence for a single semester or an academic year. A student on a voluntary leave of absence is considered enrolled at the College and does not have to apply for readmission. At the end of the approved duration of the leave, students are expected to return to full-time study. A student may request an extension to the time period of the leave of absence by submitting a written request to the Registrar.

Students may request a leave of absence for an upcoming semester prior to the start date of that semester. An approved voluntary leave of absence may be granted: (1) by the student's class dean for those students whose circumstances require them to temporarily discontinue formal study at Dickinson. A student in this category may request permission to study at another institution, taking a maximum of two courses for transfer to his or her Dickinson record. To be eligible for transfer of a maximum of two courses taken while on a leave of absence, the student must obtain approval from the Registrar for the specific courses prior to registering for them; 2) by the Associate Provost of the College/Executive Director of Global Education for those students who have been denied permission to study abroad in designated locations for safety reasons. A student in this category may request review of the course work for transfer upon return to Dickinson College; course work is subject to the college's criteria for transferable work.

Students may request a leave of absence for the semester in which they are currently enrolled as long as the request is made on or before Roll Call. When a leave of absence is granted for the semester in which a student is currently enrolled, "W" (for withdrawal) grades are recorded in lieu of a regular grade for all registered courses.

Required Leave of Absence Students are expected to be engaged actively in their academic coursework while enrolled at the College. Occasionally, it is deemed to be in the student's academic interest to take time off from academic study. In those cases, the Provost/Dean of the College may require a student to take up to one semester's leave of absence.

Student-initiated Medical Leave of Absence A student may request a medical leave of absence in order to obtain medical or psychological treatment which will enable the student to return to full-time academic study at the College. Students can initiate this process by consulting with the Health Center or Counseling Center.

1. A student may apply for a Medical Leave of Absence, (MLOA) at any time through the last day of exams in any given semester due to medical and/or psychological problems that are interfering with the ability of the student to meet the demands of College life, including both academic and social demands.
2. Before applying for MLOA, the student must consult with a professional at the Counseling Center and/or Health Center and must secure a recommendation from one of those offices to pursue the MLOA. A student may provide
information from outside health care providers to the Counseling Center or Health Center, if he or she chooses, but is under no obligation to do so.
3. Upon recommendation of the Director of Counseling Services and/or the Director of Student Health Services, the Dean of Students or Provost/Dean of the College will make the final decision regarding approval of a voluntary MLOA.
4. During the time away from campus, a student is subject to the following conditions regarding student loans. Commencing with the date of authorization of the MLOA, a student with a federal Stafford loan must re-enroll at least half-time within six months, in order to avoid using up the grace period and entering repayment. Students are responsible for notifying their lender of their enrollment status. Perkins loans have a nine-month grace period. There is no grace period for other loans.
5. When a student takes a MLOA during the course of a semester, either the grade of "Withdrawal" (W) or "Incomplete" (I) will be recorded by the Registrar for those courses in which the student is enrolled. Students eligible to utilize the grade of "Incomplete" should follow instructions in the College Bulletin.
6. In cases where a student is on a MLOA for a period of fewer than six weeks at the close of a semester, withdrawal from classes may not be necessary if the student can make arrangements to keep up with academic work or, if eligible, to receive "Incomplete" grades.
7. The usual policies for refunds and deposits apply as stated in the College Bulletin.
8. While a student is on MLOA, he or she is to be separated from the campus completely unless prior approval for any visit is approved by the Dean of Students.
9. When a student on MLOA believes s/he is ready to return to the College, he or she must notify, in writing, the College office wherein the medical leave was initiated (Counseling Center or Health Center). Return to full-time active student status requires an evaluation from the Counseling Center or Health Center, or both, validating that the student is ready to resume studies and life at the College. Such an evaluation may include consideration of information from other health care providers offered by the student. The Counseling Center or Health Center shall make a recommendation to the Dean of Students or Provost/Dean of the College. The Dean of Students or Provost/Dean of the College will make the decision about whether to approve the student's return to the College. The Counseling Center or Health Center may make recommendations to the Dean of Students or Provost/Dean of the College regarding conditions of return or accommodations appropriate to support a student's condition. The student will receive written notification of those conditions and/or accommodation. Notification of intent to return is generally required no later than June 1 for the fall semester or November 1 for the spring semester. Decisions on requests received after the foregoing dates will be made on a case-by-case basis.

College-initiated Medical Leave of Absence Dickinson College may place a student on MLOA without the student's consent at any time it is deemed necessary to protect the health, safety and well-being of the student, other students, other members of the College community or the interests of the College itself.

Nothing in this policy shall limit the College's ability to respond to a student's behavior solely on the basis of the behavior itself.

The Dean of Students shall make the final decision regarding college-initiated MLOA. The Dean will consult with the professionals from Counseling Center and/or Health Center in order to arrive at a decision regarding medical leave. The student will be given oral and written notification of MLOA status as soon as possible. Such notification will include any terms or conditions of return which must be met by the student. The length of MLOA will be determined on a case-by-case basis. While a student is on MLOA, he or she is to be separated from the campus completely unless prior approval for any visit is approved by the Dean of Students.

When a student on MLOA believes s/he is ready to return to the College, he or she must notify, in writing, the Dean of Students or his/her designee. Return to full-time active student status requires an evaluation from the Counseling Center or Health Center, or both, validating that the student is ready to resume studies and life at the College and
assuring that all conditions necessary for return have been met. Such an evaluation may include consideration of information from other health care providers offered by the student. The Counseling Center or Health Center shall make a recommendation to the Dean of Students. The Dean of Students will make the decision about whether to approve the student's return to the College and any ongoing terms or conditions of return, based upon recommendations from the Counseling Center or Health Center. The Counseling Center or Health Center may also make recommendations to the Dean of Students regarding accommodations appropriate to support a student's condition. The student will receive written notification of those conditions and/or accommodation. Notification of intent to return is generally required no later than June 1 for the fall semester or November 1 for the spring semester. Decisions on requests received after the foregoing dates will be made on a case-by-case basis.

Withdrawal Withdrawal from the college, whether voluntary, required, or administrative, discontinues one's enrollment as a degree candidate. If a student withdraws from the college with disciplinary matters pending, whether social or academic in nature, the matter may proceed to disposition, at the sole discretion of the college. Under such circumstances, the student has all rights afforded under the policies of the college for such proceedings, including the right of participation. Any sanctions imposed, other than expulsion, shall be imposed should a student return to Dickinson College at a future date. A sanction of expulsion shall become effective immediately.

For those matters which did not proceed to disposition upon a student's withdrawal from Dickinson, should a student seek to be readmitted within one (1) calendar year of withdrawal, the disposition of the disciplinary matter will proceed at the time application for readmission is made and before a decision on readmission is made by the college.

For those matters which did not proceed to disposition upon a student's withdrawal from Dickinson, no student shall be considered for readmission if one (1) calendar year or more has passed from the time of withdrawal. Note: See below for criteria for readmission.

Voluntary: A student may withdraw voluntarily at any time, with "W" grades being recorded for all registered courses if the withdrawal is made on or before the last day of classes. If withdrawal is made during the final examination period, earned grades will be recorded. Students should contact their class dean to obtain the appropriate forms and information and to schedule an exit interview. Note: See below for criteria for readmission.

Required: Dickinson College reserves the right, at any time, to require withdrawal from the college of any student whose academic performance or personal conduct on or off the college campus is, in the sole judgment of the college, unsatisfactory or detrimental to the best interests of the college. Students who do not meet the minimum qualitative and/or quantitative standards for their class are required to withdraw.

Appeal of Required Withdrawal for Academic Reasons: Normally, students must wait a full semester after required withdrawal before making reapplication. Students who wish to appeal for immediate reinstatement to active status must petition the Subcommittee on Academic Standards. To be eligible for appeal, the student (1) must submit a petition with the requisite information outlined below; (2) have proven his/her ability to achieve the established probationary average; (3) must not have received any failing grades in the semester just completed. In this written petition, addressed to the Subcommittee and sent to asc@dickinson.edu, the student must include a candid assessment and reflection of the poor academic performance as well as a detailed plan to be implemented to improve academic performance to levels expected by the College should the student be permitted to return.

Upon review of the student's submission, the Subcommittee may deny the request for return and continue the required withdrawal, or may approve the student's return to active status on academic probation (see information regarding Academic Probation in Readmission section below) and require the implementation of some or all of the steps outlined in the student's plan as well as the following:

- active participation in the Steps to Academic Success Program for first-year and sophomore students if reinstated for spring semester.
- active participation in the Fall Bridge Program if reinstated for fall semester

A student with a semester grade point average of 0.00 in the fall semester is not eligible to appeal for immediate return to active status in the spring semester.

Administrative: Students who fail to register by the end of add/drop and who do not inform the Registrar's Office of their plans will be administratively withdrawn. Such students may apply for readmission. Note: See below for criteria for readmission.

Suspension from the College: Sanctions for Violation(s) of the Academic Provisions of the Community Standards A student suspended from the college may not participate in classes or other college activities and may not be on College property (except by appointment, arranged in advance with the Provost/Dean of the College or the Dean of Students or one of their designees) for the period of time specified in the notice of suspension. Students will receive " W " grades for all registered courses when suspension takes effect during the semester. Suspension extending beyond the semester in which action is taken shall consist of units of full semesters and/or summer sessions. In no case shall the suspension terminate prior to the end of a semester. Courses taken at another institution during this period of suspension will not be accepted for transfer to Dickinson. Conditions for resuming active status on campus following suspension may be imposed by the College.
See the Community Standards and Procedures.
Suspension from the College: Sanctions for Violation(s) of the Social Provisions of the Community Standards For the individual, exclusion from classes, activities of the College, from residence halls, and/or use of facilities or other property of the college for the period of time specified in the notice of suspension (except by appointment, arranged in advance with the Provost/Dean of the College or the Dean of Students or one of their designees). Students will receive "W" grades for all registered courses when suspension takes effect during the semester. Suspension extending beyond the semester in which action is taken shall consist of units of full semesters and/or summer sessions. In no case shall the suspension terminate prior to the end of a semester. Conditions for readmission may be specified. Courses taken at another institution during this period of suspension will not be accepted for transfer to Dickinson. Conditions for resuming active status on campus following suspension may be imposed by the college. See the Community Standards and Procedures.

Students who are separated from the college during any semester for disciplinary reasons, either social or academic, lose the opportunity to receive college credit for that semester.

Readmission Any formerly matriculated student who wishes to re-enroll must file an application for readmission. Such applications should be submitted to the Registrar prior to May 15 for the fall semester and prior to November 15 for the spring semester. Normally, students must wait a full semester (not a summer session) after withdrawal from the college before making reapplication. Students who wish to reapply sooner must petition the Subcommittee on Academic Standards. When possible, the student's academic advisor at the time of withdrawal will be consulted as a part of the committee's consideration of an application for readmission. A student who is readmitted must meet the requirements for the degree in effect at the time of readmission. Favorable action in readmission, either by an individual or a committee, does not necessarily constitute a guarantee of a space in the college. It is quite possible that a student applying for readmission might have fulfilled all requirements or conditions for readmission but still be denied access to the college for a particular semester or year because of space limitations.

A student whose average is below the minimum class standard at the time of withdrawal may be eligible to apply for readmission by attending an accredited institution for one semester (not a summer session) with a full program of study approved in advance by the Registrar and the Subcommittee on Academic Standards, attaining a minimum average of 2.25 in those courses, and having no grades lower than a C. Military service or satisfactory employment for at least one year may be substituted for a semester of academic work. All applications for readmission for students whose average is below the minimum class average will be considered by the Subcommittee on Academic Standards.

Academic Probation As a condition of return to active status, students with a cumulative grade point average below the minimum for his/her class will be placed on academic probation. A minimum average will be established for the student in the returning semester. Normally, this average is set to be high enough that it will return the student to good academic standing at the end of the semester. All students on academic probation during fall or spring semester must enroll in four courses for a letter grade. The established grade point average for the summer session will be no less than 2.50 . All students on academic probation during the summer session must enroll in two courses. Students on academic probation are determined to be making satisfactory progress for the purpose of receiving financial aid. A student who does not achieve the minimum probationary average will be required to withdraw from the college.

If the student was required to withdraw for non-academic reasons, the application process will normally include a clearance interview with a staff member from the Counseling Center, as well as the possibility of additional documentation being required. Any conditions set forth by the college when the withdrawal became effective must be satisfied at the time of reapplication.

A student who is absent from the college for at least three (3) years, and who is readmitted and successfully completes the equivalent of at least two semesters of work on campus, may petition the Subcommittee on Academic Standards to have course credits toward graduation and cumulative grade point averages based only on work accomplished after the second matriculation. "Successful completion" will mean the attainment of at least a 2.00 average, or a higher probationary average, as stipulated by the committee.

Dismissal A student required to withdraw for a second time for academic reasons is dismissed from the college without the privilege of readmission at any time.

Expulsion A student who is expelled from the college does not have the privilege of readmission at any time.

## Information for Students not Enrolled for a Dickinson Degree

A non-degree student may be part-time (fewer than three courses) or full-time (between three and four courses) depending on the circumstances of admission. This status can be changed only by agreement with the office that admitted the student.

Non-degree students who are attending Dickinson while enrolled in another institution must be in good academic standing at their home school and have the recommendation of the appropriate official responsible for approval of their program. It is the responsibility of such students to obtain all advice necessary regarding their course selections and various grading options from their home institution.

Conversion to Degree Status Non-degree students may apply to the Office of Admissions for degree status. If approved, all coursework completed at Dickinson will be accepted toward the degree, provided that the student has more than 12 courses remaining to graduate. At least 12 courses must be taken while enrolled for a degree and with an approved major field of concentration. A minimum of 16 courses must be taken at Dickinson. In general, coursework taken at accredited colleges or universities that parallels the curriculum at Dickinson is transferable provided grades of C ( 2.00 on a 4.00 scale) or better have been earned. In general, the student must meet all requirements for graduation in effect at the time of acceptance.

## Academic Conduct

The Community Standards \& Procedures describe the standards for academic honesty at Dickinson College. The college statement on cheating and plagiarism can be found in this publication in the printed and online versions. See the Community Standards and Procedures.

## Africana Studies

## Major

11 courses and an Experiential Learning Component
AFST 100: Introduction to Africana Studies
AFST 200: Approaches to Africana Studies
Four Africana Studies approved courses, two in Africa and two in the Diaspora
Three courses in an area of concentration (e.g., with focus on Africa or the Diaspora)

## AFST 400: Writing in Africana Studies

One elective, which focuses on topics relevant to Africana Studies, including courses which study race, diaspora, Latin America, colonialism, post-colonialism, etc.

Experiential Learning Component requires students to engage with the actual experiences of people of African descent, in Africa or in the Diaspora, whereby students understand and evaluate issues relevant to these communities through some form of cultural immersion, approved by the department. Examples include: Study Abroad, Service Learning Course, Mosaic Program, Internship, Independent Research.

## Suggested Four Year Program

First Year: AFST 100; AFST 200
Second Year: Three courses to fulfill the Africa/African Diaspora requirement; Africana Studies Elective
Third Year: One course to fulfill Africa/Africana Diaspora requirement; Two Africana Studies courses at the 300-
level; Experiential Learning
Fourth Year: Africana Studies; AFST 400

## Independent Study and Independent Research

The Africana Studies Department encourages advanced students in the major to undertake independent research and independent study projects. The student, in consultation with the supervising professor, will submit a topic proposal and program of work the semester before the study is undertaken.

Independent study allows a student to pursue an academic interest outside the listed course offerings. The study may include library research and reading and may culminate in several short papers, a single paper, or any other project acceptable to the supervising faculty member and the student.

Independent research, like independent study, allows a student to pursue an academic interest outside the listed course offerings, but it involves primary research which is largely self-initiated and self-directed. Students are encouraged to present the results of independent research at a professional conference, regional meeting, or other public forum.

## Internships

Students may choose to pursue an internship that will meet the experiential learning requirement. To satisfy the academic requisite, students will apply specific aspects of the histories and theories of Africana Studies to the work experience. The internship must be approved and will be supervised by the Department Coordinator. Upon completion of the internship, the student will submit a final report.

## Opportunities for Off-Campus Study

In order to gain a deeper understanding of African and African diasporic communities, students are encouraged to study abroad. Typically, students have studied in Cameroon or Tanzania. For a full list of study abroad options, students should contact the Office of Global Education.

## Courses

100. Introduction to Africana Studies This interdisciplinary introduction to Africana Studies combines teaching foundational texts in the field with instruction in critical reading and writing. The course will cover Africa and the Atlantic Slave Trade, the creation of African Disaporic communities, the conceptualization and representation of

Black culture and identity, and the intellectual and institutional development of Black and Africana Studies. This course fulfills the Division II social sciences and the Comparative Civilizations distribution requirements.
200. Approaches to Africana Studies This course will investigate the importance of conceptual analysis and the development of concepts in the theoretical and textual research of Africana Studies. Thus, the course will focus on various interpretive frameworks and approaches to organizing and understanding Africana Studies, including but not limited to the African model, Afrocentricity, diaspora model, critical race theory, post-modernism, and post colonialism. Prerequisite: 100. This course fulfills the Division II social sciences distribution requirement. This course fulfills the WR distribution requirement.
235. Introduction to Caribbean Studies The greater Caribbean region was at the center of the formation of the modern African Diaspora. Over the years, the Caribbean region has played an influential role in the development of social and cultural movements throughout the African Diaspora. This class will survey the Caribbean, examining its location, population, diversity, and significant role in shaping world events. Students will become familiar with the Caribbean region, its place as a site of empire, and the important role of key intellectuals who were foundational in developing anti-colonial and post-colonial black consciousness. The course will cover the following areas of inquiry: geography and sociology of the region, key theoretical concepts, leading intellectuals, transforming world events and cultural production. This course fulfills the Division II social sciences distribution requirement.
310. Special Topics in Caribbean History and Culture This course offers a critical examination of issues related to the study of the Caribbean within the wider African diaspora. Examples of topics that would be offered at this level are "The Anthropology of Music in the Caribbean" and "The Caribbean and its African and Indian Diasporas." This course fulfills the Division II social sciences distribution requirement.
400. Writing in Africana Studies This course will build on experiences in the methods course. Students in this course continue research toward and writing of a senior thesis. The emphasis is on writing skills and course material; assignments link those skills to work in Africana Studies. Seniors in the major will work independently with the director of Africana Studies and a second faculty reader (representing a discipline closer to the senior's interest) to produce a lengthy paper or special project which focuses on an issue relevant to the student's concentration. Under the direction of the director of Africana Studies, students will meet collectively two or three times during the semester with the directors (and, if possible, other Africana Studies core and contributing faculty) to share bibliographies, research data, early drafts, and the like. This group will also meet at the end of the semester to discuss and evaluate final papers and projects. Prerequisites: 100 and 200; four 200/300-level AFST approved courses (2 Africa, 2 Diaspora); three 300-level (in area of concentration).

## American Studies

## Major

Thirteen courses. The following six courses are required of all majors:
201, 202, 401, 402; HIST 117 \& 118
In addition, the major has the following requirements that allow students to work in other social science and humanities disciplines:

Social Structure and Institutions: one course. Courses in this category address material or institutional components of experience in the United States. Students may take courses that focus on social institutions such as race, class, gender, the family; courses addressing political institutions and processes; courses analyzing economic systems and structures in the United States. The student's advisor in the major typically approves courses from the following departments to fill this requirement: American Studies, Anthropology, Economics, Environmental Studies, History, Political Science, and Sociology.

Representation: two courses, one in American literature. The requirement in representation directs students toward courses that focus on the construction and dissemination of cultural meanings. In addition to the course in American
literature, students typically take courses that analyze the mass media, films, photography, music, popular culture, or art. The Departments of American Studies, Anthropology, Art and Art History, English, Music, Political Science, Philosophy, Religion, Theatre and Dance, and Women's Studies typically offer courses that fulfill this requirement.

Fieldwork: One course from the following: American Studies 302, History 311 (Oral History), Anthropology/Sociology 240 (Qualitative Methods)

Thematic Concentration: three courses. In consultation with their advisor, all American Studies majors develop an area of concentration in some aspect of American culture. Thematic choices made by students have included: mass media, gender, religion, health, the environment, law and culture, race, the arts, popular culture, the family. The choice of thematic depends on the student's intellectual interests, and may also be a way to prepare for the afterDickinson world. Students draw on courses from a variety of departments to develop their thematic, and to ensure a variety of approaches they must have at least two departments represented among their three courses.

## Minor

Seven courses in American Studies 201, 202, 301 or 302, 401; 3 courses in a thematic concentration.

## Suggested Four Year Program

First Year: 201 (second semester); 101 is often a good option for the thematic; American History 117, 118; perhaps, 202 (second semester).
Second Year: 202 and courses which fulfill the "structures and institutions" or "representation" requirements of the major.
Third Year: Field Work and the thematic. If the student is studying abroad, normally 202 needs to be completed before leaving, and careful planning with the advisor is recommended for the coursework to be taken abroad.
Fourth Year: 401; 402; field work if not taken junior year, and any remaining courses to fulfill the major.

## Teacher Certification

Contact the Department Chairperson. For information, see the Director of Teacher Education, or visit the Education Department web site. Because students in Teacher Education must devote the fall semester of their senior year to the certificate, they need to take 401 in fall semester junior year and 402 spring semester senior year. Careful planning with advisor when they declare the major is advisable.

## Independent Study, Independent Research, Student/Faculty Collaborative Research

Independent study, independent research or student/faculty collaborative research is appropriate when a student is seeking to explore a topic in an interdisciplinary way. Students interested in independent study should see the American Studies Chairperson. Recent independent studies have been done on Sixties America, Video Production, Advertising, Religion in America, Urban Problems in America, Native American Cultures, Feminism in American Studies, Sport in American Society, Gay in America, Mass Media in American Society. Normally the student will have taken a course with the faculty member who would guide the independent study, and will be a junior or senior major.

## Honors in the Major

To be eligible for consideration for honors, an American Studies major must be recommended by her or his AMST 401 instructor, must have a minimum 3.5 grade point average (rounded) in the major by the end of the fall semester of their senior year, and must have no breaches of the college's academic community standards. A student pursuing honors must complete a research manuscript in 402 that goes beyond the merit of an "A" paper. An "honors" thesis should be at least 50 pages in length and should demonstrate skilled writing and extensive research; a nuanced ability to make connections between the specific issue studied and larger social and cultural issues; extensive use of
primary sources; an awareness of key theory and methods; an engagement with current critical questions within American Studies; and, finally, an ability to work on all three levels essential to an American studies project history, representation, and structures and institutions. An Honors Committee, made up of three faculty, including the seminar instructor(s) from 402 and preferably from core American Studies faculty, shall assess the project(s). Part of this assessment shall include a meeting and discussion with the Honors Faculty Committee.

## Internships

Internships become appropriate when they are relevant to the thematic concentration of the student. Students have interned with Student Services, Carlisle Youth Services, the borough of Carlisle, the county public defenders office, CBS Evening News, the Smithsonian Folk Life Division, the Carlisle School District, the American Cancer Society, the Evening Sentinel, WITF Public Television, Domestic Violence Services, Communications and Development, MTV, Carlisle Police Department.

## Opportunities for Off-Campus Study

American Studies majors often study in Dickinson's East Anglia program in Norwich, England because East Anglia has a strong American Studies department. Other programs of interest to American Studies majors include the Washington Center for Internships and Academic Seminars, and Dickinson's other programs abroad. American Studies majors have also participated in the Dickinson programs in Australia, Cameroon, India, Italy, and Mexico. Other majors have spent semesters abroad through non-Dickinson programs in England, Ireland, and South Africa.

These off-campus programs are usually part of the Junior year and should be planned well in advance of the semester they are to be engaged in.

## Courses

101. Topics in U.S. Cultural Diversity These courses explore cultural diversity in the United States through an interdisciplinary framework combining historical, literary, and cultural analysis. Students are introduced to the methods and questions central to the interdisciplinary field of American Studies, and special attention is paid to issues of race, ethnicity, gender, class, and sexualities in exploring American histories and cultures. Topics may include ; Class and Culture; Body Politics; Comparative Ethnicities; The New Negro Movement; Race, Class, and the American Dream; Urban Landscapes. This course fulfills the DIV II social sciences and US Diversity distribution requirements.
102. Aspects of American Culture Selected topics in American studies at the introductory level. The subject matter will vary from year to year dependent upon the interests of faculty and the needs and interests of students. Recent topics have included mass media; health, illness, and culture; Latino/a U.S.A.; racial politics of popular music; Caribbean-American literary and visual cultures; Black feminisms. This course fulfills the DIV II social sciences distribution requirement.
103. Introduction to American Studies Introduces students to basic theories and methods used for the interdisciplinary analysis of U.S. cultural materials and to the multiplicity of texts used for cultural analysis (mass media, music, film, fiction and memoir, sports, advertising, and popular rituals and practices). Particular attention is paid to the interplay between systems of representation and social, political, and economic institutions, and to the production, dissemination, and reception of cultural materials. Students will explore the shaping power of culture as well as the possibilities of human agency. This course fulfills the DIV II social sciences distribution requirement.
104. Workshop in Cultural Analysis Intensive workshop focused on theoretical approaches to the interpretation of social and cultural materials. The course provides an early exposure to theories and methods that will be returned to in greater depth in the senior year. Intended to develop independent skills in analysis of primary texts and documents. This course fulfills the DIV II social sciences and WR distribution requirements.
105. Topics in American Studies Selected topics in American studies at the intermediate level. Topics offered will vary from year to year, reflecting the interests of faculty and students as well as evolving concerns of the field.Prerequisite: 201 or permission of the instructor. NOTE: When cross-listed with Film Studies, prerequisite is one course in either American Studies or Film Studies. This course fulfills the DIV II social sciences distribution requirement.
106. Ethnography in American Studies Approaches to the responsible collection and analysis of social and cultural materials to be found in the immediate community and environment. Intensive training in participant observation, interviewing, and historical analysis. The ethics of field work will be stressed. Prerequisite: Completion of, or concurrent enrollment in 202, or permission of the instructor. This course fulfills the DIV II social sciences distribution requirement.
107. Research and Methods in American Studies An integrative seminar focusing on the theory and methods of cultural analysis and interdisciplinary study. Students examine the origins, history, and current state of American studies, discuss relevant questions, and, in research projects, apply techniques of interdisciplinary study to a subject related to thematic concentration. Prerequisite: Senior American studies major, or permission of the instructor. This course fulfills the DIV II social sciences distribution requirement.
108. Writing in American Studies Students research and write a substantial research project, normally drawing on their work in 401. Prerequisite: 401. This course fulfills the DIV II social sciences distribution requirement.

## Anthropology

## Major

Eleven courses including 100, 101, 240 (or 244 or 396), 241, 331 or 336, one ethnographic course ( $222,223,230$, 231, 232, 234, 235, or 255), 400 and four additional courses, two of which may be Classical Studies 221 or 224.

## Minor

Six courses, including 100 and 101 and four additional anthropology courses. Students who are interested in a minor should consult with the department.

## Fieldwork

The anthropology program is a unique major characterized by an emphasis on understanding the cultures, meanings, and practices of various social groups in the context of a rapidly changing world. Fieldwork, the hallmark of anthropological inquiry, is built into the department's methods courses and is encouraged and supported in student work abroad.

## Teacher Certification

For information, see the Director of Teacher Education, or visit the Education Department web site.

## Honors in the Major

The departmental honors program is linked to an independent study or a fieldwork experience undertaken before the end of the junior year and culminates in a paper or other project written for the senior colloquium. Eligibility for honors candidacy requires a minimum overall GPA of 3.6. Before the end of their junior year, students wanting to be considered for honors in anthropology must identify themselves to the department faculty and submit a two-page proposal for an honors project to the department chair. In the senior year, the prospective honors student participates
in the senior colloquium. The quality of the senior colloquium project, judged "exceptional" by the anthropology faculty, is the primary basis for awarding honors to graduating seniors at the end of the spring semester.

## Opportunities for Off-Campus Study and Internships

Participation in summer field schools in cultural anthropology and archaeology, as well as internships at local museums and other sites, provides unique, hands-on experience. The Field School in Cultural Anthropology (ANTH 396) is for six weeks every summer in Tanzania, Africa or Querétaro, Mexico.

## Courses

100. Introduction to Biological Anthropology This course provides a comprehensive introduction to the field of biological anthropology. We will examine the development of evolutionary theory. We will then apply evolutionary theory to understand principles of inheritance, familial and population genetics in humans, human biological diversity and adaptations to different environments, behavioral and ecological diversity in nonhuman primates, and the analysis of the human skeleton and fossil record to understand the origin and evolution of the human family. Three hours classroom and three hours laboratory a week. This course fulfills the DIV III lab-science distribution requirement. Offered three semesters over a two-year period.
101. Anthropology for the 21st Century The primary focus is on cultural anthropology, or the comparative study of human diversity across cultures. Other subfields within anthropology, namely archaeology, biological anthropology, and linguistic anthropology will also contribute perspectives. The goal is to demonstrate how anthropological perspectives enlighten our understanding of contemporary social phenomena and problems, highlighting the relevance of anthropology to everyday lives and especially to issues of human diversity. This course fulfills the DIV II social sciences distribution requirement and the Comparative Civilizations requirement. Offered every semester.
102. Archaeology and World Prehistory Archaeology is the primary means by which we decipher human prehistory. Using archaeology as a guide we will start with the origins of culture from its rudimentary beginnings nearly 4 million years ago, follow the migrations of hunters and gatherers, explore the first farming villages and eventually survey the complex urban civilizations of the Old and New Worlds. We will examine the development of technology, economic and social organization through the lens of archaeological techniques and discoveries throughout the world. This course is cross-listed as ARCH 110. This course fulfills DIV I.c. or DIV II social sciences, and Comparative Civilizations distribution requirements. Offered every year.
103. Language and Culture This course examines the relationship of language to culture and society. It includes the study of sociolinguistics, language acquisition, cognition, and descriptive linguistics. The student is introduced to major perspectives on language from Whorf, Hymes, de Saussure, and Levi-Strauss. This course fulfills the DIV II social sciences distribution requirement.
104. Sociolinguistics Sociolinguistics is the branch of linguistics which studies language as social and cultural phenomena. Language is inseparably associated with members of a society where it is spoken, and thus social factors are inevitably reflected in those members' speech. This course surveys topics on language and social class, language and ethnicity, language and gender, language and context, language and social interactions, language and nation, and language and geography. These topics show how language unites speakers as much as it divides speakers within a society and/or across societies. The topics are approached through lectures, class discussions, readings, as well as social surveys. This course fulfills the DIV II social sciences distribution requirement. Offered every other year.
105. Development Anthropology Sociocultural change, development, and modernization in both Western society and the Third World are examined in terms of theory and practice. Emphasis is on the planning, administration, and evaluation of development projects in agriculture, energy, education, health, and nutrition. The increasingly important role of professional anthropologists and anthropological data is examined in the context of government policies and international business. This course fulfills the DIV II social sciences distribution requirement. Offered every other year.
106. Ecological Anthropology An examination of human adaption to changing environments with an emphasis on systems analysis. Special attention to development and current environmental problems. This course is cross-listed as ENST 214. This course fulfills the DIV II social sciences distribution requirement. Offered every other year.
107. Medical Anthropology Comparative analysis of health, illness, and nutrition within environmental and sociocultural contexts. Evolution and geographical distribution of disease, how different societies have learned to cope with illness, and the ways traditional and modern medical systems interact. This course fulfills the DIV II social sciences distribution requirement. Offered every other year.
108. Cross-Cultural Perspectives on Gender Use of comparative method to understand variations in the patterning and content of gender roles and status across cultures. Although focused primarily on non-Western cultures, the course will also examine gender among U.S. ethnic groups. Emphasis is on placing gender roles and status in the broad, holistic context of interrelations among cultural ideologies, social institutions, and material conditions. This course is cross-listed as WGST 217. This course fulfills the DIV II social sciences and Comparative Civilizations distribution requirements. Offered every other year.
109. Biosocial Aspects of Female Sexuality This course explores the biological and cultural aspects of being female. We first examine ecology and reproduction in nonhuman primates, and anatomy and physiology of the reproductive system. We then explore biological and social aspects of being female throughout the human life cycle, including sexual differentiation, infancy, childhood, adolescence, adulthood and senescence. Finally, we discuss important issues related to female sexuality from a cross-cultural perspective, such as sex and gender roles, sexual orientation, birth control and family planning, sexually transmitted diseases, body image, and violence against women. This course is cross-listed as WGST 218. This course fulfills the DIV II social sciences distribution requirement. Offered every other year.
110. Gender, Space and Identity Feminist geographers have recently expanded the field of geographical analysis to include the study of ways we think about and act out gender and other differences in relationship to material and metaphorical space. Throughout history and across cultures, architectural and geographic spatial arrangements and ideas have helped produce and reinforce various gendered and other intersecting forms of social power. Rather than taking the social organization of space for granted, in this course we examine the centrality of social space to form of power, difference, and resistance. Women and colonized or marginalized peoples will be at the center of our explorations. This course is cross-listed as WGST 219. This course fulfills the DIV II social sciences distribution requirement. Offered every other year.
111. Contemporary Peoples of Latin America An examination of the life of present-day primitive and peasant peoples of Middle and South America. These societies are seen holistically, and as they relate to urban and state centers. This course fulfills the DIV II social sciences distribution requirement. Offered every other year.
112. Native Peoples of Eastern North America See course description with History 389 listing. This course fulfills the DIV II social sciences distribution requirement.
113. Human Osteology This course offers an intensive examination of human biological diversity as revealed through the study of human skeletal remains. We will focus on techniques used to identify skeletal remains in archaeological, paleontological, and forensic contexts, as well as examining human skeletal responses to environmental stress and human growth and development throughout the life cycle. Prerequisite: 100 or 229 or permission of the instructor. This course fulfills the DIV II social sciences distribution requirement. Offered every other year.
114. Principles of Human Variation and Adaptation This course explores anthropological perspectives on modern human biological diversity. We examine genetic variation, biological and cultural responses to environmental stressors, including climate, altitude, nutrition, infectious and chronic diseases, and population growth and demography. We use our understanding of human biological diversity to examine the notion that race is a social phenomenon with no true biological meaning. This course fulfills the DIV II social sciences distribution requirement. Offered every other year.
115. Ethnography of Postcolonial Africa This course is intended as both an introduction to the ethnography of Africa and an examination of postcolonial situations in Africa. We will learn a great deal about the cultural, social, political, and economic diversity of the continent while avoiding the typological thinking that once characterized area studies. Through ethnography we will learn about African cultures, their historical contingencies, and their entanglements in various fields of power. We will assess the changing influences of pre-colonial traditions, colonialism, postcolonial states, and the global economy. This course fulfills the DIV II social sciences and Comparative Civilizations distribution requirements. Offered every fall.
116. Nation, Culture, and Migration in Contemporary Europe This course introduces students to the rapidly changing world of contemporary Europe, focusing on particular countries with membership in the European Union. In recent years, the internal borders between members of the European Union have begun to fade away, while new forms of localism, and ethnonationalism have appeared, sometimes with violent results. There is an effort to link the member states into a unified economic and political whole, but there is also an intensified presence of immigrant populations from all over the globe, and a growing sense of "multi-culturalism." This course examines some of the identity issues that have emerged around the unification of European countries, including nationalist and ethnic conflicts, the "new racism," new social movements such as youth, anti-racist, feminist and environmental movements, and growing social and cultural heterogeneity. This course fulfills the DIV II social sciences distribution requirement. Offered every other year.
117. Modern China and Its Diaspora Communities This is a comparative course that examines contemporary Chinese communities in the PRC, as well as Chinese immigrant cultures located in Southeast Asia and the U.S. The focus is on both the structure of these communities and the processes of identity formation and re-imagining the "home" country or "native place" in the midst of considerable flux. The course explicitly uses comparison to deconstruct staid truths about "the Chinese" and monolithic "Chinese culture." This course fulfills the DIV II social sciences distribution requirement. Offered every other year.
118. Anthropology of Religion A cross-cultural survey of the functions of religion, magic, and myth in simple and complex societies. Religion and communication. Myth and social structure. A historical summary of the scientific study of religion. This course fulfills the DIV II social sciences distribution requirement. Offered every other year.
119. African Diaspora This course examines the presence and contributions of people of African descent outside the African continent. While we generalize about the Black diasporic experience across continents, we also pause to examine the ways that stories unfold in particular places and at specific historical moments. Because most representations of Africa and her descendants have left Africans on the margins of world history, in this course we pay particular attention to alternative ways of understanding Black diaspora. We draw upon case studies from the United States, the Caribbean, Brazil and Europe during different historical periods. Cross-listed with AMST and SOCI. This course fulfills the DIV II social sciences and U.S. Diversity distribution requirements. Offered every other year.
120. State and Ethnicity in Upland Asia This course examines the borderlands shared by states in upland Southeast Asia, such as Thailand, Burma and Laos, with China. It looks at dimensions of contemporary migrations and transnationalism among populations historically marginalized, such as the Hmong, and among populations that have a strong identification with states. Linked to political economies and global markets, nationalism and other ideologies defining peoples and their cultures are explored with an eye toward understanding how ideas about race and the other take shape. This course fulfills the DIV II social sciences and Comparative Civilizations distribution requirements. Offered every other year.
121. Qualitative Methods This course introduces students to the theory and methods of social science research, beginning with an examination of the philosophies underlying various research methodologies. The course then focuses on ethnographic field methods, introducing students to the techniques of participant observation, structured and informal interviewing, oral histories, sociometrics, and content analysis. Students design their own field projects. Prerequisite: At least one course in SOCI, ANTH, or AMST. This course is cross-listed as SOCI 240. This course fulfills the DIV II social sciences distribution requirement.
122. Measurement and Quantification in the Social Sciences This course focuses on quantitative data analysis. Students learn how to design, code, and analyze interviews and surveys. Selected databases and statistical programs
are used to analyze current social issues and compare samples. Prerequisite: At least one course in SOCI, ANTH or AMST. This course fulfills the DIV II social sciences and QR distribution requirements.
123. Fieldwork This course introduces students to fieldwork in anthropological research, a set of methodological practices informed by a number of theoretical assumptions. The course focuses on the fundamental techniques of field work in ethnographic inquiry and writing, including participant observation, structured and unstructured interviewing, designing a project, taking and coding field notes, locating archival sources, interpreting and analyzing data, and writing an ethnographic story. Students will conduct field projects in the local area. Cross-listed with SOCI. Prerequisite: at least one course in ANTH, SOCI or AMST. This course fulfills the DIV II social sciences distribution requirement. Offered every year.
124. Selected Topics in Anthropology Courses offered on an occasional basis that cover special topics such as African women in development, theories of civilization, anthropology and demography, or anthropological genetics. This course fulfills the DIV II social sciences distribution requirement.
125. Paleolithic Archaeology This course reviews the formative phases in the development of prehistoric cultures and societies during the Plio-Pleistocene in Africa, Europe, and Asia up to the Mesolithic. Archaeological evidence of ecology, subsistence systems, technology, and the evolution of cognitive behavior will be discussed in detail.This course is cross-listed as ARCH 251. The course fulfills the DIV II social sciences and Comparative Civilizations distribution requirements.
126. Global Eastern Africa This course examines global connections in the intersections of culture and power that underlie contemporary issues in eastern Africa. The globally marketed indigenous cultures and exotic landscapes of eastern Africa, like current dilemmas of disease and economic development, are products of complex local and transnational processes (gendered, cultural, social, economic, and political) that developed over time. To understand ethnicity, the success or failure of development projects, the social and economic contexts of tourism, responses to the AIDS crisis, the increasing presence of multinational corporations, and other contemporary issues, we will develop an ethnographic perspective that situates cultural knowledge and practice in colonial and postcolonial contexts. While our focus is on eastern Africa, the course will offer students ways to think about research and processes in other contexts. This course fulfills the DIV II social sciences and Comparative Civilizations distribution requirements. Offered every two years.
127. Environmental Archaeology The study of the human past requires knowledge of the biological and geophysical systems in which cultures developed and changed. This course explores past environments and the methods and evidence used to reconstruct them. Emphasis is on the integration of geological, botanical, zoological, and bioarchaeological data used to reconstruct Quaternary climates and environments. This course is cross-listed as ARCH 260. This course fulfills the DIV II social sciences distribution requirement. Offered every two years.
128. Archaeology of North America This course reviews Pre-Columbian landscapes north of Mesoamerica. We consider topics including the timing and process of the initial peopling of the continent, food production, regional systems of exchange, development of social hierarchies, environmental adaption and the nature of initial colonial encounters between Europeans and Native Americans. These questions are addressed primarily by culture area and region. This course is cross-listed as ARCH 261. This course fulfills the DIV II social sciences and U.S. Diversity distribution requirements. Offered every two years.
129. Archaeological Method and Theory Introduction to archaeology: a survey of the history, aims, methodology, theory, and practice of archaeology. The evolution of archaeology from amateur treasure quest and collecting to a complicated science, dedicated to the discovery and study of material remains as well as the exploration and theoretical reconstruction of the past; great discoveries, persons, and factors that shaped this transformation in the 19th and 20th century; theories, issues, and trends in archaeological interpretation; application of archaeology towards a greater understanding of our past and present. An introduction to field archaeology and practice: site location, topographical and survey techniques, archaeological excavation techniques for different types of sites; stratigraphy, spatial distribution, seriation; correlation, phasing, absolute and relative chronology; data recording, archaeological drawing (sections, plans, artifacts) and photography; computer applications (including artifact database, archaeological matrix, plans and maps, 3-D monument and site reconstructions); relationships between archaeology and related sciences, between material and non-material culture, evidence interpretation and theoretical
reconstruction of material remains. Simulated Excavation Field (SEF) practical training; summer field training opportunities at Mycenae (excavation and Museum research) and Scotland. Prerequisite: one ARCH course or ANTH 110, 250, 260, or 261, or CLST 221 or 224. This course fulfills either the DIV I.c. or the DIV II social sciences distribution requirement. Offered every spring.
130. Nutritional Anthropology Food is a biological necessity, yet food preferences and dietary practices are culturally determined and highly variable across time and space. This course examines nutrition and dietary variation from an anthropological perspective. We will first study the basics of food and nutrition, including the nutritional composition of food, nutritional requirements across the human life cycle, and standards for assessing dietary quality in individuals and populations. We will then examine the evolution of human dietary practices and we will explore how dietary variation is at the interface of biology, health, culture, and the environment. We will also learn about the effects of globalization and the commoditization of food on dietary choices, the health consequences of under- and over-nutrition, and the social and historical constraints on food production and consumption in different societies. Prerequisite: At least one course in anthropology or health studies, or permission of instructor. This course fulfills the DIV II social sciences distribution requirement.
131. Principles of Human Evolution This course offers an intensive examination of the evolution of the human family, from our earliest ancestors to the origin and dispersal of modern humans. We use skeletal biology, geology, and archaeology to understand the human evolutionary record. Prerequisite: Any of the following: 100, 216, 218, 229 or BIOL 100-level course. This course fulfills the DIV II social sciences and WR distribution requirements. Offered every spring.
132. Gender, Race, and Globalization This course examines some of the social and cultural effects of economic and political restructuring, otherwise known as "globalization," that have been occurring around the world since at least the 1970s and have accelerated during the past decade. We will focus on the increasing participation of women in the international division of labor, expanding migrations, growing economic and political polarization within and between countries, the racialization of certain populations, commodification and the spread of consumerism, the relationship between the "local" and the "global," and various forms of social resistance. Our explorations will include examination of the historical and theoretical discussions of globalization, gender, and race, and ethnographic examples from various parts of the world, including, but not limited to, parts of Europe, Thailand, Malaysia, Mexico, the United States, and parts of Africa. Prerequisite: at least one course in ANTH or WGST. This course fulfills the DIV II social sciences distribution requirement. Offered every other year.
133. Social Distinctions This course covers anthropological theories of social hierarchy and stratification. Both the material and ideological bases of social distinction are examined. Gender, class, race, ethnicity, kinship, and slavery are some of the specific topics covered in the course. Prerequisite: 101. This course fulfills the DIV II social sciences distribution requirement. Offered every fall.
134. Advanced Topics in Anthropology Courses offered on an occasional basis that cover special topics such as African women in development, theories of civilization, anthropology and demography, or anthropological genetics. Prerequisite dependent upon topic. This course fulfills the DIV II social sciences distribution requirement.
135. Archaeological Field Studies Application of the fundamentals of archaeological survey, excavation and the laboratory processing and cataloging of artifacts. This course is cross-listed as ARCH 395.
136. Field School in Cultural Anthropology Ethnographic field study of selected anthropological problems in Cameroon or Mexico. Analysis of cultural, social, economic, and environmental systems using participant observation, interview protocols, and other appropriate methodologies. Pre-departure workshops, six-week field study, and post-fieldwork write-up. Two course credits. Prerequisite: ANTH/SOCI 240. This course fulfills the DIV II social sciences and Comparative Civilizations distribution requirements. Offered in summer school only.
137. Senior Colloquium This course is based on student independent research projects, supervised by the faculty colloquium coordinator, with special advisement from faculty colleagues. Students taking the course are encouraged to build on previous fieldwork experience or to develop new, community-based projects. In some cases, archival research may be substituted for fieldwork. The course can accommodate honors projects begun with faculty
mentoring and aimed at publication. Prerequisite: 240, 241, or 244. This course fulfills the DIV II social sciences distribution requirement. Offered every year.

## Arabic

## Courses

101. Elementary Arabic An introduction to Modern Standard Arabic (MSA). Introduction to speaking, listening, reading and writing skills in the standard means of communication in the Arab world.
102. Elementary Arabic Continued introduction to MSA with more advanced development of speaking, listening, reading and writing skills through a greater degree of interaction in the classroom. Prerequisite: 101.
103. Intermediate Arabic Introduction to conversation and composition building on the skills developed in 101 and 102. Prerequisite: 102.
104. Intermediate Arabic Continued development of conversation and composition skills using current political and social events, stories, essays, and other materials as the topics for discussion and writing assignments.
Prerequisite: 211.
105. Topics in Arabic Language and Culture Thematic study of Arabic language and culture, with emphasis on close reading, comprehension and interpretation, and on honing oral expression and comprehension.Prerequisite: 212, or permission of instructor. This course fulfills the Division I.b. distribution requirement.

## Archaeology

## Faculty

## Major

Twelve courses plus field experience
I. METHODOLOGICAL CORE (Six courses)

1. ARCH 110/ANTH 110: Archaeology and World Prehistory
2. Introduction to a regional ancient civilization, art and archaeology:

ARCH 120/CLST 221: Greek Art and Archaeology, or
ARCH 130/CLST 224: Roman Archaeology, or
ARCH 140: Egyptian Art and Archaeology, or
ARCH 150: Near Eastern Art and Archaeology, or
ARCH 210: Prehistoric Aegean Art and Archaeology, or
ARCH 261/ANTH 261: Archaeology of North American Indians
3. ARCH 300/ANTH 300: Archaeological Method and Theory
4. ARCH 390: Advanced Studies in Archaeology
5. ANTH 100: Introduction to Biological Anthropology
6. ERSC 141: Planet Earth, or ERSC 142: Earth History
II. SPECIALIZATION/CONCENTRATION (Six elective courses)

In consultation with your faculty advisor, choose an area of emphasis and select a coherent set of 6 courses based on your interests from one of the following two groups:

## AREA A: Mediterranean Archaeology and Art

ANTH 241: Measurement and Quantification in the Social Sciences
ARCH 120/CLST 221: Greek Art and Archaeology (only counts if not
already taken in the core)
ARCH 130/CLST 224: Roman Archaeology (only counts if not already taken in the core)
ARCH 140: Egyptian Art and Archaeology (only counts if not already taken in the core)
ARCH 150: Near Eastern Art and Archaeology (only counts if not already taken in the core)
ARCH 210: Prehistoric Aegean Art and Archaeology (only counts if not already taken in the core)
ARCH 221: Ancient Greek Architecture
ARCH 222: Ancient Greek Sculpture
ARCH 223: Ancient Greek Painting
ARCH 250: Ancient Greek Religion and Sanctuaries
ARCH 251/ANTH 251: Paleolithic Archaeology
ARCH 260/ANTH 260: Environmental Archaeology
ARCH 200: Selected Topics in Archaeology
ARCH 301: Summer Fieldwork in Classical Archaeology (counts after the Field Experience requirement has been
fulfilled)
ARCH 390: Advanced Studies in Archaeology
ARCH 500: Independent Study (only with permission of advisor and consent of instructor)
ARCH 560: Student/Faculty Collaborative Research
ARTH 202: Ancient Art and Art History
ARTH 302: Roman Painting
ARTH 303: Roman Portraiture
ARTH 391: Studies in Art History
CLST 100: Greek and Roman Mythology
CLST 110: Introduction to Greek Civilization
CLST 120: Roman Private Life
CLST 200: Special Topics in Classical Civilization (dependent upon topic)
CLST 253: Roman History
ENST 313: Geographic Information Systems
MATH 121: Elementary Statistics
MATH 225: Probability and Statistics I

## AREA B: Archaeology, Anthropology, and the Environment

ANTH 101: Anthropology for the 21st Century (Strongly recommended)
ANTH 214: Ecological Anthropology
ANTH 217: Cross Cultural Perspectives on Gender
ANTH 223: Native Peoples of Eastern North America
ANTH 225: Human Osteology
ANTH 230: Ethnography of Postcolonial Africa
ANTH 233: Anthropology of Religion
ANTH 241: Measurement and Quantification in Social Sciences
ANTH 245: Selected Topics in Anthropology
ARCH 251/ANTH 251: Paleolithic Archaeology
ANTH 255: Global Eastern Africa
ARCH 260/ANTH 260: Environmental Archaeology
ARCH 261/ANTH 261: Archaeology of North American Indians (only counts if not already taken in the core)
ANTH 331: Principles of Human Evolution
ANTH 336: Social Distinctions
ANTH 395/ARCH 395: Archaeological Field Studies (counts after the Field Experience requirement has been
fulfilled
ARCH 200: Selected Topics in Archaeology
ARCH 500: Independent Study (only with permission of advisor and consent of instructor)
ARCH 560: Student/Faculty Collaborative Research
ERSC 201: Surface Processes
ERSC 204: Global Climate Change
ERSC 208: Environmental Hazards
ERSC 305: Earth Materials
ERSC 307: Paleontology

ENST 313: Geographic Information Systems
MATH 121: Elementary Statistics
MATH 225: Probability and Statistics I

## III. FIELD EXPERIENCE

May be fulfilled by either: a) summer excavation fieldwork; or, b) museum/lab internship. The summer excavation fieldwork must be done for academic credit through the Archaeology Program. The museum/lab internship may be taken as part of an independent study for academic credit through the Archaeology Program OR for a transcript notation through the Career Center. The museum/lab internship must have the approval of the program chair.

## Ancient \& Foreign Languages

Latin or Ancient Greek is strongly recommended for those specifically interested in Greek and Roman archaeology within the Mediterranean Archaeology and Art emphasis (Area A concentration) or double majoring or minoring in Classical Studies. Four semesters of a recommended ancient language may be counted collectively as two course credits towards the total of six for the area emphasis.

If it is appropriate to the location of the student's intended field experience (for either area), and with the faculty advisor's and chairperson's approval, two courses of a recommended modern language may count collectively as one course credit towards the total of six for the area emphasis (maximum one credit allowed).

## Minor

Seven courses plus field experience:
I. METHODOLOGICAL CORE (five courses):

1. ARCH 110/ANTH 110: Archaeology and World Prehistory
2. Introduction to a regional ancient civilization, art and archaeology:

ARCH 120/CLST 221: Greek Art and Archaeology, or
ARCH 130/CLST 224: Roman Archaeology, or
ARCH 140: Egyptian Art and Archaeology, or
ARCH 150: Near Eastern Art and Archaeology, or
ARCH 210: Prehistoric Aegean Art and Archaeology, or
ARCH 261/ANTH 261: Archaeology of North American Indians
3. ARCH 300/ANTH 300: Archaeological Method and Theory
4. ANTH 100: Introduction to Biological Anthropology
5. ERSC 141: Planet Earth, or ERSC 142: Earth History
II. AREA EMPHASIS (two courses): In consultation with your faculty advisor, choose an area of emphasis and select a coherent set of courses
based on your interests from one of the following two groups:

## Area A: Mediterranean Archaeology and Art

At least two courses from among the following: ANTH 241, ARCH 120/CLST 221, ARCH 130/CLST 224, ARCH 140,150 , or $210(120,130,140,150$ and 210 can only count if not already taken in the core), ARCH 221, 222, 223, 250, ARCH 251/ANTH 251, ARCH 260/ANTH 260, ARCH 200, ARCH 301 (after the Field Experience requirement has been fulfilled), ARCH 390, 500, 560; ARTH 202, 302, 303, 391; CLST 100, 110, 120, 200, 253; ENST 313; MATH 121, 225

## Area B: Archaeology, Anthropology, and the Environment

At least two courses from among the following: ANTH 101, 214, 217, 223, 225, 230, 233, 241, 245, ARCH
251/ANTH 251, ANTH 255, ARCH 260/ANTH 260, ARCH 261/ANTH 261 (can only count if not taken in the core), and ANTH 331, 336, ANTH/ARCH 395, (after the Field Experience requirement has been fulfilled); ARCH 200, 500, 560; ERSC 141, 142 (only counted if not taken in the core) 201, 204, 208, 305, 307; ENST 313; MATH 121, 225

## Independent Studies

Independent studies are available. Any independent study must involve an interdisciplinary research topic in Archaeology. No more than two independent studies may be counted toward the major. Topic proposal and program of work must be approved by the instructor.

Independent research leading to Honors in the Major or student/faculty collaborative research may be undertaken with one of the contributing departments.

## Honors in the Major

Honors may be granted in Archaeology for a two-semester project that results in a well-researched, sophisticated, finely crafted thesis within the range of sixty to one hundred pages. Students are self-selected but acceptance as an Honors candidate is based on the judgment of the department faculty and their assessment of the student's academic ability and potential for successfully completing the project. They will work closely with one advisor but will receive guidance and resources from other members of the department. Only the best projects will be granted Honors, but any student who completes the project will receive credit for the two semesters of independent study.

## Opportunities for Off-Campus Study and Internships

Field experience in archaeology is an important component of the Archaeology Major/Minor; students are trained in the techniques and methods of field archaeology and provided with invaluable hands-on experience. All students are encouraged to spend part of at least one summer at an excavation or survey, either in the United States or abroad. Students have the opportunity to participate every summer in the archaeological survey, excavation, and Museum research at Mycenae, Greece (D.E.P.A.S. project, headed by Prof. Maggidis, Assistant to the Director of Mycenae). The Department of Anthropology offers regularly a summer field course in Tanzania, Africa; students may also participate in other excavations in the region, such as the Cloisters, Ephrata, PA (State Museum of Harrisburg on City Island).

Students are also encouraged to pursue Museum internships offered at the Trout Gallery by the Department of Art \& Art History, research internships and training (digital research projects) at the J. Roberts Dickinson Archaeology Lab, or Museum/lab summer research at Mycenae, Greece.

The Department of Classical Studies also offers four-week travel opportunities in Italy and Greece; other opportunities are also available, including Durham University (Department of Archaeology), the Intercollegiate Center in Rome and the College Year in Athens. Contact the department chairperson for further information.

## Ancient \& Modern Foreign Languages

At least two semesters of Latin or ancient Greek are required for those choosing the Classical Art and Archaeology area emphasis. Recommended modern foreign languages include any of the following: German, French, Modern Greek, or Italian. Four semester courses of a recommended ancient or modern foreign language may be counted collectively as one (maximum allowed) of the four elective courses toward the Archaeology Major.

## Courses

110. Archaeology and World Prehistory Archaeology is the primary means by which we decipher human prehistory. Using archaeology as a guide we will start with the origins of culture from its rudimentary beginnings nearly 4 million years ago, follow the migrations of hunters and gatherers, explore the first farming villages and eventually survey the complex urban civilizations of the Old and New Worlds. We will examine the development of technology, economic and social organization through the lens of archaeological techniques and discoveries throughout the world. This course is cross-listed as ANTH 110. This course fulfills the DIV I.c. or DIV II, and Comparative Civilizations distribution requirements.
111. Greek Art and Archaeology A general introduction to the art and archaeology of ancient Greece from Prehistoric to Hellenistic times: Bronze Age civilizations (Cycladic, NE Aegean and Trojan, Minoan, Helladic/Mycenaean); Protogeometric, Geometric, Archaeic, Classical, and Hellenistic Greece. A survey of architecture (temple, secular, funerary), sculpture, vase-painting, monumental painting, metalwork, and minor arts of these periods, both on mainland Greece and in the Greek colonies (Asia Minor, Pontus, Syria, Phoenice, Egypt, S. Italy and Sicily); comparative study of typological, iconographical, stylistic, and technical aspects and developments; styles and schools, regional trends. Historical contextualization of ancient Greek art and brief consideration of socio-economic patterns, political organization, religion, and writing. Evaluation of the ancient Greek artistic legacy and contribution to civilization. Field trips to archaeological collections and Museums. This course is cross-listed as CLST 221. Offered every fall.
112. Roman Archaeology A general introduction to the art and archaeology of the Roman world from the Late Republic to the 4th century AD. A survey of architecture (temple, public, domestic, palatial, funerary), monumental painting, sculpture, metalwork, and minor arts of these periods in Italy and the rest of the Roman world; particular emphasis on Rome, Pompeii, Herculaneum, Ostia, Greece/Asia Minor, and North Africa. Comparative study of typological, iconographical, stylistic, and technical aspects and developments; regional trends and foreign influences. Historical and cultural contextualization of Roman art and architecture with consideration of socioeconomic patterns, political developments, religion, and writing. This course is cross-listed as CLST 224. Offered occasionally.
113. Egyptian Art and Archaeology A general introduction to the art and archaeology of ancient Egypt from the pre-dynastic period to the Hellenistic era, focusing mainly on the archaeological record of the Old, Middle, and New Kingdom. The course includes a survey of public architecture (temple, palatial, funerary) and domestic/secular architecture, sculpture, wall-paintings and reliefs, metalwork, seal-stones, faience/ivory-carving, and pottery, complemented with a comparative study of typological, iconographical, stylistic, and technical aspects and developments. Special emphasis is given to historical developments and the archaeological evidence for the complex political, socio-economic, and cultural evolution of ancient Egypt, including urbanization and centralization of government, administration and writing (hieroglyphics), social hierarchy and craft specialization, ancient environment and technology. Religion, mythology, and literature are also explored, as well as historical sources, relative and absolute chronology, military power and expansionism, diplomacy, international dynamics and trade contacts, and the legacy and impact of ancient Egypt on the modern world. Course content will also include visits to archaeological collections and/or museums and educational CD-ROMs and videos. This course fulfills the DIV I.c. and Comparative Civilizations distribution requirements. Offered every two years.
114. Near Eastern Art and Archaeology A general introduction to the art and archaeology of the ancient Near East from the time of the first settlements to the Hellenistic era. This course is a historically oriented survey of the archaeological record of the main cultures that emerged and flourished in the ancient Near East, including the Sumer, Akkadians, Babylonians, Hittites, Assyrians, and Persians. The course includes a survey of public, secular, and funerary architecture, sculpture, wall-paintings, metalwork, and pottery, complemented with a comparative study of typological, iconographical, stylistic, and technical aspects and developments. Special emphasis is given to the archaeological evidence for the complex political, socio-economic, and cultural evolution of the ancient Near East, including urbanization, complex systems of government, socio-economic organization, literacy, with careful consideration of the historical record. Religion, mythology, literature, and science are also explored, as well as military power and expansionism, diplomacy, international dynamics and trade contacts, and the legacy of the ancient Near East to world civilization. Course content includes visits to archaeological collections and/or museums and educational CD-ROMs and videos. This course fulfills the DIV I.c. and Comparative Civilizations distribution requirements. Offered every two years.
115. Selected Topics in Archaeology Courses offered on an occasional basis that cover special periods, methods or topics in archaeology not dealt with in the rest of the curriculum. Prerequisite: course in DIV I or DIV II, depending upon topic.
116. Prehistoric Aegean Art and Archaeology A general introduction to the art and archaeology of the Prehistoric Aegean, including the Neolithic, Cycladic, NE Aegean and Trojan, Minoan, Helladic and Mycenaean civilizations, with consideration of both the Aegean sites and the Minoan/Mycenaean trade posts and colonies in Asia Minor, Cyprus, Syropalestine and Egypt. A survey of architecture (palatial, secular, temple and funerary), pottery,
sculpture, frescoes, seal stones, metalwork (metallic vases, weapons, jewelry), stone- and ivory-carving; comparative study of typological, iconographical, stylistic, and technical aspects and developments. Cultural contextualization and brief consideration of the historical framework, socio-economic, political and administrative context, writing and religion. Major interpretative issues and problems in Aegean Prehistory, including relative and absolute chronology, emergence and formation process, collapse and fall of the Minoan palaces and the Mycenaean citadels, spatial definition and multiple function of the palatial networks, military power and expansionism, international dynamics and contacts. Evaluation of the Prehistoric Aegean legacy and contribution to ancient Greek and Western Civilization. Visits to archaeological collections and Museums. Offered every fall.
117. Geographic Information Systems Geographic Information Systems (GIS) is a powerful technology for managing, analyzing, and visualizing spatial data and geographically-referenced information. It is used in a wide variety of fields including archaeology, agriculture, business, defense and intelligence, education, government, health care, natural resource management, public safety, transportation, and utility management. This course provides a fundamental foundation of theoretical and applied skills in GIS technology that will enable students to investigate and make reasoned decisions regarding spatial issues. Utilizing GIS software applications from Environmental Systems Research Institute (ESRI), students work on a progression of tasks and assignments focused on GIS data collection, manipulation, analysis, output, and presentation. The course will culminate in a final, independent project in which the students design and prepare a GIS analysis application of their own choosing. Three hours classroom and three hours of laboratory per week. This course is cross-listed as ENST 218 and ERSC 218. This course fulfills the $Q R$ distribution requirement.
118. Ancient Greek Architecture A survey of ancient Greek architecture from the 11th century BC to the 1st century BC, on mainland Greece and the Greek colonies. Temple architecture, altars and sanctuaries; secular architecture (houses, villas, and palaces); public architecture (agoras, stoas, prytaneia, propyla, theaters, gymnasia, stadiums, fountains and aqueducts, fortifications, roads, bridges); poleodomy or city-planning; funerary architecture (tombs, heroa, mausoleums and other funerary buildings). Building materials and techniques; orders and principles of ancient Greek architecture; ancient theory and techniques, typological developments and technological advances, architectural masterpieces; ancient Greek masters. consideration of epigraphical and ancient literary sources (including readings from Vitruvius, Pliny the Elder, Pausanias). Offered every third year.
119. Ancient Greek Sculpture A thorough survey of ancient Greek sculpture from 1050 BC to 31 BC, with consideration of both mainland Greece and the Greek colonies (Asia Minor, Pontus, Syria, Phoenice, Egypt, S Italy and Sicily). Daedalic, Archaic, Classical and Hellenistic periods; sculpture in the round and architectural sculpture, monumental and small-scale sculpture. Materials, techniques, and principles; subject matter and iconography, stylistic and technical developments; styles and regional trends; ancient Greek masters and their schools, legendary contests; consideration of ancient literary sources (including readings from Pausanias and Pliny the Elder) and Roman copies of Greek originals. Visits to archaeological collections and Museums; hands-on examination of selected important sculptures (prospective cast collection on-campus).Offered every third year.
120. Ancient Greek Painting A survey of ancient Greek vase-painting (Protogeometric, Geometric, Archaeic, Classical, and Hellenistic periods, from 1050 BC to 31BC) with consideration of both mainland Greece and the Greek colonies, and study of ancient Greek (with special emphasis on recently discovered large-scale frescoes in Macedonian tombs), Etruscan, and Roman monumental painting (including selective mosaics). Materials, techniques, and principles; iconography, stylistic and technical developments; styles and regional trends; ancient Greek and Roman masters and their schools; consideration of ancient literary sources (including readings from Pausanias, Pliny the Elder, Cicero). Visits to archaeological collections and Museums. Offered every third year.
121. Ancient Greek Religion and Sanctuaries A survey of the origins, history, structure, and evolution of ancient Greek religion and sanctuaries from Mycenaean to Hellenistic times. A comparative study of official religion vs. folk religion, pantheon of gods and heroes vs. daemonic cults and magic (ritual binding, cursing, charming), myths, oracles, festivals and games vs. house cult; an insight into mysteries and chthonic cults, burial customs and eschatology, soul and the Homeric underworld, the mnemoscape of death and reincarnation. A review of loci of worship (caves, shrines, temples, sanctuaries); analysis and meaning of the worship ritual, offerings, dedications, animal and human(?) sacrifices; interpretation of sacred symbols, ritual implements and paraphernalia: idols and figurines, large-scale anthropomorphic concretions, cult statues. A comparative study of the history and development, organization and lay-out, architecture, portable finds and dedications of the most prominent

Mycenaean and ancient Greek sanctuaries (Mycenae Cult Center, Tiryns shrines, Aghia Irene temple; Olympia, Delphi, Eleusis, Delos, Nemea, Dodone, Kos, Samos, Priene, Pergamon) involving a synthesis of archaeological and iconographical evidence, Linear B documents, epigraphic evidence, and ancient literary sources. Additional issues to be addressed include: Greek anthropomorphism and polytheism; the power of religion as collective memory; the sociopolitical role of organized religion; priesthood and the gradual appropriation of religion by the ruling hierarchy and the state (polis); chronological development of ritual vs. unchanging core of beliefs; patterns of uniformity and regional variation; survival of ancient Greek religious elements in Christianity. Offered every third year.
251. Paleolithic Archaeology This course reviews the formative phases in the development of prehistoric cultures and societies during the Plio-Pleistocene in Africa, Europe, and Asia up to the Mesolithic. Archaeological evidence of ecology, subsistence systems, technology, and the evolution of cognitive behavior will be discussed in detail. This course fulfills the DIV II and Comparative Civilizations distribution requirements. Offered every two years.
260. Environmental Archaeology The study of the human past requires knowledge of the biological and geophysical systems in which cultures developed and changed. This course explores past environments and the methods and evidence used to reconstruct them. Emphasis is on the integration of geological, botanical, zoological, and bioarchaeological data used to reconstruct Quaternary climates and environments. Thies course fulfills the DIV II distribution requirement. This course is cross-listed as ANTH 260. Offered every two years.
261. Archaeology of North America This course reviews Pre-Columbian landscapes north of Mesoamerica. We consider topics including the timing and process of the initial peopling of the continent, food production, regional systems of exchange, development of social hierarchies, environmental adaption and the nature of initial colonial encounters between Europeans and Native Americans. These questions are addressed primarily by culture area and region. This course fulfills the DIV II and U.S. Diversity distribution requirements. This course is cross-listed as ANTH 261. Offered every two years.
300. Archaeological Method and Theory Introduction to archaeology: a survey of the history, aims, methodology, theory and practice of archaeology. The evolution of archaeology from amateur treasure quest and collecting to a complicated science, dedicated to the discovery and study of material remains as well as the exploration and theoretical reconstruction of the past; great discoveries, persons and factors that shaped this transformation in the 19th and 20th century; theories, issues, and trends in archaeological interpretation; applications of archaeology towards a greater understanding of our past and present. An introduction to field of archaeology and practice: site location, topographical and survey techniques, archaeological excavation techniques for different types of sites; stratigraphy, spatial distribution, seriation; correlation, phasing, absolute and relative chronology; data recording, archaeological drawing (sections, plans, artifacts) and photography; computer applications (including artifact database, archaeological matrix, plans and maps, 3-D monument and site reconstructions); relationships between archaeology and related sciences, between material and non-material culture, evidence interpretation and theoretical reconstruction of material remains. Simulated Excavation Field (SEF) practical training; summer field training opportunity at Mycenae (excavation and Museum research) and Scotland. Prerequisite: one ARCH course or ANTH 110, 250, 260, or 261, or CLST 221 or 224. This course is cross-listed as ANTH 300. This course fulfills the DIV I.c. or DIV II social sciences distribution requirement. Offered every spring.
301. Fieldwork in Classical Archaeology Archaeological excavation and geoprospection survey for four to six weeks at the Citadel and the Lower Town of Mycenae in Greece (DEPAS Project). The dig provides training for students in the techniques and methods of field archaeology. Admission by permission of the instructor; ARCH 201 recommended. May be repeated for credit. If taken as part of the archaeology major, the course satisfies either the Field Experience requirement or counts as an elective in the classical area emphasis. If taken more than once it both satisfies the Field Experience requirement and counts as an elective in the classical area emphasis. This course is cross-listed as CLST 301.
318. Advanced Applications in GIS The course is intended as a continuation of the introductory course on Geographic Information Systems, 218, and will concentrate on more advanced discussions and techniques related to spatial analysis and GIS project design. The main focus of the course will be on using higher-level GIS methods to investigate and analyze spatial problems of varying complexity; however, the specific project and topical applications will vary depending on student interests. Students will be required to develop and complete an individual spatial analysis project that incorporates advanced GIS techniques. Prerequisite: ENST 218 or ERSC 218
or ARCH 218 or equivalent GIS experience. Three hours of classroom and three hours of laboratory per week. This course is cross-listed as ENST 318 and ERSC 318. Offered every two years.
390. Advanced Studies in Archaeology This course undertakes special topics, issues, and problems in Old World and New World Archaeology ranging from prehistory and classical antiquity (e.g., Problems in Aegean Prehistory, In Search of the Trojan War, Great Cities) to modern era archaeology (19th/20th century AD) and modern applications of the discipline. Prerequisite: ARCH 300. Offered occasionally.
395. Archaeological Field Studies Application of the fundamentals of archaeological survey, excavation and the laboratory processing and cataloging of artifacts. This course is cross-listed as ANTH 395.

## Art \& Art History

## Major

Art History option: Eleven courses including 101, 102; one course in studio, either 122 or 123; one course in Ancient Art, either 202 OR either ARCH 120, 130, 210, 221, 222, or 223; one course in Renaissance Art, either 300 or 301 ; 313 or 314 ; 407; 207; and three electives in art history. Art history majors are also encouraged to consider internships or independent studies, as well as student/faculty collaborative research, directed to future interests in the discipline; and to take German, French or Italian if they are considering graduate work in art history.

Studio Art option: Eleven courses including 101, 102; one course in Renaissance Art, either 300 or 301; 313 or 314 ; 122; either 222 or 230; 410 (including submission of position paper and portfolio for graduation); and four additional studio courses, including one at the advanced level, and at least one three-dimensional course. Seniors concentrating in studio are required to present a slide portfolio of their work in their final semester. Students electing this option are encouraged to take more studio courses than the required six. Self-developed options, including conservation and architecture programs, can be arranged.

## Minor

101 and 102 plus four additional courses in the appropriate discipline (art history or studio), subject to the minor advisor's approval, that suit the particular interests of the student.

## Suggested Four Year Program

## Art History Option

First Year: 101, 102
Second Year: 207 should be taken immediately after 101 and 102; 202 or ARCH 130, 210, 221, 222, 223
Third and Fourth Years: 300 or 301 or 304, 306, 313, 404; and fourth year only, 407 (offered in Fall)
NOTE: 391, 392 Studies in Art History, as well as independent study, should be taken in the third or fourth year, depending on the topic and the advice of the instructor and the advisor. Also, the three required electives and $122 / 123$ can be taken at any point.

## Studio Art Option

First and Second Years: 201, 102, 122, and 222 or 230, and 123 or 224 or 226 and/or 221, 227, 228.
Third and Fourth Years: 330, 324, 326, 327, 335, 313, 410. Upper level art history course; 314 or 315 must be taken by the third year, prior to the Fall Senior Studio Seminar.
NOTE: 410 must be taken Fall of senior year
Senior Portfolio: Students who major in art with a studio emphasis must prepare a slide portfolio of their creative work for faculty review during their senior year and are expected to mount a formal exhibition of their work. Students should meet with the department chairperson for more details.

## Independent Study

Independent study courses are to be set up through consultation with an Art \& Art History department advisor and instructor of the course. A proposal of the topic, and program of work must be submitted to the instructor for approval.

## Honors in the Major

Department of Art \& Art History majors may seek Honors, the highest academic award a department can bestow. Honors in the major are by the invitation of Department of Art \& Art History faculty following self-nomination by February of the junior year. Students undertake a year-long independent study with an adviser, and will be expected to present their work to a Dickinson audience at the end of the senior year.

## Internship

Through The Trout Gallery and other regional museums, galleries, art associations, commercial galleries, and architectural firms, the Department of Art \& Art History offers internships to advanced students. In the past, art history majors have undertaken museum internships at The Metropolitan Museum, the Springfield (MA) Museum of Fine Arts, and the Philadelphia Museum of Art, while studio and art history majors have interned at commercial galleries in Philadelphia, Harrisburg, and New York City; these internships have included conservation and restoration work. Consult the departmental internship adviser and the college internship coordinator.

## Opportunities for Off-Campus Study

Students in Art \& Art History can pursue study on Dickinson programs in Toulouse, Norwich, Bremen, and Bologna, and can also undertake semester and full-year options at Dickinson-approved programs in Florence (Syracuse University, SACI) and Rome (Temple University).

## Courses

## Art History Courses:

101. An Introduction to the History of Art This course is a critical survey of western art beginning with the Ancient Near East (approximately 4000 B.C.) through the Gothic period in Europe (early 1300s). Emphasis will be placed on the analysis of style, subject-matter, and function within an historical context, and especially on the student's ability to develop skills in visual analysis. Developing appropriate vocabularies with which to discuss and analyze works of art and imagery will also be stressed, along with learning to evaluate scholarly interpretations of them.
102. Introduction to the History of Art This course surveys art of the European renaissance through the contemporary period. Art will be examined within the historical context in which it was produced, with attention to contemporary social, political, religious, and intellectual movements. Students will examine the meaning and function of art within the different historical periods. In addition, students will learn to analyze and identify different artistic styles.
103. History and Art of the Film or the Photograph A study of the history of the film or the photograph as an art form involving mechanical reproduction. Issues of criticism and theory are also addressed.
104. Art History and Ancient Art This course will examine major monuments in the history of ancient Greek and Roman art and architecture from the variety of interpretive perspectives with which they have been addressed in the scholarly literature. Students will study and analyze art-historical "readings" of these monuments and compare the strengths and weaknesses of the authors' arguments in terms of methodological approach and use of both textual and archaeological evidence. In addition, the authors' cultural assumptions, interpretive premises, and ideological goals
(if any) will also be addressed in attempting to understand how these works of art have acquired meaning over time and what constitutes that meaning. Offered every other year.
105. Medieval Art European art and architecture of the Middle Ages, from the decline of Rome to the first decades of the 15th century. Particular emphasis is placed on Romanesque and Gothic cathedral architecture. Prerequisite: 101 or permission of the instructor. Offered alternate years.
106. American Art This course takes a chronological approach to the history of art in the United States from the late eighteenth century through the early twentieth century. At the start of the semester, we consider questions of how the newly-formed nation and its citizens were represented in art. We will examine how, during the heyday of Western expansion, the American landscape was variously depicted through photography and painting with the ideology of Manifest Destiny and a growing tourist industry in mind. We also discuss the challenges artists faced in the later nineteenth century in creating commemorative public statuary for the nation following a highly divisive Civil War. By the end of the nineteenth century, during America's "Gilded Age," dramatic shifts in race, class and gender relations account for an unprecedented level of activity in the arts. Finally, we examine the issues at stake in a thoroughly diverse and modern version of America, where homosexuality, race relations and debates about gender take center stage, alongside questions of the nation's place in an increasingly global environment. Students can expect to leave the course with a more complex understanding of what America is and how it has been represented across history, by various artists and in a range of media, while also developing crucial skills in critical reading, writing and visual analysis. Prerequisite: 101 or 102, AMST majors, or permission of the instructor.
107. Topics in Art History An intermediate-level study of selected topics in the history of art and architecture. Prerequisites: prerequisites as appropriate to topic.
108. Museum Studies Introduces students to the history, role, nature, and administration of museums. It examines the emergence and development of museums and the political, social, and ethical issues that they face. Case studies include: government funding of the arts, the lure and trap of the blockbuster, T-Rex "Sue", the Nazi Entartete Kunst exhibition, the Enola Gay exhibition, war memorials, the Holocaust Museum, public sculpture, conservation, museum architecture, auction houses, and the repatriation of cultural property. This course is open to all students and is especially relevant to those studying the fine arts, anthropology, archaeology, history, American studies, and public policy. This course fulfills the DIV I.c. distribution requirement. Offered every two years.
109. Criticism and Theory in the Arts An introduction to critical strategies in and theoretical approaches to the visual arts from Plato through Postmodernism. Particular emphasis is placed on close analysis and discussion of texts. The course addresses issues of historiography, critical theory, and contemporary art criticism. Prerequisite: 101 or 102 or permission of the instructor.
110. Japanese Art This course is an introduction to Japanese art and aesthetics throughout the history of this culture. The study of this art occurs in the context of the civilization as a whole, as it has both changed and resisted change over time due to both internal and external forces. Students are expected to look carefully at their own preferences and prejudices with the intention of seeing them from an additional perspective. Offered alternate years. This course fulfills the DIV I.c. and Comparative Civilizations distribution requirement.
111. Chinese Art This course is an introduction to the history and aesthetic of Chinese art. The art is studied as a primary part of the larger culture. Other elements of the culture are introduced as they are relevant to seeing the civilization as a whole. The subject matter is those arts most typical of the major dynasties, but painting is the primary overall focus. Offered alternate years.
112. Philosophy of Art The discipline of aesthetics is primarily concerned with philosophical questions about art and beauty. This course will examine classic and contemporary Western discussions of such questions as, What is art? How can we determine what a work of art means? Are beauty and other aesthetic qualities subjective or objective? How should the quality of a work of art be assessed? Is there a general way to describe the creative process? What are the driving forces in the unfolding of art history? We will encounter such giants of the Western intellectual tradition as Plato, Aristotle, Hume, Kant, and Hegel, and also such contemporary figures as Arthur Danto, Richard Wollheim, and Kendall Walton. Prerequisites: one previous course in art history or philosophy, or
permission of the instructor. This course satisfies either DIV 1.a. or 1.c. distribution requirement. This course is cross-listed as PHIL 252.
113. Non-Western Aesthetics As the arts of non-Western cultures (roughly, non-European and European-American cultures) are distinct from those of the West, so are the reflections on that art. Philosophy of art courses often focus exclusively on Western philosophy. This course seeks to broaden the conversation. It concerns reflections on the arts in Japanese, Indian, Native American, and African (including diasporic) cultures. It is a question, with regard to several of these cultures, whether they conceive of a distinct sphere of art at all; the arts (as is true of the West until perhaps 1750) are often not distinguished from the crafts, religious ceremony and objects, festival, medicine, and so on. This provides an interesting challenge to the Western concept of art. Prerequisites: one previous course in art history or philosophy, or permission of the instructor. This course satisfies either DIV 1.a. or 1.c. distribution requirement. This course is cross-listed as PHIL 265.
114. Italian Renaissance Art 1250-1450 A survey of painting, sculpture, and architecture in Italy from approximately 1250 to 1450. The works of Giotto, Pisano, Donatello, Ghiberti, Brunelleschi, and Massacio, among others, will be addressed. Issues of style, patronage, and function will be considered within the political and cultural contexts of the 13th through 15th centuries. Critical and theoretical writings of the period will also be discussed. Prerequisite: 101 and 102 or permission of the instructor. This course fulfills the DIV I.c. and WR distribution requirements.
115. Italian Renaissance Art 1450-1563 A survey of painting, sculpture, and architecture in Italy from 1450 through 1580. The works of Botticelli, Leonardo, Raphael, Michelangelo, Bramente, and Titian, among others, will be addressed. Issues of style, patronage, and function will be considered within the political and cultural contexts of the 15th and the 16th centuries. Critical and theoretical writings of the period will also be discussed. Prerequisite: 101 and 102 or permission of the instructor. This course fulfills the DIV I.c. and WR distribution requirements.
116. Roman Painting This course will address the antecedents of Roman wall painting in ancient Greek sources, as well as issues related to classification, genre, style, function, and artistic practice. The traditional "four styles" of Roman painting first outlined by Vitruvius and more recent proposals for reconstructing these traditional stylistic categories will be addressed, as well as questions surrounding the many purposes and effects of painting in Roman culture and society. The relationship of pictorial imagery to specific literary structures and styles during the Imperial period will also be considered along with more theoretical artistic principles such as optics, illusionism, and visual imagination in the Roman world. A variety of ancient literary sources as well as scholarly studies an critiques will form the textual basis for the course, while digital reconstructions and "virtual" movement through ancient pictorial spaces will augment the visual sources we use. Prerequisite: Archaeology Core or 101 and 102 or 202.
117. Roman Portraiture Of all visual and literary genres, portraiture is undoubtedly the most specific and elusive in western culture. Its history is as old as the ancient Greek myths about the origins of painting itself, and as recent as the current pseudo-journalistic television program entitled "Intimate Portraits." This course will examine the tradition and evolution of ancient roman portraiture as the most prolific and enduring source of the genre from its Etruscan and Hellenistic foundations through the dissolution of the Empire in the mid-fourth century AD. Republican and Imperial iconographies, funerary genres, and contextual considerations such as the public, private, and political realms will be considered. The notion of constructing a visual identity and historical legacy through portraiture as part of Roman culture, and more specific conceptual qualities such as "realism" and "idealism," "youth" and "age" will be discussed together with more technical issues such as dating, identifying physiognomic types, sculpting techniques. At least one trip to a regional museum or gallery will be required. Prerequisite: Archaeology core, or 101 and 102 or 202.
118. Southern Baroque Art Painting, sculpture, and architecture of the 17th-century in Italy, France, and Spain will be considered. Artists included in this course are: Caravaggio, the Carracci, Reni, Artemesia Gentileschi, Bernini, Borromini, Velsquez, and Poussin. Issues of theory and criticism will also be addressed. Prerequisite: 101 and 102 or permission of the instructor. Offered alternate years.
119. Northern Baroque Art A study of 17th-century Northern European Art with particular emphasis on Flemish and Dutch painting. Artists included in this course are Rubens, Van Dyck, Rembrandt, Hals, and Vermeer. Issues of
theory and criticism will also be addressed. Prerequisite: 101 and 102 or permission of the instructor. Offered alternate years.
120. Modern Art This course surveys key artistic movements and styles in a period of roughly one hundred years, beginning with Realism in 1840s France and ending with Abstract Expressionism in 1950s America. Much of the course focuses on painting, though discussions of architecture, design, sculpture and photography also play an important role. We begin with the question of what modernism is: When did it begin? What makes a work of art "modern"? How is modernism different from what preceded it? Students learn to recognize, understand and discuss the defining features of modernism in its major manifestations, while also developing an understanding of themes such as the role of African art in modernism, the changing dynamics between the fine arts and popular culture, the role of technology as an influence on art, and the place of particular critics, galleries, and museums in shaping the discourses of modernism. Individual research projects give students the chance to explore a specific artist, style or theme in depth, while a field trip to National Gallery of Art and the Hirshhorn Museum in Washington D.C. provide an opportunity to see significant works of modern art firsthand. Assigned readings incorporate both secondary sources as well as artist's manifestos and aesthetic philosophies as primary source texts. Prerequisite: 101 and 102 or permission of the instructor.
121. Contemporary Art A survey of major artists and movements from post-World War II to the present, beginning with Pop art through Postmodernism and global art today. The course will also incorporate key critical and theoretical writings from the period for discussion. Prerequisite: 101 and 102 or permission of the instructor.
122. Topics in Contemporary Art This course will address recent developments in art from 1945 to the present; focus on particular artists, works, and movements will vary. Critical and theoretical issues of the period will be discussed. Prerequisite: 102 or permission of the instructor.
123. Beauty Perhaps no term is as variously interpreted or as hard to define as "beauty." At one time, beauty was treated as among the ultimate values, along with goodness, truth, and justice. But in the last century or so it has been devalued, equated with prettiness or meaningless ornamentation. It has been quite out of fashion in art since the late nineteenth century. But one cannot understand much of the art of the Western tradition without understanding it as the attempt to make beautiful things, and without understanding what that goal meant in the cultures in which it had currency. And of course even now most people would not want to be without dimensions of beauty in their lives. We will look both at classic and contemporary attempts to answer such questions, and try to heighten our own appreciation for the beauty in the arts and in the world. Prerequisites: one previous course in art history or philosophy, or permission of the instructor. This course satisfies either DIV 1.a. or 1.c. distribution requirement. This course is cross-listed as PHIL 275.
124. Studies in Art History Studies in selected topics of the history of art and architecture. The content of each course will be altered periodically. Prerequisite: 101 and 102 or permission of the instructor.
125. Seminar: Topics in the History of Art Advanced investigation of a particular artist, work, movement, or problem in the history of art. Prerequisite: permission of the instructor.
126. Art Historical Methods Study of the research tools and methodologies of art historical analysis, a study of the use of primary and secondary sources, and documents in art history. In addition, the major schools of art historical writing and theory since the Renaissance will be considered. The course has as its final project a public exhibition in The Trout Gallery curated by the seminar students. Prerequisite: Senior Art \& Art History majors only.

## Studio Art Courses:

122. Fundamentals of Composition and Drawing Working from observation and using a variety of media, this basic studio drawing course will explore issues common to both representational and non-representational art. This course serves as the foundation to upper-level two-dimensional offerings.
123. Fundamentals of Sculpture and Three-Dimensional Design A studio course covering basic elements of three-dimensional composition and sculpture. Students will construct sculptures examining a range of media and fabrication techniques.
124. Special Topics in Studio Selected techniques and concepts in studio, taught at the introductory level. The content of each course will be altered periodically.
125. Introduction to Photography An entry-level course in black-and-white darkroom photography emphasizing theory, history, and practice. Students learn how to create images, use cameras, develop film and make prints using conventional darkroom processes. Students will also be introduced to Photoshop as well as the basics of scanning and digital printing.
126. Drawing A studio course to explore further, those issues covered in 122, but focusing on the creation of light and space. Landscape, architecture, still-life and the model will serve as subject matter. A large variety of media will be used, including pastel, monotype, ink, acrylic paint and charcoal. Prerequisite: 122 or permission of the instructor.
127. Introduction to Digital Photography and Imaging The course explores the fundamentals of digital image making and manipulation using Adobe Photoshop and related computer software. Prerequisite: 122, 221, or permission of the instructor.
128. Wheelwork Ceramics A studio course exploring expressive possibilities offered by the potters wheel. Students will examine both utilitarian and sculptural aspects of the medium. A variety of clays, glazes and firing approaches will be examined.
129. Sculpture Ceramics A sculpture course further examining three-dimensional problems covered in the basic three-dimensional design course. The course will focus on clay as the primary (but not exclusive) fabrication material. Students will examine a range of firing, glazing, and construction techniques. Prerequisite: 123, 224 or permission of the instructor.
130. Fundamentals of Painting A basic studio course exploring the techniques, practices and history of painting and theories of color. Working from observation, subject matter will range from still-life and landscape to architecture and the figure. Prerequisite: 122 or permission of the instructor.
131. Printmaking Survey A studio course in which students will gain a working knowledge in each of the four major areas of printmaking woodcut, etching, lithography, and screenprinting. Prerequisite: 122 or permission of the instructor.
132. Life Drawing The course will be devoted to working from the human form during which the students will be expected to develop a sense of two-dimensional line and three-dimensional illusionistic form through the use of such graphic media as pen and ink, pencil, charcoal, Conté crayon, etc. Prerequisite: 122 or permission of the instructor.
133. Advanced Photography and Imaging An advanced course enabling students to explore advanced photo-based techniques, experimental problems, and aspects of contemporary and historical practice in photographic-based image making. Prerequisite: 221, or permission of the instructor.
134. Sculpture Various sculpture media will be explored including clay, plaster, wood, stone, and metals. An emphasis will be placed on carving, casting, and metal welding. Prerequisite: 123.
135. Advanced Three-Dimensional Design and Sculpture A second level three-dimensional design and sculpture course concentrating on advanced fabrication techniques, alternative building materials, and aspects of contemporary and historical practice. Prerequisite: 123, 224, 226 or permission of the instructor.
136. Intaglio Printmaking An in-depth exploration of etching, engraving, aquatint and other techniques of drawing on, and printing from metal plates. Photo-etching and working in color will also be covered. Prerequisite: 122 or permission of the instructor.
137. Advanced Painting A second-level studio painting course concentrating on the figure, and covering advanced techniques, alternative materials, and aspects of contemporary and historical practice. Prerequisite: 227.
138. Advanced Life Drawing Advanced problems and issues in drawing the human form. Prerequisite: 230 or permission of the instructor.
139. Lithography A studio course exploring the art, techniques, and history of drawing and printing from the stone. Metal plate, color, and photo-lithography will also be explored. Prerequisite: 122 or permission of the instructor.
140. Advanced Studio Selected advanced studio techniques and concepts. The content of each course will be altered periodically. Prerequisite 122, 123 or permission of the instructor.
141. Senior Studio Seminar A required course for senior studio students. Critiques of students' work will include examination of timely topics in the visual arts and the relationship of the artist to society. Critiques, selected critical readings, museum visits and visiting artists will provide the basis for discussion. Co-requisite: One studio course. Prerequisite: One studio course.

## The following course is offered in the Summer Semester in England Program:

105. Art in England A topics course in the history and practice of art, using the galleries, museums and architecture of London and its environs as its focus.

## The following course is offered in Bologna:

132. The Arts of Italy An introduction to the major visual traditions of the Italian peninsula from antiquity to the end of the 18th century, combined with the basic art historical methodologies necessary to their understanding. Focus will be on the relationship of visual materials to their intellectual, social, and religious underpinnings, with special emphasis on the artistic traditions and monuments of Bologna. Lectures, discussion, and site visits provide the opportunity to understand artistic production in its larger cultural context. In addition to regular class meetings for lecture and discussion, required group excursions in and around Bologna will be scheduled occasionally on Fridays or Saturdays.

## The following courses are offered in Toulouse:

115. French Art from the Romanesque through the Baroque This course will examine the development of medieval art, architecture and sculpture in the romanesque and gothic styles, drawing principally on regional examples. The wealth of Roman remains in southwestern France will help clarify connections between medieval art and its ancient predecessors. Classroom lecture and discussion will be augmented by on-site study of churches, cloisters and museums in the Toulouse area. Outstanding examples of private dwellings in Toulouse dating from the Renaissance will illustrate the passage between the end of the Middle Ages and the following periods. Issues of style, patronage and function will be considered with the political and cultural contexts of the 11th through the 18th centuries. Offered only at the Dickinson Study Center in Toulouse.
116. French Art of the 19th and 20th Centuries A survey of the major movements in French art from Romanticism to the present, including realism, impressionism, cubism, Dada, surrealism and abstract art. Contemporary museum collections in France, particularly those in the Toulouse region and in Paris, will furnish examples of important works. This course will pay special attention to the links between change in French society and the evolution of artistic production. Offered only at the Dickinson Study Center in Toulouse.

## The following courses are offered in Toulouse Summer Session:

260. Painting A second-level painting course concentrating on the concepts and practice of painting in the landscape. We will deal with the use of color, space, light and interpretive problems of working on site.
Prerequisite: 122 and 227 or the equivalent, or permission of the instructor.
261. Architecture and the Figure Drawing from the architecture of southwestern France with an emphasis on the figure and its role in establishing scale, movement and narrative. Prerequisite: 122 or the equivalent, or permission of the instructor.

## Astronomy

See Physics and Astronomy.

## Biochemistry \& Molecular Biology

## Major

Biology: any two 120-129 courses, 216, and one of the following: 417, 418, 419, or 425
Chemistry: 131, 132, 241, and 242 (OR 141, 241, 242); Elective: 490 (depending upon topic)
Biology/Chemistry 342,343; Elective: Biology 313, 326 or Chemistry 244
Mathematics: 170, 171 or 151, 170, 171 (depending upon Math placement)
Physics: 131 or 141,132 or 142

All Biochemistry \& Molecular Biology majors are required to include a research experience as part of their undergraduate program. This requirement may be satisfied in the following ways:

1) an independent research project in Biochemistry \& Molecular Biology
2) a student/faculty collaborative research project in Biochemistry \& Molecular Biology
3) on off-campus internship for credit in Biochemistry \& Molecular Biology
4) a research experience not covered by the above but deemed equivalent by the contributing faculty

In addition to the required course work, a number of other relevant courses are taught by the Biology and Chemistry departments, and it is recommended that students explore these offerings in order to broaden their expertise and investigate specific topics appropriate to their own interests.

## Biology

## Major

The nine biology courses required for the major include two introductory courses numbered between 120 and 129 and seven upper level courses. To encourage introduction to a broad range of biology topics, it is recommended that students who complete two introductory biology courses at Dickinson enroll in one course from the following: 122, 125,126 or 127 and one course from the following: $120,121,123,124$, or 129 . The nine biology courses required for the major must include one of the following upper-level courses in botany: 320, 322, 323, 324,325, and one of the following upper level courses in zoology: 318, 321, 330, 333, 334. In addition, CHEM 241 and 242 are required.

The nine biology courses required for the major may not include more than one course in independent study or research unless the student has received advanced placement beyond the introductory level (any two 120-level

Biology courses); then two courses of independent study or research may be counted toward the major. Of the nine biology courses required for the major, at least four must be upper-division laboratory courses (exclusive of independent study-research) taken in residence at Dickinson. No more than two courses numbered between 120 and 129 will be counted toward the major requirements, and students majoring in biology are discouraged from enrolling in more than two introductory biology courses.

All biology majors must include a research experience as part of their undergraduate program. (See RESEARCH EXPERIENCE section)

Two semesters of mathematical sciences (Calculus and/or Statistics), and two semesters of physics are strongly recommended for students intending graduate study toward an advanced degree in biology or the health professions. Students should consult with their faculty advisors about taking additional courses in other sciences that might be important to their career plans.

## Minor

Six courses, including two introductory courses numbered between 120 and 129 and four upper level courses. The upper level courses must include one of the following courses in botany: 320, 322, 323, 324, 325, and one of the following courses in zoology: 318, 321, 330, 333, 334. In addition, CHEM 141 is required.

## Suggested Four Year Program

First Year: any two 100-level BIOL courses; CHEM 131 and 132, or 141, 241; MATH 170,171
Second Year: 216, 313,325; CHEM 242; MATH 121
Third Year: 333, 334; PHYS 131, 132
Fourth Year: 318, 342, 417, Independent Research

## Teacher Certification

Students interested in preparing for teaching Biology in high school should plan to major in Biology and should include a course in Botany, Genetics, Physiology, and Ecology. The Director of Teacher Education in the Education Department should be consulted during the sophomore year.

For additional information, see the Education Department web site.

## Research Experience

All biology majors must include a research experience as part of their undergraduate program. This requirement may be satisfied by the successful completion of any one of the following:

1) an independent research project OR a student/faculty collaborative research project for biology credit;
2) an off-campus internship with significant research component;
3) 412 - Seminar;
4) a research experience not covered by the above but deemed equivalent. Proposals should be submitted to the student's faculty advisor who will determine whether or not the completed experience satisfies the research requirement.

## Honors in the Major

The biology faculty will award Honors to a biology major based on the candidate's entire undergraduate biology program. This includes all courses required for the major, the student's grades and the successful completion of a two semester (or summer and semester) research project. A minimum GPA of 3.0 is required in all courses that count toward the major, including CHEM 141, 241, and 242 (or their equivalent) and transfer courses that receive biology credit. The Honors research project should be distinguished by the originality and definition of the research problem, the sophistication of the experimental design and its execution, and the analysis and presentation of the results. The Honors thesis represents the culmination of the process and typically should be of publishable or near publishable quality.

## Opportunities for Off-Campus Study

Field Biology Courses at the School for Field Studies. Dickinson is an affiliate of the School for Field Studies (SFS), which offers courses and on-site fieldwork in ecology, behavior, and conservation biology. Students can spend a semester at one of five permanent campus centers to study coastal ecology (British Columbia), wetlands ecology (Mexico), rainforest ecology (Australia), wildlife management (Kenya), or marine ecology (Turks and Caicos Is., Bahamas). A typical semester program would receive two biology and two general Dickinson credits. SFS also has summer courses. The SFS programs afford a unique opportunity for intensive study and active biological research in diverse environments.

Marine and Ecosystem Studies Dickinson is an affiliate of the Semester in Ecosystem Studies at the Marine Biological Laboratory (Woods Hole, MA) and of the Duke University Marine Laboratory. These programs offer specialized, full-semester options with field and lab courses for biology students.

The Dickinson Science Program in England Biology students have the opportunity to study for a semester or a year in the School of Biological Sciences at the University of East Anglia (UEA) in Norwich, England. This Dickinson program is overseen by an on-site Dickinson faculty member who advises students and teaches courses. UEA has an excellent biology program which was recently awarded the highest rating possible for teaching and research by the British government.

The Dickinson Science Program in Australia Biology students have the opportunity to study for one semester at the University of Queensland (UQ) in Brisbane, Australia. The University of Queensland offers a variety of outstanding science programs ranging from premedical studies to marine education. Examples of programs in which Dickinson students have participated include ecology of the Great Barrier Reef, human anatomy, and tropical rainforest ecology. UQ was recently selected as "Australia's University of the Year."

## Courses

105. Biological Aspects of Contemporary Problems Students become familiar with biological principles by focusing on a variety of contemporary problems and also analyzing the underlying biological components. This course will not count toward a major or minor in biology. Three hours classroom a week.
106. Modern Natural History Through classroom study and field trips students learn to know various fascinating living creatures from the primitive to the most complex. They are also introduced to natural history literature which relates these organisms to our cultural, social, and economic history. This course will not count toward a major or a minor in biology. Three hours classroom a week.
107. Life at the Extremes: A Survival Guide The Weddell Seal holds its breath for 40 minutes while routinely diving to a depth of 1,500 feet in $-1.6^{\circ} \mathrm{C}$ water and Bar Headed Geese migrate at thousands of feet above the summit of Mt. Everest. How do these animals accomplish these seemingly amazing tasks? Questions of survival and more will be addressed in this study of comparative physiology. We will seek explanations of these phenomena by first evaluating the physical nature of these hostile environments and then exploring the mechanisms of survival. We will also investigate our own physiology and human limits of performance. Lecture will be enhanced by laboratory
experiences in experimental physiology and vertebrate dissection. Three hours classroom and three hours laboratory a week. This course fulfills either the DIV III lab science or QR distribution requirement.
108. Alien Worlds The possibility of life elsewhere in the universe is now widely accepted, but what kind of life can we expect it to be? This course considers what we know, and don't know, about the nature of life and the way it has evolved on Earth, to make a best guess about 'alien' life. Our strategy will be to investigate how biologists use theory and data to answer questions. Challenging introductory texts, news media, and scientific journals will be our major resources for discussion and laboratory studies. On finishing this course you should approach any biological news or issue with a more analytical eye, but ideally with increased fascination as well. Three hours classroom and three hours laboratory a week. This course fulfills either the DIV III lab science or QR distribution requirement.
109. The Biochemical Basis of Metabolic Disorders An introductory course focusing on the various types of molecules found in living systems and the ways they function and interact in both normal and abnormal cellular metabolism. Topics include genetic and enzymatic regulation of metabolic processes, energy capture and transformation, and a series of case studies dealing with the biochemical basis of metabolic disorders. We will also compare and contrast the treatment of scientific issues in the popular press with that found in the scientific literature. The course is intended to provide students with a basic understanding of some of the principles and methodology of modern biology, and to develop their ability to distinguish between legitimate science and pseudoscience. Three hours classroom and three hours laboratory a week. This course fulfills either the DIV III lab science or QR distribution requirement.
110. Interactions of Plants, Animals and Fungi Plants, animals and fungi have vastly different strategies for obtaining food, reproducing, and finding places to live. Many of the most important adaptations in each of these three groups involve fending off, partnering with, or exploiting members of the other two groups. This course considers the ways in which the three groups interact and the many consequences of these interactions for our ecosystems and for humans. In laboratory/greenhouse/field studies, lecture, and discussion we will develop an understanding of how biologists approach questions and design experiments concerning interactions, how their findings should or should not be interpreted, and how the findings are disseminated to general and scientific audiences. Three hours classroom and three hours laboratory a week. This course fulfills either the DIV III lab science or $Q R$ distribution requirement.
111. Biology of Behavior This course explores the biological basis of animal behavior. We will use an evolutionary framework to consider why behaviors arise within animal species (including humans) and ask how neural systems shape, constrain and execute the types of behaviors that we observe in nature. Topics will include animal navigation, communication, mating systems and sociality. We will read selections from the primary research literature of behavioral biology as models of scientific thought and discourse. Laboratory and fieldwork will emphasize construction of good experimental questions, refinement of hypotheses, quantitative analysis of data and effective communication of research results. Three hours classroom and three hours laboratory a week. This course fulfills either the DIV III lab science or $Q R$ distribution requirement.
112. Understanding Cancer Cancer is the second leading cause of death in the United states. In the year 2000, over half a million Americans died of cancer and over one million new cancer cases were diagnosed. Virtually everyone who is 18 years old or older knows someone who has battled cancer. This course explores the biology of the complex array of genetic diseases known as cancer. What is cancer, why does it occur, how is it treated, and what would it mean to our society to find a cancer cure, are just a few of the questions that will be addressed. In the laboratory, the unique characteristics of cancer cells will be investigated and treatments designed to revert these characteristics to those of normal cells will be explored. By understanding cancer, cancer research, and the promise of new cancer treatments, students should complete the course with a greater appreciation for the scientific process and the role science plays in human health. Three hours classroom and three hours laboratory a week. This course fulfills either the DIV III lab science or QR distribution requirement.
113. Infectious Disease versus Immune Defense Given the variety and virulence of the hundreds of pathogens we are exposed to every day, it seems miraculous that any of us survives into adulthood. This course will consider the biology of pathogens and the immunological defense systems which help counteract them. Both a human-based and comparative approach will be employed. Lecture, discussion and lab segments will emphasize the application of knowledge, the interpretation of scientific and popular information, and the demystification of disease and
immunity. Students finishing this course should have a new found appreciation of the molecular, genetic and cellular mechanisms underlying disease and defense. Three hours classroom and three hours laboratory a week. This course fulfills either the DIV III lab science or QR distribution requirement.
114. This Is Your Life This course provides an overview of the human life cycle. We will discuss development from a fertilized egg through birth, the physical and psychological maturation process that follow birth and the aging process and disease. We will also discuss ways in which humans impact each other as individuals, in society, and environment. In the laboratory portion of the course, we will perform experiments in model organisms that use the techniques and approaches that are utilized to investigate human development and health. Three hours classroom and three hours laboratory a week. This course fulfills either the DIV III lab science or QR distribution requirement.

## 128. BioDiscovery Topics Course

129. Changing Ocean Ecosystems An introduction to the biology of marine communities, including salt marshes and mangroves, intertidal zones, reefs, and deep-sea vents, among others. For each community, the physical characteristics of the environment as well as the physiological adaptations of the resident species will be examined. We will also focus on how marine communities are changing in response to anthropogenic stresses in light of concepts such as diversity indexes, keystone species, and disturbance theory. Selected readings from the primary literature and the popular press are required. Laboratory projects will emphasize experimental design and hypothesis testing. Three hours classroom and three hours laboratory a week. This course fulfills either the DIV III lab science or $Q R$ distribution requirement.
130. Genetics A study of Mendelian genetics, linkage, and mutation. An introduction to basic DNA structure and function including replication, transcription, and translation. Laboratory exercises involve both classic and molecular approaches to genetic analysis utilizing prokaryotic and eukaryotic organisms. Six hours classroom a week. Prerequisites: two Biology courses numbered between 120 and 129. For Neuroscience majors only, prerequisite is BIOL 124 and PSYC 125.
131. Cell Biology An introduction to the structure and function of cells, with emphasis on the molecular mechanisms of cellular processes. The course will involve discussion-oriented lectures and readings from the current literature. The laboratory will stress the discovery approach in applying state of the art techniques to cell biological experiments. Six hours classroom a week. Prerequisites: two Biology courses numbered between 120 and 129. For Neuroscience majors only, prerequisite is BIOL 124 and PSYC 125.
132. Ecology Study of the interactions of organisms with each other, and with their environment, at the level of the individual, the population, the community, and the ecosystem. Lectures and readings consider both the theory of ecology and data from empirical research in the classic and current literature. Laboratory and field studies explore how ecologists perform quantitative tests of hypotheses about complex systems in nature. Six hours classroom a week. Prerequisites: two Biology courses numbered between 120 and 129 or ENST 131, 132 (or 130). This course is cross-listed as ENST 314.
133. Population Genetics and Evolution Study of current knowledge of the evolutionary process and its genetic basis. Lecture, readings from the primary literature, laboratory investigations, and field study are used to consider evolutionary trends. Emphasis is on the new approaches that population geneticists and evolutionary biologists are using to reexamine such issues as how evolution affects gene pools; the implications of the fossil record; causes of extinctions; how species originate; relationships among living organisms; and adaptive versus non-Darwinian evolution. Six hours classroom a week. Prerequisites: two Biology courses numbered between 120 and 129. For Neuroscience majors only, prerequisite is BIOL 124 and PSYC 125. Offered every other year.
134. Genomics, Proteomics \& Bioinformatics The genome contains all the information required for the construction and operation of an organism. The genome directs the creation of a proteome, which is cell type and condition specific. Today, molecular biologists are able to study whole genomes and proteomes allowing for an integrative analysis of living systems. This course will explore these new genomic and proteomic techniques and their many applications. Central to these methods is the use of computer tools that facilitate the understanding of the huge data sets generated. We will learn how to use a variety of bioinformatics tools by applying them to specific
questions about cell function, disease, and evolution. Three hours classroom per week. Prerequisites: BIOL 216 or permission of instructor.
135. Animal Development Material deals with descriptive embryology and the mechanisms of development including the genetic and biochemical levels. Laboratory includes observation of selected examples of invertebrate and vertebrate development and experimental investigations of developmental processes. Six hours classroom a week. Prerequisites: two Biology courses numbered between 120 and 129. For Neuroscience majors only, prerequisite is BIOL 124 and PSYC 125.
136. Forest Ecology \& Applications An exploration of the structure and function of forests with a focus on trees. Levels of organization from organs to the biosphere are considered. A set of topics, such as leaf-atmosphere interactions, whole-tree physiology, stand dynamics, energy flows, and biogeochemical cycles, are examined in depth. The effects of human interventions in forests are considered as these provide insights into the processes operating within forests. The course includes quantitative analysis and a substantial field component. Three hours lecture and four hours laboratory each week. Prerequisites: Any combination of two courses from among the 100level biology courses and ENST 131, 132 (or 130). This course is cross-listed as ENST 340.
137. Invertebrate Zoology An integrated lecture and laboratory study of the anatomy, taxonomy, evolution, ecology, physiology, and embryology of invertebrates. Representatives of the major invertebrate phyla are examined in the field and in the laboratory. Six hours classroom a week. Prerequisites: two Biology courses numbered between 120 and 129 or ENST 131, 132 (or 130). For Neuroscience majors, prerequisite is BIOL 124 and PSYC 125.
138. Plant Systematics A systematic survey of the plant kingdom through the collection and study of living plants. Frequent field trips are conducted as weather permits. An herbarium of named plants is prepared. Emphasis will be placed on the diverse features of plants which permit effective study of fundamental biological problems. Six hours classroom a week. Prerequisites: two Biology courses numbered between 120 and 129 or ENST 131, 132 (or 130). This course is cross-listed as ENST 322.
139. Algae, Fungi and Lichens Study of the systematics, morphology, ecology, evolution, physiology, and development of algae, fungi, and lichens. Lecture and discussion include examples and readings from classic and recent research. Laboratories include field surveys and collections, follow-up laboratory identifications, and experimental investigations including directed individual or small-group research projects. Six hours classroom a week. Prerequisites: two Biology courses numbered between 120 and 129. Offered every other year.
140. Plant Geography and Ecology Analysis of factors determining the distribution and abundance of plant species, including study of plant migration patterns today and in the distant past. Lecture includes examples and readings from classic and recent research. Field, laboratory, and greenhouse studies focus on plant demography, plant-animal interactions, plant community structure, competition, soil and water relations, and other topics. Six hours classroom a week. Prerequisites: two Biology courses numbered between 120 and 129 OR ENST 131, 132 (or 130). Offered every two years.
141. Plant Physiology A study of plant structure and function, with emphasis on the flowering plants. Includes plant cells and organelles, mineral nutrition, translocation processes, and hormonal regulation of growth, development, and reproduction. Biochemical and environmental aspects of photosynthesis are emphasized. Six hours classroom/laboratory a week. Prerequisites: two Biology courses numbered between 120 and 129. This course will fulfill the WR requirement.
142. Microbiology Molecular biology, genetics, and biochemistry (structure and function) of bacteria, archaea, and viruses. Includes an introduction to the immune system and mechanisms of medical control of microbes. Molecular mechanisms of bacterial pathogenesis are addressed via readings from the recent primary literature. Laboratory exercises include the isolation and characterization of unknown bacteria using traditional and molecular methods, and modern genomic approaches to characterizing host response to infection. Six hours classroom a week.
Prerequisites: two Biology courses numbered between 120 and 129 or ENST 131 and 132 (or 130). For
Neuroscience majors, prerequisite is BIOL 124 and PSYC 125. Offered every other year.
143. Developmental Neurobiology This course explores the development of the nervous system from the early patterning of the neural plate, through the differentiation of embryonic cells into diverse neuronal subtypes, and culminating with the integration of multiple neuronal subtypes into the complex wiring circuits that underlie our sensory, motor, and cognitive abilities. We will study the cellular and molecular mechanisms underlying neural specification, the formation of neuronal connections, neural patterning by programmed cell death, and experiencedependent modulation of neural circuits. We also will examine the ways that neural development can go awry. In the laboratory we will explore topics such as neural induction, cell lineage and fate determination, neuronal migration, axon guidance, activity-dependent development and critical periods, and the development of behavior. The focus of the course will be on the development of the mammalian nervous system, but the contributions of simpler animal models to our understanding of the human brain will be a secondary emphasis. Prerequisites: two Biology courses numbered between 120 and 129, OR, BIOL 124 and PSYC 125, OR permission of the instructor.
144. Neurobiology This course takes a cellular approach to the structure and function of nervous systems. Integrated laboratory and classroom study focus on the physical and chemical properties of neurons that make them different from other cells, and the relationships between neurons that allow nervous systems to interpret the environment and to generate behavior. Extracellular and intracellular electrical recording methods are used extensively, and are supplemented and neurochemical and anatomical techniques such as high-pressure liquid chromatography and immunocytochemistry. Prerequisites: two Biology courses numbered between 120 and 129, OR, BIOL 124 and PSYC 125.
145. Natural History of Vertebrates An exploration into the lifestyles of vertebrates heavily focused on field biology. Natural history is strongly dependent on descriptive anatomy and systematics and therefore this course will cover the evolutionary relationships among vertebrates highlighting unique features that facilitated the success of the major groups. In field labs, students will develop observational skills such as how to identify a bird by its song, a frog by its call, a mammal by the color of its pelage, and a snake by its shed skin. Indoor labs will focus on identifying species from preserved specimens as well as providing students with the skills necessary to preserve vertebrates for future study. Preservation methods could include preparing museum-quality mammal and bird skins, formalin fixation of fish, and skeletal preparations. Three hours classroom and three hours laboratory a week. Prerequisites: two Biology courses numbered between 120 and 129 OR ENST 131, 132 (or 130) OR ERSC 307. This course is cross-listed as ENST 332. Offered every two years.
146. Physiology A study of physiological mechanisms in the animal kingdom, stressing the structural and functional bases of biological activities. Emphasis is on vertebrate organs and organ systems. Laboratory includes experimental physiological studies of selected organisms. Six hours classroom a week. Prerequisites: two Biology courses numbered between 120 and 129. For Neuroscience majors only, prerequisite is BIOL 124 and PSYC 125.
147. Vertebrate Biology An integrated lecture and laboratory study of the anatomy, embryology, physiology, and evolution of vertebrates. Representative live and dissection specimens are studied from the perspective of structure and function.Six hours classroom a week. Prerequisites: two Biology courses numbered between 120 and 129. For Neuroscience majors only, prerequisite is BIOL 124 and PSYC 125.
148. Microanatomy An integrated study of the functional microanatomy of vertebrates. This course will examine the microscopic anatomy of cells, tissues, organ, and organ systems and their interrelationships. The laboratory portion of the course will cover methods of contemporary histologic technique and will include independent experimental projects. Prerequisites: two Biology courses numbered between 120 and 129. Offered every other year. For Neuroscience majors only, prerequisite is BIOL 124 and PSYC 125.
149. Photobiology An integrated study of the effects of light upon living organisms at the molecular, organismic, and ecosystem levels. Examines the regulatory role of light in a variety of biological responses, as well as application of the principles of photobiology to current problems in medicine and agriculture. Includes lecture/discussion, laboratory, and student research projects. Prerequisites: two Biology courses numbered between 120 and 129. Offered every two years.
150. Structure and Function of Biomolecules This course is an introductory biochemistry course focused on the chemistry of the major molecules that compose living matter. The structure and function of the major classes of biomolecules (nucleic acids, proteins, lipids, and carbohydrates) are addressed along with other topics including
bioenergetics, enzyme catalysis, and information transfer at the molecular level. The laboratory portion of the course focuses on methods used to study the properties and behavior of biological molecules and their functions in the cell. Three hours lecture and four hours of laboratory per week. Prerequisite: CHEM 242; an introductory biology course is highly recommended. This course is cross-listed as CHEM 342.
151. Metabolism A survey of the metabolic processes in animals and plants, including signal transduction, aerobic and anaerobic piration, and photosynthesis, as well as the biosynthesis of the major types of biomolecules. For each metabolic pathway, we will examine the regulation of enzymes and related genes, their energetic requirements, and the function of pathway end products. Both the normal functioning of metabolic pathways and common metabolic malfunctions, e.g., human inborn errors of metabolism, will be considered. Selected readings from the primary literature and the popular press are required. Students will complete detailed case studies focusing on human metabolism and metabolic disorders. Three hours classroom a week. Prerequisite: CHEM 242. This course is crosslisted as CHEM 343.
152. Computer Simulation Modeling Computer simulation modeling is a way to develop scientific understanding. A key element of computational science, computer simulation modeling is the representation of systems with mathematics; computers do the mathematical calculation. This course considers biological, chemical, and physical systems, with interdisciplinary applications in environmental science and other fields. For the course project, students model systems related to their individual interests. No experience with computer programming or calculus is required.Six hours of integrated lecture and laboratory each week. Prerequisites: Any three courses in natural science and/or mathematics. This course is cross-listed as ENST 348. This course fulfills the DIV III lab science distribution requirement.
153. Immunology A team-taught study of the biological and chemical aspects of the field of immunology. The areas covered include immunochemistry, immunogenetics, cell-mediated immunity, and immunopathology. Emphasis in the class and the laboratory will be on the process and analysis of experimental investigation. Prerequisite: One Biology course numbered between 120 and 129 or CHEM 242 or BIOL 313 or permission of the instructor. Offered every other year.
154. Special Topics An in-depth study of specialized subject areas of biology. Some recent topics included Experimental Virology, Ornithology, and Histology. Topic, course structure, credit, and instructor will be announced by preregistration. Prerequisite dependent upon topic. Offered occasionally.
155. Seminar Through detailed study of the primary biological literature, students acquire an understanding of the methodology and philosophy of scientific research. Includes study of the formulation of hypotheses, the design of experiments or observations to test these hypotheses, and the interpretation of results. Subject matter varies based upon the interests of instructor and students. This course satisfies the requirement for a research experience for the biology major. Prerequisites: two Biology courses numbered between 120 and 129, and one upper-level biology course.
156. Molecular Genetics A study of the molecular aspects of gene structure and function. Course topics include recombinant DNA techniques, regulation of gene expression, oncogenes, tumor suppressor genes, molecular developmental genetics, and human molecular genetics. The laboratory studies utilize contemporary, molecular methods to explore DNA organization and function. Six hours classroom/laboratory a week. Prerequisites: One of the following: BIOL 216, 313, 316, 318, 326, 327, 380, or permission of the instructor.
157. Developmental Genomics In this course we focus on the regulation of gene expression during development. Course topics include mechanisms of control of gene expression, comparative genomics, molecular evolution, the theory and use of bioinformatics to address these topics, and molecular techniques used to assess and perturb gene expression during development. Laboratory studies will utilize molecular and data-mining approaches to investigate the roles of genes during development. Six hours classroom a week. Prerequisites: two Biology courses numbered between 120 and 129 and BIOL 216, or permission of instructor.
158. RNA w/lab A focused study of biochemical, cellular, and molecular aspects of ribonucleic acid (RNA). Topics of study include RNA structure, RNA processing and turnover, splicing, ribozymes and riboswitches, RNA interference, RNA editing and modification, small RNAs, and RNA viruses. Regular reading and discussion of
primary literature will complement the lectures. The laboratory will utilize modern molecular biology techniques for working with and using RNA to perform original research. Six hours classroom/laboratory a week. Prerequisites: One of the following: BIOL 216, 313, 316, 318, 326, 327, 380, or permission of the instructor.
159. Symbiosis A concentrated study of the biology of association between dissimilar organisms, including representative parasites of man. Readings in the recent literature, examination of different levels of intimacy through selected field and laboratory exercises with living and preserved organisms, and directed individual research projects exploring less well known associations will be employed in the learning experience. Six hours classroom a week. Prerequisite: two Biology courses numbered between 120 and 129, and one 300-level biology course, and permission of the instructor. Offered occasionally.
160. The Biology of Cancer w/lab Cancer is a genetic disorder that affects some 10 million people worldwide. In the United States, cancer is a close second to heart disease as the leading cause of death. This course will examine the molecular basis of cancer including the genes and signaling pathways involved in malignant transformation and the physiological consequences of uncontrolled cell growth. Current methods in cancer research and recent advances in cancer treatment will also be discussed. Specific topics covered will include: oncogenes and tumor suppressor genes, oncogenic mutation, tumor viruses, apoptosis, angiogenesis, metastasis, tumor immunology, radiation therapy, chemotherapy, and biological therapy. Six hours classroom/laboratory a week. Prerequisite: One of the following: BIOL 216, 313, 316, 318, 326, 327, 380, or permission of the instructor.
161. Virology An introduction to the molecular and cellular biology of viruses. Topics of study include the life cycle of viruses in general and their relationships with their hosts, including the processes of attachment to, entry into, genomic replication within, and exit from, cells. Aspects of pathogenesis, disease, the immune response to viruses, and vaccines, also will be studied. Related topics (such as prions, RNA interference, and public health issues) may be discussed. Regular reading and discussion of primary literature will complement the lectures. Three hours classroom a week. Prerequisite: One of the following: BIOL 216, 313, 316, 318, 326, 327, 380, or permission of the instructor.

## Chemistry

## Major

## Option I with ACS certification:

CHEM 141 (or 131, 132), 241, 242, 243, 244, 341, 342, 347, and an elective (490)
PHYS 131 or 141 and 132 or 142
MATH 170, 171
An approved research experience. A research experience may be fulfilled by completion of an approved laboratorybased research project at Dickinson (eight weeks during summer or a two-semester research project) or at an offcampus site.

Students interested in graduate study in chemistry should consult with their advisor to select additional courses in chemistry and related sciences as necessary.

## Option II without ACS certification:

CHEM 141 (or 131, 132), 241, 242, 243, 244, 341, 342, 347, and an elective (490)
PHYS 131 or 141 and 132 or 142
MATH 170, 171
Students interested in graduate study in chemistry should consult with their advisor to select additional courses in chemistry and related sciences as necessary.

## Minor

141 (or 131/132) and 5 additional courses in chemistry, excluding 111

## Suggested Four Year Program

First Year: 141 (or 131, 132), 241; MATH 170, 171
Second Year: 242, 243, 244; PHYS 141, 142 (or 131,132)
Third Year: 341, 342, 347, 490 elective
Fourth Year: Advanced chemistry courses
NOTE for Option I majors: The research experience may be fulfilled by completion of an approved laboratorybased research project at Dickinson (eight weeks during summer or a two-semester research project) or at an offcampus site.

In general, the research experience should be undertaken as early as is feasible in a student's career, and it is advised that students planning graduate work in chemistry consider even more research than the minimum detailed here.

## Teacher Certification

Students interested in preparing for teaching Chemistry in high school should schedule a major in Chemistry and should plan to follow the Teacher Certification Program their senior year. The Director of Teacher Education in the Education Department should be consulted during the sophomore year.

For additional information, visit the Education Department web site.

## Independent Study, Independent Research, Student/Faculty Collaborative Research

Independent study or research is available to students who are prepared for it. Normally this requires the completion of 141 as a minimum, and for most independent research projects more advanced courses are required. Interested students should talk with faculty members in the Department to arrange a topic for independent work.

Chemistry majors (Option I) are required by the Chemistry Department to complete an approved research experience. This experience gives the researcher an insight and depth of understanding of Chemistry that can be obtained in no other way. Some students fulfill their requirement at an approved off-campus site.

## Honors in the Major

The faculty will award Honors to a chemistry major based on the candidate's complete undergraduate chemistry program. This includes all courses required for the major, the student's grades and the successful completion of a two semester (or summer and semester) research project. A minimum GPA of 3.30 is required in all courses that count toward the major, including math and physics courses and transfer courses that receive chemistry credit, at the conclusion of the seventh semester (typically the fall semester of the senior year) of study. The Honors research project usually entails joining an established research project in a faculty mentor's laboratory. Honors will be awarded based on the faculty's determination that the candidate has successfully passed at least two of the three segments of an Honors defense: written dissertation, public oral presentation of results, and oral defense in front of the faculty. Results of Honors research should be disseminated in a public forum. For the specific guidelines and procedures see the Chemistry Department web site.

## Opportunities for Off-Campus Study

## The Dickinson Science Program in England

Chemistry students have the opportunity to study for a semester or a year at the University of East Anglia (UEA) in

Norwich, England. This Dickinson program is overseen by an on-site Dickinson faculty member who advises students and teaches courses.

## The Dickinson Science Program in Australia

Chemistry students have the opportunity to study for one semester at the University of Queensland (UQ) in Brisbane, Australia. The University of Queensland offers a variety of outstanding science programs. UQ was recently selected as "Australia's University of the Year."

## Courses

111. Topics in Chemistry This course will apply Chemical concepts to topical areas such as nanotechnology, Chemistry in history, the environment and forensic science. Three hours classroom and two hours laboratory per week. This course sequence will not count toward major or minor requirements in biology, biochemistry-molecular biology, or Chemistry. Students who decide to pursue further studies in Chemistry after completion of 111 must enroll in 141. Students may take two different sections of this course for credit.
112. General Chemistry I with Lab The first semester of intro chemistry for students majoring in the physical and biological sciences, who have completed one year of HS chemistry but do not place into Chemistry 141. Core principles and applications of chemistry will be covered that will aid students in understanding "Why Chemistry Matters" regardless of discipline. Topics will include: atomic and molecular structure (Lewis, VSEPR), stoichiometry, gas laws, energy and chemical reactions, periodicity, and solubility and intermolecular forces. Three hours of classroom and three hours of laboratory per week. This course fulfills either the DIV III lab science or QR distribution requirement.
113. General Chemistry II with Lab A continuation of Chemistry 131. Topics covered in the second semester will include: kinetics, equilibrium, acids, bases, and buffers, thermodynamics, electrochemistry, nuclear chemistry, and transition metal chemistry. Three hours of classroom and three hours of laboratory per week. Prerequisite: 131. This course fulfills either the DIV III lab science or $Q R$ distribution requirement.
114. Accelerated General Chemistry with Lab A one-semester introductory course for students who are especially well-prepared for general chemistry, replacing CHEM 131, 132 as a prerequisite for more advanced courses in the major. Topics include atomic structure, chemical bonding, thermodynamics, kinetics, equilibrium, electrochemistry, acid/base chemistry, solubility, and transition metal chemistry. The laboratory experiments will relate directly to topics covered in lecture, and will include statistical analysis of data, molecular modeling, instrumental methods of analysis, and quantitative analytical and inorganic chemistry. Admittance into this course is based on a placement exam. Three hours of classroom and three hours of laboratory per week. This course fulfills either the DIV III lab science or $Q R$ distribution requirement.
115. Organic Chemistry I with Lab The major focus of this course is on the reactivities of organic and inorganic molecules; this is an extension of the study of the covalent bond that was studied in Chemistry 141. Topics include reaction types and mechanisms, stereochemistry, nomenclature, and spectroscopic methods. Laboratory work involves the synthesis, analysis and identification of organic and inorganic molecules. Three hours classroom and four hours laboratory per week. Prerequisite: 141.
116. Organic Chemistry II with Lab This course continues the study of the reactivities of organic and inorganic molecules started in 241. Particular emphasis is placed on unsaturated systems. Laboratory work continues investigations into the synthesis, analysis, and identification of organic and inorganic molecules begun in 241.Three hours classroom and four hours laboratory per week. Prerequisite: 241.
117. Modern Chemical Analysis The theory of chemical equilibrium as it pertains to acid-base, metal-ligand, redox, and EDTA titrations. Topics such as experimental design, sampling, calibration strategies, standardization, and the optimization and validation of experimental results will be covered. Statistical analysis of data will also be included. This class is meant to aid students in developing both a sound knowledge of experimental protocols (i.e. How many samples do we need to collect? How do we extract our analyte from the matrix? How much sample must be extracted in order to obtain a measurable result? How do we measure what's present? and in the critical
evaluation of experimental results (How much confidence do we have that our results are representative of the system under study?). Prerequisite: 141. This course fulfills the $Q R$ distribution requirement.
118. Thermodynamics and Kinetics The fundamentals of chemical thermodynamics will be presented with a view towards providing an understanding of the concept of chemical equilibrium. Introductory concepts in chemical kinetics will also be discussed. Laboratory will focus on experiments illustrating the principles of thermodynamics and chemical kinetics. Three hours classroom and four hours laboratory per week. Prerequisites: 141, MATH 171 or concurrent enrollment.
119. Quantum Chemistry and Spectroscopy Examines how the Quantum Theory, and in particular the Schrödinger Equation, makes possible the determination of translational, rotational, and vibrational energies of molecules, and how spectroscopy experimentally determines the energy and hence structure of atoms and molecules. Three hours classroom per week. Prerequisites: 132 or 141, MATH 171 and PHYS 141 or 131, or permission of the instructor. NOTE: PHYS 141 or 131 may be taken concurrently with CHEM 341.
120. Structure and Function of Biomolecules This course is an introductory biochemistry course focused on the chemistry of the major molecules that compose living matter. The structure and function of the major classes of biomolecules (nucleic acids, proteins, lipids, and carbohydrates) are addressed along with other topics including bioenergetics, enzyme catalysis, and information transfer at the molecular level. The laboratory portion of the course focuses on methods used to study the properties and behavior of biological molecules and their functions in the cell. Three hours lecture and four hours of laboratory per week. Prerequisite 242; an introductory biology course is highly recommended. This course is cross-listed as BIOL 342.
121. Metabolism A survey of the metabolic processes in animals and plants, including signal transduction, aerobic and anaerobic respiration, and photosynthesis, as well as the biosynthesis of the major types of biomolecules. For each metabolic pathway, we will examine the regulation of enzymes and related genes, their energetic requirements, and the function of pathway end products. Both the normal functioning of metabolic pathways and common metabolic malfunctions, e.g., human inborn errors of metabolism, will be considered. Selected readings from the primary literature and the popular press are required. Students will complete detailed case studies focusing on human metabolism and metabolic disorders. Three hours classroom per week. Prerequisite: 242. This course is cross-listed as BIOL 343.
122. Concepts of Inorganic Chemistry with Lab This course will cover fundamental concepts in inorganic chemistry to include: periodic trends, atomic and molecular structure, ionic bonding and crystal structures, solubility of ionic solids, acid-base chemistry, structure and bonding in coordination compounds, and reactions of transition metal complexes. Throughout the course the unifying theme will be the application of principles of structure and bonding to predict and explain reactions involving inorganic compounds. Three hours classroom and four hours of laboratory per week. Prerequisites: 244, 341 or concurrent enrollment. This course fulfills the WR distribution requirement.
123. Advanced Topics in Chemistry Topics may be drawn from areas such as heterocycles, natural products, medicinal chemistry, food and nutrition, industrial chemistry, organic synthesis, inorganic synthesis, nuclear magnetic resonance, measurement including computer applications, spectroscopy, statistical thermodynamics, and catalysis.Three hours classroom per week. Prerequisite dependent upon topic.

## Chinese

See East Asian Studies.

## Classical Studies

## Major

A major in Classical Studies consists of ten courses, in one of the following combinations:
A. 6 courses in Latin above 102, including at least one at the 300-level, 2 courses in Greek at any level, and two other courses in classical civilization.
B. 6 courses in Greek above 102, including at least one at the 300 -level, plus 2 courses in Latin, and two other courses in classical civilization.
C. 8 courses in Latin above 102, including at least one at the 300-level, and two other courses in classical civilization.
D. 8 courses in Greek above 102, including at least one at the 300-level, and two other courses in classical civilization.

## Minor

A minor in Classical Studies consists of six courses, in one of the following combinations:
A. Five courses in Latin above 102, including one at the 300 level, and one other course in classical civilization.
B. Five courses in Greek above 102, and one other course in classical civilization.
C. Three courses in Latin or Greek above 102, and three other courses in classical civilization.

## Teacher Certification

Certification for secondary teaching is offered. Interested students should contact the department. Students planning secondary school teaching are urged to seek advice from the Department of Education.

For additional information, visit the Education Department web site.

## Independent Studies

Independent studies are available. Contact the department chairperson for details.

## Honors in the Major

Honors may be granted in Classical Studies for a two-semester project that results in a well-researched, sophisticated, finely crafted thesis within the range of sixty to one hundred pages. Students are self-selected but acceptance as an Honors candidate is based on the judgment of the department faculty and their assessment of the student's academic ability and potential for successfully completing the project. They will work closely with one advisor but will receive guidance and resources from other members of the department. Only the best projects will be granted Honors, but any student who completes the project will receive credit for the two semesters of independent study. For a detailed project schedule, see the Classical Studies web site.

## Opportunities for Off-Campus Study

Many majors have taken advantage of the Intercollegiate Center in Rome and the College Year in Athens (instruction in English by American professors under the American system), Durham University, and Advanced Studies in England (ASE). Four-week summer immersion courses taught in ancient Greek or Roman lands are offered occasionally. Students may also participate in archaeological survey, excavation and museum research at Mycenae with Prof. Christofilis Maggidis.

## Courses

## Greek

*101, 102. Beginning Attic Greek All the fundamentals of Greek grammar and syntax as well as the acquisition of vocabulary. By the conclusion of the second semester students will be prepared to read classical authors in the original.
111. Introduction to Greek Prose A review of syntax and selected readings from prose authors. Consideration is given to authors whose style and grammar best illustrate the characteristics of Attic Greek of the Classical period. Supplemental readings in English provide historical and cultural context for the author chosen. 102 or the equivalent.
112. Introduction to Greek Poetry Selected readings from Homer with emphasis on poetic style and composition. Supplementary readings in English help stimulate discussion of literary, historical, and cultural topics regarding epic poetry. Prerequisite: 102 or the equivalent.
222. Philosophical Writers Readings in Greek Philosophy including authors such as the Presocratics, Plato, Aristotle, or others. Supplementary readings in English provide historical context and an introduction to certain issues in ancient philosophy. Recommended: 112 or the equivalent.
233. Herodotus Selected readings from The Persian Wars, supplemented with reading of the text in English. Attention is paid to the nature of history and historical writing. Recommended: 112 or the equivalent. Offered every two years. This course fulfills the DIV I.b. distribution requirement.
234. Greek Tragedy A play from the corpus of Aeschylus, Sophocles, or Euripides will be read. Readings in English focus discussion on the authors' poetic style, purpose, and the historical context within which the writing occurred. Prerequisite: 112 or the equivalent. Offered every two years. This course fulfills the DIV I.b. distribution requirement.
331. Thucydides Selected readings from The Peloponnesian Wars, supplemented with reading of the text in English. Particular attention is paid to issues of historiography and Thucydides' place among historians. Prerequisite: one course at the 200-level or the equivalent. Offered every two years.
332. Greek Comedy Play(s) from the corpus of Aristophanes will be read. Readings in English help stimulate discussion of structure, technique and political-historical context of Aristophanes' comedy. Prerequisite: at least one course at the 200-level or the equivalent. Offered every two years.

393, 394. Seminar Readings and conferences on selected areas of Greek literature. Research skills are emphasized. Prerequisite: at least one course at the 200-level. Offered occasionally.

## Latin

*101, 102. First-Year Latin All the fundamentals of Latin grammar and the study of vocabulary. These courses prepare students to read classical authors in the original.
111. Introduction to Roman Prose Review of syntax and selected readings from prose authors, with study of literary technique and discussion of supplementary readings in English. Prerequisite: 102 or the equivalent.
112. Introduction to Roman Poetry Selected readings from Catullus and Ovid, with focus on poetic technique, and discussion of supplementary readings in English. Prerequisite: 102 or the equivalent.
233. Roman Historians Readings from Roman historians such as Sallust, Caesar and Livy, with study of Roman political values. Prerequisite: 112 or the equivalent. This course fulfills the DIV I.b. distribution requirement.
234. Ovid Selections from the Metamorphoses with study of the more important Greek and Roman myths and their modern reception. Prerequisite: 112 or the equivalent. This course fulfills the DIV I.b. distribution requirement.
241. Early Christian Latin Selections from Augustine's Confessions, Prudentius' Psychomachia, and/or the corpus of Claudian and Ausonius. Attention is paid the intellectual and literary culture of the late 4th century AD. Prerequisite: 112 or the equivalent. Offered every two years.
242. Vergil, Aeneid Selections from the epic, with emphasis on Vergil's literary aims and technique. Prerequisite: 112 or the equivalent. Offered every third year.
243. Lucretius Selections from the Epicurean philosopher's epic poem On the Nature of Things, with study of the philosophical and poetic background of the work, its reception in antiquity, and its relevance to modern concerns. Prerequisite: 112 or the equivalent. Offered every third year. This course fulfills the WR distribution requirement.
331. Cicero Letters and speeches, with stress on the political life of the age of Cicero. Prerequisite: at least one course at the 200-level. Offered every third year.
343. Lyric and Elegy Selections from Horace and elegists such as Propertius and Tibullus, with focus on their literary technique and tradition. Prerequisite: at least one course at the 200-level. Offered every two years.
351. Tacitus Readings in the Annals, with emphasis on Roman historiography, Tacitus as historian and historical source. Prerequisite: at least one course at the 200-level. Offered every third year.
352. Roman Satire Readings from the satires of Juvenal or Horace with study of Roman social life in the early Principate. Prerequisite: at least one course at the 200-level.

393, 394. Seminar Readings and conferences on selected areas of Latin literature. Emphasis on research skills. Prerequisite: at least one course at the 200-level. Offered occasionally.

## Classical Civilization

200. Special Topics in Classical Civilization This course undertakes topics, issues, and texts in Classical Civilization which are not otherwise offered in the Classical Studies Curriculum. The areas may include literary, historical, or philosophical topics from Bronze Age Greece to Christian Rome. Will meet either Division I or Division II distribution requirement depending upon topic. Prerequisite dependent upon topic.

## Classical Literature and Mythology

100. Greek and Roman Mythology A general introduction to the texts and narratives of the chief myths of Greece and Rome and their impact on Western civilizations with special reference to the fine arts: music, sculpture, painting, and literature. This course fulfills the DIV I.c. distribution requirement.
101. Introduction to Greek Civilization Reading and discussion of key literary and historical works of ancient Greece, including works by Homer, Thucydides, the Greek tragedians and comedians, with consideration of the Greek intellectual enlightenment, Athenian democracy and the Athenian empire in their historical and cultural contexts. The literature is read in English translation. This course will fulfill a literature requirement in the arts and humanities distribution requirement. Offered every other year. This course fulfills the DIV I.b. distribution requirement.
102. Roman Private Life Aspects of Roman History (c. 100 BC to AD 100), including family, role and power of women, sexuality, slavery and its variants, work, the environment and its pollution, medicine, reproduction and its management, religion, philosophies, magic, gladiatorial and animal shows, and chariot racing. Readings include modern historians and primary documents (in translation). Offered every two years.
103. Women in Antiquity This course examines the lives and roles of women in three periods of Greco-Roman antiquity: Classical Greece, Late Republic/ Early Empire Rome, and Early Christian Rome. Topics include the ancient construction of gender, sexuality, marriage, and the social and legal status of women. Literary and artistic remains provide the basis of writing and discussion which will be informed by current anthropological and feminist approaches. Offered every two years.
104. Ancient Worlds on Film An introduction to ancient Greek and Roman history and civilization (excluding mythology) through viewing popular films about this period and reading the historical and literary sources on which those films are based. Wherever possible we will read original primary documents. This course fulfills the DIV I.c. distribution requirement.

## Classical Archaeology

221. Greek Art and Archaeology A general introduction to the art and archaeology of ancient Greece from Prehistoric to Hellenistic times: Bronze Age civilizations (Cycladic, NE Aegean and Trojan, Minoan, Helladic/Mycenaean); Protogeometric, Geometric, Archaic, Classical, and Hellenistic Greece. A survey of architecture (temple, secular funerary), sculpture, vase-painting, monumental painting, metalwork, and minor arts of these periods, both on mainland Greece and in the Greek colonies (Asia Minor, Pontus, Syria, Phoenice, Egypt, S.I Italy and Sicily); comparative study of typological, iconographical, stylistic, and technical aspects and developments; styles and schools, regional trends, historical contextualization of ancient Greek art and brief consideration of socio-economic patterns, political organization, religion, and writing. Evaluation of the ancient Greek artistic legacy and contribution to civilization. Field trips to archaeological collections and Museums. This course is cross-listed as ARCH 120. Offered every fall. This course fulfills the DIV I.c. distribution requirement.
222. Roman Archaeology A general introduction to the art and archaeology of the Roman world from the Late Republic to the 4th century AD. A survey of architecture (temple, public, domestic, palatial, funerary), monumental painting, sculpture, metalwork, and minor arts of these periods in Italy and the rest of the Roman world; particular emphasis on Rome, Pompeii, Herculaneum, Ostia, Greece/Asia Minor, and North Africa. Comparative study of typological, iconographical, stylistic, and technical aspects and developments; regional trends and foreign influences. Historical and cultural contextualization of Roman art and architecture with consideration of socioeconomic patterns, political developments, religion, and writing. This course is cross-listed as ARCH 130. Offered occasionally. This course fulfills the DIV I.c. distribution requirement.

## Classical History

251. Greek History A survey of the history of ancient Greece from 700 to 400 BC. Particular attention is devoted to the relationship of Sparta and Athens, the development of democracy and the cultural achievements of the fifth century BC. Offered every other fall.
252. Roman History A survey of the history of ancient Rome from 133 BC to AD 69. Particular attention is devoted to issues and men who brought about the fall of the Republic and the creation of the Empire of Rome. Offered every other fall. This course fulfills the DIV II social sciences distribution requirement.

The following courses are offered abroad:
211. Roman Vistas A four-week course conducted in Italy (the Bay of Naples; Rome and its environs). The course is designed to integrate the study of ancient sites and artifacts with relevant readings from Latin literature. Admission by permission of the instructor. This course fulfills the DIV II social sciences distribution requirement.
212. Greek Vistas A four-week course conducted in Greece and Crete. The course is designed to integrate study of ancient sites and artifacts with relevant readings from Greek authors. Admission by permission of instructor.
301. Fieldwork in Classical Archaeology Archaeological excavation and geoprospection survey for four to six weeks at the Citadel and the Lower Town of Mycenae in Greece (DEPAS Project). The dig provides training for students in the techniques and methods of field archaeology. Admission by permission of the instructor. ARCH 201
recommended. May be repeated for credit. If taken as part of the archaeology major, the course satisfies either the Field Experience requirement or counts as an elective in the classical area emphasis. If taken more than once it both satisfies the Field Experience requirement and counts as an elective in the classical area emphasis. This course is cross-listed as ARCH 301.

## Community Studies

## Courses

202. Mosaic Semester A 4-course credit community study with extensive field work which engages students and faculty in an intensive, first-hand examination of the history, sociology, ethnography, and culture of a local community in central Pennsylvania. The particular site of the study and the methodological approach varies according to the interests and expertise of the collaborating faculty who team-teach the semester. Students in the Mosaic concentrate on this project during the semester, integrating three courses as well an independent study for a total of four courses based on their field work under the direction of one of the contributing faculty. Prerequisite: Sophomore standing and permission of the instructors.
203. Documentary Film-making This course provides instruction in documentary film-making, including videotaped interviews, shooting, lighting, audio recording, and editing. In addition to the technical aspects of film making, the course will incorporate theoretical examinations of message design, and the socio-cultural impact of documentary films and the documentary film industry to help guide students in the production of socially relevant documentary films of their own conception. Students will produce their own mini- documentary videos about subject-matter of their choosing, and be responsible for theoretical and technical writings in support of their films. Prerequisites: SOCI 240 OR ANTH 240 OR AMST 302. This course fulfills the DIV II distribution requirement.

## Comparative Civilizations

102. Selected Problems in Civilizational Analysis Exploration of some problem of general human significance as it has been dealt with by two or more of the world's major civilizations.
103. Non-Western Civilizations A sustained study of a particular non-Western civilization: India, China, Japan, civilizations of the Middle East, Africa, or ancient America.
104. Special Topics in Non-Western Studies Exploration of topics of general human significance as they have been dealt with in one or more of the world's non-Western civilizations.
105. Issues in Comparative Civilizational Studies A faculty-student seminar intended for the joint discussion of questions of method and substance arising in the comparative study of civilizations. Prerequisite: Permission of the instructor(s).

No major or minor is offered in the program.
Courses offered in other departments which fulfill the comparative civilizations graduation requirement are listed each semester with course offerings on the Registrar's web site.

## Computer Science

See Mathematics \& Computer Science.

## CPYB/Dickinson Certificate Program

## CPYB/Dickinson Certificate Program

## Requirements: (eight courses)

THDA 102, 200, 204, 316
Ballet instruction at 1B or higher level for two years (THDA 317, 318, 417, 418)
Two semesters performing with CPYB and/or a DTG main stage production, including work with a guest choreographer

## Creative Writing

## Minor:

This minor may be undertaken in conjunction with any major at the college; it is not an emphasis within the English major. Within the minor, students must select an area of concentration in either fiction or poetry. Required classes for the minor:

Six courses:
ENGL 101, any section
ENGL 218
ENGL 317 or ENGL 319 (in genre of concentration)
ENGL 417 or ENGL 419 (in genre of concentration)
ENGL 339, in genre (NOTE: prerequisite for creative writing minors is ENGL 101)
One additional writing course in non-concentration genre, or, another course approved by the Creative Writing director

## Dance \& Music

See also Theatre \& Dance listing.
See also Music listing.
Inter-arts major in coordination with the Department of Music and the Department of Theatre \& Dance.

## Major

This major integrates studies in history, theory, and practice of the arts of dance and music. The core curriculum consists of the following 10 courses: THDA 102, 104, 204; MUSC 101, 102, 125, 126, and 354; plus two credits of dance technique (or THDA 200 plus one course in dance technique). To complete the major, students take the three courses for either of the following tracks:

## Research Track:

THDA 314
MUSC 245, 246

Practicum Track:
THDA 220, 304
MUSC 255, 256
For course descriptions, see Theatre \& Dance and Music listings.

## Earth Sciences

## Major

Thirteen courses:
All majors will take the following courses: ERSC 141, 142, 302, 305, 309, 331; CHEM 131 or 141 (General
Chemistry). To complete the major a student may choose from four options:
Earth Sciences Teaching: PHYS 102 (Meteorology), PHYS 109 (Astronomy), ERSC 221 (Oceanography), Capstone: EDUC 461 and 462 (professional teaching semester).

Environmental Geoscience: MATH 170 (Calculus I) or MATH 121 (Statistics); ENST 313 (GIS); two from the following: ERSC 201 (Surface Processes), ERSC 202 (Energy Resources), ERSC 204 (Global Climate Change), ERSC 208 (Environmental Hazards), ERSC 220 (Environmental Geology), ERSC 221(Oceanography), ERSC 320 (Hydrogeology); one from the following: ENST 335 (Analysis and Management of the Aquatic Environment), ENST 340 (Forest Ecology and Applications), BIOL 129 (Changing Ocean Ecosystems), BIOL 314 (Ecology), CHEM 490 (Environmental Chemistry), PHYS 310 (Energy and the Environment); Capstone: ERSC 550 (Independent Research), ERSC 560 (Student/Faculty Collaborative Research), or ERSC 712 (Internship).

Geoscience: MATH 170 (Calculus I) and MATH 121 (Statistics); one physics course above the 131 level; two from the following: ERSC 201 (Surface Processes), ERSC 307 (Paleontology), ERSC 306 (Igneous and Metamorphic Petrology), ERSC 221 (Oceanography); Capstone: ERSC 550 (Independent Research), ERSC 560 (Student/Faculty Collaborative Research), or ERSC 491 (Field Camp).

Student-designed: Students must propose a coherent group of at least four upper-level electives within the semester they declare an Earth Sciences major; MATH 170 (Calculus I) or MATH 121 (Statistics); Capstone: ERSC 550 (Independent Research), ERSC 560 (Student/Faculty Collaborative Research), or ERSC 712 (Internship).

## Minor

Six courses including 141 and 142.

## Suggested Four Year Program

## First Year:

Second Year:
Third Year:
Fourth Year:

Note of Caution: Off-campus study is encouraged. However, students who contemplate off-campus study should discuss their plans with one or more of the Department faculty early.

## Teacher Certification

By completing a minimum number of courses outside the department and the professional semester in the Department of Education, students may be certified for secondary school teaching in Earth and Space Science. See any member of the Department of Earth Sciences or the Director of Teacher Education. For additional information, visit the Education Department web site.

Many majors do an Independent Study, Independent Research or student/faculty collaborative research project during their Junior or Senior year. Students may ask any faculty member in the department to supervise a project. Ideally, the faculty member should be contacted during the previous semester to make arrangements for advising.

## Honors in the Major

An Independent Research project may be considered for departmental honors if it demonstrates superior quality of work. Such theses are read by all members of the departmental faculty as well as an evaluator from outside the department, selected by the project advisor for their knowledge of that specific field. Oral defense of the thesis is required, and final revisions to the written thesis are made based on the comments of the readers. Students who successfully complete the defense will be named in the Commencement Program as having achieved honors.

Students who think that their project is potentially worthy of honors should indicate that with a short written proposal to their research adviser by the end of the fall semester of their senior year. This provides an occasion for the faculty advisor to give feedback to the student on the worthiness of the project and to plan the second semester in order to assure the quality of the project. This conversation helps the faculty to consider potential outside reviewers and schedule oral defenses, and also solidifies in the student's mind the need for progress and ultimate goal of the project.

A first draft of the paper should be turned in to your advisor no later than April to allow revisions so that a final draft will be ready for delivery to the research advisor, the other faculty, and the outside reader by mid-April. The oral defense usually will be scheduled on or about the last day of classes. Defenses are open to other majors, interested friends, faculty, and other guests. After the defense, the faculty and outside reader will vote in private, based on careful consideration of the quality of the paper and defense, and of the academic maturity of the student during the project year.

## Internships

Several have been done in the department. Although specific arrangements would need to be made, it is possible to arrange internships with state and federal geologic agencies in Harrisburg. Students have also done internships with local consulting companies. See any member of the department faculty for possible arrangements.

## Opportunities for Off-Campus Study

Recommended off-campus study programs include the Dickinson Science Program at the University of East Anglia, England. Other suggested programs are the Marine Science Program in the Bahamas every other January and a onesemester program at the University of Otago, New Zealand. The on-campus coordinators should be contacted for information.

## Courses

141. Planet Earth A study of plate tectonics with emphasis on ancient and modern geological processes associated with mountain building. The course builds knowledge through field and classroom studies of Appalachian geology, and by comparison of the Appalachians with active mountain belts in South America, Indonesia, and Asia. The course also develops a geologic understanding of the seismic and volcanic hazards associated with mountain building. The overall aim of the course is to illustrate the historical, predictive, and practical aspects of geologic principles and reasoning in scientific and societal contexts. This course fulfills either the DIV III lab science or QR distribution requirement.
142. Earth History A study of the origin and evolution of the Earth, continents, atmosphere, ocean, and life over 4.6 billion years of Earth history. Topics will include deep time; plate tectonics and mountain building; continental position, ocean circulation, and climate change; expansion of biodiversity from single cells to higher order plants and animals including the rise of humans; mass extinctions; the theory of evolution; and the influence of historic earth processes on the formation of mineral and energy resources. Labs and Field trips will test geological and
paleontological hypotheses regarding the reconstruction and interpretation of ancient sedimentary environments and biomes in the local area. Three hours classroom and three hours laboratory a week. This course fulfills either the DIV III lab science or $Q R$ distribution requirement.
143. Surface Processes Description, origin, development, and classification of landforms. Relationships of soils, surficial materials, and landforms to rocks, structures, climate, processes, and time. Topics will include interpretation of maps and aerial photographs of landscapes produced in tectonic, volcanic, fluvial, glacial, periglacial, coastal, karst, and eolian environments. Exercises will include: photo-geologic interpretation, surficial mapping, and classification of soils. Lectures, discussions, laboratories, and field trip(s). Three hours classroom and three hours laboratory a week. Prerequisite: 141 or 142. This course fulfills the QR distribution requirement.
Offered every other year.
144. Energy Resources The study of the origin, geologic occurrence, and distribution of petroleum, natural gas, coal, and uranium. Discussions include the evaluation and exploitation, economics, law, and the environmental impact of these resources and their alternatives, including geothermal, wind, solar, tidal, and ocean thermal power. Prerequisites: Any DIV III lab science (not MATH). This course is cross-listed as ENST 202. Offered every other year.
145. Global Climate Change An overview of our present understanding of atmospheric processes and their interaction with the land, oceans and biosphere leading to an in-depth study of ancient climates and climate change in earth history. Topics include the tools used to decipher ancient climate change on various time scales, major climate events such as the ice ages, and the causes of climate change. Past and present knowledge will be used to explore the potential for future climate change and its socioeconomic and political implications. The laboratory component will use climate data and field experiences to interpret climate change over the past 3 billion years in the context of earth materials and plate tectonics. Prerequisite: Any DIV III lab science (not MATH). This course fulfills the $Q R$ distribution requirement.
146. Environmental Hazards An introduction to the fundamental principles and processes of geology using a variety of natural examples that are commonly referred to as "disastrous" when they affect areas inhabited by people, including volcanic eruptions, earthquakes, tsunamis, floods, mass movements (avalanches, debris flows), meteoroid impacts, and other weather-related phenomena (e.g. hurricanes, thunderstorms, tornadoes, long-term climate change). The course will give an overview of the physical controls on the processes as well as methods used to predict the events, assess possible hazards, and mitigate negative consequences. Lecture discussions will be augmented with labs and field trips (e.g., Johnstown, PA; Centralia, PA).Prerequisite: Any DIV III lab science (not $M A T H)$. This course fulfills the $Q R$ distribution requirement.
147. Geographic Information Systems Geographic Information Systems (GIS) is a powerful technology for managing, analyzing, and visualizing spatial data and geographically-referenced information. It is used in a wide variety of fields including archaeology, agriculture, business, defense and intelligence, education, government, health care, natural resource management, public safety, transportation, and utility management. This course provides a fundamental foundation of theoretical and applied skills in GIS technology that will enable students to investigate and make reasoned decisions regarding spatial issues. Utilizing GIS software applications from Environmental Systems Research Institute (ESRI), students work on a progression of tasks and assignments focused on GIS data collection, manipulation, analysis, output, and presentation. The course will culminate in a final, independent project in which the students design and prepare a GIS analysis application of their own choosing. Three hours of classroom and three hours of laboratory per week. This course is cross-listed as ENST 218 and ARCH 218. This course fulfills the $Q R$ distribution requirement.
148. Environmental Geology A survey of humankind's interaction with the physical environment focusing on geologic processes. The importance of geologic materials such as soils, sediments and bedrock, and natural resources will be discussed in the context of world population. Natural hazards (floods, earthquakes, volcanoes, coastal erosion, and landslides) will be studied to understand how we can minimize their threat. Land use and abuse including natural resource exploitation and pollution will be discussed in the context of geologic information for proper land-use planning. Labs will emphasize field study of environmental problems in the Cumberland Valley. Prerequisite: 141 or 142 OR ENST 131or 132 or 130. This course is cross-listed as ENST 220. This course fulfills the $Q R$ distribution requirement.
149. Oceanography An interdisciplinary introduction to the marine environment, including the chemistry of seawater, the physics of currents, water masses and waves, the geology of ocean basins, marine sediments and coastal features, and the biology of marine ecosystems. Topics include the theory of plate tectonics as an explanation for ocean basins, mid-ocean ridges, trenches, and island arcs. The interaction of man as exploiter and polluter in the marine environment is also considered. Three hours classroom and three hours laboratory per week. Prerequisite: One introductory science course (not MATH). This course is cross-listed as ENST 221. This course fulfills the QR distribution requirement. Offered every other year.
150. Field Geology A course in some of the basic geological field techniques, with the preparation of topographic and geologic maps and reports from data obtained by the student in the field. Three hours classroom and three hours laboratory a week. Prerequisite: 141 and 142, or permission of instructor. This course fulfills the DIV III lab science distribution requirement.
151. Structural Geology The description and analysis of intermediate- to large-scale rock structures. Topics include the analysis and graphical representation of stress and strain in rocks, deformation mechanisms and fabric development, the geometry and mechanics of folding and faulting, and structures related to intrusive bodies. Geologic map interpretation and cross-section construction are used to analyze the structural geology of selected regions. Three hours classroom and three hours laboratory a week; field trip(s). Prerequisite: 141 and 142, or permission of instructor. This course fulfills the DIV III lab science distribution requirement.
152. Earth Materials This gives students a basic understanding of the tools and techniques used in modern science to identify and characterize solid earth materials at the macroscopic (hand samples), microscopic (polarized light), and sub-microscopic (X-ray diffraction, Scanning Electron Microscopy) levels. Emphasis in the first part of the course will be on minerals, while the second part of the course will introduce students to characterization techniques of other solid earth materials (soils and rocks) and their conditions of formation. This course is required for the Earth Science major, and will be useful to students interested in agricultural science, archeology, environmental science, forensic science, planetary science, and solid state chemistry and physics. Three hours classroom and three hours laboratory a week. Prerequisites: 141 and 142, or permission of instructor. Completion of both 305 and 309 fulfills the WR requirement.
153. Igneous and Metamorphic Petrology A study of the solid-earth with emphasis on the processes that have shaped the large-scale evolution of the earth from its origin to the present. Lecture topics include meteorites and formation of the terrestrial planets, origin of the moon, the deep earth, chemical equilibria in magmatic systems, geochemical cycling in the solid earth, and isotope dating. The important magmatic and metamorphic systems of the earth are presented in a plate tectonic context. Prerequisite: 305. This course fulfills the QR distribution requirement.
154. Paleontology A systematic study of the invertebrate and vertebrate fossil groups, plants, and their evolution and relationships to living forms. Three hours classroom and three hours laboratory a week. Prerequisite: 141 or 142, or any 100-level BIOL course. This course fulfills the DIV III lab science distribution requirement.
155. Sedimentology and Stratigraphy A study of the processes and patterns of sedimentation as well as the spatial and temporal distribution of rock strata. This includes the origin, transportation, deposition, lithification, and diagenesis of sediments. Lithology, geochemistry, paleontology, geochronology, and seismology will be used to understand the history of rock strata. Three hours classroom and three hours laboratory a week. Prerequisite: 141 and 142, or permission of instructor. Completion of both 305 and 309 fulfills the WR requirement. This course fulfills the DIV III lab science distribution requirement.
156. Special Topics In-depth studies in special geological topics to be offered on the basis of need and demand. Recent topics have included Geology of PA, Origin of Life, Quaternary Geology, and Instrumental Analysis in Geology. Prerequisite: 141 or 142.
157. Advanced Applications in GIS The course is intended as a continuation of the introductory course on Geographic Information Systems, 218, and will concentrate on more advanced discussions and techniques related to spatial analysis and GIS project design. The main focus of the course will be on using higher-level GIS methods to investigate and analyze spatial problems of varying complexity; however, the specific project and topical
applications will vary depending on student interests. Students will be required to develop and complete an individual spatial analysis project that incorporates advanced GIS techniques. Prerequisite: ENST 218 or ERSC 218 or ARCH 218 or equivalent GIS experience. Three hours of classroom and three hours of laboratory per week. This course is cross-listed as ENST 318 and ARCH 318. Offered every two years.
158. Hydrogeology An in-depth study of the interrelationships of geologic materials and processes with the occurrence, distribution, movement, and chemistry of water on and near the earth's surface. Topics include the hydrologic cycle; recharge, flow, and discharge of groundwater in aquifers; groundwater quality, contamination, development, management, and remediation. Practical experience will be gained in siting, drilling, testing, and monitoring water wells at the college's water well field laboratory. Prerequisite: 220. This course is cross-listed as ENST 320. This course fulfills the QR distribution requirement. Offered every two years.
159. Chemistry of Earth Sciences An introduction to the origin, distribution, and behavior of elements in the geochemical cycles and processes of the atmosphere, hydrosphere, and lithosphere. Topics include the chemistry of magma, hydrothermal fluids, weathering, fresh and ocean waters, sediment digenesis, hydrocarbons, and metamorphism. Includes radiometric dating and stable isotope applications. Lab will focus on sampling, instrumental analysis, and data interpretation of earth materials. Prerequisites: CHEM 141 and ERSC 141 and 142, or permission of instructor.
160. Senior Field Camp An advanced course in geological field methods. In a typical field camp experience students make maps in stratified and crystalline terranes, with rocks in varying degrees of deformation. Note: ERSC 491 is not regularly offered by Dickinson College. Students wishing to complete the capstone experience requirement with a field camp experience should plan to complete an approved summer field course offered by another collegiate institution. For Senior ERSC majors.

## East Asian Studies

## Major

11 courses.

## Required Courses:

1. JPNS 211, 212 or CHIN 211, 212 (or equivalent)
2. EASN 101
3. One course that focuses on an East Asian country that is not the focus of language study
4. One EASN 300-level Colloquium
5. EASN 490 (senior research)

## Electives:

1. Three humanities courses focusing on East Asia (including one literature course)

EASN 201
EASN 202
EASN 203
EASN 205
EASN 305
ARTH 208
ARTH 210
RELG 130
RELG 230
RELG 330
PHIL 246
2. Three social science courses focusing on East Asia

EASN 206
EASN 207
EASN 208
EASN 306
ANTH 232
COCV 105 (when topic is relevant)
HIST 120
HIST 361
HIST 215 (when topic is relevant
HIST 404 (when topic is relevant)
INBM 200
INBM 300 (when topic is relevant)
POSC 190 (when topic is relevant)
POSC 254
POSC 255
POSC 290 (when topic is relevant)
Other courses on Asia with departmental consent
NOTE: Two upper-level language courses (JPNS 231/232; CHIN 231/232) may be substituted for one elective from the humanities (but not literature) and one elective from the social sciences.

## Minor

Six courses including two language courses in Japanese or Chinese beyond the 100 -level and at least four other East Asian courses, one of which could be an advanced language course. Students already proficient in Chinese or Japanese through the 232-level must take, as at least one of their six courses, a language course appropriate to level of proficiency. In addition, and for all students, one of the six courses should be either EASN 101 or a course that includes the country that is not the focus of language study.

## Honors in the Major

Any consideration for Honors in East Asian Studies takes GPA within the major and overall GPA into account but is neither precluded nor guaranteed by them. Oral presentations, fielding of questions, and the exhibition of an overall mastery of the research subject and its context comprise the major criteria for the awarding of Honors. On the basis of a composite of these factors, the EASN faculty may decide to award honors to deserving students.
Announcements of Honors will occur at Commencement exercises.

## Courses

101. Introduction to East Asia An interdisciplinary study of East Asian civilizations. The course provides a framework for understanding by introducing students to traditional social and cultural patterns in East Asia and to the variety of transformations that have taken place there. This course fulfills the Comparative Civilizations distribution requirement.
102. Chinese Literature This course is a survey of Chinese literature from 3000 years ago to the present. By looking at its origin in ancient myths, folklore and Taoist philosophy; examining the impact of Confucianism, Buddhism and certain historical events; tracing the development of genres and literary traditions, and sampling masterpieces, students will get an overview of Chinese literature and become familiar with the major writers in both premodern and modern periods. This course fulfills the DIV I.b. and Comparative Civilization distribution requirements.
103. Japanese Literature This course is an introduction to Japanese literature from the earliest times to the present. While introducing great works and important genres of Japanese literature (in English translation), the course will
explore various issues central to this literature, such as love, death, national identity, nature, gender and literary genre, while placing the works in their historical and cultural contexts. This course fulfills the DIV I.b. and Comparative Civilizations distribution requirements.
104. Topics in East Asian Literature Selected topics in East Asian Literature; e.g., Chinese Women in Literature, Modern Japanese Literature, Pre-Modern Japanese Literature. This course fulfills the DIV I.b. distribution requirement.
105. Topics in East Asian Humanities Selected topics in East Asian humanities: e.g., Japanese Women, Modern China through Film, Women's Images in Chinese Film, Japanese Architecture. This course fulfills the DIV I.a. or DIV I.c. distribution requirement, depending on topic and the Comparative Civilizations distribution requirement.
106. Topics in East Asian Society Selected topics in East Asian society: e.g., Modern Japanese Culture, Chinese Society, Chinese Emperors, The Chinese City. This course fulfills the DIV II social sciences and Comparative Civilizations distribution requirements.
107. Law, Politics, and Society in Asia This course examines the interaction between law, legal institutions and citizens in China, Japan and India. Covering history and the contemporary scene, the course focuses on how law works in practice and is understood and used by ordinary people in Asia. It covers areas such as marriage and divorce, the legal profession, lost property, civil rights, the environment, sexuality, mediation, land development and property, among others. Comparisons between the United States and Asia, as well as between Asian countries, will be emphasized. This course is cross-listed as POSC 259 and LAWP 259.
108. Colloquium in East Asian Humanities Intensive discussion of topics in East Asian Humanities. Designed for majors and for non-majors who have taken courses in related fields. This course satisfies the Comparative Civilizations and, depending on the topic, Division I.A. or Division I.C. distribution requirement. Topics include: Chinese Culture in "The Dream of the Red Chamber", Strange Stories from a Chinese studio, Issues of Identity among Asian-Americans, the films of Akira Kurosawa, Images of Japan in the West, Issues of Love and Gender in Modern Japanese Literature, Kyoto School Philosophy, Japanese Landscape Architecture. Prerequisite: East Asian Studies majors and non-majors who have taken courses in related fields or permission of the instructor. This course fulfills the Comparative Civilizations distribution requirement.
109. Colloquium on East Asian Society Intensive discussion of topics on East Asian Society. Designed for majors and for non-majors who have taken courses in related fields. This course satisfies the Division II and Comparative Civilizations distribution requirements. Topics include: Beijing and Shanghai: A Tale of Two Cities, Sino-Japanese Wars, Chinese Emperors, the Chinese Diaspora, Marriage Laws in Modern China, Meiji Restoration, Aristocracy in Ancient Japan, Samurai Culture, Japanese Constitutions. Prerequisite: East Asian Studies majors and non-majors who have taken courses in related fields or permission of the instructor. This course fulfills the DIV II and Comparative Civilizations distribution requirements.
110. Interpreting the Chinese Cultural Revolution This seminar examines the varying approaches and methodologies scholars have adopted in studying the Great Proletarian Cultural Revolution in China (1966-1976), one of the most important political events in modern Chinese history. While the course does cover some history, its approach is mainly analytical to formulate effective research results. How can we know if a certain methodology is appropriate? How have primary and secondary sources been used to understand this complex event? The goal is to teach students about what happened during the Cultural Revolution and how scholars have studied it. Prerequisite: 101. This course fulfills the DIV II social sciences and Comparative Civilizations distribution requirements. Offered every two years.
111. Senior Research Leading to a senior thesis and jointly supervised by at least two faculty in the program. (See above: Honors in the Major.)

## The following course is offered in China:

207. China Practicum An intensive in-country introduction to Chinese culture and society. The course is particularly suited to students who have not had a chance to take two years of Mandarin Chinese language instruction and/or are not able to take advantage of the College's semester or year-long program in China. The course will introduce students to various aspects of Chinese society and culture and will link classroom study to outside-the-classroom and on-site experiences. The latter will include academic excursions to places of historical and cultural interest as well as to institutions like factories, schools, businesses, community organizations, and recreation areas that exemplify contemporary Chinese life. Course content will vary with the particular expertise and interests of the instructor(s) and curricular needs. This course fulfills the Comparative Civilizations distribution requirement.

## The following course is offered in Japan:

208. Japan Practicum An intensive in-country introduction to Japanese culture and society. The course is particularly suited to students who have not had a chance to take two years of Japanese language instruction and/or are not able to take advantage of the College's semester or year-long program in Japan. The course will introduce students to various aspects of Japanese society and culture and will link classroom study to outside-the-classroom and on-site experiences. The latter will include academic excursions to places of historical and cultural interest as well as to institutions like factories, schools, businesses, community organizations, and recreation areas that exemplify contemporary Japanese life. Course content will vary with the particular expertise and interests of the instructor(s) and curricular needs. This course fulfills the DIV II social sciences and Comparative Civilizations distribution requirements.

## Chinese

## Minor

Five courses: Four Chinese language courses beyond Intermediate CHIN 212. One additional 300-level (or higher) Chinese language course or one non-language East Asian course on China.

NOTE: The Chinese minor is open to non-East Asian Studies majors only.
*101, 102. Elementary Chinese A study of the fundamentals of Mandarin Chinese, including grammar, reading, and writing using both traditional and simplified characters, pinyin romanization, pronunciation, and conversational skills.
*211, 212. Intermediate Chinese An enhancement of the oral and written skills of elementary language study. In addition, students will learn to use dictionaries to translate original literary works. Extra conversational work will be included, geared to understanding and participating in Chinese culture. Prerequisite: 102, or the equivalent.
*231, 232. Advanced Chinese Advanced reading, writing, speaking, and understanding of the Chinese language for students who have completed Chinese 212. This course aims to enhance the students' understanding of Chinese culture and introduce them to issues in contemporary China through reading and discussion. Prerequisite: 212 or the equivalent.
*361, 362. Advanced Chinese II Reading of selected literary works by modern Chinese writers and articles from Chinese newspapers and magazines. These courses involve more sophisticated conversation and composition on important social, political, and economics issues in China. Prerequisite: 232 or permission of the instructor.
380. Topics in Modern Chinese Reading The course covers a selected topic or selected topics, such as Chinese literature, culture, politics, economy, education, ethnicity, law, and history. It analyzes the readings with focuses on both the topic(s) and the language. It advances students' speaking, reading, and writing proficiency in specific subjects while broadening their background and native knowledge in these areas too. It can be taken more than once
when the topics are different. Prerequisite: 362 or the equivalent. This course fulfills the WR distribution requirement.

## Japanese

## Minor

Five courses: Four Japanese language courses beyond Intermediate JPNS 212. One additional, 300-level (or higher) Japanese language course or one non-language East Asian course on Japan.

NOTE: The Japanese minor is open to non-East Asian Studies majors only.
*101, 102. Elementary Japanese These courses establish the basic language skills including listening, speaking, reading and writing. These courses also provide students with a brief overview of Japanese culture.
*211, 212. Intermediate Japanese The aim of these courses is the mastery of the basic structure of Japanese language and communicative skills. The student will have an opportunity to get to know more of Japanese culture. Prerequisite: 102 or permission of the instructor.
*231, 232. Advanced Japanese The emphasis in these courses is placed on enhancing the students' fluency and acquiring increasingly creative skills through composition, oral presentation and discussion. Prerequisite: 212 or permission of the instructor.
*361, 362. Advanced Japanese II The emphasis in these courses is placed on polishing and refining the students' language skills. Emphasis is placed on covering more sophisticated materials such as newspapers, magazine articles, film and literature. Prerequisite: 232 or permission of the instructor.

## Economics

## Major

$111,112,268,278,288$, three other economics electives, and a senior economics seminar are required for the major. At least two of the economics electives must be at the 300-level or above. In addition, majors are required to complete a calculus course (MATH 170) and a statistics course (MATH 121 or MATH 225 or INBM 220 [for INBM majors only]). INBM 220, Managerial Economics, can be used as a 200-level elective for both the major and minor in Economics. INBM 200, Global Economy, can only be used as a 200-level elective for the minor.

## Minor

Six economics courses including 111 and 112 and four other economics electives at the 200-level or above. INBM 200 and INBM 220 both count towards the minor.

## Suggested Four Year Program

First Year: Fall: 111, and a calculus or statistics course as noted in the requirements. Spring: 111 or 112 and a calculus or statistics course.

Second Year: Fall: 112 or an intermediate theory course (268, 278, or 288 ) and any remaining math requirements. Spring: Additional intermediate courses (268, 278, or 288)

Third Year: Fall: any remaining intermediate theory courses and a 200 or 300 level elective. Spring: 200 or 300level economics electives. Note: There is enough scheduling flexibility for study abroad in the junior year.

Fourth Year: Fall: Senior Seminar and/or 200 or 300 level economics elective; Spring: Senior Seminar and/or 200 or 300 level economics elective.

## Teacher Certification

For information, see the Director of Teacher Education, or visit the Education Department web site.

## Independent Study

Each faculty member has special fields of study and will usually be available for advice in that area. No more than two independent study or tutorial study enrollments may be counted toward the major and they must conform to the appropriate level within the major.

## Honors in the Major

Any student with a 3.33 average in the major may undertake a two-course independent research project. Honors in the major will be awarded if the two courses are over and above the nine required courses, if a grade of A or A - is earned on the project, and if the departmental oral examination on the project is successfully completed.

## Courses

100. Contemporary Economics A general introduction to the subject matter and analytical tools of economics as a social science, with particular emphasis on contemporary economic issues such as poverty, inequality, unemployment, inflation, international trade, environmental deterioration, economic growth, competition, and monopoly. Designed for those not intending to major in economics or who want to find out what economics is all about. This course does not count towards the major or minor in economics. Students who have taken 111 and/or 112 cannot take this course for credit.
101. Introduction to Microeconomics A study of the fundamentals of economic analysis and of basic economic institutions, with particular emphasis upon consumer demand and upon the output and pricing decisions of business firms. The implications of actions taken by these decision-makers, operating within various market structures, upon the allocation of resources and the distribution of income are examined. Special attention is given to the sociopolitical environment within which economic decisions are made. This course fulfills the DIV II social sciences and $Q R$ distribution requirement.
102. Introduction to Macroeconomics A study of the fundamentals of economic analysis and of basic economic institutions, with particular emphasis upon national output, employment, and price levels. The monetary and financial system is explored together with problems of economic stability. Monetary and fiscal policy procedures are analyzed and evaluated in light of the current economic climate. Special attention is given to the historical development of major economic institutions. Prerequisite: 111.
103. A Contemporary Economic Issue A current economic topic that has important public policy implications is examined. The topic, to vary from time to time, will be announced prior to registration. Prerequisite: 111 and/or 112 or 100 depending on the topic.
104. Environmental Economics A study of human production and consumption activities as they affect the natural and human environmental systems and as they are affected by those systems. The economic behavioral patterns associated with the market economy are scrutinized in order to reveal the biases in the decision-making process which may contribute to the deterioration of the resource base and of the quality of life in general. External costs and benefits, technological impacts, limits to economic growth, and issues of income and wealth distribution are examined. A range of potential policy measures, some consistent with our life style and some not, are evaluated.This course is also cross-listed as ENST 222. Prerequisite: 111 or 100.
105. American Capitalism and Social Justice Designed for those interested in social activism and social justice, this course draws on critical perspectives from Political Economy, American Studies, and Sociology to examine how power is structured in American capitalism across institutions including the social relations of production and distribution, corporations, and markets. Special attention is given to the ways in which powerful economic groups and organizations are able to exert economic control, influence government, and dominate American institutions, such as the media, that shape American culture. Looking beyond capitalism, social movements for greater social and economic justice, and greater economic and political democracy are also examined. Prerequisite: 100 or 111 recommended but not required.
106. Poor in America This course explores the cultural and ideological basis of American beliefs about economic inequality and poverty as well as the nature, extent, and causes of poverty. It focuses on labor markets from economics and political economy perspectives, and it covers human capital and education, job availability and skill requirements; race, class, and gender discrimination; and upward and downward mobility. The history of antipoverty and welfare policy, as well as current policy debates, is also explored. Prerequisite: 100 or 111 recommended but not required. This course fulfills the DIV II social sciences and US Diversity distribution requirements.
107. Economic Analysis of Policy This course introduces the basic economic techniques used in the analysis of public policy and applies these techniques to a variety of social problems and policies. The economic techniques taught include the analysis of market failure, benefit-cost analysis, and economic impact analysis. Applied topics vary, but are likely to include education and job training, welfare reform, subsidies for the arts, and housing policy for the poor, among others. Whenever possible, this course will include one or more group research projects related to the Central Pennsylvania region. Past projects have included the economic impact of Dickinson College and an analysis of the economic and social conditions in Carlisle's Hope Station neighborhood. Prerequisite: 111 or permission of the instructor. This course fulfills the DIV II social sciences and QR distribution requirements.
108. Latin American Economies The goal of this course is to survey the economic history, environment, and institutions of Latin American countries, as well as the current problems facing Latin America and their possible solutions. Among the topics to be considered are the region's colonial heritage, industrialization strategies, agricultural reforms, debt crises, attempts at regional integration (including NAFTA), and efforts to revise the role of the state. Prerequisite: 100 or 111/112, or permission of the instructor.
109. Intermediate Macroeconomic Theory Neoclassical theories of economic behavior in the aggregate. Models will be used as a framework for analyzing the determination of the level of national output and for explaining fluctuations in employment, the price level, interest rates, productivity, and the rate of economic growth. Policy proposals will be appraised. Prerequisite: 111 and 112; MATH 170; and MATH 121 or MATH 225 or INBM 220 (for INBM majors only).
110. Intermediate Microeconomic Theory Neoclassical theory of relative prices of commodities and productive services under perfect and imperfect competition. The role of prices in the allocation and distribution of resources and commodities. Economic behavior of individual economic units like consumers, firms, and resource owners. Prerequisite: 111 and MATH 170.
111. Contending Economic Perspectives A study of heterodox economic theories including radical, postKeynesian, institutional, steady state, and neo-Austrian economics. The historical evolution of these different perspectives is traced and the core theory and methods of each is appraised. Prerequisite: 100 or 111/112.
112. Special Topics See ECON 214 above. Special advanced topics. Prerequisite dependent upon topic.
113. Economics of Natural Resources This course uses microeconomics to analyze the use and conservation of natural resources, including energy, minerals, fisheries, forests, and water resources, among others. Broad themes include the roles of property rights, intergenerational equity, and sustainable development in an economy based on resource exploitation. Prerequisite: 222.
114. Public Finance Theoretical analysis of the interaction of the public and private sectors emphasizing problems of allocation and distribution. Topics include economic rationales for government, public expenditure theory, redistribution of income, collective decision making, and taxation. Neoclassical approaches predominate; however, some alternative approaches will be explored. Prerequisite: 278 or permission of the instructor.
115. Money and Banking A study of the role of money and credit in the U.S. economy. The nature of money, the structure of the banking system in the context of a rapidly changing financial institutional environment, and the Federal Reserve System are examined. Various theories of money as guides to monetary policy are compared and contrasted. Neoclassical approaches will predominate, although some alternative approaches will be explored. Prerequisite: 112 or 100. Recommended: 268.
116. International Economics An analysis of the determinants of international trade patterns, the causes and consequences of public policies to control trade, the operation of the international monetary system, and its effect on national economies. In addition, rich and poor country relationships, theories of imperialism, and the emerging role of multinational corporations are considered. While the neoclassical approach dominates, alternative paradigms will be explored. Prerequisite: 268 and 278.
117. Political Economy of the Third World An analysis of the causes of and proposed solutions to world poverty from an international political economy perspective. Includes a study of the colonial legacy of the Third World, underdevelopment as a regressive process, alternative development strategies, social and political structures, and simple growth and planning models. Neoclassical, structuralists, dependency, and Marxist approaches are explored. Designed for economics majors and other students interested in international studies and Latin American Studies. Prerequisite: 111 and 112, or 100. Offered every other year.
118. Industrial Organization and Public Policy A study of the relationships between market structure, conduct, and economic performance in U.S. industry. Emphasis will be on the manufacturing sector and specific industries will be examined. A brief introduction to antitrust and regulation is also covered. Debate within the main stream is examined. Prerequisite: 278.
119. The Economics and Politics of Regulation This course examines the political and economic underpinnings of regulation in the American economy and the economic effects of those regulations. Topics covered include the political economy of regulation, direct regulation of monopoly market, and public policy towards non-monopoly sources of allocative inefficiency. Prerequisite: 278.
120. The Economics of Labor An analysis of labor market issues and policies. Topics covered include discrimination, anti-discrimination policy, the minimum wage, health and safety policy, and other labor market policies and institutions. While the neoclassical approach dominates, other approaches will be explored. Prerequisite: 278 or permission of the instructor.
121. Topics in Economic History An introduction to a variety of controversial issues in European and American economic history. Topics include the transition from feudalism to capitalism, the effects of British mercantilist policies on the colonies, the economics of slavery, and what caused the Great Depression. Emphasis is on issues in 19th and 20th century U.S. economic history. A variety of theoretical perspectives are explored. Prerequisite: 111 and 112.
122. Alternative Economic Systems A study of the goals and means of economic systems that are fundamentally different from our own. The systems considered are both theoretical models, such as those of perfectly competitive capitalism and market socialism, and actual cases, such as the Soviet Union, China, Yugoslavia, Japan, and Cuba. Countries studied vary. Prerequisite: 111 and 112.
123. History of Economic Thought A critical appraisal of the origins and evolution of significant economic theories. Selected writings are analyzed in detail as representative expressions of major paradigms within the discipline. Prerequisite: 111 and 112.
124. Econometrics Theory and applications of multiple regression analysis. The specification and estimation of econometric models, hypothesis testing, and interpretation of results. Emphasis is on practical applications from macro- and microeconomics using both cross-section and time-series data. Prerequisite: 268, 278, MATH 121 and 170.
125. Mathematical Economics Selected topic, to be announced prior to the course request period, in theoretical or applied economics, using mathematical or statistical techniques. Prerequisite: 268 and/or 278 plus MATH 170 or permission of the instructor.

495, 496. Economics Seminar A reading, research, and conference course on a selected economics topic. Student seminar choices must be approved by the department. Prerequisite: 268, 278, and 288 or permission of the instructor.

## Education

## Minor

Option I. For students seeking teacher certification. Students seeking certification in the areas for which Dickinson College is accredited by the Pennsylvania Department of Education will complete the coursework as listed below (Teacher Certification Program), along with the student teaching experience (EDUC 461-462), earning a total of 9 credits in the Education Department.

Option II. For student seeking private school certification without completing the minor in Education. Students seeking private school certification only will complete EDUC 121 and EDUC 221 earning a total of two credits in Education. While this option provides limited preparation for the job market, it enables students to earn Private School Certification from the Pennsylvania Department of Education. Students must major in any of the disciplines in which the Pennsylvania Department of Education offers certification. If students major in one of the disciplines in which Dickinson offers certification, it is recommended that they also complete EDUC 350 and EDUC 352 or 353 or 354 or 355 or 356 , and 458.

## NOTE: Students are responsible for providing their own transportation for all field experiences, internships and student teaching.

## Certificate

Upon completion of the Education Program, required PRAXIS series testing, and the baccalaureate degree, students are eligible for Pennsylvania's secondary school (grades 7-12) certification in their major areas. Pennsylvania has reciprocity agreements with 46 other states. The department offers a minor. Specific information about requirements and the program can be obtained from the Education Department, or visit the Education Department web site.

## Suggested Four Year Program

First Year: Begin Major Field, Education 121
Second Year: 221; 350
Third Year: 352-356; 458; Application to the Professional Semester
Fourth Year: Professional Semester (459, 460, 461-462)
NOTE: Students going abroad during the junior year should apply to the program before their departure and take 352-356 during their fourth year.

## Teacher Certification Program

The teacher education program consists of (1) foundational course work, (2) methods coursework and (3) the professional semester in teacher education. Certification programs include biology, chemistry, earth and space
science, English, French, general science, German, Latin, mathematics, physics, Spanish, and social studies (requires a major in history, political science, economics or American Studies with coursework in the other areas). For additional information, visit the Education Department web site.

## Foundational Coursework

EDUC 121: Social Foundations of Education; EDUC 221: Educational Psychology.

## Methods Coursework

EDUC 350: Teaching English Language Learners in an Inclusive Classroom; EDUC 352: Issues/Trends in Teaching English OR EDUC 353: Issues/Trends in Teaching Foreign Language OR EDUC 354: Issues/Trends in Teaching Social Studies OR EDUC 355: Issues/Trends in Teaching Science OR EDUC 356: Issues/Trends in Teaching Math; EDUC 458: Curriculum Design.

## Professional Semester Coursework

EDUC 459: Teaching Special Needs Students in an Inclusive Classroom; EDUC 460: Managing the Inclusive Classroom; EDUC 461-462: Student Teaching (two courses).

## Student Organizations

Kappa Delta Pi is an International Honors Society in Education. KDP was founded in 1911 and is one of the oldest discipline-specific honors societies.

Dickinson College strongly supports pre-service teachers in KDP and values their passion and service to their fields. KDP members are vibrant individuals committed to their academic integrity and the field of education.

Education minors can apply for membership in Kappa Delta Pi at the end of the first semester of their sophomore year. Admission to Kappa Delta Pi will be based on academic grade point average and service to the education profession. Kappa Delta Pi members will have the opportunity to apply for Dickinson College sponsored scholarships during their junior or senior years. Those scholarships will provide either full tuition for a ninth semester (one semester beyond graduation) or a stipend during their student teaching semester. In addition the college provides a budget for speakers, conference attendance, and other pre-professional activities for members of Kappa Delta Pi.

## Courses

121. Social Foundations of American Education An historical perspective on the teaching profession and on purposes of schooling in the United States with a particular focus on the changing demographics of American school children. The range of diversity found currently in American public schools and the issues related to that are explored. Issues related to inclusion, exceptionalities, race, class, gender, and multiple intelligences are explored. The course includes the legal rights and responsibilities of both students and teachers as they relate particularly to special needs students and English Language Learners. In this course, students begin to develop their individual philosophies of education and to reflect on how their beliefs about schooling in the United States compare with those held in the course of American history. (1 course credit) This course fulfills the U.S. Diversity requirement for graduation.
122. Educational Psychology An examination of physical, cognitive, linguistic, social, and moral developmental theories as well as theories of learning and the teaching and assessment practices in middle-school and secondary classrooms derived from those theories. The course also provides an introduction to designing, delivering, and adapting instruction for special needs students with a range of disabilities and for English Language Learners. The course includes an introduction to standardized tests and teacher-made assessments. In this course, students continue to develop their individual philosophies of education begun in EDUC 121 and to reflect on how their beliefs about learning, teaching, and assessment compare with those of major theorists. The course includes a 20-hour fieldexperience in an area secondary school that requires students to obtain PPD tine test, FBI Background Check, Child Abuse Clearance, and Criminal Background Check at the students' expense. Prerequisite: 121. (1 course credit)
123. Models of Instruction for Diverse Learners An introduction to instructional planning and to current researchbased trends in instructional methodology for a variety of content areas for both transescent and adolescent learners with a particular emphasis on meeting the needs of diverse learners. Primary activities of the course include determining intended learning outcomes, choosing appropriate instructional models, selecting effective instructional materials and technologies, and planning for implementation of lessons as well as critiquing the implementation of instructional models. The course requires a 15 clock hour field experience in an area middle or secondary school. Prerequisites: 121, 221. Co-requisite: 343. (1 course credit)
124. Student Assessment An examination of student-involved classroom assessment issues and strategies ranging from the role of assessment to defining achievement targets to assessment alternatives. Communications related to assessment including classroom perspectives on standardized testing, report cards, student portfolios, and conferences are also addressed. An on-going project based on planning and developing various forms of assessment needed to determine student achievement of intended learning outcomes for a unit of instruction provides meaningful practice within the course framework. Prerequisites: 121, 221. Co-requisite: 333. (.5 course credit)
125. Teaching English Language Learners in an Inclusive Classroom An examination of language systems, acquisition of multiple languages, differences between academic language and social language, communications between school personnel and families of English Language Learners, and collaboration among personnel responsible for the education of ELL?s. In addition, the course includes planning for and implementing standardsbased instruction and assessment in a linguistically diverse setting. In this course, students continue to develop their individual philosophies of education begun in EDUC 121 and developed in EDUC 221 and to reflect on how their beliefs about teaching English Language Learners compare with current thinking about best practice in the teaching of English Language Learners. This course includes a 10-hour field experience. Prerequisites: 121, 221. (.5 course credit)
126. Issues and Trends in Teaching English An introduction to the theoretical and practical aspects of teaching English in middle and secondary schools. The course also addresses adolescent literature, the reading and writing processes useful within the content area as well as the use of instructional technology in the middle/secondary English classroom. In addition, the course includes planning, instructional, and assessment practices that provide for the full integration of special needs students into the middle/secondary English class while meeting the needs of students without special needs. In this course, students continue to develop their individual philosophies of education begun in EDUC 121 and developed in EDUC 221 and to reflect on how their beliefs about the place of English in the overall curriculum, about the teaching and assessment of English, and about the role of English teachers in accommodating the needs of all learners compare with current thinking about best practice in the teaching of English. The course includes a 15-hour field experience in a middle or secondary English class. It also includes a 20-hour Lab focused on teaching special needs students and a 3-hour lab focused on teaching English Language Learners. Prerequisites: 121, 221, 350. (1 course credit)
127. Issues and Trends in Teaching Foreign Languages An introduction to the theoretical and practical aspects of teaching foreign languages in middle and secondary schools. The course also addresses the reading and writing processes that are useful within the content area as well as the use of instructional technology in the middle/secondary foreign language classroom. In addition, the course includes planning, instructional, and assessment practices that provide for the full integration of special needs students into the middle/secondary foreign language class while meeting the needs of students without special needs. In this course, students continue to develop their individual philosophies of education begun in EDUC 121 and developed in EDUC 221 and to reflect on how their beliefs about the place of foreign languages in the overall curriculum, about the teaching and assessment of foreign languages, and about the role of foreign language teachers in accommodating the needs of all learners compare with current thinking about best practice in the teaching of foreign languages. The course includes a 15-hour field experience in a middle or secondary Foreign Language class. It also includes a 20-hour Lab focused on teaching special needs students and a 3-hour lab focused on teaching English Language Learners. Prerequisites: 121, 221, 350. (1 course credit)
128. Issues and Trends in Teaching Social Studies An introduction to the theoretical and practical aspects of teaching social studies in middle and secondary schools. The course also addresses the reading and writing processes that are useful within the content area as well as the use of instructional technology in the middle/secondary social studies classroom. In addition, the course includes planning, instructional, and assessment practices that provide for
the full integration of special needs students into the middle/secondary social studies class while meeting the needs of students without special needs. In this course, students continue to develop their individual philosophies of education begun in EDUC 121 and developed in EDUC 221 and to reflect on how their beliefs about the place of social studies in the overall curriculum, about the teaching and assessment of social studies, and about the role of social studies teachers in accommodating the needs of all learners compare with current thinking about best practice in the teaching of social studies. The course includes a 15-hour field experience in a middle or secondary social studies class. It also includes a 20-hour Lab focused on teaching special needs students and a 3-hour lab focused on teaching English Language Learners. Prerequisites: 121, 221, 350. (1 course credit)
129. Issues and Trends in Teaching Science An introduction to the theoretical and practical aspects of teaching science in middle and secondary schools. The course also addresses the reading and writing processes that are useful within the content area as well as the use of instructional technology in the middle/secondary science classroom. In addition, the course includes planning, instructional, and assessment practices that provide for the full integration of special needs students into the middle/secondary science class while meeting the needs of students without special needs. In this course, students continue to develop their individual philosophies of education begun in EDUC 121 and developed in EDUC 221 and to reflect on how their beliefs about the place of science in the overall curriculum, about the teaching and assessment of science, and about the role of science teachers in accommodating the needs of all learners compare with current thinking about best practice in the teaching of science. The course includes a 15hour field experience in a middle or secondary Science class. It also includes a 20-hour Lab focused on teaching special needs students and a 3-hour lab focused on teaching English Language Learners. Prerequisites: 121, 221, 350. (1 course credit)
130. Issues and Trends in Teaching Mathematics An introduction to the theoretical and practical aspects of teaching mathematics in middle and secondary schools. The course also addresses the reading and writing processes that are useful within the content area as well as the use of instructional technology in the middle/secondary mathematics classroom. In addition, the course includes planning, instructional, and assessment practices that provide for the full integration of special needs students into the middle/secondary mathematics class while meeting the needs of students without special needs. In this course, students continue to develop their individual philosophies of education begun in EDUC 121 and developed in EDUC 221 and to reflect on how their beliefs about the place of mathematics in the overall curriculum, about the teaching and assessment of mathematics, and about the role of mathematics teachers in accommodating the needs of all learners compare with current thinking about best practice in the teaching of mathematics. The course includes a 15-hour field experience in a middle or secondary mathematics class. It also includes a 20-hour Lab focused on teaching special needs students and a 3-hour lab focused on teaching English Language Learners. Prerequisites: 121, 221, 350. (1 course credit)
131. Topics in Education This course is organized around several research topics, such as: literacy and numeracy, schooling in cities, the history of Western educational thought, the liberal arts curriculum, systems of schooling in European and Asian countries, graduate and professional schools, the testing industry, political education, and the Supreme Court and public schooling. Open to juniors and seniors.
132. Curriculum Design An introduction to the historical and theoretical underpinnings that inform contemporary curriculum design with a particular focus on unit and course planning. Students design an integrated unit that includes a rationale for the unit within both program and course structures. The unit will reflect the individual student's particular philosophical stance, a complementary design approach, appropriate student learning outcomes, the organization and sequencing of appropriate teaching strategies, and assessment methods with particular emphasis on meeting the needs of a diverse student population while engaging all learners. Prerequisites: 121, 221, 350, 352-356. (1 course credit)

## The Professional Semester

Requires a 3.5 week block of intensive coursework and 12 weeks of full-time supervised student teaching.
459. Teaching Special Needs Students in an Inclusive Classroom A focus on the use of collaborative consultative skills and models in providing optimal learning experiences for students with special needs. The course also emphasizes effective monitoring of student progress and communicating that data to the appropriate parties in order to continually adjust both instruction and assessment. In this course, students continue to develop their individual
philosophies of teaching begun in EDUC 121 and developed in EDUC 221, 350, 352-356, and 458 and to reflect on how their beliefs about teaching special needs learners compare with current thinking about best practice in the teaching of special needs learners. Prerequisites: 121, 221, 350; 352 or 353 or 354 or 355 or 356; 458 and Admission to the Professional Semester. Co-requisites: 460, 461, 462. (1 course credit)
460. Managing the Inclusive Classroom A focus on providing an optimal learning environment for all students through the management of the physical classroom environment as well as the establishment of appropriate classroom rules and procedures. The course includes an examination of a variety of models of classroom management that support the maintenance of a positive learning environment. Students will develop a classroom management plan that they will implement during their student teaching experience. In addition, students will continue to develop their philosophy of teaching in their discipline by integrating their beliefs about classroom management and reflecting on how their own beliefs compare to those of various management theories. Prerequisites: 121, 221, 350; 352 or 353 or 354 or 355 or 356; 458 and Admission to the Professional Semester. Co-requisites: 459, 461, 462. (.5 course credit)

461-462. Student Teaching Students teach full-time for 12 weeks in the cooperative assignment. Both the college supervisor and the cooperating teacher provide observation and evaluation of student teacher performance in teaching. Part of the assignment involves teaching students with special needs and working cooperatively with resource personnel in providing optimal learning experiences for those students. Included as part of the course are several evening seminars on preparing to enter the teaching profession. Preparation for entering the profession includes developing a professional portfolio that includes the final development of their individual philosophies of education based on their student teaching experiences. Travel and personal expenses incurred are the responsibility of the student. Prerequisites: 121, 221, 350, 352 or 353 or 354 or 355 or 356, 458, and admission to the professional semester. Co-requisites: EDUC 459 and 460. (3 course credits)
463. Seminar in Teaching An integrative seminar devoted to the on-going study of teaching pedagogy and practical problem solving in the classroom assignment. Topics vary depending on the interests and needs of the students, but may include professional associations, content-specific pedagogy, exceptional children and inclusion issues, education resources, and classroom management. Field trips and guest lectures are expected. One-half course. Meets 13 weeks, one afternoon for two hours coinciding with student teaching. Prerequisite: 121, 221, 333, 343 and admission to the professional semester. (. 5 course credit)

## English

## Major

Eleven courses, of which the following are required: 101, 220, six courses at the 300-level (two must be pre-1800 and two post-1800), 403 and 404. In addition, one elective to be selected from 101, 212, 213, 214, 218, or the 300level. Only one 339 creative writing may count toward the six 300 -level courses. At least two 300 -level courses must be taken at Dickinson. Majors must also complete ENGL 300, a P/F non credit research course, taken in conjunction with the first 300-level literature course (except ENGL 339.)

Students may declare an English major in the semester in which they are enrolled in 220. When they declare, students and their faculty advisors will jointly design a schedule of advanced courses which, taking into account student interests, offers some breadth in approach and subject matter while enabling an examination of a particular area in some depth.

Transfer students and others who need a special schedule for completing the major must have their programs approved by the chairperson.

## Minor

Six courses, including the two introductory courses $(101,220)$ and a minimum of three courses at the advanced literature level (320-399), at least one of which must involve works written before 1800 .

## Teacher Certification

Majors who wish to secure certification must take the following courses, preferably before enrolling in the professional semester of teacher certification: 211, 212, or $214 ; 213$ or $313 ; 403 / 404$. Also, two courses in literature written before 1800 and two courses in literature written after 1800. Students should select courses in American, English, and World literature to fulfill the certification requirements. Interested students should seek advice from both their advisor and the Director of Teacher Education.

For additional information, visit the Education Department web site.

## Independent Research, Independent Study, Student/Faculty Collaborative Research

Independent research is open to junior and senior majors. Independent studies in both literature and writing are open to sophomores, juniors, and seniors. The department distributes a list of professors and their specialties to assist students in developing suitable projects. Proposals are normally submitted during the semester before the study is to be undertaken.

## Honors in the Major

A student who wishes to be considered for honors in the major must be recommended by the faculty member who is instructing the section of 403/404 in which the student is enrolled. Each candidate must produce a manuscript of truly extraordinary merit (breadth, depth, and sophistication), beyond the normal standards of the grade of "A." A project recommended for honors shall have come about as a result of one's independent research culminating during the workshop semester (404), and shall be awarded only by a vote of the English Department upon the recommendation of a faculty committee appointed by the Chair.

An additional option exists for students who wish to pursue honors in a creative writing project. In this case, the project will be called ENGL 550: Independent Research and shall be undertaken in addition to the regular 403/404 sequence. The student assumes the responsibility to locate appropriate faculty direction for such a project, and at its conclusion the director shall decide whether or not to recommend the student's work for honors.

## Internships

Students who are interested should gain experience by writing for The Dickinsonian or The Dickinson Review, the college's literary journal. English majors have done internships with state and local government agencies, newspapers, public relations firms, and the media.

## Opportunities for Off-Campus Study

Majors and prospective majors should investigate opportunities early in their sophomore year. The Dickinson Program in Norwich, England, and other overseas programs can be integrated into an English major's curricular requirements. The department chairperson should be contacted for details.

## Co-Curricular Program

## Belles Lettres Society

Founded in 1786, the Belles Lettres Society is one of the oldest active literary societies in the country. In addition to sponsoring a variety of events for Dickinson writers and readers, Belles Lettres publishes The Dickinson Review, a national literary magazine.

## Courses

## Introductory Courses

These courses are designed to introduce students to serious literary study from a variety of perspectives, both intrinsic and extrinsic. They consist of entry-level courses in the major, the first of which is also offered for students who do not intend to major in English.
101. Texts and Contexts Close reading (formal analysis) of texts interpreted in the contexts (e.g., cultural, historical, biographical, economic, political) that shape and are shaped by them. Topics may include the African novel, early American literature, Caribbean literature, Shakespeare on film, the romance, the quest, images of women, 19th century literature, contemporary American fiction, and American Indian literature.
220. Critical Approaches and Literary Methods An introduction to the basic questions that one may ask about a literary text, its author, and its audience. Study of a limited selection of literary texts using several critical approaches. The course will also offer instruction in the elements of critical writing. The gateway to advanced literary study, this course is intended for students considering the English major and minor.Prerequisite: 101. Does not fulfill the DIV I. b. distribution requirement. This course fulfills the WR distribution requirement. Must be taken in residence at Carlisle campus.

## Rhetoric, Language, and Writing Courses

These courses, open to majors and non-majors alike, explore the nature of language and the rhetorical practices of expository and/or creative writing. These courses do not fulfill the DIV I. b. distribution requirement.
212. Writing: Special Topics A course in analytical thinking and writing which develops expository skills through the exploration of such topics as literature, popular culture, sport in American life, and journalism. Seminars, workshops, group tutorials, or individual instruction. This course fulfills the WR distribution requirement.
213. Structure of English The origin and growth of British and American English, along with a survey of grammatical notions and methodologies from the traditional to the transformational. NOTE: The topic in the fall semester is "The Structure of English Grammar." The topic in the spring semester is "The History of the English Language." This course fulfills the QR distribution requirement.
215. Introduction to Creative Writing: Memoir and Personal Essay A workshop on the writing of memoir and personal essay. Offered every two years.
216. Introduction to Creative Writing: Special Topics A writing workshop in a genre other than fiction, poetry, or memoir. May include screenwriting, playwriting, or other genres. Offered every year.
218. Creative Writing An introductory creative writing workshop in poetry and fiction.
312. Advanced Expository Writing Recommended for students with demonstrated competence in writing skills, this course pays special attention to sophisticated critical analysis, development of ideas, and style. Prerequisite: permission of the instructor on the basis of a writing sample.
313. Linguistics, the Scientific Study of Natural Human Language This course is concerned with the nature of language and communication, how it is structured and how it functions. In the first part of the course, we will deal with the structural components of language, of its sounds and words and syntax; in the second section we will discuss the properties of linguistic meaning and the ways speakers and groups of speakers differ from each other in the forms they use. Finally, we will examine how languages change over time and how languages are related. Prerequisite: 220, or the appropriate intermediate language course or permission of the instructor. This course fulfills the $Q R$ requirement.
316. Advanced Creative Writing: Special Topics Creative writing at the advanced level in genres other than poetry and fiction. Prerequisite: introductory course in appropriate genre.
317. Advanced Creative Writing: Fiction Writing and discussion of fiction. Prerequisite: 218 or permission of the instructor.
319. Advanced Creative Writing: Poetry Writing and discussion of poetry. Prerequisite: 218 or permission of the instructor.
417. Senior Creative Writing Workshop in Fiction Capstone workshop for students minoring in creative writing with an emphasis in fiction. Prerequisites: 101, 317.
419. Senior Creative Writing Workshop in Poetry Capstone workshop for students minoring in creative writing with an emphasis in poetry. Prerequisites: 101, 319.
300. Critical Approaches and Literacy Methods Research Lab This P/F non-credit research course introduces students to research methodology for advanced literary studies. ENGL 300 is a co-requisite with a student's first 300-level literature course (except ENGL 339).

## Advanced Courses in Literature, Theory, and Film

These courses deepen the discussions of the essential questions that one asks of literary texts, their authors, and their readers. As organized below, 300-level courses may emphasize one or more particular critical perspectives or reading methods, strengthening students' sense of themselves as readers. Courses at this level will ask students to evaluate and to make arguments based upon literary evidence and secondary sources while mastering various research techniques. NOTE: for all 300-level American literature courses, prerequisites are 220 or AMST 202 (American Studies majors only) or permission of the instructor.

Studies in Literature and Theory (320-329) Courses that highlight one or two critical perspectives in considering a body of literature or explore one or more literary theories.
320. History of Literary Theory A historical survey of Western conceptions of the use and meaning of literature, from Aristotle to the present. Prerequisite: 220 or permission of the instructor. Does not fulfill the Division I. b distribution requirement.
327. Feminist Theory Explores the connections between gender and literary expression by considering a variety of feminist theories (e.g., literary, cultural, psychoanalytic, deconstructionist) and primary texts. Prerequisite: 220 or permission of the instructor. Does not fulfill the DIV I. b. distribution requirement.
329. Special Topics in Literature and Theory May include Shakespeare and psychology, word and image, the dark side of human nature, new historicism and the romantics, or Marxist approaches to the detective novel. Prerequisite: 220 or permission of the instructor.

Studies in Form and Genre (330-339) Courses that focus upon the formal properties of various works, or study genres as they develop within or across historical periods and/or cultures.
334. The Lyric The lyric poem as English and American poets developed it from the 17th through the 20th century. Prerequisite: 220 or permission of the instructor.
335. Film Studies Study of classic and other films grouped in a variety of ways. Topics may include Shakespeare and the cinema, world film, and the European cinema. Prerequisite: 220 or permission of the instructor.
339. Special Topics in Form and Genre May include Renaissance tragedy, the romance, development of the novel, 17th-18th century satire and its classical models, or autobiography and memoir. Prerequisite: 220 or permission of the instructor.

Studies in Literature and Culture (340-349) Courses that emphasize the interplay of texts and their cultural or multicultural contexts.
345. Women Writers Explores the connections between gender and literary expression by examining the social, cultural, and literary patterns linking the lives of women writers with their works. Prerequisite: 220 or permission of the instructor.
349. Special Topics in Literature and Culture May include new literatures in English, African writing, twice-told tales, the emergence of the novel, Irish literature, and popular literature. Prerequisite: 220 or permission of the instructor.

Studies in Literature and History (350-389) Courses that focus upon the intersections and mutual influences of history and literature.
A. Studies in Literature written before 1800 (350-359) Courses, variously configured, involving works written by a number of authors within or across a number of literary periods up to 1800 .
350. Studies in Medieval Literature Explores texts written from the 9th to the 15th century in England and on the continent. Topics may include the medieval romance, 14th century literature, and the literature of courtly love. Prerequisite: 220 or permission of the instructor.
352. Studies in Renaissance Literature Examines texts written in England from the late 15th to the late 17th century. Topics may include Renaissance drama, the Elizabethan sonnet, and 17th century poetry. Prerequisite: 220 or permission of the instructor.
354. Studies in Restoration and 18th Century Literature Study of texts written in England from the late 17th to the end of the 18th century. Topics may include the poetry, drama, or prose fiction of the period. Prerequisite: 220 or permission of the instructor.
358. Studies in Early American Literature Concentrates on texts produced before 1830 in America. Topics may include witchcraft at Salem, early American poetry, fiction in early America, and the origins of the American literary tradition. Prerequisite: 220 or permission of the instructor.
359. Special Topics in Literature before 1800 Focuses on texts and historical contexts that span the periods noted above. Topics may include medieval and Renaissance drama, images of women in medieval and Renaissance literature, Shakespeare's Chaucer, or culture and anarchy in the 18th century. Prerequisite: 220 or permission of the instructor.
B. Studies in 19th and 20th Century Literature (360-379) Courses, variously configured, which involve, for the most part, works written from the early 19th century to the mid-20th century in Britain (including its empire) and the United States.
360. Studies in 19th Century British Literature Examines works written by a number of authors in the Romantic and Victorian eras. Topics may include Romantic and Victorian poetry and the 19th century novel. Prerequisite: 220 or permission of the instructor.
364. Studies in Modern Fiction and Poetry Examines works by a number of authors in the modernist tradition. Topics may include the modern novel or modern Anglo-American poetry. Prerequisite: 220 or permission of the instructor.
366. Studies in Drama Examines the dramatic literature of the Western world from the formative period of the late 19th century to the middle of the 20th century, with emphasis on performance values and close reading of scripts. Topics may include modern drama and American drama. Prerequisite: 220 or permission of the instructor.
370. Studies in American Literature Explores texts written in America after 1830, for the most part. Topics may include the American renaissance, American autobiography, and American poetry. Prerequisite: 220 or permission of the instructor.
374. Studies in The American Novel Examines novels by a number of authors in the context of American culture. Prerequisite: 220 or permission of the instructor.
375. Studies in African-American Literature Courses examine the range of texts which compose the AfricanAmerican literary canon. Topics address the authors' adoptions of various genres (poetry, slave narrative, short story, novel, and drama) to address such themes as slavery, racial uplift, Black subjectivity, history, class and community. Prerequisite: 220 or permission of the instructor. This course fulfills the US Diversity distribution requirement.
379. Special Topics in 19th and 20th Century Literature May include romantic postmodernism, the Irish renaissance, post-colonial literature, the Edwardians, and political literature between the world wars. Prerequisite: 220 or permission of the instructor.
C. Studies in Contemporary Literature (380-389) Courses, variously configured, involving works written by a number of authors from the mid-20th century to the present.
381. Contemporary Literatures in English Study of writing in English by authors from South Asia, Africa, the West Indies and other regions where English is now written and spoken. Prerequisite: 220 or permission of the instructor. This course fulfills the Comparative Civilizations distribution requirement.
383. Contemporary American Literature Study of poetry, novels, short stories, and (fictive elements in) autobiographies by contemporary Americans, with special attention to interconnections between literature and the era. Prerequisite: 220 or permission of the instructor.
387. Contemporary Drama Drama in the contemporary Western world with emphasis upon performance values and close reading of scripts. Plays by O'Neill, Sartre, Beckett, Ionesco, Pinter, Williams, Miller, Mamet, Stoppard, Fugard, and others. Prerequisite: 220 or permission of the instructor.
389. Special Topics in Contemporary Literature May include contemporary American poetry, post-modern British and American fiction, Anglo-Irish poetry, and contemporary women writers. Prerequisite: 220 or permission of the instructor.

Authorial Studies (390-399)
Courses devoted to the literary corpus of one or two authors, with special emphasis on the interaction between the authors' lives and their art, and on the question of their canonical status.
390. Chaucer The poet and his century, with emphasis on The Canterbury Tales. Prerequisite: 220 or permission of the instructor.
392. Shakespeare A selection of plays and poems, seen from various critical perspectives, which emphasizes the development and distinctiveness of the author. Prerequisite dependent upon topic.
394. Milton Detailed study of the poetry and prose with emphasis on the development of Milton as a poet. Prerequisite: 220 or the permission of the instructor.
396. Toni Morrison This seminar explores the imaginative (novels, short stories) and critical works of Nobel Prize winning author Toni Morrison. The course also traces Toni Morrison's development as a literary and cultural critic. Prerequisite: 220 or the permission of the instructor. This course fulfills the US Diversity distribution requirement.
399. Topics in Authorial Studies May include Donne and Herbert, Pope, Austen in her time, Wordsworth, Willa Cather, Woolf, Hemingway and Faulkner. Prerequisite: 220 or permission of the instructor.

## The Senior Experience

This final two-semester sequence of courses in the major seeks to draw upon the student's critical and creative independence by offering seminars and workshops whose topics are shaped partly by student interest.
403. Senior Literature Seminar and Workshop Demonstration, under close supervision, of a command of the critical reading and writing expected of a student major in English. Various topics and approaches. Students who fail ENGL 300 CALM Lab will be prohibited from registering for 403 without permission of the department chair. Students enrolled in ENGL 300 CALM Lab during the 403 who fail to complete ENGL 300 will also fail ENGL 403. Prerequisite: Open to senior English majors who have passed ENGL 300.
404. Senior Thesis Workshop A workshop requiring students to share discoveries and problems as they produce a lengthy manuscript based on a topic of their own choosing, subject to the approval of the instructor. Prerequisites: 300 and 403.

## Environmental Studies and Environmental Science

## Majors

Environmental Studies Major: All majors take the core curriculum consisting of 111 or 215, 131, 132 (or 130), $222,330,335$ or 340,406 , ECON 100 or 111, and MATH 121. Environmental Studies majors must then take an additional lab science; an internship, independent study, independent research, or student/faculty collaborative research; and four courses which form a focus thematic concentration concerning a particular challenge in environmental studies (e.g., sustainable development, watershed management, energy policy).

Environmental Science Major: All majors take the core curriculum consisting of 111 or 215, 131, 132 (or 130), 222, 330, 335 or 340, 406, and ECON 111. An Environmental Science major must also develop, in consultation with her or his academic advisor, a theme consisting of eight additional courses. The theme courses must be courses in the natural sciences, computer science, or mathematics that concern a particular challenge in environmental science (e.g., climate change, effects of pollution on human health, ecological restoration). Required theme courses, which must be chosen for their relevance to the theme topic, are listed below:

At least one biology course numbered 300 or above;
At least one mathematics course;
At least one of these pairs of physical science courses:
CHEM 131, 132
CHEM 141 and another chemistry course that requires CHEM 141 as a prerequisite, including ERSC 331(Chemistry of Earth Systems)
PHYS 131,132
PHYS 141,142
At least two of these integrative courses from different departments:
BIOL 314 (Ecology)
BIOL 324 (Plant Geography and Ecology)
ENST 310 (Topics in Environmental Science), when approved by the department
ENST 335 (Management and Analysis of the Aquatic Environment) or ENST 340 (Forest Ecology and
Applications), as long as it is not also counted in the core curriculum
ERSC 220 (Environmental Geology)
ERSC 221 (Oceanography)
ERSC 307 (Paleontology)
PHYS 314 (Energy and Environmental Physics)
And other courses as approved by the department.

## Minor

The following five courses: 111 OR 215, 131, 132 or 130, 222, 406 and one of the following three courses: 330, 335 or 340 .

IMPORTANT: If you intend to pursue an ENST minor, please notify the Department Chair and the Department Coordinator, Mary Orr, to ensure that you receive priority for the ENST courses.

## Suggested Four Year Program

## Environmental Studies

First Year: 131, 132; ECON 100 or 111
Second Year: 111 and 222; MATH 121; 335 or 340
Third Year: Thematic concentration courses (on campus or abroad); additional lab science; 330
Fourth Year: 406; thematic concentration courses; internship

## Environmental Science

First Year: 131,132; ECON 111
Second Year: 222; 335 or 340; PHYS 131 and 132, OR PHYS 141 and 142; CHEM 131 and 132 OR CHEM 141 and another Chemistry course that requires 141 as a prerequisite; one Math course
Third Year: one Biology course numbered 300 or above; other theme requirement courses (on campus or abroad); 111
Fourth Year: 330 and 406; other theme requirement courses
NOTE: Students considering either major are advised to consult with a member of the Environmental Studies Department. Since courses listed for any term may be offered at the same time or not offered due to faculty availability, it is essential to be flexible in planning and choosing courses. To minimize problems, satisfy major and distribution requirements as early as possible.

## Independent Study, Independent Research, Student/Faculty Collaborative Research

The ENST Department encourages students who demonstrate maturity, motivation and academic preparedness to undertake independent research and independent study projects, as well as student/faculty collaborative research.

Independent study allows a student to pursue an academic interest outside the listed course offerings. The study may include experimental (lab or field) work, library research and reading, and may culminate in several short papers, a single paper, or any other project acceptable to the supervising faculty member and the student.

Independent research, like independent study, allows a student to pursue an academic interest outside the listed course offerings, but it involves primary research which has the potential to yield new knowledge. Typically the results of independent research are presented at a professional conference, regional meeting, or other public forum.

Student/Faculty Collaborative Research allows a student to conduct original research in close partnership with faculty collaborator(s). The project should be designed as an investigation yielding novel results that contribute to the area of study. With the faculty collaborator(s), students will develop the project and participate in all aspects of the research.

Students interested in pursuing independent study, independent research or student/faculty collaborative research should make arrangements with supervising faculty no later than the course request period.

## Honors in the Major

The distinction of Honors in Environmental Science and Environmental Studies is awarded by the Department to graduating seniors who have met the requisite academic standards. These include completion of a two-credit
independent research project under faculty guidance and maintenance of a minimum GPA of 3.0 in all courses required or applied toward the major. The student's final GPA must be certified at the end of the Senior year just prior to graduation.

The honors project must have both oral and written components. The oral components consist of presentations at department seminars, a professional conference and before a faculty review committee consisting of selected Environmental Studies Department Faculty and the Faculty Research Advisor. The written component may be done with acknowledged assistance from the Faculty Research Advisor and must demonstrate deep understanding of the context and implications of the research.

Detailed guidelines for department honors are available on the department website and through the Department Chairperson.

## Opportunities for Off-Campus Study

Environmental Studies students are encouraged to participate in the following programs abroad: School for Field Studies, where students can participate in a field-based integrated environmental studies curriculum in one of five locations around the world; the Dickinson Science Program in Norwich, England, where environmental studies and science majors can take courses at an internationally-known environmental science center at the University of East Anglia; the Semester in Environmental Science at the Marine Biological Laboratory in Woods Hole, Massachusetts, where students can participate in a rigorous field-based program in aquatic sciences; and the Dickinson Program in Queensland, Australia, which offers a wide variety of excellent Environmental Studies and Science courses. Information on many other opportunities for Environmental Studies students is available at the Office of Global Education.

## Co-Curricular Program

ALLARM: The Alliance for Aquatic Resource Monitoring (ALLARM) is a department-sponsored professional organization that partners with Pennsylvania communities who are working to document and mitigate the effects of water pollution through volunteer-based water quality monitoring programs. Founded in 1986 by Professor Candie Wilderman, ALLARM is staffed by Dickinson students under the supervision of the Director, Julie Vastine and Assistant Director Jinnie Woodward. ALLARM staff provide technical support, training and assistance to community-based watershed organizations. Staff are responsible for water quality training assistance, development of laboratory and field sampling protocols, maintenance of a quality control/quality assurance program, publicity, community presentations, office management, data management, data analysis and interpretation, and publication of a newsletter. ALLARM also supports the academic curriculum by providing opportunities for community-based research and course work. Contact Julie Vastine, vastine@dickinson.edu, Director of ALLARM, for internship and employment opportunities.

Dickinson College Farm: The Dickinson College Farm was started in 2007 to address the growing interest in sustainable agriculture and renewable energy on campus. The College farm is an expansion of the Student Garden (started in 1999) and continues to increase campus and community awareness on issues relating to food, health, and alternative energy. The Dickinson College Farm is located on 30 acres in the town of Boiling Springs, just six miles from campus. Students work with farm staff to raise produce for the College dining hall through field work and greenhouse production. The farm employs organic agricultural practices to ensure sustained land stewardship, as well as to support the area's biodiversity. In addition to its focus on food production for campus use, the farm serves as a living laboratory for students, faculty and local community. The farm supports academic interests through student and faculty research, hosting labs and field trips, as well as serving as an off-campus class site. For more information on this exciting Dickinson program, please contact Jennifer Halpin, Director of the College Farm Program halpinj@dickinson.edu.

## Courses

111. Environment, Culture, and Values A study of the effects of scientific, religious, and philosophical values on human attitudes toward the environment and how these attitudes may affect our way of life. By focusing on a particular current topic, and by subjecting the basis of our behavior in regard to that topic to careful criticism, alternative models of behavior are considered together with changes in lifestyle and consciousness that these may involve. This course fulfills the Division I.a. distribution requirement.
112. Introduction to Environmental Science: Energy, Waste, and Human Health An integrated, interdisciplinary study of environmental disruption and management where the application of natural science principles informs an understanding of human-environmental interaction. Emphasis will be on the study of energy procurement and use, waste management, and human population dynamics and environmental health. Field study includes travel to industrial, mining, and agribusiness sites. Laboratory work includes using public databases for documentation of toxic releases and human health effects; and the generation, measurement, and use of renewable energy resources. Three hours classroom and three hours laboratory a week. Offered in Spring semester.
113. Introduction to Environmental Science: Natural Ecosystems and Human Disruption An integrated, interdisciplinary study of natural environmental systems and human impact on them. Basic concepts of ecology, such as biogeochemical materials cycling, energy flow, biotic interactions, and ecosystem regulation will be examined and utilized to study natural resource management, population dynamics, loss of biodiversity, and environmental pollution. Field study, including measurement of parameters in natural aquatic and terrestrial systems, data analysis, and data interpretation will be emphasized. Three hours classroom and three hours laboratory a week. Offered in Fall semester.
114. Foundations of Environmental Science An integrated, interdisciplinary study of environmental disruption and management. Emphasis will be on the study of energy procurement, waste management, and human environmental health. Field study includes travel to industrial, mining, and agribusiness sites. Laboratory work includes using federal databases for documentation of toxic releases and human health effects and the generation, measurement, and use of renewable energy resources. This course is designed for students with a special interest in Environmental Studies and will focus on quantitative and qualitative methods for environmental analysis and critical thinking in preparation for future study. Three hours classroom and three hours laboratory a week. Prerequisites: 131, OR, one course in BIOL, CHEM, ERSC, or PHYS, OR, AP credit in one of these areas. Offered in Spring semester.
115. Energy Resources See course description with ERSC 202 listing. Prerequisite: any 100-level course in ERSC or ENST 132 or 130. This course is cross-listed as ERSC 202.
116. Global Environmental History Examines the interaction between humans and the natural environment in long-term global context. Explores the problem of sustainable human uses of world environments in various societies from prehistory to the present. Also serves as an introduction to the subfield of environmental history, which integrates evidence from various scientific disciplines with traditional documentary and oral sources. Topics include: environmental effects of human occupation, the origins of agriculture, colonial encounters, industrial revolution, water and politics, natural resource frontiers, and diverse perceptions of nature.This course is cross-listed as HIST 205. This course fulfills the DIV II social sciences distribution requirement.
117. American Environmental History Examines the interaction between humans and the natural environment in the history of North America. Explores the problem of sustainable human uses of the North American environment from the pre-colonial period to the present. Also serves as an introduction to the subfield of environmental history, which integrates evidence from various scientific disciplines with traditional documentary and oral sources. Topics include: American Indian uses of the environment, colonial frontiers, agricultural change, industrialization, urbanization, westward expansion, the Progressive-Era conservation movement, changes in lifestyle and consumption including their increasingly global impact, shifts in environmental policy, and the rise of the postWorld War II environmental movement. This course is cross-listed as HIST 206. This course fulfills the DIV II social sciences distribution requirement.
118. Ecological Anthropology See course description with ANTH 214 listing. This course is cross-listed as ANTH 214. Offered every other year.
119. Jewish Environmental Ethics Since the 1960's many writers on environmental issues have blamed our contemporary environmental crises in part on a so-called "Judeo-Christian" worldview, rooted in the Hebrew Bible. Such writers assert that the biblical heritage shared by these two religious traditions advocates an unhealthy relationship between humanity and nature, one in which human beings are destined to conquer the earth and master it. In this course we will explore Jewish perspectives on nature and the natural world through close readings of biblical and other classical Jewish texts. Emphasizing the way "land" figures as an important theme in classical Jewish theology, history and ritual practice, we will also examine the ways in which this motif is re-conceptualized in modern secular contexts (i.e., Zionism and the kibbutz movement). We will conclude by studying contemporary varieties of Jewish environmental advocacy. In addition to texts focused specifically on Judeo-Christian traditions, the syllabus will include other classic works of Environmental ethics foundational to the field of Environmental studies. Offered every three years in rotation with the offering of ENST 111. This course is cross-listed as JDST 215 and RELG 215. This course fulfills the humanities requirement in the core curriculum and can substitute for ENST 111. This course fulfills the Division I.A. distribution requirement.
120. Geographic Information Systems Geographic Information Systems (GIS) is a powerful technology for managing, analyzing, and visualizing spatial data and geographically-referenced information. It is used in a wide variety of fields including archaeology, agriculture, business, defense and intelligence, education, government, health care, natural resource management, public safety, transportation, and utility management. This course provides a fundamental foundation of theoretical and applied skills in GIS technology that will enable students to investigate and make reasoned decisions regarding spatial issues. Utilizing GIS software applications from Environmental Systems Research Institute (ESRI), students work on a progression of tasks and assignments focused on GIS data collection, manipulation, analysis, output, and presentation. The course will culminate in a final, independent project in which the students design and prepare a GIS analysis application of their own choosing. Three hours of classroom and three hours of laboratory per week. This course is cross-listed as ERSC 218 and $A R C H$ 218. This course fulfills the $Q R$ distribution requirement.
121. Environmental Geology See course description with ERSC 220 listing. Prerequisite: Two 100-level ERSC courses OR ENST 131 and 132 or 130. This course is cross-listed as ERSC 220.
122. Oceanography See course description with ERSC 221 listing. This course is cross-listed as ERSC 221.
123. Environmental Economics See course description with ECON 222 listing. Prerequisite: ECON 100 or 111. This course is cross-listed as ECON 222.
124. International Environmental Challenges Environmental problems, human perceptions of environmental problems, and approaches to solving environmental problems differ around the world. This course will compare environmental challenges in different countries and examine the factors that make each country's environmental situation unique. The international nature of many environmental problems and their solutions will also be explored. Prerequisite: Two natural science courses or permission of the instructor.
125. Contemporary Science: Energy and the Environment See course description with SCIE 260 listing.
126. Special Topics in Environmental Science An interdisciplinary intermediate-level approach to the study of environmental problems and policy analysis. The course is project-oriented, with students bringing the experience and perspective of their own disciplinary strengths to bear on a team approach to the analysis and proposed resolution of an environmental problem. Topics vary depending on faculty and student interests, and on the significance of current affairs. Three hours of classroom and three hours of laboratory a week. Prerequisite: Dependent upon topic or permission of instructor.
127. Special Topics in Environmental Studies An interdisciplinary course on special environmental studies topics to be offered on the basis of faculty interest, need, and demand. Recent topics have included loss of biodiversity,
sustainable agriculture, forests, air pollution, and climate change. No laboratory. Prerequisite: Dependent upon topic or permission of the instructor.
128. Ecology See course description with BIOL 314 listing. Prerequisite: any two 100-level BIOL courses numbered between 120 and 129, or ENST 131, 132 or 130. This course is cross-listed as BIOL 314.
129. Advanced Applications in GIS The course is intended as a continuation of the introductory course on Geographic Information Systems, 218, and will concentrate on more advanced discussions and techniques related to spatial analysis and GIS project design. The main focus of the course will be on using higher-level GIS methods to investigate and analyze spatial problems of varying complexity; however, the specific project and topical applications will vary depending on student interests. Students will be required to develop and complete an individual spatial analysis project that incorporates advanced GIS techniques. Prerequisite: ENST 218 or ERSC 218 or ARCH 218 or equivalent GIS experience. Three hours classroom and three hours laboratory per week. This course is cross-listed as ERSC 318 and ARCH 318. Offered every two years.
130. Hydrogeology See course description with ERSC 320 listing. Prerequisite: ERSC 220. This course is crosslisted as ERSC 320. This course fulfills the QR distribution requirement. Offered every two years.
131. Plant Systematics See course description with BIOL 322 listing. Prerequisite: any two 100-level BIOL courses numbered between 120 and 129, or ENST 131, 132. This course is cross-listed as BIOL 322.
132. Environmental Disruption and Policy Analysis This course examines the interrelationships of people with their environments in advanced industrial societies, specifically the science behind regulation and the U.S. regulatory response on air and water pollution, toxic and solid waste management, and workplace hazards. It considers the conflicts and compatibility of economic growth, social justice, and environmental quality under capitalism. Local and extended field trips emphasize the students' analysis and interpretation of social and physical parameters at waste repositories and environmental management facilities. Three hours classroom and four hours laboratory a week. NOTE: This course fulfills the WR distribution requirement. Prerequisite: 131 and 132 or 130, or permission of instructor.
133. Natural History of Vertebrates An exploration into the lifestyles of vertebrates heavily focused on field biology. Natural history is strongly dependent on descriptive anatomy and systematics and therefore this course will cover the evolutionary relationships among vertebrates highlighting unique features that facilitated the success of the major groups. In field labs, students will develop observational skills such as how to identify a bird by its song, a frog by its call, a mammal by the color of its pelage, and a snake by its shed skin. Indoor labs will focus on identifying species from preserved specimens as well as providing students with the skills necessary to preserve vertebrates for future study. Preservation methods could include preparing museum-quality mammal and bird skins, formalin fixation of fish, and skeletal preparations. Three hours classroom and three hours laboratory a week. Prerequisite: two BIOL courses numbered between 120 and 129 OR ENST 131, 132 (or 130) OR ERSC 307. This course is cross-listed as BIOL 332. Offered every two years.
134. Analysis and Management of the Aquatic Environment An interdisciplinary study of the aquatic environment, with a focus on the groundwater and surface waters of the Chesapeake Bay drainage basin. This course provides a scientific introduction to the dynamics of rivers, lakes, wetlands, and estuarine systems as well as an appreciation of the complexity of the political and social issues involved in the sustainable use of these aquatic resources. Students conduct an original, cooperative, field-based research project on a local aquatic system that will involve extensive use of analytical laboratory and field equipment. Extended field trips to sample freshwater and estuarine systems and to observe existing resource management practices are conducted. Three hours classroom and four hours laboratory a week. Prerequisite: 131 or science major. Generally offered in the fall alternating with 340.
135. Forest Ecology \& Applications An exploration of the structure and function of forests with a focus on trees. Levels of organization from organs to the biosphere are considered. A set of topics, such as leaf-atmosphere interactions, whole-tree physiology, stand dynamics, energy flows, and biogeochemical cycles, are examined in depth. The effects of human interventions in forests are considered as these provide insights into the processes operating within forests. The course includes quantitative analysis and a substantial field component. Three hours lecture and four hours laboratory each week. Prerequisite: Any combination of two courses from among the 100-
level BIOL courses and ENST 131, 132 or 130. This course is cross-listed as BIOL 320. Generally offered in the fall alternating with 335.
136. Computer Simulation Modeling Computer simulation modeling is a way to develop scientific understanding. A key element of computational science, computer simulation modeling is the representation of systems with mathematics; computers do the mathematical calculation. This course considers biological, chemical, and physical systems, with interdisciplinary applications in environmental science and other fields. For the course project, students model systems related to their individual interests. No experience with computer programming or calculus is required. Six hours of integrated lecture and laboratory each week. Prerequisites: Any three courses in natural science and/or mathematics. This course is cross-listed as BIOL 348. This course fulfills the lab-science distribution requirement.
137. Seminar in Advanced Topics in Environmental Studies A keystone seminar designed to integrate and apply students' past coursework, internships, and other educational experiences, and to provide a basis for future professional and academic endeavors. The course format varies depending on faculty and student interests, and scholarly concerns in the field. Course components may include developing written and oral presentations, reading and discussing primary literature, and defining and performing individual or group research. Students in this course will be particularly responsible for acquiring and disseminating knowledge. This course is not equivalent to an independent study or independent research course. Prerequisite: Senior standing or permission of the instructor. Normally offered in Spring semester.

The following course is offered during Summer School only.
110. Wild Resource Management This course will examine the management of natural resources (the manipulation of the environment to achieve human goals) at the state, national, and global levels. The course will examine natural resource management in Pennsylvania by studying the role of the Pennsylvania Department of Conservation and Natural Resources as managers of Pennsylvania's 17 million acres of state forest and park land. The course will also examine the nature of wildlife management conducted by the Game Commission and the Fish and Boat Commission. These state management practices and policies will be compared with national and global trends. Other topics will include: soil resources, farming technologies, water resources, and the current political controversy over water and wetlands at the state and federal levels. Other issues pertaining to natural resources will be discussed as appropriate.

## Film Studies

## Minor

Six courses: 101 and 201 plus four electives chosen from the list of eligible courses, two of which must be at the 200-level and above and one of which may be a media course. Courses which count as electives are indicated each semester on the Registrar's web site.

## Courses

101. Introduction to Film Studies An introductory study of the preeminent art form of the 20th Century. The course will focus upon the fundamentals of film study as an academic discipline, including formal analysis of film narrative and cinematic technique (the art of film), contextual approaches to film, study of various film genres, and rudimentary experience with film production. Students will be exposed to aesthetically and historically important films from a number of cultural traditions.
102. Fundamentals of Digital Film Production This course provides instruction in the basic aesthetic and technical aspects of digital film production, including writing, producing, directing, shooting, lighting, recording and mixing sound, and editing. Students will learn to harness digital tools while focusing on their roles as storytellers. Each participant will write and direct a video, rotating through various crew positions as they carry out exercises designed to deepen their knowledge of the different elements of moviemaking. Ultimately, students will collaborate
in teams on short movies, which will be screened at the final class. Prerequisite: FLST 101 OR FLST 301/ENGL 218. Offered every two years.
103. The History of Film An examination of the economic, cultural, technological, generic, formal, and aesthetic evolution of cinematic art, from 19th century precursors of the motion picture to the current state of world cinema. Between these bookends, the survey might include such developments as the medium's inception in 1895, early international (especially German, Soviet and French) classics in silent film, the rise of Hollywood, the emergence of sound, American censorship and classical Hollywood cinema, pre-war French classics, post-war Italian neo-realism, la nouvelle vague, Asian and third-world cinemas, eastern European and British developments at mid-century, and changes in the American film industry in the Sixties and Seventies. This course fulfills the DIV II social sciences distribution requirement.
104. Topics in Film Studies In-depth analysis and discussion of selected areas in Film Studies not normally covered in other interdisciplinary offerings. Topics may include, for example, auteur studies, genre studies, film theory, and film and popular culture. Prerequisite dependent upon topic.

## Electives Regularly Taught

## Film Courses:

COCV 200
ENGL 101, 212, 335
FREN 230, 358
GRMN 370
HIST 315
MUSC 221
RELG 241
RUSS 243
Media Courses:
AMST 200
POSC 243, 390
SOCI 310, 400

## French

## Major

A minimum of eleven courses beyond the 100-level, including 236, one course in Francophone studies, and two 300-level courses taken on the Carlisle campus during the senior year, one of which must be a senior seminar. One of the 11 courses may take the following form: (1) an internship completed in Toulouse; or (2) a course taken in France or in Cameroon in which more than $50 \%$ of course content is related to either French or Francophone area or issues; or (3) For students who do not study abroad, one course in another department on the Carlisle campus in which a substantial portion of the content is related to French or Francophone areas or issues. If this course is available as a FLIC in French, students are required to do the reading and written assignments in French. Students will consult with the department chair regarding the suitability of the course to meet the French or Francophone studies requirement.

## Minor

Five courses beyond the 100-level, including 236.

## Suggested Four Year Program

First Year: 116, 230; or 230, 236; or 236 followed by 240, or 245, or 246
NOTE: Entrance level dependent on the results of a placement examination
Second Year: 230, 236; or 236, followed by 240, 245, or 246
Third Year: Study in Toulouse, France and/or Yaoundé, Cameroon, 255, 256; or two 300-level courses
Fourth Year: Two 300-level courses including one Senior Seminar, plus related electives (e.g. language and literary studies, international studies, History of Modern France, Medieval History, Art History)
NOTE: Normally French majors may not take 200-level courses their senior year.

## Teacher Certification

Students seeking Pennsylvania teacher certification must fulfill requirements for the major, including areas mandated by the Pennsylvania Department of Education, and must take a series of courses in the Education Department. They should identify themselves as early as possible as teacher certification candidates to their advisor and to the director of Teacher Education in the Education Department. For additional information, visit the Education Department web site.

## Independent Study and Research

Students interested in Independent Study or Independent Research in French should consult with the faculty member with whom they hope to work. Independent Study may not duplicate a class already being offered in a particular semester. Independent Research is usually reserved for the senior year and may be carried out over one or two semesters for one or more credits. An independent research project comprises a substantial paper written in French, with an oral defense at its completion. The project is supervised by two members in the department. When independent research is interdisciplinary in nature, a third faculty member from outside the department is invited to participate.

## Honors in the Major

Departmental honors in French are normally granted to students who have completed independent research projects and, after an oral defense, receive an A or A-.

## Internships

Internships may be available for interested students. The Department chairperson or the Coordinator in Toulouse should be consulted for information. Some students have served as interns in Carlisle with the Northeast Conference on the Teaching of Foreign Languages and at the French Embassy in Washington, DC. Students on the Dickinson in France program have interned in Business and Marketing, Public Administration, Applied Sciences and Medicine, The Arts, The Media, and Education.

## Opportunities for Off-Campus Study

Junior Year: All students intending to major in French are strongly urged to plan their program of studies to allow for study abroad during the junior year at Dickinson's Study Center in Toulouse, France and/or in Yaoundé, Cameroon. The coordinators for Dickinson programs in these countries should be consulted with any questions.

Summer Immersion Program: The French Department occasionally offers a five-week student immersion program in Toulouse, depending upon student interest. This program, which has a prerequisite of 116 (Intermediate French), is of particular interest to French minors. The Department chairperson should be contacted for additional information.

## Courses

*101, 104. Elementary French Complete first-year course. Intensive study of the fundamentals of French grammar, with special attention given to pronunciation and oral expression. Cultural readings in the context of language acquisition.
116. Intermediate French Intensive second-year study of French, with attention to grammar review, conversation, reading in a cultural context and some writing. Prerequisite: 104 or the equivalent.

104/116. Accelerated French An intensive, ten hour per week intermediate French course designed for first year students who place into 104 on the departmental placement examination and who wish to complete the language requirement in one semester. Especially helpful for those contemplating study abroad, this course makes extensive use of multi-media and interactive computer strategies in the development of conversational and cultural skills. Two Courses. Prerequisite: 101 or the equivalent.
230. Communication in French and Francophone Contexts Intensive oral and written practice of French in the context of issues and themes such as a sense of place, the lessons of time, the social contract, and intellectual and artistic life. This course makes use of texts, films, multi-media and interactive computer strategies in the development of conversational and writing skills. Intended as the gateway to the major or minor in French and Francophone Studies. Prerequisite: 116 or the equivalent. This course fulfills the WR distribution requirement.
236. Introduction to Cultural Analysis An introduction to the practice of reading and writing about French and francophone themes in an analytical and contextualized way. This course considers how cultural production conveys ideologies, values and norms expressed in both historical and contemporary contexts. Normally offered as writingintensive. Prerequisite: 230. This course fulfills the WR distribution requirement.
240. French Identity This course examines the representation of French identity from its origins in the Ancien Régime to its present forms. Examples are drawn from history and human geography, politics, economics, aesthetics, religion, and philosophy. Depending on the instructor, these may include, for example, the representation of the State, the tension between Paris and the provinces, the semiotics of social rituals, and other subjects of cultural study. Prerequisite: 236 or permission of instructor.
245. Contemporary Issues in French Society Designed to give students an understanding of the main tensions and controversies of contemporary French culture. Focusing on political, social, and economic topics such as Americanization, regionalism, immigration, France's place in the European Union, the course should facilitate acculturation in France or provide an academic substitute for that experience. Prerequisite: 236.
246. Introduction to Francophone Cultures This course explores the relationship between literature and Francophone cultures (Vietnam, Canada, the Caribbean, Europe, and Africa). Topics include: "Négritude," the negro-African identity, "cultural métissage," the status of women, the dialogue between tradition and modernity, independence, and post-colonial disillusionment. Historical overview of the international context of Francophonie will be examined through short stories, novels, poems, critical essays, feature and documentary films. Prerequisite: 236. This course fulfills the DIV I.b. and Comparative Civilizations distribution requirements.
352. Classical Theatre and Social Myth This course studies the theatre as an ideological instrument, asking how the plays of 17th century France reinforce, modify, or undermine the ways in which society sees itself. Myths addressed include those concerning gender, monarchy, class structure, and the power of language. The ideological work of the stage is related to such historical developments as the rise of absolutism and attempts to stimulate the French economy. Plays by Corneille, Racine, and Moliere and the principal texts, along with selections from the major moralists. Prerequisite: 255, or the equivalent, or permission of the instructor. Offered every other year. This course fulfills the DIV I.b. distribution requirement.
354. Reason and Revolution The Enlightenment: a century of intellectual ferment which challenged the values of the establishment and swept them away in a revolution. Montesquieu, Voltaire, Diderot, Rousseau. Offered on
occasion as a bilingual course in French and English. Prerequisite: 255, or the equivalent, or permission of the instructor. Offered every other year.
357. Romantics, Realists, and Rebels: 19th-century French Novel and Poetry An investigation of the major literary movements and authors of the century, to include the theory and practice of romanticism and realism in French letters; reaction to society by authors in revolt against bourgeois standards, and in pursuit of new modes of literary expression. Prerequisite: 256, or the equivalent, or permission of the instructor. Offered every other year. This course fulfills the DIV I.b. distribution requirement.
358. Contemporary Fiction and Film Studies in the theory and evolution of narrative in the 20th century, with particular attention to issues of language, identity, difference and power. This course looks at a selection of novels and films as scenes for the practice of writing as cultural resistance. Prerequisite: 256, or the equivalent, or permission of the instructor. Offered every other year. This course fulfills the DIV I.b. distribution requirement.
361. French Literature in the Renaissance Major works from prose, poetry, and theatre, with particular emphasis on Rabelais and the development of humanism, the theory and practice of the Pléiade, and Montaigne. Prerequisite: 255 , or the equivalent, or permission of the instructor. Offered every other year. This course fulfills the DIV I.b. distribution requirement.
362. Seminar in French and Francophone Literatures A thorough investigation of a major figure or important literary trend (chosen at the discretion of the instructor and in consultation with the majors) in French or Francophone literature with emphasis on seminar reports and discussion. Recent themes have been Femmes, Film, Fiction; Love or Marriage in 17th and 18th century literature; Relations Between the Sexes; Francophone Novelists of the African Diaspora. Prerequisite: 245 or 246, or at least a semester of study in Toulouse or Yaoundé, or permission of the instructor. Priority given to senior majors in French. This course fulfills the DIV I.b. distribution requirement.
363. Topics in French and Francophone Cultures In-depth analysis and discussion of selected aspects of French and Francophone cultures not normally covered in other advanced offerings. Recent topics have included Cinema and Society, Introduction to Sociolinguistics, The French Press, Post-War France, Global Sororities. Prerequisites: 245 or 246, or at least a semester of study in Toulouse or Yaoundé, or permission of the instructor. Priority given to senior majors in French.
364. Topics in French and Francophone Literatures In-depth analysis and discussion of selected areas of French and Francophone literature not normally covered in other advanced offerings. Recent topics have included Literature of Immigration, Love Letters; Hate Mail, French Theater \& Society. Prerequisite: 245 or 246, or at least a semester of study in Toulouse or Yaoundé, or permission of the instructor. Priority given to senior majors in French. This course fulfills the DIV I.b. distribution requirement.
365. Seminar in French and Francophone Civilizations Investigation of a broad theme or selected area of French or Francophone civilization through pertinent readings, media forms and research in both literary and non-literary materials. Past topics have included America Through French Eyes, L'Entre-deux-guerres, Francophone Diaspora, Remembering Vichy. Prerequisite: Prerequisite: 245 or 246, or at least a semester of study in Toulouse or Yaoundé, or permission of the instructor. Priority given to senior majors in French.

The following courses are offered in Toulouse, the prerequisite for which is French 236, except for French 220:
220. Language and Civilization Immersion An intensive language and civilization course designed to increase oral proficiency, improve written expression, and develop cross-cultural observation skills through immersion in the Toulouse region. Social and cultural phenomena will be studied through interaction with French families, directed observation at historic sites, participation in class activities and tutorials. The exclusive use of French during the five and one-half week immersion is expected of all students. Evaluation is based on a combination of the following: interviews with the instructor, performance in the class, journal writing, and a final summary of the immersion experience. Prerequisite: 116 or its equivalent and acceptance into the French Summer Immersion Program. Not
intended for students who have completed French 236 or above. Offered only in summer at the Dickinson Study Center in Toulouse.

255, 256. French Literature and Society A historically differentiated interpretation of French culture through examination of French literature from the Middle Ages to the present in conjunction with study of political, economic, and social structures of each period. Intellectual and artistic currents that inform and are informed by these structures. Introduction of new critical perspectives such as psychoanalytical and structuralist literary theory. Offered only at the Dickinson Study Center in Toulouse. These courses fulfill the DIV I.b. distribution requirement.
260. Writing Workshop Offers a reinforcement of French written skills through practice in lexical expansion, idiomatic expression, and syntactical patterns. Students are given the tools necessary (vocabulary, syntax, grammar) to free and enrich their writing styles, primarily through creative writing. Exposition to various literary forms taken from French art and culture (literature, painting, music, theater, cinema) is an additional component. One credit. Mandatory course offered each semester at the Dickinson Study Center in Toulouse.
273. Topics in Applied French Continued study of the French language designed to take advantage of issues of current interest in French society or culture (e.g., electoral seasons, important historical commemorations, current social or cultural controversies). Ample opportunity for written work and discussion of the topic chosen.One-half course credit. Offered only at the Dickinson Study Center in Toulouse.
300. The Toulouse Colloquium An interdisciplinary colloquium focusing on the history and contemporary culture of the city of Toulouse. This course is composed of intensive written and oral language study, an introduction to French university methods of argumentation, visits of local museums and regional cites, and exploration of the various neighborhoods of Toulouse. This course is designed to acquaint students with the city and the region in which they will be spending the academic year. One-half course credit. Offered every semester at the Dickinson Study Center in Toulouse.
320. Topics in Intercultural Communication Contemporary French society examined through theoretical reading and discussion as well as directed experiential observation. Explicit reference to French and American perceptions of cultural concepts so as to provide ideas, insights, and methods by which to understand and analyze the two societies. Readings, reports, discussions, field projects, and use of local resources comprise the work of the course. Offered only at the Dickinson Study Center in Toulouse.

## First-Year Seminars

The First-Year Seminar (FYS) introduces students to Dickinson as a "community of inquiry" by developing habits of mind essential to liberal learning. Through the study of a compelling issue or broad topic chosen by their faculty member, students will:

- Critically analyze information and ideas
- Examine issues from multiple perspectives
- Discuss, debate and defend ideas, including one's own views, with clarity and reason
- Develop discernment, facility and ethical responsibility in using information, and
- Create clear academic writing

The small group seminar format of this course promotes discussion and interaction among students and between students and their professor. In addition, the professor serves as students' initial academic advisor. This course does not duplicate in content any other course in the curriculum and may not be used to fulfill any other graduation requirement.

All Dickinson first-year students arrive on campus for orientation knowing which seminar they will join.
The following First-Year Seminars are offered in the Fall of 2011:
Alternate Realities of Dystopian Futures
American Cities: Past, Present and Future

Between Two Cultures: Hispanics in the U.S.
Can a Machine have a Mind?
Coming of Age in a Multimedia Age
Dangerous Moves: Dance, Subversion, and the Policing of the Body
Discerning Fact from Fallacy in Nature and Medicine
Don Juan: Rebellious Eros in the Modern World
Engaging Cultural Ideas via Twentieth-Century Music
Environmental Ethics and the End of the World
Family Drama
Founders of Modern Discourse: Marx, Nietzsche, Freud
Freedom
From Genesis to Metropolis: The Image of the City in Western Civilization
Get Up Stand Up - Bob Marley
Globalization, Sustainability, and Security
Health, Illness and American Culture
Ideas that Have Shaped the World
Mediated Realities
Mexico 2011: A Failed State?
Molecules of Madness
Musical Performance as a Liberal Art
New Literacies: Living and Learning in the Digital Age
New York and Paris: Poets and Painters Extol the Modern City
Profiles in Courage: Nobel Peace Prize Laureates
Recreation in Carlisle and Surroundings
Revolution: Thinking Political and Social Change
Science or nonsense?
Serious Comedy
Tell Me Why: The Role of Information in Society
The End of Oil?
The Interplay of Disease, Biomedical Science and Society
The Politics of Inequality
Time
Transatlantic Tensions
Urban Problems in Small Town America
War! A Study of its Causes, Characteristics, and Consequences
Galileo's Commandment
Cryptology: The science and culture of secrecy
Music as a Prophetic Voice

## German

## Major

(10 courses)
202 or its equivalent
One 200-level course in German (above 202, or a 300-level course)
One 300-level course in German
340 (only for students who spend the year in Bremen)
400 (senior seminar)
In consultation with their major advisor, students are to develop a concentration consisting of at least three related courses. At least two of these courses must be taken in the German department at Dickinson and should be above the level of 210. The other course(s) can be taken from departments across the Dickinson and Bremen campuses.

Courses taught by departments other than the German department at Dickinson, including departments at the University of Bremen, may count toward a German major if they focus significantly on issues related to German Studies.

In total, students have to complete ten courses in the area of German Studies in order to earn a German major. Two elective courses may be taken in English. To be counted toward the major, students must take German 210 as a FLIC course.

NOTE: Students who spend an academic year or a semester in Bremen have to take an intensive summer language course and German 340.

## Minor

(six courses)
German 210 (Intro to German Cultures)
German 201 and 202 or their equivalent
One 200-level German course
One 300-level German course
No more than two courses may be taken in English. The courses in English can be taken either within the German department or in another department including departments on the Bremen campus. Courses taken from departments other than the German Department at Dickinson must deal significantly with issues related to German Studies in order to be counted toward the German minor.

## Teacher Certification

For information, see the Director of Teacher Education, or visit the Education Department web site.

## Independent Study

Independent study projects are an option open to self-motivated students who desire to study a topic not offered in a regular College course. Most projects are taken for either half or full course credit. Usually each independent study student will have a weekly meeting with her or his advisor.

Occasionally, students may elect an independent study project in the German language. This option is open only when it is clear that the student's needs cannot be met in the traditional language courses. Possibilities for independent language work include: advanced oral and written language practice; technical translation.

## Honors in the Major

Senior German majors who successfully complete a year-long independent study project worth two course credits will be eligible to be voted honors in German on the completion of the project. A student will graduate with honors in German if a) his/her original research receives the grade of "A" from the supervising instructor and b) the student successfully defends his/her project before a panel of the entire German faculty so that the project is designated as "worthy of honors."

## Opportunities for Off-Campus Study

Junior Year Students are encouraged to spend one or two semesters abroad during the junior year. For qualified students, the Junior Year in Bremen is a Dickinson-affiliated program with a wide range of course and program options, including laboratory courses in the sciences.

Summer Immersion Program The German Department offers a four-week student immersion at the University of Bremen, West Germany. See the course description for GRMN 220, Bremen Practicum.

## Courses

*101, 102. German in Everyday Life This course is an introduction to the German language as spoken in daily life. It focuses on the acquisition of language skills, such as speaking, reading, writing, and listening and does so while also learning about aspects of every-day cultures in German-speaking countries. Classes are small and emphasize communication. After successfully completing German 101 and 102, students are expected to navigate everyday situations successfully such as shopping, making friends, reading German newspapers etc. and understand basic grammatical and syntactical structures. Classes meet five times a week. Prerequisite: 101 or the equivalent for GRMN 102, or permission of the instructor.
103. Intensive German An intensive two-credit course that allows students to complete the first two semesters of the language, part of the department's cultural proficiency requirement, in a single semester. Like German in Everyday Life, this course makes extensive use of multimedia, but does so in ways that enhance and vary linguistic input appropriate for a course that meets as often and as long as this one. Classes are small, and material is covered at a fast pace.Ten classroom hours including two contact hours with native language assistants per week.
201. Intermediate German I: Contemporary German Cultures Using literary texts and media from contemporary German-speaking cultures, students focus on recognizing and practicing various registers of written and oral German while reviewing grammatical structures and expanding stylistic forms. For instance, the course will expose students to the differences between the language of a popular daily newspaper, a TV interview, a blog entry, or an essay by a German author. Students will have to use these forms appropriately in class in and their homework. Prerequisite: 102 or 103, or permission of the instructor.
202. Intermediate German II: Mediated German Cultures This course will familiarize students with discourses conducted at different language levels in various German media such as newspapers, TV, and music in addition to new social media. Students will analyze these discourses, and by doing so will acquire a better understanding of contemporary German issues, anxieties, and desires ranging from the impact of the New Right on German hip hop to the heated discussions of new architectural designs, such as the Holocaust monument in Berlin. Prerequisite: 201, or permission of the instructor. This course fulfills the WR distribution requirement.
210. Exploring German Cultures In this course, students learn about key periods and topics of German-speaking cultures in their historical contexts. The course exposes students to various cultural forms such as music, literature, art, and patterns of daily life. It provides students with a basic level of understanding of German cultures and allows them to reflect on German cultures in English. Classes meet three days a week. Offered in English. This course counts toward the German minor. The course will count for the German major, if taken as FLIC. Prerequisite, if taken as FLIC: 202, or the equivalent.
211. Introduction to German Intellectual History This course will analyze key documents and scholarly texts, which exemplify important aspects of German thought on various topics such as politics, culture, history, aesthetics, and philosophy. For instance, students may read and analyze Kant's essay on the Enlightenment, Lessing's Laocoon, Schiller's Aesthetic Education, Goethe's work on color theory, Alexander Kluge's Essay-Films, or political essays by Thomas Mann, Alice Schwarzer, and Günter Grass. Prerequisite: 202, or permission of the instructor. This course fulfills the DIV I.a. distribution requirement.
212. German In Performance This course will focus on performance in German cultures. Students will analyze key traditional examples of repeatable and lasting performances such as plays and films as well as performances rooted in the avant-garde which concentrate on the moment and the uniqueness of the individual performance generated by the performer or performers as both the medium and the content of the performance. For instance, students may critically analyze Georg Büchner's drama "The Death of Danton," the performance actions of the artist Joseph Beuys, or the works of the director Christoph Schlingensief. Prerequisite: 202, or permission of the instructor.
213. Modern German Film This course will focus on German films in their cultural and historical context. Students will study selected films and develop a critical framework for viewing and analyzing them. When appropriate, Austrian and Swiss films will also be included. Topics may be Early German Cinema, the New German Cinema, or post-unification films. Filmmakers may include Volker Schlöndorff, Alexander Kluge, Werner Herzog, Rainer Werner Fassbinder, or F.W. Murnau, and may cover films such as Run Lola Run, Goodbye, Lenin, Head On, and The Lives of Others. Prerequisite: 202, if offered in German, or permission of the instructor.

214 . Formations of German Identities: Class, Race, and Gender This course will focus on the representations of class, race, ethnicity, and gender in and of German, Austrian, or Swiss society, including their colonial past (Germany), their empire experience (Germany and Austria), and their clashes with indigenous peoples (Germany). Examples of representation from the fields of art, literature, and film will be the focus of a study of how class, race, and gender have changed and challenged the perception of German identity over time. Students may analyze paintings by George Grosz, Paula Modersohn-Becker, and Käthe Kollwitz; read literary texts by Bertolt Brecht, Verena Stefan, and Feridun Zaimoglu; view films by Fritz Lang, Fatih Akin, and Margarethe von Trotta; or read autobiographies.Prerequisite: 202, or permission of the instructor.
222. Conversation and Composition on Contemporary Issues This course sharpens language skills learned, such as writing and speaking the German language. By focusing on current cultural and political issues in the German speaking countries, it will also strengthen the cultural and political literacy of our students. Topics to be discussed may include the ramifications of Germany's unification, the Neo-Nazi movement, the administrative structure of Germany, Austria, and Switzerland, and the women's and labor movements. Classes meet four days a week, one of which may be a lab. Prerequisite: 116 or the equivalent.
250. Topics in German Studies An examination of some topic related to German literature or culture. Topics may include studies of major German writers such as Goethe, Mann, and Wolf, German humor, sagas and legends.
300. Examining Major Cultural Movements This course will provide students with the opportunity to analyze a major cultural period or artistic movement in German-speaking culture. Students will consider a variety of sources, from cultural products and texts of literature and philosophy to historical documents and sociological studies. The characteristics of the period and its historical dates will be examined critically and considered in association with their international or European counterparts. Possible periods or movements include: Medieval German, Early Modern German, German Enlightenment, Goethezeit, Romanticism, Realism, the long nineteenth century, Expressionism, or Poplit of the 1990s. Prerequisite: a 200-level German course at 210 or above, or permission of the instructor. This course fulfills the DIV I.b. distribution requirement.
301. German Cultures in Transition Social, political, economic, and cultural upheavals constitute some of the most intriguing periods of German history. This course is dedicated to these periods of transition, its texts and contexts. Students will learn about and learn to critically analyze historical periods of instability and moments of transitions such as the restoration period following the Congress of Vienna, the imperial and colonial aspirations after Germany's unification in the 19th century, Fin-de-Siècle Vienna, the ascent of the Nazi state, and German reunification. Prerequisite: a 200-level German course at 210 or above, or permission of the instructor. This course fulfills the DIV I.b. distribution requirement.
302. German Culture in the Diaspora and Exile Culture does not have boundaries. In the history of German culture, there are many groups who have established themselves outside of the traditional national boundaries of Germany, Austria, and Switzerland. These groups include those who left their old countries for a better way of life as well as those forced to flee during times of economic hardship, governmental repression, and deadly political and racist persecution. How do these diasporic cultures continue to influence German culture? Is it valid to claim these cultures of exile and the diaspora as German? Questions such as these will be studied in the contexts of Jewish Germans and Austrians in exile, political exiles of the 19th and 20th centuries, and diaspora communities such as the one in "Siebenbürgen" and the "Banat" regions in today's Romania. Prerequisite: a 200-level German course at 210 or above, or permission of the instructor.
303. The Two Germanies: Cultures of East and West Germany For 40 years, Germany consisted of two states-the German Democratic Republic (GDR )and the Federal Republic of Germany (BRD). The contexts and conditions within which these two countries developed and their distinct cultural forms are the focus of this course. Literary
and artistic production, political structures as well as differences in daily life will be examined within the context of learning more about the two Germanies. Prerequisite: a 200-level German course at 210 or above, or permission of the instructor.
304. Minority Cultures in the German Context While there have always been minorities inside Germany and Austria, such as small communities of French, Russians, Sorbs, and Poles, as of the 1950s, people from various European and other countries came to work and live in Germany in large numbers. For instance, the largest group came from Turkey. This course will explore the political activities and cultural expressions of these groups in relation to traditional German cultures. Students may analyze literary texts, films, music, and youth cultures of these groups making a home in Germany while changing their environment and being changed by it. Prerequisite: a 200level German course at 210 or above, or permission of the instructor. This course fulfills the DIV I.b. distribution requirement.
350. Topics in German Studies An examination of topics related to German literature or culture. Topics may include major German writers, periods of German culture, and intellectual and social movements. Prerequisite: Study in Bremen or permission of instructor.
370. German Film This course will focus on German films in their broader cultural and historical context. Students will study selected films and develop a method for viewing and analyzing them. Topics may be the "New German Cinema" from Schlöndorff and Kluge to Herzog, Fassbinder and Wenders, the films of feminist film makers, such as Sander, von Trotta, Ottinger, and Sanders-Brahms, or Literature and Film. Prerequisite: Permission of the instructor.
400. Senior Seminar Advanced investigation of a particular writer, work, problem, or theme in German literature and/or culture, with emphasis on independent research and seminar reports. Prerequisite: German major or permission of the instructor.

## The following courses are offered in Bremen:

220. The Bremen Practicum A four-week course in contemporary German language and culture offered at the University of Bremen, West Germany. Students will speak only German during this four-week period, and participate in intensive language classes, special lectures and field trips arranged by Dickinson with German university instructors. Prerequisite: 116 or equivalent and permission of the department.
221. Comparative Cultures: USA-Germany Using the university and city of Bremen as laboratory, students will explore the experience of culture shock, the difference between American and German everyday life, structural differences in American and German public institutions, historical ties between the two countries, historic concepts and symbols, differing relationships to national culture, the effect of Germany's past on contemporary consciousness. Prerequisite: Acceptance into the Dickinson in Bremen Program.

## Greek

See Modern Greek.
See Classical Studies.

## Health Studies

## Certificate in Health Studies

Students should declare their intent to pursue the Health Studies Certificate to the Health Studies Coordinator and with the Registrar's Office by the beginning of their junior year. Students who successfully complete all of the requirements will be issued a Certificate in Health Studies which will be awarded upon graduation from the College and will be recorded on their transcript.

The certificate in Health Studies requires:
(1) successful completion of HEST 201: Introduction to Health Studies; (2) successful completion of four other Health Studies designated courses taken in at least two academic departments;
(3) successful completion of one of the following: a health-related internship for credit (e.g., via The Washington Center, the Dickinson-in-New York program, or some other study abroad program); a non-credit internship (Transcript Notation) that involves a health-related field experience; a lab-based independent research project on a health-related topic; or, a community-based independent research project on a health-related topic;(4) successful completion of a health studies senior seminar (HEST 400: Health Studies Senior Seminar).

## Suggested Four Year Program

First Year: HEST 201
Second Year or Third Year: four electives and field experience
Fourth Year: HEST 400
NOTE: Students must apply to the Health Studies Certificate Program by the beginning of their junior year.

## Independent Study/Opportunities for Off-Campus Study

Students must complete a health-related field experience. This can be counted as one of the 4 required electives or may be done as a non-credit experience with approval from the Health Studies Coordinator.

## Courses

HEST 201. Introduction to Health Studies Introduction to Health Studies is a multi-disciplinary course that explores various theoretical and methodological approaches to the study of health. In addition to providing the overall framework for the materials covered, the faculty-convener of the course will draw on speakers from Dickinson faculty who will present health studies materials relevant to their respective areas of special expertise. Faculty speakers will be drawn from a range of disciplines at the college, including American Studies, Anthropology, Biology, History, International Business and Management, Philosophy, Policy Studies, Psychology, Sociology and Women's and Gender Studies.

HEST 400. Senior Seminar in Health Studies The Senior Seminar in Health Studies is an interdisciplinary, topics driven course, with specific foci dependent upon the specialization(s) of the instructor. Students will survey the relevant literatures of at least two disciplines; identify specific problems or topics; complete a research project based on secondary and/or primary sources; and offer a final presentation of interdisciplinary work (in the forms of academic papers, oral presentations, or some other creative project (including film, narrative, performance, etc.). Prerequisite: HEST 201 and at least two other courses in Health Studies (as accepted by Health Studies Coordinator), or permission of instructor.

## Heath Studies Designated Courses

The following courses count toward the Health Studies Certificate. Students must take four in at least two academic departments.

## AMST 200/WGST 202: Fat Studies

AMST 200: Health and Illness Narratives
ANTH 100: Introduction to Biological Anthropology
ANTH 216: Medical Anthropology
ANTH 218/WGST 218: Biosocial Aspects of Female Sexuality
ANTH 225: Human Osteology
ANTH 245/WGST 202: Health and Healing in Africa
ANTH 310: Nutritional Anthropology

BIOL 124: Biology of Behavior
BIOL 125: Understanding Cancer
BIOL 126: Infectious Disease versus Immune System
BIOL 127: This Is Your Life
BIOL 216: Genetics
BIOL 333: Physiology
BIOL 335: Microanatomy
BIOL 380: Immunology
BIOL 425: The Biology of Cancer
BIOL 427: Virology
CHEM 490: Medicinal Chemistry
CHEM 490: Bioinorganic Chemistry
ECON 314: Health Economics
ECON 349: Political Economy of the Third World
ECON 495: Political Economy of Health
ENST 310: Special Topics in Environmental Science (when topic is relevant)
ENST 311: Cities, Environment and Health
HIST 350: American Science, Technology and Medicine
INBM 300: Nonprofit Management
PHIL 220/PMGT 220: Biomedical Ethics
POSC 258: Human Rights
POSC 290/PMGT 290: Managing Death
POSC 300: Biomedical Technology, Policy and Law
PSYC 125: Brain and Behavior
PSYC 165: Psychopathology
PSYC 175: Introduction to Community Psychology
PSYC 180: Psychology of Food
PSYC 365: Research Methods in Clinical Psychology
PSYC 375: Research Methods in Community Psychology
PSYC 465: Seminar in Clinical Psychology
PSYC 475: Advanced Seminar in Community Psychology
PSYC 480: Death and Dying
RELG 260: Spiritual Dimensions of Healing
SCIE 259: Writing Science News
SOCI 230/ANTH 245: Medicine, Society and Science
SOCI 233: Medicinal Sociology
SOCI 271: Comparative Social Policy
SOCI 333: The Sociology of Health and Illness
SOCI 400: Death and Dying
SPAN 239: Spanish for the Health Professions

## Hebrew

See Judaic Studies.

## History

## Major

Ten courses at Dickinson (including approved courses while abroad and from transfer students)

## I. Three courses in the Methods Core:

204

## II. Four courses in the Concentration:

The field of concentration usually covers a continental region but students may also define their own thematic concentrations that carry across regions.

## III. Three Courses in Different Fields Outside of the Concentration

This usually means courses in three different regions of the world outside the continent of concentration.

## Including chronological breadth:

Within the ten required courses, at least one course must be pre-1800 in orientation and at least one course must be post-1800.

## Minor

204 and at least five additional history courses.

## Suggested Four Year Program

First Year: One or two 100-level history courses or upper-level courses with good foundations from successful AP or IB coursework
Second Year: 204, and one or two additional history courses
Third Year: 304 and upper level history courses
Fourth Year: 404 and remaining upper level history courses
NOTE: Students should plan their major in consultation with their advisors.

## Teacher Certification

For information, see the Director of Teacher Education, or visit the Education Department web site.

## Independent Study, Independent Research, Student/Faculty Collaborative Research

The department faculty member teaching in the area of the student's topic of interest should be contacted to discuss the proposal.

## Honors in the Major

Honors in the major require a minimum of two courses in independent research. Project proposals must be formulated and approved in the second semester of the junior year. Guidelines are on the History Department website. The project should be discussed with the department chair and faculty advisor. An oral examination is conducted by the department on papers judged to have honors quality.

## Internships

Contact the Internship Office and/or an individual member of the History Department for information. Internships are ordinarily scheduled in the junior or senior years. Summer internships, perhaps at "living history" or museum sites, are also encouraged.

## Opportunities for Off-Campus Study

The Department encourages participation in the many off-campus options. The Dickinson programs in Bologna, Italy and Norwich, England are particularly attractive options for History majors.

## Courses

105. Medieval Europe This survey course will study the development of European civilization during the period ca. 300 to 1300. It will consider the impact of such events as the decline of the Roman Empire, the Germanic invasions, the development of Christianity and the Church, the emergence of feudalism, the expansion of Islam and the Crusades, and the creation of romantic literature.
106. Early Modern Europe to 1799 Society, culture, and politics from the Renaissance through the French Revolution.
107. Modern Europe, 1789-2000 What does it mean to be "modern?" The course will examine the changing relationship between state and society, the growth of nationalism, the industrial revolution, liberalism, imperialism, socialism, secularization, urbanization, warfare, gender roles, the arts, and much more.

117, 118. American History A two-course survey. The first semester 1607 to 1877 covers colonial, revolutionary, and national America through Reconstruction. The second semester 1877 to the present covers aspects of political evolution, foreign policy development, industrialization, urbanization, and the expanding roles of 20th century central government. Both courses include attention to historical interpretation. Multiple sections offered.
119. South Asia: India and Pakistan A survey of ancient Indian civilizations, classical Hindu culture, the era of Muslim dominance, European imperialism, and issues confronting the subcontinent since independence.
120. East Asia: China and Japan An introduction to the classical order in China and Japan followed by a consideration of the impact of Western intervention and internal change from the 18th century to the present. Special emphasis on the interaction between China and Japan in this period.
121. Middle East to 1750 The rise of Islam, the development of Islamic civilization in medieval times and its decline relative to Europe in the early modern era, 1500-1750. This course is cross-listed as MEST 121.
122. Middle East since 1750 Bureaucratic-military reforms of the 19th century in Egypt and the Ottoman Empire, European imperialism, regional nationalisms, contemporary autocratic regimes, and the politicization of religion. This course is cross-listed as MEST 122.

130, 131. Latin American History A two semester survey. The first investigates the ancient American civilizations, the Iberian background of the conquest, the clash of cultures that created a new colonial society, and the early 19th century movements for independence. The second term focuses on the social, economic, and political developments of the new nations from their consolidation in the late 19th century to the present. Both courses view Latin American history from a global perspective.
150. History of Science A global survey introduction to the history of science, technology, and medicine from ancient times to the present. The course emphasizes how scientific knowledge is created and used in the context of cultural, economic, social, and environmental change. Follows a comparative cultural approach, showing how knowledge of nature has developed in diverse places, including many parts of the non-Western world such as China, India, Mesoamerica, and the Middle East. Surveys major changes in ideas, institutions, and social context from the emergence of Western science in early modern Europe to the present.
204. Introduction to Historical Methodology Local archives and libraries serve as laboratories for this projectoriented seminar that introduces beginning majors to the nature of history as a discipline, historical research techniques, varied forms of historical evidence and the ways in which historians interpret them, and the conventions of historical writing. Prerequisite: one previous course in history.
205. Global Environmental History Examines the interaction between humans and the natural environment in long-term global context. Explores the problem of sustainable human uses of world environments in various societies from prehistory to the present. Also serves as an introduction to the subfield of environmental history, which integrates evidence from various scientific disciplines with traditional documentary and oral sources. Topics
include: environmental effects of human occupation, the origins of agriculture, colonial encounters, industrial revolution, water and politics, natural resource frontiers, and diverse perceptions of nature. This course is crosslisted as ENST 205.
206. American Environmental History Examines the interaction between humans and the natural environment in the history of North America. Explores the problem of sustainable human uses of the North American environment from the pre-colonial period to the present. Also serves as an introduction to the subfield of environmental history, which integrates evidence from various scientific disciplines with traditional documentary and oral sources. Topics include: American Indian uses of the environment, colonial frontiers, agricultural change, industrialization, urbanization, westward expansion, the Progressive-Era conservation movement, changes in lifestyle and consumption including their increasingly global impact, shifts in environmental policy, and the rise of the postWorld War II environmental movement. This course is cross-listed as ENST 206.
211. Topics in American History Selected areas and problems in American history. Suitable for beginning history students, majors, and non-majors.
213. Topics in European History Selected areas and problems in European history. Suitable for beginning history students, majors, and non-majors.
215. Topics in Comparative History Selected areas and problems in comparative history. Suitable for beginning history students, majors, and non-majors.
222. Feudal Europe A study of the emergence of feudalism and an evaluation of its role in the development of western Europe. Offered every other year. This course is cross-listed as a MEMS 200 topics course.
223. Renaissance Europe A study of prevailing conditions (social, economic, political, and cultural) in western Europe with particular attention given to the achievements and failures of the Renaissance. Offered every other year.
228. Italian History from the Middle Ages to the Enlightenment An examination of the principal events in Italian society, culture, religion, and politics, including the rise of the medieval monastic orders, Italian city-states, the development of commerce and industry, Renaissance Italy, the age of counter-reformation, and the Age of Enlightenment. Student research will utilize resources such as museums and libraries available in the Bologna area. Offered in Bologna only.
230. Modern Germany From the 19th century to the present. Emphasis on political and cultural responses to socioeconomic change, including German liberalism, the Bismarckian settlement, origins of the world wars, Weimar democracy, and Nazism. Offered every other year.
231. Modern France French society, culture, and politics from the French Revolution to the present. Themes include revolutionary tradition, the development of modern life in Paris, the French empire, and the impact of World War I and II. Offered every other year.
232. Modern Italy A survey of social, cultural, and political developments from the beginnings of the Risorgimento in the 18th century to the post-war period, including the effects of the Napoleonic period, the unification of Italy, World War I, Fascism, World War II, and the Cold War. Offered every other year.
234. Europe: 1914-1945 An examination of the evolution of European society between 1914 and 1945 under the impact of communism, fascism, and world war. Offered every other year.

243, 244. English/British History: 55 B.C. to Date First semester: the emergence of a unified English society, and its political expression, to 1688 with particular attention to social, economic, and institutional developments. Second semester: the political, economic, and social development of Great Britain, domestically and internationally, as a major power in the 18th and 19th centuries, and the abandonment of that role in the 20th century.
247. Early American History An examination of North American history from the earliest contacts between European and American peoples to the eve of the American Revolution. Particular attention is devoted to the interplay of Indian, French, Spanish, and English cultures, to the rise of the British to a position of dominance by 1763, and to the internal social and political development of the Anglo-American colonies.
248. The American Revolution This course will focus on the period between 1763 and the first decade of the 1800s in North America, a time of tumultuous upheaval, intellectual ferment, and sporadic but intense violence which culminated in the creation of the United States. It will cover topics such as the expulsion of the French from North America, the rise of the a bourgeois public sphere, colonial contestation over sovereignty with Great Britain, the role of the military and violence in the new nation, republicanism, and the immediate ramifications of independence on a wide variety of groups within North America, such as women, American Indians, and free and slave African Americans. This course fulfills the DIV II social sciences and US Diversity distribution requirements.
253. Russia: Clans to Empire An examination of the early formation of multi-ethnic clans into a large multinational empire. The course explores state formation, the role of women, church power, the arts, nationality conflict, and figures such as Ivan the Terrible, Peter the Great, and Catherine the Great.
254. Russia: Quest for the Modern This course explores Russia's attempts to forge modernity since the late 19th century. Students will explore the rise of socialism and communism, centralization of nearly all aspects of life (arts, politics, economics, and even sexual relations), and opposition to the terror regime's attempts to remake life and the post-Soviet state's attempts to overcome Russia's past.
257. European Intellectual History Main currents of Western thought from the 17th century to the present with emphasis upon the interaction of ideas and social development. Offered every other year.
270. African History from Earliest Times to c. 1850 This course provides an overview to the political, social, and ecological history of Africa. We will examine the peopling of the continent, the origins of agriculture, the growth of towns and the development of metal technology. Written sources before the 1400s are almost nonexistent for most of Africa, and so we will use archaeological and linguistic sources. The geographic focus of the course will be the Middle Nile, Aksum in Ethiopia, the Sudanic states in West Africa, Kongo in Central Africa, the Swahili states of the East African coast, and Zimbabwe and KwaZulu in Southern Africa. We will also examine the Atlantic Slave Trade and the colonization of the Cape of Good Hope. This course fulfills the DIV II social sciences and Comparative Civilizations distribution requirements.
271. African History since 1800 In this course we will study the political, social, economic, and ecological forces that have shaped African societies since 1800. We will examine in depth the Asante kingdom in West Africa, the Kongo kingdom in Central Africa, and the Zulu kingdom in Southern Africa. European's colonization of Africa and Africans' responses will be a major focus of the course. This course fulfills the DIV II social sciences and Comparative Civilizations distribution requirements.
272. The Atlantic Slave Trade and Africans in the Making of the Atlantic World, 1450-1850 During several centuries of European colonization in the New World, a thriving slave trade forced the emigration of millions of Africans across the Atlantic, an immigration far larger than the simultaneous immigration of Europeans to the same regions. We will address not only the workings of the slave trade on both sides (and in the middle) of the Atlantic, but also the cultural communities of West and West-Central Africa and encounters and exchanges in the new slave societies of North and South America. Through examination of work processes, social orders, cultural strategies and influences, and ideas about race and geography, across time and in several regions, we will explore the crucial roles of Africans in the making of the Atlantic world. Offered every two years. This course fulfills the DIV II social sciences and Comparative Civilizations distribution requirements.
273. African Americans Since Slavery Focuses on the history of Americans of African ancestry in the years following the American Civil War, which ended in 1865. The course examines several important transformations of African Americans as a people. In the first, we consider the transition from slavery to a nominal but highly circumscribed "freedom," which ended with the destruction of Reconstruction governments in the South. We consider the institution-building and community-building processes among African Americans, and the development of distinctive elite and folk cultures among various classes of black people. We examine the Great Migration north
and west between 1900 and 1920, and the urbanization of what had been a predominately rural people. Fifth, we consider the differential impact of World War I, the Great Depression, and the New Deal and World War II on African Americans, and the creation of the Civil Rights Movement in the 1950s-1980s. Offered every two years. This course fulfills the DIV II social sciences and US Diversity distribution requirements.
274. The Rise and Fall of Apartheid The peaceful transition from apartheid to democracy in South Africa in the early 1990s was widely hailed as the "South African Miracle." This course asks why such a transition should be considered miraculous. In order to answer our question, we will begin with South African independence from Britain in 1910 and study the evolution of legalized segregation and the introduction in 1948 of apartheid. After reviewing opposition movements we will move to a discussion of the demise of apartheid and the negotiated political order that took its place. We will examine the machinery and the deliberations of the Truth and Reconciliation Commission, and debate its accomplishments. The course ends with an examination of memory and history. This course fulfills the DIV II social sciences and Comparative Civilizations distribution requirements.
275. The Rise of Modern China The history of China from the fall of the Qing dynasty in 1912 to the rise of China as a global economic and political power in the twenty-first century. Topics include issues of cultural change and continuity, the growth of modern business, women's rights, urban and rural social crises, the rise of modern nationalism, Communist revolution, the political role of Mao Zedong, post-Mao economic reform and social transformation, human rights, and prospects for Chinese democracy. Offered every two years. This course fulfills the DIV II social sciences and Comparative Civilizations distribution requirements.
276. Outsiders in America Considers the process of self-discovery and the formation of collective identity among individuals and groups who have historically experienced discrimination, oppression, and ostracism by middle-class Euro-American society. These groups include the homeless and transient, African-Americans within slavery and for many decades after "freedom," the "new immigrants" from Eastern and Southern Europe in the years 1870-1920, gay and lesbian Americans, the "undeserving poor" among Southern whites, and persons with disabilities. Although the narrators and commentators we will read do not encompass all Americans who have been considered as "others," their writings can be used to ask questions about the formation of individual and collective identities among a number of varied subcultures. This course fulfills the DIV II social sciences and US Diversity distribution requirements.
277. European Empires This course will investigate the building, celebration, and dissolution of the European empires moving from the 15th century into the 20th century. Definitions of imperialism as it developed over time will be discussed. The readings look at the effects of empire in Europe as well as some of the effects in the colonies, including works by Christopher Columbus, William Shakespeare, George Orwell, and Chinua Achebe. Offered every two years.
278. European Women's History This course will explore the lives of European women in the modern period (1789 to the post WWII period). It looks at both rural and urban women, issues of class, family, and motherhood as well as demands for social and political rights for women. The readings include primary sources such as housekeeping guides, novels, and war propaganda as well as secondary sources such as biographies and anthropological studies. This course is cross-listed as WGST 278. Offered every two years.
279. The History of Film This course concerns the emergence and development of the film industry and the various conditions that have and continue to influence it. While artistic considerations are certainly important, the making of films is also a commercial enterprise in which financial concerns are paramount. Moreover, since films enjoy enormous popularity with virtually all in society, regardless of age or education, the political and moral content of films is a constant concern for private as well as governmental organizations. Therefore, this course is also about how competing and often incompatible tensions -- artistic, financial, political, and moral -- have influenced the making of films.
280. Medieval and Renaissance Women Women have always constituted approximately half of the human population, and yet at virtually all times and places they have been subordinate to men; and until fairly recently their history has been ignored. Beginning with the Ancient World and continuing up to the sixteenth century, this course will investigate the status and ideas about women in various cultures. Relying on primary documents, we will
consider the influences that affected the position of women, and, when the sources permit, how women regarded their situation. Offered every two years.
281. Recent U.S. History Examination of the social, political, and economic development of the U.S. since the New Deal.
283. Latin American-U.S. Relations A study of political, economic, and cultural relations between Latin America and the United States from the early 19th century to the present. The evolution of inter-American relations is analyzed in light of the interplay of Latin American, U.S., and extra-hemispheric interests.
286. New Nation Reading and research in the political, economic, and social developments of the U.S. during the first generations of official nationhood, from the writing and ratification of the Constitution to the end of the Mexican War.
288. Civil War-Reconstruction A study of the political, economic, social, and intellectual aspects of 19th century America from 1848 to 1877. Attention is given to the causes and course of the Civil War and evaluates the results of Reconstruction.
304. Historiography and Advanced Methods In this course, students will focus on how historians build their arguments and engage in historiographical debates. After a short review of HIST 204, the course will examine historiographical discussions, their evolution, and the state of the research agenda on a given theme, topic, or field. Students will typically produce a substantial essay. Prerequisite: 204
311. Studies in American History Selected areas and problems in American history. Designed for majors and for non-majors who have taken courses in related fields.

313, 314. Studies in European History Selected areas and problems in European history. Designed for majors and for non-majors who have taken courses in related fields. 314 offered in Bologna only.
315. Studies in Comparative History Selected trends and problems studied comparatively in various periods and geographical areas. Designed for majors and for non-majors who have taken courses in related fields.
333. The First World War A study of the causes, progress, and consequences of the first global conflict of modern times. Particular attention is paid to the political and social impact of total warfare on the participating nations. Offered every other year.
350. American Science, Technology and Medicine Explores the development of science, technology, and medicine in the United States, from the eighteenth century to the present. By viewing science, technology, medicine as powerful ways of making and using knowledge of nature and the body that have developed over the past few centuries, we will examine such questions as: Who has done science, technology, and medicine, and where have they done these activities? How have science, technology, and medicine been funded and directed by business, government, disciplines, and private foundations? Who has owned and exerted control over knowledge of nature and ways to manipulate or control it, as types of intellectual property? How have American science, technology, and medicine reflected and participated in wider social, economic, and political developments? What have been the cultural roles of the scientist, inventor, engineer, and health professional? How has the authority of modern science, technology, and medicine become established? How has the relationship among science, technology, and medicine evolved? How have changing technologies affected the environment, and vice versa? How have changing medical ideas and practices shaped human health? Our overall goal is to understand how modern science, technology, and medicine have come to play such central roles in American society.
358. 19th-20th Century European Diplomacy European diplomatic history from the Congress of Vienna through World War II. This course is cross-listed as INST 358. Offered occasionally.
371. The Arab-Israeli Conflict A study of conflict through four phases: the early stages of the Zionist movement and its impact in Ottoman Palestine to 1917; Zionist immigration and settlement and Arab reaction during the

Mandate period; the creation of Israel and its wars with the Arab states to 1973; and the rise of a Palestinian Arab nationalist movement and the challenges it poses to Arab states and Israel. This course is cross-listed as MEST 231.
372. Islam An introduction to Islamic beliefs and practices in their classical forms: rituals, law, mysticism, and other topics. The course will consider aspects of Islamic cultures and societies in medieval and modern times. This course is cross-listed as MEST 259 and RELG 259. This course fulfills the DIV I.a. or DIV II social sciences distribution requirement.
373. Ecological History of Africa This course provides an introduction to the ecological history of Africa. We will focus in some detail on demography, the domestication of crops and animals, climate, the spread of New World crops (maize, cassava, cocoa), and disease environments from the earliest times to the present. Central to our study will be the idea that Africa's landscapes are the product of human action. Therefore, we will examine case studies of how people have interacted with their environments. African ecology has long been affected indirectly by decisions made at a global scale. Thus we will explore Africa's engagement with imperialism and colonization and the global economy in the twentieth century. The course ends with an examination of contemporary tensions between conservation and economic development. Offered every two years. This course fulfills the DIV II social sciences and Comparative Civilizations distribution requirements.
374. African Women's History This course examines the role of women in African societies since the nineteenth century. Lectures and readings will be arranged thematically. Themes include sexuality and reproduction, the household, women's economic activity, political power, religion, colonialism, and democracy. After a discussion of gender, we will analyze pre-colonial production and reproduction, family life and religion in the twentieth century, women's roles in nationalist politics, the politics of female genital mutilation, and the lives of two contemporary African women leaders. Readings, including historical studies and novels, songs, and art, will be drawn from across the cultures and languages of Africa. This course is cross-listed as WGST 374. Offered every two years. This course fulfills the DIV II social sciences and Comparative Civilizations distribution requirements.
375. Europe's Dictators Contrary to the hope of contemporaries, World War I was not "the war to end all wars." Instead, at its end Europe emerged into a world of unprecedented turmoil and confusion, a time that was nonetheless permeated with hope, idealism, and possibility. This course explores European politics, society, gender, and culture between 1918 and 1945, focusing on the extreme developments in Germany, Russia, Spain, and Italy during this time. We will examine the emergence, development, form, and consequences of the rule of Hitler, Stalin, Franco, and Mussolini, and will explore the relationship of these dictators to the states that sustained them. Offered occasionally.
376. The Holocaust The course explores the causes of the Shoah/Holocaust from anti-Semitism, the eugenics movement, the growth of the modern state, and the effects of war. Themes will also explore perpetrator motivation, gendered responses, bystanders and rescuers, and the place of the Holocaust among other genocides. The course also deals with the continued relevance of Holocaust studies to the present by looking at issues of reparations for victims and commemoration/representation in museums, monuments, literature, and films. More broadly, students will learn to assess human rights violations, the problems of states limiting the rights and freedoms of their citizens, and the horror of state violence that was at the center of most of the previous century and continues in the twenty-first century. Students will approach the Holocaust thematically and conceptually, which will equip them to interpret facts as you encounter them through further study. This course is cross-listed as JDST 316. Offered occasionally.
377. Consumerism, Nationalism, and Gender This reading seminar examines the development of consumerism and nationalism in Europe and America beginning in the late 18th century and continuing on into the post-WWII era, from American Revolutionary boycotts to French fast food establishments. We will look for overlaps or polarities between the movements and the way gender interacted with both of them. Students may be surprised at the gendered aspects of both movements. We will consider, for example, the historical development of the image of women loving to shop, and we will study propaganda from the two world wars with men in uniform and women on the "home front." Our readings will include both promoters and critics of each movement. This course is cross-listed as WGST 377. Offered every two or three years.
378. Society and the Sexes This is a reading seminar that investigates three separate but interrelated threads: the history of sexuality, the history of the body and the construction of gender - in both pre-industrial and modern

Europe. The course explores how definitions of male/female and feminine/masculine have changed over time and how they shaped the life experiences of men and women. Readings will include medical opinions, legal texts, diaries, novels, and political debates. This course is cross-listed as WGST 378. Offered every two or three years.
382. Diplomatic History of the United States Description and analysis of the nation's role in world affairs, from the earliest definitions of a national interest in the 18th century, through continental expansion, acquisition of empire, and world power, to the Cold War. This course is cross-listed as INST 382.
388. African-American History A survey of black history from pre-colonial Africa and the origins of slavery in the American colonies to the urban migrations of the 20th century. This course is cross-listed as AMST 301 (AfricanAmerican History).
389. Native Peoples of Eastern North America A survey of major development among Native Americans east of the Mississippi River from approximately A.D. 1500 to the present, using the interdisciplinary methodologies of ethnohistory. Topics to be addressed include 16th and 17th century demographic, economic, and social consequences of contact with European peoples, 18th century strategies of resistance and accommodation, 19th century government removal and cultural assimilation policies, and 20th century cultural and political developments among the regions surviving Indian communities. This course is cross-listed as ANTH 223.
392. Immigrant America This course examines the experiences of immigrant and migrant Americans from the 17th through the 20th centuries, with special emphasis on the periods 1870-1914 and 1965-present. It will analyze the changing context of the immigrant and migrant experience as depicted in historical, autobiographical, and fictional narratives. Offered every other year.
394. The Family in America Traces the history of the American family from the colonial period through the present, using an interdisciplinary approach that combines readings in demography, social history, psychology, literature, and anthropology. Topics explored include family formation and gender creation, marriage and divorce, family violence, and the social impact of changing patterns of mortality and fertility.
404. Senior Research Seminar An examination of the historiography of a major topic, culminating in a substantial research paper based in significant part on the interpretation of primary sources. Prerequisite: 204 and 304 (or its equivalent), or permission of instructor.

## Humanities

In all courses given the humanities designation, students study the aesthetics of specific human works in various media and inquire into the meanings of human existence embodied or suggested there. The courses explore the varied historical and cultural contexts of such works to support the primary focus upon the integrity and artistic character of the works themselves. The instruction is interdisciplinary.

## Courses

120. Masterworks of the Western World A study of a small number of works from the several arts, these may be from architecture, the graphic arts, literature and music. The intent is 1 ) to focus on the works themselves, their dialectics of form and content, and 2) to inquire into their historical cultural contexts, and 3) to explore the conditions and character of each achievement, both in its own setting and in its potential for more universal aesthetic power. Works will be chosen from the Western Tradition, from fifth century Athens, through Medieval, Renaissance and Modern Europe, to modern America. Open to first and second year students. This course fulfills the DIV I.a., I.b., or I.c. distribution requirement, depending upon topic.
121. Masterpieces of the Western World This course will have the same syllabus as 120. Identical materials are covered and lectures given jointly. However, the course will have its own discussion groups, and a more advanced level of interpretive skills will be assumed both for group discussions and for evaluation. Open to juniors and seniors.

Note: Students may take either course for credit but not both. Either course fulfills DIV I.a. distribution requirement.
The following courses are offered in England:
109. London's History and Culture A topics course which focuses upon the ways that history, literature, and the arts shape culture, using the city of London and its environs as a laboratory. Taught in the Summer Semester in England only.
209. Studies in the Humanities I Required of all students in the Dickinson Humanities Program. This is an intensive immersion program taking place in the city of London as the first component of the Dickinson Humanities Program sequence. The course combines class sessions and site visits to explore London and its environs as a vehicle for understanding key questions about art, identity, and human agency, in the context of history, culture, geography, and governance. This course will fulfill neither a distribution nor a major requirement. Prerequisite: acceptance into the Dickinson Humanities Program in England. Offered prior to fall semester and only in the Dickinson Humanities Program in England.
210. Studies in the Humanities II Required of all students in the Dickinson Humanities Program. Building on HUMN 209, this class provides a broad humanities-centered view of contemporary British life and culture, perhaps including such issues as the arts, identity, education, religion, government, diversity, and media, with an emphasis on Norwich and East Anglia. This course will fulfill neither a distribution nor a major requirement. Prerequisite: 209. Offered fall only in the Dickinson Humanities Program in England.
311. Independent Research in the United Kingdom This is an independent capstone research project designed for all-year students participating in the Dickinson Humanities Program (DHP) in England. Projects are designed by students to include both academic and experiential components; their design and proposed final product must be approved by the DHP resident director. Students are expected to seek out appropriate assistance from relevant UEA and Dickinson faculty. Students will have the option of applying to receive credit towards their major if this is approved prior to the beginning of the project, subject to the rules and procedures of the relevant department at Dickinson. This course fulfills a major requirement only where permission is granted by the appropriate department at Dickinson, as above. Prerequisite: HUMN 209 and 210. Offered spring only in the Dickinson Humanities Program in England.
315. Topics in the Humanities This course permits the exploration of a discipline-specific topic in the context of English culture. Topics will vary according to the discipline of the director and may include topics from the following disciplines: dramatic arts, literature, art, history, and music. This course will not fulfill a distribution requirement and will fulfill a major requirement if so directed by the department of the Dickinson Director. Prerequisite: permission of the instructor. Offered only in the Dickinson Humanities Program in England.

## Interdisciplinary Studies

## Courses

150. Introduction to Intercultural Communications This course examines the basic elements of interpersonal communication and culture as the two relate to one another. Emphasis is given to the influence of culture on the interpretation of the communication act and to the communication skills that enhance cross-cultural communication. Offered in Summer School only.
151. Israel and the Environment: Development Challenges in the Southern Arava This is a four-week summer course, offered in conjunction with the Arava Institute in Israel, and taught by Dickinson and Arava faculty. The course will utilize environmental issues as a vehicle for examining and discussing the social and political challenges of the region. It will provide students with a detailed introduction to the unique aspects of the desert environment and its natural resources, and equip them with an understanding of the environmental challenges that are connected to human settlement in the Southern Arava from a trans-boundary perspective. The course will follow an interdisciplinary approach to natural history, sustainable development, and the environment in Southern Israel, and it
will be divided into two main sections: Natural History of the Desert and Development Challenges in a Desert Environment. In the first part of the course, students will study elements of the local environment, gaining an understanding of the geology and geomorphology, ecology, biodiversity, and archaeology of the Arava Desert and the Gulf of Aqaba. The second part of the course will focus on human interaction with the environment, examining issues of sustainable development, water management, sustainable agriculture, renewable energy and energy conservation, issues of society and environment. In addition, the course also will consider the social and economic structure of kibbutz living and the history of the kibbutzim movement in Israel. To this end, students will conduct small group community-based research projects related to the desert environment and community at Kibbutz Ketura and Lotan.
152. Intercultural Seminar This seminar is offered at selected Dickinson Centers abroad to encourage students to reflect broadly on their site-specific experiences. The experiential and the theoretical dimensions of out-of-class experiences such as internships and service learning reinforce and enrich one another, providing students with a window onto the workings of their host society. Through readings, class discussions, writing assignments, and presentations, this seminar provides a rigorous academic context for evaluating and understanding the experiential components of the course. Offered only at selected Dickinson Centers abroad programs. Contact the Office of Global Education for the list of programs offering this course.

## International Business \& Management

## Major

15 Courses + non-credit field experience/internship:
CORE ECONOMICS COURSES (2)
ECON 111: Introduction to Microeconomics
ECON 112: Introduction to Macroeconomics
CORE BUSINESS COURSES (8)
100: Fundamentals of Business
110: Fundamentals of Accounting
200: Global Economy
220: Managerial Decision Making
230: International Organizational Behavior
240: Marketing in a Global Context
250: Finance
400: Senior Seminar in International Business Policy \& Strategy
FOREIGN LANGUAGE ELECTIVE COURSES(3)
3 courses beyond the intermediate level in one foreign language
International students who have fulfilled the language requirement in their native language and who do not pursue a second language as part of their program at Dickinson must take three courses with U.S. content in the social sciences or humanities.

## ELECTIVE COURSES OFFERED BY THE INBM DEPARTMENT(2)

Two INBM 300-level electives

## AN INTERNSHIP WITH TRANSCRIPT NOTATION OR APPROVED FIELD EXPERIENCE

(This does not carry a course credit.)
The INBM major requires core competence in mathematics. If a student has not scored 600 on the Math SATs or at least a 15 on the Math placement test administered by the Math Department, the student will need to strengthen his/her math skills in order to thrive in the major. The department suggests a course of self-study that includes algebra and geometry or by taking MATH 121 or 151.

Students are eligible to declare the INBM major after successful completion of or current enrollment in at least three of the following four courses: ECON 111, ECON 112, INBM 100 and INBM 110.

## Suggested Four Year Program

First Year: Progress in completing ECON 111, 112; INBM 100, 110; foreign language courses
Second Year: Progress in completing 200, 220, 230, 240, and 250 (plan to complete at least 3 of 5 prior to studying abroad); continued foreign language study
Third Year: Majors are encouraged, but not required to study abroad for a semester or full year. While abroad, students may continue taking foreign language; courses in the core (when appropriate); and electives at the 300level.
Fourth Year: 300 (two courses); 400
NOTE: Students who wait until their sophomore year to take ECON 111 and 112 can still complete the major. However, these students may have difficulty going abroad for a full year and completing the major.

## Honors in the Major

Candidates for honors in the INBM major must obtain at least a 3.6 overall GPA, be in the top $10 \%$ of the senior class majors by major GPA and earn an A or A- in INBM 400. After meeting these criteria, candidates will be invited to produce an individual analysis of a business case study that will be presented formally to the INBM faculty. The faculty will award honors to those presentations judged to have honors quality.

## Courses

100. Fundamentals of Business This course features an introductory focus on a wide range of business subjects including the following: business in a global environment; forms of business ownership including small businesses, partnerships, multinational and domestic corporations, joint ventures, and franchises; management decision making; ethics; marketing; accounting; management information systems; human resources; finance; business law; taxation; uses of the internet in business; and how all of the above are integrated into running a successful business. You will learn how a company gets ideas, develops products, raises money, makes its products, sells them and accounts for the money earned and spent. This course will not fulfill a distribution requirement.
101. Fundamentals of Accounting This is a core course designed to provide students with a fundamental knowledge of the "language of business" and its applications for decision-making purposes. The course is organized into three sections. In the first section students learn about the accounting cycle - essentially the analysis and recording of financial transactions and the preparation of financial statements in accordance with Generally Accepted Accounting Principles (GAAP). The second section of the course focuses on the analysis and interpretation of financial statements. This section emphasizes the use of financial information by external stakeholders for decision making. The third section of the course concentrates on the fundamentals of management accounting. This section centers on the use of accounting information for operational performance evaluation as well as operational and capital decision making. By the end of the course, students will understand the basic principles and concepts of accounting, the business and economic activities that generate accounting information, how accounting information is used by internal and external stakeholders for economic decision making, and how accounting affects society and individuals. This course fulfills the $Q R$ distribution requirement.
102. Global Economy Concentration upon strategies pursued by nation states in their interaction with international business enterprises and nongovernmental organizations. Students will work from an interdisciplinary perspective, with case studies of episodes in U.S. economic history and of selected countries from Africa, Asia, Europe and Latin America. To facilitate their analysis, students will study concepts drawn from trade theory, commercial and industrial policy, balance of payments accounting, exchange rate determination, and open-economy macroeconomics. As such, the course will draw heavily from the introductory economics courses. This approach will help develop an appreciation for the complex environment in which both political leaders and corporate
managers operate. Prerequisite: ECON 111 and 112; concurrent enrollment in ECON 112 by permission of the instructor. This course is cross-listed as INST 200. This course fulfills the QR distribution requirement.
103. Managerial Decision Making Applies the principles and methods of economics to analyze problems faced by managers in a business or other type of organization. This course emphasizes how managers can (and should) use economic tools to further the objectives of the organization. Emphasis is on application of theory to actual business decisions. Many applications will require students to build economic models using spreadsheets, just as they will be required to do in a business setting. Prerequisite: ECON 111 and INBM 110. This course fulfills the QR distribution requirement.
104. International Organizational Behavior This course looks at how human systems function within the structure of the organization and how individual and group behaviors affect collective organizational culture and organizational effectiveness. Students study individual, interpersonal, and group processes; the relationship between attitudes and behavior; ethical decision-making; and the management of organizational conflict and change. Approaches for developing leadership, managing conflict, communicating effectively, enhancing efficiency, and encouraging organizational adaption to changing environments are explored. Examples taken from domestic and international organizations are used throughout the course. Prerequisite: 100 or permission of the instructor. This course may fulfill Comparative Civilizations requirement, depending upon topic.
105. Marketing in a Global Context The primary objective of this course is to identify how companies identify and satisfy their customers' needs. Not only are the "4p's of marketing" covered (product, price, promotional programs like advertising and public relations, and place or distribution), but working with a specific semester-long case, you will learn how to manage an integrated marketing program. We will also examine other important aspects of marketing: market research, new product development, consumer behavior, ethics, competitive analysis and strategic planning, and marketing internationally and on the Internet. Field trips and videos are used to reinforce the ideas presented in the classroom. Prerequisite: 100 or permission of the instructor. 110 is recommended but not required.
106. Finance Knowledge of finance will allow students to adopt the perspective of financial officers in both forprofit as well as not-for-profit organizations. This knowledge is needed to evaluate the health of an organization using key performance indicators and making ethical decisions that involve both short-run and long-run planning horizons. In the short run, this knowledge helps to effectively carry out business functions such as managing cash flow, borrowing money for short periods of time, and keeping control over inventory. In the long run, it helps to choose among competing investment projects and alternative, efficient methods of raising capital. Also, as individuals, knowledge of basic finance will help students to make better-informed decisions concerning their personal financial situations. Apart from covering the fundamentals of financial markets, instruments and institutions, this course will emphasize critical thinking based on quantitative reasoning and decision-making skills. This will include the use of elementary statistical and algebraic methods to investigate fundamental principles of theoretical finance such as the relationship between risk and reward and the pricing of capital assets. Apart from basic theory, knowledge of the hands-on aspects of financial modeling will be imparted via use of spreadsheet software packages such as Microsoft EXCEL; whereby students will be encouraged to create and analyze computational models to test and demonstrate some of the theoretical concepts taught. Prerequisites: ECON 111 and INBM 110. This course fulfills the QR distribution requirement. Completion of both 240 and 250 fulfills the WR requirement.
107. Issues in International Management A topics course examining important issues in international management. Examples of course possibilities include issues in cross-cultural communication and ethics, issues in international marketing, issues in international dimensions of financial reporting, issues in government regulation of business, and issues in financial decision-making. Prerequisite dependent upon topic/topic area.
108. Seminar in International Business Policy and Strategy This capstone course focuses on the challenges associated with formulating strategy in multinational organizations. The course will examine multinational business decisions from the perspective of top managers who must develop strategies, deploy resources, and guide organizations that compete in a global environment. Major topics include foreign market entry strategies, motivation and challenges of internationalization, the analysis of international industries, building competitive advantage in global industries, and the role of the country manager. Case studies will be used to increase the student's
understanding of the complexities of managing international business operations. Prerequisite: Completion of at least four of the five 200-level courses (200, 220, 230, 240, 250). This course will not fulfill distribution requirement.

## International Studies

## Major

## CORE POLITICAL SCIENCE COURSES (2)

POSC 170: International Relations
POSC 280: American Foreign Policy
POSC 281: U.S. National Security Policy (required for Security Studies concentration)
CORE ECONOMICS COURSES (3)
ECON 111: Introduction to Microeconomics
ECON 112: Introduction to Macroeconomics
INBM 200 Global Economy; or
ECON 248 World Economy (in Bologna); or
ECON 348 International Economics
CORE HISTORY COURSE (1)
One course in diplomatic history. The following diplomatic history courses would satisfy this requirement: HIST 358, HIST 382 or HIST 315 (when the topic is World Diplomatic History). Alternatively, the student may take a history course which emphasizes diplomacy, such as US-Latin American Relations (HIST 283); US Relations with Japan (HIST 315) or The Cold War (HIST 315).

COURSES IN THE TARGET LANGUAGE (2)
2 courses in foreign language beyond the intermediate level
GENERAL ELECTIVES (4)
Four courses from one of three areas of concentration:

1) Country or region of specialization: four electives from humanities and social sciences;
2) Globalization and Sustainability: four electives from humanities and social sciences;
3) Security Studies: POSC 281 and three electives from Divisions I, II or III

A list of courses will be posted regularly and updated on the International Studies webpage. The four electives must come from at least two departments.

Note: International Studies majors pursuing the concentration in Security Studies are not eligible for a certificate in Security Studies.

## CAPSTONE COURSES (2)

401: Senior Seminar
404: Integrated Study culminating in the International Studies Oral Exam
SENIOR ORAL EXAMINATION
One especially challenging part of the major is the comprehensive oral examination at the end of the senior year.
The exam lasts one hour, and involves questions relating to all four components of the International Studies
Program.

## Suggested Four-Year Program

First Year: POSC 170; ECON 111 and 112; foreign language
Second Year: POSC 280; INBM 200 or required Diplomatic History; elective in area of concentration; foreign
language
Third Year: complete INST language requirements; complete electives in area of concentration; complete INST core requirements
Fourth Year: 401 and 404; complete any remaining major requirements

## Honors in the Major

A student will be awarded Honors if the student has a 3.50 average overall and in the major, an A or A- in International Studies 401, and Honors in the oral examination.

## Opportunities for Off-Campus Studies

Though not required, study abroad is very strongly encouraged, and most majors spend at least a semester abroad. Choice of study abroad program should be selected in consultation with your major advisor.

## Courses

170. International Relations An introduction to global politics which examines the interaction of states, international organizations, non-governmental organizations, and individuals in the world arena. Topics covered include traditional concerns such as war, balance of power, the UN and international law along with the more recent additions to the agenda of world politics such as international terrorism, human rights, and economic globalization. This course is cross-listed as POSC 170.
171. Global Economy Concentration upon strategies pursued by nation states in their interaction with international business enterprises and nongovernmental organizations. Students will work from an interdisciplinary perspective, with case studies of episodes in U.S. economic history and of selected countries from Africa, Asia, Europe and Latin America. To facilitate their analysis, students will study concepts drawn from trade theory, commercial and industrial policy, balance of payments accounting, exchange rate determination, and open-economy macroeconomics. As such, the course will draw heavily from the introductory economics courses. This approach will help develop an appreciation for the complex environment in which both political leaders and corporate managers operate. Prerequisite: ECON 111 and 112; concurrent enrollment in ECON 112 by permission of the instructor. This course is cross-listed as INBM 200. This course fulfills the QR distribution requirement.
172. European Union The European Union (EU) remains a work-in-progress, and this course will help students to contextualize the EU's development since the mid-1950s, understand the way that it currently functions, and think about how it is likely to evolve in the future. Substantively, the course covers the theory and history of European integration; the EU's unusual (and evolving) institutional structure and political processes; the major policy areas of the EU; and the power dynamics between the EU and its member states. This course fulfills the DIV II social sciences distribution requirement. This course is cross-listed as POSC 270.
173. American Foreign Policy Since 1945 A survey of U.S. foreign policy since World War II. American approaches to such issues as containment, detente, arms control, deterrence, international law, and third world economic development will be discussed. Students will also address issues of U.S. foreign policy formulation, including the roles of the public, Congress, and the president in the foreign policy process. Prerequisite: POSC 170 or INST 170. This course is cross-listed as POSC 280.
174. American National Security Policy Analysis of formulation and implementation of American national security policy within the context of American society and the international system. National security will not be considered simply in a military/strategic sense but as connoting the preservation of the core values of a society. Prerequisite: POSC 170 or 120 or INST 170. This course is cross-listed as POSC 281.
175. Selected Topics in International Studies Special topics not usually studied in depth in course offerings are examined.
176. 19th-20th Century European Diplomacy European diplomatic history from the Congress of Vienna through World War II. This course is cross-listed as HIST 358. Offered occasionally.
177. Diplomatic History of the United States Description and analysis of the nation's role in world affairs, from the earliest definitions of a national interest in the 18th century, through continental expansion, acquisition of empire, and world power, to the Cold War. This course is cross-listed as HIST 382.
178. Topics in International Studies Various topics of interest will be taught on an occasional basis.
179. Interdisciplinary Seminar Research Integrated the various disciplines in the major, normally involving the student's geographic area.
180. Integrated Study The purpose of the course is to help students review and integrate the diverse components of the International Studies major. Prerequisites: senior standing in the INST major and prior completion of INST 401.

## Internships

Students completing an internship will be able to register for the transcript notation program for official recognition of this type of experience. The Career Center will oversee these internships. Students register via Banner SelfService.

## Courses

301. Internship Seminar Studies in the seminar will analyze the workplace through the prism of the liberal arts. Through guided readings, oral and written reports, and structured conversations, students will critically reflect upon and analyze their workplace experiences. Students will study the formal and informal structures of the workplace through a variety of liberal art disciplines, and develop a sense of how their liberal arts education serves them in the workplace. Offered at Dickinson Centers abroad. Prerequisite: Must be simultaneously engaged in an internship. This course is offered credit/no credit only.

7xx. Internships for departmental credit This is available to students who are in majors which require internships. Students will register via Banner with consultation from the supervising faculty member. Faculty-sponsored internships are registered individually as 700 courses specifically attached to the departments in which they are arranged. Students receive credit for the combination of coursework and the work at the internship site.
Arrangements for the internship must be made in advance. Students wishing to undertake a faculty-sponsored internship need to consult with the faculty sponsor during the semester preceding the one in which the internship will be undertaken. This course is offered credit/no credit only.

## Italian

## Minor

The minor consists of the following five courses in Italian beyond the 100 level to include: 231, 232 (or 225, Intensive Italian Expression), or 220 (Summer Immersion) in Bologna, 251, 252, and 320.

Note: Students receiving credit for the Italian studies major may not receive credit for the Italian minor. See Italian Studies.

## Independent Study and Research

Students interested in Independent Study or Independent Research in Italian should consult with the faculty member with whom they hope to work. In the past, students have researched the following topics: Rome in the Italian

Renaissance; Italian Courts and Courtesans in the Renaissance; Futurism in Italy and Russia; Italian Theatre from the Renaissance to the Enlightenment; Italian Cinema; Italian Facism and Modernism; Italian Women Writers.

## Internships

Internships may be available for interested students. The Department chairperson or the Coordinator in Bologna should be consulted for information. In Bologna, students are currently doing internships in Research and Analysis at the Feminist Bookstore in Bologna, and many other sites.

## Courses

*101, 104. Elementary Italian Intensive study of the fundamentals of Italian grammar, with a view to developing reading, writing, speaking, and understanding skills. Laboratory and other audiovisual techniques are used. Cultural elements are stressed as a context for the assimilation of the language.
116. Intermediate Italian Intensive introduction to conversation and composition, with special attention to grammar review and refinement. Essays, fiction and theater, as well as Italian television and films, provide opportunities to improve familiarity with contemporary Italian language and civilization. Prerequisite: 104 or the equivalent.
231. Written Expression and Textual Analysis Designed to increase student's awareness of various rhetorical conventions and command of written Italian through analysis and imitation of model texts of a literary and nonliterary nature. Two and a half hours classroom and one hour laboratory per week. Prerequisite: 116 or the equivalent. This course fulfills the WR distribution requirement.
232. Oral Expression Designed to increase student's comprehension and command of spoken Italian, this course is also an initiation in everyday verbal transactions and cultural communication prevalent in contemporary Italy. Phonetics, oral comprehension, and verbal production are practiced through exposure to authentic documents usually of a non-literary nature, such as television news programs, documentaries, commercial advertisements, and excerpts from films. Two and a half hours classroom and one hour laboratory per week. Prerequisite: 116 or the equivalent.
251. Literature and Society I An interpretation of Italian culture from the 14th through the 17th century by examination of representative literary works. This course will attempt to situate individual authors in the European literary tradition and will examine the interaction between literary production and political, economic, and social trends of the period. Prerequisite: 231 or the equivalent. This course fulfills the DIV I.b. distribution requirement.
252. Literature and Society II Selected readings of literary texts examining the changes in political, economic, and social structures in Italian society from the 18th century to the post-fascist era. Particular emphasis on intellectual trends, artistic currents of the period and their relationship to literature. Prerequisite: 231 or the equivalent. This course fulfills the DIV I.b. distribution requirement.
320. Topics in Italian Studies Study of significant themes and values that inform Italian culture and are informed by it. This course draws on a wide selection of sources including history, sociology, psychology, popular culture. This course is offered in English with a discussion group in Italian for Italian studies majors, Italian minors and INBM majors. Students of Italian and INBM will write their papers in Italian. Prerequisite: 231 or permission of instructor.
400. Senior Tutorial in Italian Studies Conceived as an integrative experience, this tutorial provides an opportunity for students to examine a specific theme or author from various perspectives. Independent research, under close supervision of a professor, will be shared with other seniors in regular discussion group meetings and will be articulated in a substantial critical paper at the end of the semester. Prerequisite: Italian studies major or permission of the director of the Italian studies program.

The following courses are offered in Bologna:
220. Italian Immersion A four-week course in Italian language and culture offered in Bologna, Italy. Students speak only Italian while participating in intensive language instruction and other activities planned by the College to deepen students' understanding of contemporary Italian life and culture. Offered only at the K. Robert Nilsson Center for European Studies in Bologna. Prerequisite: 116 or the equivalent and acceptance into the Italian Summer Immersion Program.
225. Intensive Italian Expression An intensive study of Italian which includes grammar review, reading comprehension, and oral expression in the context of daily Italian civilization. Individual attention to structure, vocabulary, and idiomatic usage. Offered only at the K. Robert Nilsson Center for European Studies in Bologna. Because of the similarity in content, credit will not be given for both 225 and 220 (the immersion course). Prerequisite: 116 and permission of the instructor.
270. Italian Language in Context This two-part course explores in theory and in practice the notion that language is a culturally determined phenomenon. Its aim is to increase students' awareness of the various conventions of discourse while reviewing the key elements of Italian grammar and enriching their active lexical and idiomatic register so they can enroll and successfully complete courses at the University of Bologna. Offered only at the K. Robert Nilsson Center for European Studies in Bologna. Prerequisite: 225.

## Italian Studies

## Major

1.Required courses within the Italian department:
a. ITAL 231
b. ITAL 232 (can be replaced with ITAL 270, offered in Bologna, fall semester)
c. ITAL 251
d. ITAL 252
e. ITAL 320
f. ITAL 400
2. Required courses taken in other departments:
a. ARTH 132: The Arts of Italy (offered only in Bologna) or ARTH 300: Italian Renaissance Art 1250-1450 or ARTH 301: Italian Renaissance Art 1450-1563. Prerequisite for Italian studies major only: ARTH 101 or 102 or permission of instructor
b. HIST 232: Modern Italy (offered only in Bologna and occasionally in Carlisle)
3. Elective emphases: two courses to be taken in one area of emphasis. These courses are to be chosen in consultation with your advisor in Italian studies. Other approved courses may be substituted for any course in an area of emphasis when the contents of the course are suitable.
a. Humanities CLST 224: Roman Archaeology; ARTH 304: Southern Baroque. Prerequisite for Italian studies major only: ARTH 101 or 102 or permission of instructor. (offered occasionally) MUSC 351: Seminar in Medieval and Renaissance Music; PHIL 242: Medieval and Renaissance Philosophy
b. History CLST 253: Roman History; HIST 223: Renaissance Europe HIST 358: 19th-20th Century European Diplomacy
c. Social Sciences INTD 390: Intercultural Seminar (offered only in Bologna); POSC 250: Comparative West European Systems; POSC 275: Comparative Industrial Relations (offered only in Bologna); POSC 276: Italian Politics (offered only in Bologna); POSC 290/ECON 214: European Economic Integration (offered only in Bologna); SOCI 230 (topic where appropriate)

## Opportunities for Off-Campus Study

## Junior Year

The curriculum for Italian Studies students is comprised of three elements, as follows:

1) K. Robert Nilsson Center courses which serve well the interdisciplinary character of the Italian Studies major. Students are encouraged to conduct research and to write their papers for these courses in Italian.
2) Independent Studies, in Italian, involving specialized projects using resources available only in Italian. Directed by on-site Italian faculty from the K. Robert Nilsson Center, the Johns Hopkins School for Advanced International Studies, or the University of Bologna, one-credit independent studies will be grouped in small seminars.
3) Courses at the University of Bologna chosen from a wide variety of university courses appropriate to the major. The Coordinator of Italian Studies should be contacted for information.

## Summer Immersion Program

The Department offers a five-week student immersion program in Bologna at the beginning of each summer. This program is of special interest to students who cannot spend a year abroad. 220 Summer Immersion counts toward the major in Italian Studies or the minor in Italian.

## Japanese

See East Asian Studies.

## Journalism

## Courses

200. Newspaper Journalism This course offers a broad overview of the practice of newspaper journalism combined with rigorous training in news writing. Students will be required to write numerous short articles and several longer pieces of reporting. Readings and discussion topics will include the history, ethics and techniques of newspaper reporting. Students must have solid writing skills and the self-confidence to conduct interviews. This course fulfills the WR distribution requirement.

## Judaic Studies

## Major

1. Required courses: HEBR 111, 112, to be begun no later than the sophomore year (or other language if suitable; consult the coordinator)
RELG 103: Hebrew Scriptures in Context
JDST 104: Introduction to Judaism
JDST 219: History of the Jews
2. One course that views religion from a comparative or methodological perspective, e.g., RELG 111 or 390 or ANTH 233, taken in or before the junior year. (Courses from American Studies or Sociology might also be used to fulfill this requirement, with consent of the professor and the Judaic Studies coordinator.)
3. Three coordinated and complementary electives. To obtain Judaic Studies major credit in these courses, students are required: (1) to keep a journal or portfolio, as appropriate, of course materials having a Judaic Studies focus, and (2) to do a special project, with a Judaic Studies focus. The latter may serve as the regular term paper in that course, if permitted by the instructor. Judaic Studies work will be reviewed at least twice during the term by appropriate members of the Judaic Studies Steering Committee.
Examples include:
Classical Studies. 251: Greek History; 253: Roman History
English. 364: Studies in Fiction and Modern Poetry; 383: Contemporary American Fiction
Art \& Art History. 203: Medieval Art

German. 241: German Cultural History II
History. 105: Medieval Europe; 117: American History I; 118: American History II; 121: History of the Middle East I; 122: History of the Middle East II; 230: Modern Germany; 313: Deviance in Modern Europe; 371: Arab-Israeli Conflict;
Judaic Studies. 206: Jews \& Judaism in the United States; 219: History of the Jews; 241: Judaism in the Hellenistic Period
Philosophy. 382: Theories of Knowledge
Political Science. 280: American Foreign Policy since 1945
Religion. 207: Holocaust \& the Future of Religion; 211: Religion and Fantasy; 241: American Jewish Fiction; 316:
Modern Jewish Thought
4. JDST 490

## Minor

1. One year (two courses) of Hebrew or other language if appropriate
2. RELG 103
3. JDST 104
4. Two electives (JDST 219 is recommended).

NOTE: See coordinator for further courses acceptable toward the major.

## Suggested Four Year Program

First Year: HEBR 103, 104; RELG 103
Second Year: HEBR 116,231; JDST 219; RELG 104
Third Year: PHIL 261; JDST 260; RELG 260
Fourth Year: RELG/JDST 316, Women and Gender in Modern Judaism; RELG 241, American Jewish Fiction or RELG 206

NOTE: Numerous variations are possible; see the coordinator for further courses acceptable toward the major.

## Independent Study

Examples of recent Independent Studies are: Maimonides' Medical Ethics, Jews of India, The Ordination of Gay and Lesbian Rabbis in the U.S., Women and Midrash. Contact Prof. Lieber for more information. Independent studies may be approved to substitute for certain requirements for the major.

## Honors in the Major

Honors may be granted in Judaic Studies for a two-semester project that results in a well-researched, sophisticated, finely crafted theses within the range of 60 to 100 pages. Students will work closely with one advisor but will receive guidance and resources from other members of the department. Only the best projects will be granted Honors, but any student who completes the project will receive credit for the two semesters of work.

## Opportunities for Off-Campus Study

As of 2004, Dickinson Programs in Israel have been indefinitely suspended due to an ongoing U.S. State Department travel warning. However, there are other opportunities for Judaic Studies majors to pursue off-campus study. In a unique partnership with the Jewish Theological Seminary of America, Dickinson students can spend the spring semester of their Junior year in New York City at List College, the Undergraduate College at JTSA. Please see the program coordinator for details and other study abroad options.

## Courses

104. Introduction to Judaism See course description with RELG 104 listing.
105. Judaism in the Time of Jesus See course description with RELG 105 listing.
106. Jews and Judaism in the United States See course description with RELG 206 listing.
107. Jewish Environmental Ethics Since the 1960's many writers on environmental issues have blamed our contemporary environmental crises in part on a so-called "Judeo-Christian" worldview, rooted in the Hebrew Bible. Such writers assert that the biblical heritage shared by these two religious traditions advocates an unhealthy relationship between humanity and nature, one in which human beings are destined to conquer the earth and master it. In this course we will explore Jewish perspectives on nature and the natural world through close readings of biblical and other classical Jewish texts. Emphasizing the way "land" figures as an important theme in classical Jewish theology, history and ritual practice, we will also examine the ways in which this motif is re-conceptualized in modern secular contexts (i.e., Zionism and the kibbutz movement). We will conclude by studying contemporary varieties of Jewish environmental advocacy. In addition to texts focused specifically on Judeo-Christian traditions, the syllabus will include other classic works of Environmental ethics foundational to the field of Environmental studies. Offered every three years in rotation with the offering of ENST 111. This course is cross-listed as RELG 215 and ENST 215.
108. Topics in Judaic Studies Selected topics in Judaic Studies. Topics offered will vary from year to year, reflecting the interests of faculty and students as well as evolving concerns of the field. Examples of topics offered: American Jewish Fiction; Modern Jewish Thought; Jews in Film and Pop Culture; Women, Gender and Judaism. Prerequisite dependent upon topic.
109. History of the Jews See course description with RELG 219 listing.
110. Women in Judaism Half of any people's history is lived by its women, but their part in the history is often overlooked or minimized by (male) historians. From the Matriarchs to Golda Meir, this course examines the roles and contributions of noteworthy as well as ordinary women in Jewish society throughout 3500 years of history.
111. Judaism in the Hellenistic Period Greek culture posed the most potent challenge to the survival of Jewish culture from Alexander's time to ours. This course examines how Judaism coped with an essentially friendly, multicultural society into which it was involuntarily thrust. Covers the period 333 b.c.e. to 313 c.e.
112. Topics in Judaic Studies See course description with RELG 316 listing. Prerequisite dependent upon topic.
113. Senior Thesis An independent project supervised by the Judaic Studies coordinator and an adviser from the appropriate department. The product of this course will be a written term paper that is also defended orally before a panel of three professors. Open to senior Judaic Studies majors only.

## Hebrew

*101, 102. First-Year Biblical Hebrew Fundamentals of Hebrew morphology and grammar. Second term includes readings from Biblical narrative texts.
*103, 104. Elementary Modern Hebrew Introduction to the modern Hebrew language. Alphabet, phonics and grammatical structures. Emphasizes development of reading comprehension, composition and conversational skills.
*111, 112. Intermediate Hebrew Review of grammar, rapid reading of selected texts; Book of Amos in the second semester. Prerequisite: 102 or the equivalent.
116. Intermediate Modern Hebrew Formal study of Hebrew language with emphasis on oral practice and writing skills. Prerequisite: 104 or the equivalent.
200. Advanced Modern Hebrew Expansion of language proficiency through intensified study of cultural and literary texts, including poetry, prose, essays, newspapers, films, and songs. Extensive discussion of issues related to contemporary Israel. Emphasis on the development of reading, writing and conversation skills. Prerequisite: 116 or the equivalent.
231. Hebrew Conversation and Composition Advanced practice in conversation, reading and writing. Careful attention to grammar and style. Prerequisite: 116.
232. Topics in Hebrew Literature Thematic study of Hebrew literature, with an emphasis on close reading, comprehension and interpretation. Prerequisite: 116.
331. Topics in Hebrew Literature and Israeli Culture Intensive study of a particular author, genre, or period. Introduction to the use of critical theory in literary analysis. Prerequisite: 231.

## Latin

See Classical Studies.

## Latin American, Latino and Caribbean Studies

## Major

LALC 201
One additional introductory course (AFST 235, AFST 100, AFST 200, AMST 200)
One language course above the intermediate level in one of the three main
languages of the area (Spanish or French or another regional language approved by the department)
One methods course relevant to area of concentration (geographic or
thematic) (AFST 200, AMST 401, ANTH 240 or 241, ECON 474, HIST 204, POSC 239, SOCI 240 or 244, SPAN 305, WGST 250)
Four courses in area of concentration
Two electives
LALC 490-the capstone course
Of the six courses (four in the concentration and two electives), at least one should be in the humanities and the selection should include courses in three departments. Introductory courses will not count as concentration or elective courses.

## Minor

Six courses:
(Students will be encouraged to follow a concentration.)
LALC 201
Five courses approved by LALC in at least three different departments

## Suggested Four Year Program

First Year: Spanish, Portuguese or French language, or another regional language approved by the department); LALC 201
Second Year: SPAN P 232 or 232 or PORT 231 or FREN 230, or another regional language at the intermediate level; LALC courses
Third Year: LALC courses; Spring semester, Dickinson in Mexico Program at the University of Querétaro or another approved non-Dickinson program
Fourth Year: LALC 490; Research Paper

NOTE: Specific LALC courses are dependent upon the student's area of concentration.

## Independent Study

Independent Studies on LALC topics in the Departments of Political Science, Anthropology, Spanish and Portuguese, Religion, Philosophy, History, Economics, Art \& Art History, or any other academic department that may be able to offer such instruction, with prior approval from the candidate's program supervisor.

## Opportunities for Off-Campus Study

The Dickinson in Mexico Program at the University of Querétaro is an integral part of the LALC major at the college. This is a spring semester program. Students who participate in other off-campus programs approved by the college's Dean of International Education may petition the Committee of Contributing Faculty to have a maximum of three Latin American courses taken in said programs applied to the requirements stated above.

Information regarding other approved non-Dickinson programs which may be appropriate for LALC majors is available through the Office of Global Education.

## Courses

201. Introduction to Latin American, Latino and Caribbean Studies A multi-disciplinary, introductory course designed to familiarize students with Latin American societies through a study of their history, economics, politics, literature, and culture. The purpose of the course is to provide a framework or overview to enhance understanding in the students' future courses in particular disciplines and specific areas of Latin American study.Required of all LALC majors.
202. Interdisciplinary Research Research into a topic concerning Latin America directed by two or more faculty representing at least two disciplines. Students must successfully defend their research paper to obtain course credit. The paper is researched and written in the fall semester for one-half course credit and then defended and revised in the spring semester for the other half credit. Prerequisite: senior majors.

The following course is offered in Querétaro:
202. Mexican Culture and History This course is an examination of the cultural, economic, and political history of Mexico designed to provide an understanding of the complexities of modern Mexican society. Students will examine pre-Hispanic cultures, the colonial era, Mexican independence from Spain, the revolution, 20th century political parties, the sexual revolution, current economic inequality, ethnic and linguistic diversity, and the conflict in Chiapas. Special emphasis will be placed on the history of the state of Querétaro in relation to the Mexican nation. Class trips will be made to selected areas of Mexico that are of archaeological, cultural and historical significance. This course fulfills the DIV II social sciences and WR distribution requirements.

## Law \& Policy

See Policy Studies.

## Linguistics

## Minor

## LING 101: Introduction to Linguistics

Five additional courses from the following, at least two from the Foundational courses and two from the Language
in a Social and Cultural Context courses.

## Foundational Courses:

ENGL 213: The Structure of English Grammar
PHIL 121: Introductory Symbolic Logic
SPAN 365: Introduction to Hispanic Linguistics
LING 201: Phonetics and Phonology
LING 202: Structure and Meaning in Language
Language in a Social and Cultural Context Courses:
ANTH 210: Language and Culture
ANTH 211: Sociolinguistics
FREN 363: (Topics) Introduction to French Sociolinguistics
FREN 363: (Topics) French Inside Out: An Introduction to Language Acquisition
SPAN 366: Introduction to Spanish Sociolinguistics
NOTE: Up to three courses taken during study abroad may count toward the minor; it will be at the discretion of the program coordinator whether a course taken abroad counts towards the minor, and if so, which requirement it will fulfill.

Other Dickinson offerings may count towards the minor; it will be at the discretion of the program coordinator whether such a course counts towards the minor, and if so, which requirement it will fulfill.

## Courses

101. Introduction to Linguistics This course is an introduction to the scientific study of human language. We will discuss language as a cultural phenomenon (How does language change over time? How does language variation express cultural identity?) and as a cognitive function (How do children learn language? How do human brains store and process language?). Participants will learn the fundamentals of linguistic analysis, including phonetics and phonology (sounds), morphology (word structure), syntax (sentence structure), and semantics and pragmatics (meaning). This course fulfills the DIV II social sciences distribution requirement.
102. Phonetics and Phonology This course studies the sounds systems of human languages. We will learn about articulatory phonetics (how sounds are produced by the vocal apparatus), acoustic phonetics (what acoustic properties distinguish sounds from each other), and phonology (how sounds pattern and alternate in languages).Prerequisite: 101, or permission of instructor. This course fulfills the DIV II social sciences distribution requirement.
103. Structure and Meaning of Language This course concerns the analysis of the grammatical structure of linguistic expressions (syntax) and its relationship to meaning (semantics). Students will develop skills in uncovering and stating linguistic patterns and generalizations in English and other languages.Prerequisite: 101, or permission of instructor. This course fulfills the DIV II social sciences distribution requirement.
104. Special Topics in Linguistics An examination of topics in Linguistics not otherwise represented in the curriculum. Prerequisite: 101, or permission of instructor. This course fulfills the DIV II social sciences distribution requirement.

## Mathematics \& Computer Science

## Computer Science

## Major

Eleven courses in computer science including:
132, 232, 251, 314, 332, 356, 491, 492
A Systems course (352, 354 or another designated special topics course).
One elective numbered 200 or higher (Upon prior approval of the department, an appropriate course outside of computer science may replace the 200 -level elective).
One elective course numbered 300 or higher.
Two courses in mathematics:
MATH 170
MATH 211

## Minor

Six courses in computer science numbered 132 or higher, including:
132, 232 and 251
One elective course numbered 200 or higher (Upon prior approval of the department, an appropriate course outside of computer science may replace the 200 -level elective.)
Two elective courses numbered 300 or higher.
Note: 131 is a prerequisite for 132. Students with prior programming experience may place out of 131.

## Suggested Four Year Program

First Year: 131, 132, MATH 170 (or MATH 151 \& 170)
Second Year: 251, 232, MATH 211
Third Year: 356, 354/352, 332, Computer Science Elective
Fourth Year: 491, 314, 492, Computer Science Elective
Note: Students who have taken Advanced Placement (AP) or International Baccalaureate (IB) exams may be given credit for COMP 131, COMP 132 and COMP 232 depending upon their score. Students without AP or IB scores but with least one year of object oriented programming experience in Java may, with faculty approval, be placed into COMP 132.

## Honors in the Major

Departmental honors is the highest distinction that the Department can award to a Major. Majors who receive departmental honors will be those who demonstrate a broad mastery of the discipline as well as an ability to complete and present high quality research. A broad mastery of the discipline is demonstrated by a GPA of 3.40 or higher in all courses related to the major. The ability to complete high quality research is demonstrated by the completion of a yearlong research project. This project will be characterized by an independent and in-depth study of an advanced topic including a literature search, reading of original sources and a novel formulation of results. Finally, the ability to present such research is demonstrated by the preparation of an honors thesis, a public presentation and a successful defense of the work to the department faculty.

## Courses

131. Introduction to Computer Science I An introduction to Computer Science as a major scientific discipline. Special emphasis is placed on problem solving and experimentation via programming in Java. Topics covered include the design of objects and the use of flow-of-control constructs, along with techniques for testing software. Three hours classroom and two hours laboratory a week. This course fulfills either the DIV III lab science or QR distribution requirement. Offered every semester.
132. Introduction to Computer Science II A problem-solving course that utilizes object-based software design using Java. Topics include code modularity and reusability, recursion, data storage, and the empirical and theoretical comparison of elementary algorithms. The lab component focuses on programming as a tool for solving problems and simulating real-world events. Prerequisite: 131 or one year of object oriented programming in Java and instructor's permission. Three hours classroom and two hours laboratory a week. This course fulfills either the DIV III lab science or QR distribution requirement. Offered every semester.

203, 204. Special Topics Topics to be announced when offered. Prerequisite: permission of the instructor. One-half or one course credit.
232. Data Structures and Problem Solving An advanced problem-solving course that focuses on the design and analysis of data structures including lists, stacks, queues, trees, and hash tables. Concepts in generic programming are also introduced. The lab component focuses on the implementation of data structures and their application to solving complex problems. Prerequisite: 132. Three hours of classroom and two hours laboratory a week. This course fulfills either the DIV III lab science or QR distribution requirement. Offered every spring.
241. Numerical Methods An introduction to numerical methods for solving mathematical problems. Topics chosen from interpolation, numerical differentiation and integration, solutions to linear and non-linear systems, numerical solutions to differential equations and related topics. Prerequisite: MATH 171 or 211 or 270. This course is crosslisted as MATH 241. This course fulfills the QR distribution requirement. Offered in even numbered spring semesters.
251. Computer Organization and Architecture An introduction to the internal structure and operation of computers. Topics include an introduction to assembly language programming, data representation, machine arithmetic, digital logic, basic hardware components, input/output processing and a survey of modern machine architectures. Prerequisite: 132. NOTE: Completion of both 251 and 332 fulfills the WR requirement. Offered every fall.
314. Theoretical Foundations of Computer Science An introduction to the theory of computation. Topics include formal language theory (grammars, languages, and automata including Turing machines), and an introduction to the concept of undecidable problems, including the halting problem. Prerequisites: 132 and MATH 211. This course is cross-listed as MATH 314. Offered every spring.
331. Operations Research An introduction to deterministic operations research, including linear programming, sensitivity analysis, and duality. Special topics may include transportation and assignment problems, network models, integer programming, and game theory. Prerequisite: 262. This course is cross-listed as MATH 331. This course fulfills the QR distribution requirement. Offered in odd numbered fall semesters.
332. Analysis of Algorithms A study of algorithmic approaches to problem-solving and techniques for analyzing and comparing algorithms. Approaches such as divide-and-conquer, dynamic programming, and backtracking will be explored in conjunction with complex structures such as trees and graphs. Topics in computational complexity include asymptotic complexity measures, intractability, and NP-complete problems. Prerequisite: 232, MATH 211. NOTE: Completion of both 251 and 332 fulfills the WR requirement. Offered every fall.
352. Computer Networks An examination of the hardware, software and protocols used in computer networks. Topics include layered architectures, client server computing, reliable and unreliable protocols, data encoding and compression, error detection and correction, routing, examination of the internet as an example and an introduction to network programming. Prerequisite: 232 and 251. Offered in odd numbered spring semesters.
354. Operating Systems A study of the principles underlying the organization and implementation of computer operating systems. Topics include multiprogramming, time-sharing, mutual exclusion and synchronization, process scheduling, memory management, and file systems. Prerequisites: 232 and 251. Offered in even numbered spring semesters.
356. Programming Language Structures An examination of the major programming language paradigms. The course also explores the basic properties and special facilities of languages representing each paradigm. Topics include data types, scope rules, block structures, procedure calls and parameter types, and storage allocation considerations. Prerequisite: 232. Offered every fall.
364. Artificial Intelligence A survey of techniques for applying computers to tasks usually considered to require human intelligence. Topics include knowledge representation and reasoning, search and constraint satisfaction, evolutionary and genetic algorithms, machine learning, neural networks, and philosophical questions. Prerequisites: 232 and MATH 211. Offered in even numbered fall semesters.
378. Database Systems A study of the conceptual, technical and social issues involved in organizing, storing and accessing large volumes of data. Topics include data modeling, relational data base design, relational algebra, data definition languages and data manipulation languages. Prerequisites: 232 and MATH 211. Offered in even numbered spring semesters.

393, 394. Special Topics Topics to be announced when offered. Possibilities include Software Engineering, Parallel Computing, and Compiler Design. Prerequisite: permission of the instructor.
491. Fall Senior Seminar Students define and begin a year-long project. Written and oral presentation of project progress reports will be required. Contemporary social, ethical, technical and philosophical issues in computer science will also be examined. Prerequisite: Senior standing. Offered every fall.
492. Spring Senior Seminar A continuation of the project begun in 491 culminating in a written thesis and public presentation. Additional contemporary issues in computer science may be considered. Prerequisite: 491. Offered every spring.

## Mathematics

## Major

170, 171, 211, 262, 270, 351, 361
One math course having 351 or 361 as a prerequisite
One additional math course numbered 301 or higher
Two mathematics electives numbered 201 or higher. One elective may be replaced by COMP 131-132 or by the professional semester for students pursuing certification in mathematics, or, upon prior approval by the department, a mathematics-intensive course from another department.

## Minor

171 and 211, one of the three courses 325, 351 or 361 and two other courses numbered 201 or higher. Possible tracks include: Track 1: 170, 171, 211, 262, 270, 361; Track 2: 170, 171, 211, 262, 351, elective; Track 3: 170, 171, 211, 225, 270, 325. Tracks 1 and 2 focus on theoretical mathematics. Track 3 focuses on statistics.

## Suggested Four Year Program

Model 1 - MATH 151 as entry point (for students who place into 151)
First Year: 151, 170
Second Year: 171, 211, 270, 262
Third and Fourth Years: 351, 361, MATH Electives
Model 2 - MATH 170 as entry point (for students with suitable pre-calculus preparation)
First Year: 170, 171
Second Year: 211, 262, 270
Third and Fourth Years: 351, 361, MATH Electives

Model 3 - MATH 171 as entry point (for students with 170 credit)
First Year: 171, 270
Second Year: 211, 262
Third and fourth years: 351, 361, MATH electives
Model 4 - MATH 171 as entry point (for students with 170 and 270 credits)
First Year option 1: 171, MATH elective
First Year option 2: 211, 262
Second Year option 1: 211, 262
Second Year option 2: 171, MATH elective
Third and fourth years: 351, 361, MATH electives
Note: Students who have taken Advanced Placement (AP) or International Baccalaureate (IB) exams may begin the major with MATH 171 (Multivariable Calculus) or MATH 211 (Discrete Mathematics) depending upon their score.

Students who are interested in applied mathematics should consider the electives 225, 241, 325, and 331 during their third and fourth years.

## Honors in the Major

Departmental honors is the highest distinction that the Department can award to a Major. Majors who receive departmental honors will be those who demonstrate a broad mastery of the discipline as well as an ability to complete and present high quality research. A broad mastery of the discipline is demonstrated by a GPA of 3.40 or higher in all courses related to the major. The ability to complete high quality research is demonstrated by the completion of a yearlong research project. This project will be characterized by an independent and in-depth study of an advanced topic including a literature search, reading of original sources and a novel formulation of results. Finally, the ability to present such research is demonstrated by the preparation of an honors thesis, a public presentation and a successful defense of the work to the department faculty.

## Courses

121. Elementary Statistics An introduction to the science of collecting, organizing, analyzing, and interpreting data. The focus is on data presentation and statistical reasoning based upon the analysis of data sets. Topics include the study of sampling methods, observational and experimental studies, graphical and numerical summaries of data, probability, sampling distributions, significance testing, estimation, and simple linear regression. Does not count toward the major or minor in mathematics. Students cannot take this course concurrently with 225. Students who have received credit for 225 cannot take this course for credit. This course fulfills the $Q R$ distribution requirement. Offered every semester.
122. Introduction to Calculus An introduction to limits and derivatives together with a review of polynomial, rational, trigonometric, exponential, and logarithmic functions. Five hours of class time per week. Prerequisite: departmental placement. This course fulfills the $Q R$ distribution requirement. Offered every semester.
123. Single Variable Calculus The study of real-valued functions, including transcendental functions, limits, derivatives, and their applications, the definition of the Riemann integral, and the Fundamental Theorem of Calculus. Three hours of classroom and one and a half hours of lab per week. Prerequisite: 151 or departmental placement. This course fulfills the QR distribution requirement. Offered every semester.
124. Multivariable Calculus Multivariable calculus including parametric and polar equations, vectors, threedimensional analytic geometry, vector-valued functions, functions of several variables, partial derivatives, and multiple integrals. Additional topics if time permits. Three hours classroom and one and a half hours of lab per week. Prerequisite: 170 or departmental placement. This course fulfills the $Q R$ distribution requirement. Offered every semester.

201, 202. Special Topics Topics to be announced when offered. Prerequisite: permission of the instructor. One-half or one course.
211. Discrete Mathematics An introduction to fundamental mathematical concepts used in mathematics as well as computer science, with an emphasis on writing mathematical arguments. The course presents the principles of mathematical logic and methods of proof such as direct and indirect proofs and mathematical induction. Other topics include sets, functions, relations, matrix algebra, and techniques from elementary combinatorics and graph theory.Prerequisite: 170 or COMP 131 or departmental placement. This course fulfills the WR requirement. This course fulfills the QR distribution requirement. Offered every fall.
225. Probability and Statistics I An introduction to the core topics of probability and statistics. Topics include discrete and continuous random variables, joint distributions, expectation, variance, random sampling from populations, hypothesis tests, and confidence intervals. Prerequisite: 171. This course fulfills the QR distribution requirement. Offered in even numbered fall semesters.
241. Numerical Methods An introduction to numerical methods for solving mathematical problems. Topics chosen from interpolation, numerical differentiation and integration, solutions to linear and non-linear systems, numerical solutions to differential equations and related topics. Prerequisite: 171 or 211 or 270 . This course is cross-listed as COMP 241. This course fulfills the QR distribution requirement. Offered in even numbered spring semesters.
262. Introduction to Linear Algebra An introduction to matrix algebra and abstract vector spaces with an emphasis on writing mathematical arguments. Topics include linear systems and matrices, vector spaces, linear independence, eigenvalues and eigenvectors. Prerequisite: 211 or permission of the instructor. This course fulfills the $Q R$ distribution requirement. Offered every spring.
270. Integration and Infinite Series The study of methods of integration, applications of the integral, elementary differential equations, and infinite sequences and series. Prerequisite: 171or departmental placement. This course fulfills the $Q R$ distribution requirement. Offered every spring.
271. Differential Equations Elementary methods of solutions of selected types of differential equations; solutions of systems of linear differential equations with constant coefficients; and a brief introduction to numerical methods and series solutions. Includes a strong emphasis on applications. Prerequisite: 171 and 270. This course fulfills the $Q R$ distribution requirement. Offered in odd numbered fall semesters.

301, 302. Special Topics Topics to be announced when offered. Prerequisite dependent upon topic. One-half or one course credit. This course fulfills the QR distribution requirement.
311. Applied Combinatorics An advanced course in discrete mathematics introducing the basic tools of combinatorics and their applications. The course will consider the three basic problems of combinatorics; counting, existence and optimization. Prerequisite: 211. This course fulfills the QR distribution requirement. Offered even numbered spring semesters.
314. Theoretical Foundations of Computer Science An introduction to the theory of computation. Topics include formal language theory (grammars, languages, and automata including Turing machines), and an introduction to the concept of undecidable problems, including the halting problem. Prerequisite: COMP 132 and MATH 211. This course is cross-listed as COMP 314.
325. Probability and Statistics II A continuation of Introduction to Probability and Statistics I. Topics include additional discrete and continuous distributions, conditional distributions, additional hypothesis tests, simple linear regression and correlation, multiple linear regression, analysis of variance, and goodness of fit tests. Special topics may include nonparametric tests, nonlinear regression, and time series analysis. Prerequisites: 171, 225 and 270. This course fulfills the QR distribution requirement. Offered in odd numbered spring semesters.
331. Operations Research An introduction to deterministic operations research, including linear programming, sensitivity analysis, and duality. Special topics may include transportation and assignment problems, network
models, integer programming, and game theory. Prerequisite: 262. This course is cross-listed as COMP 331. This course fulfills the QR distribution requirement. Offered in odd numbered fall semesters.
351. Abstract Algebra An introduction to axiomatic formalism using algebraic structures as paradigms. Topics chosen from groups, rings, integral domains, fields and vector spaces. Prerequisite: 262. This course fulfills the QR distribution requirement. Offered every spring.
361. Real Analysis A theoretical development of the basic ideas and concepts of real analysis. Topics include a study of real numbers, sequences, limits and continuity, differentiation and integration. Optional topics include infinite series, sequences and series of functions, and an introduction to point-set topology. Prerequisite: 171, 262 and 270. This course fulfills the QR distribution requirement. Offered every fall.

401, 402. Special Topics Topics to be announced when offered. Prerequisite dependent upon topic. One-half or one course credit.
472. Complex Analysis An introductory study of functions in the complex plane. Topics include: complex numbers and functions, the theory of differentiation and integration of complex functions; Cauchy's integral theorem; the Residue theorem. Prerequisite: 361 and completion of, or concurrent registration in 351 . This course fulfills the $Q R$ distribution requirement. Offered in odd numbered spring semesters.
481. Topology An elementary study of topological spaces. Topics include open and closed sets, the Hausdorff property, compactness, connectedness, continuity, homeomorphisms, product spaces, and the classification of spaces. Optional topics include metric spaces, identification spaces, manifolds, and the fundamental group. Prerequisite: 361 and completion of, or concurrent registration in 351. This course fulfills the QR distribution requirement. Offered in even numbered spring semesters.

## Medieval \& Early Modern Studies

Medieval \& Early Modern Studies offers a multidisciplinary approach to European cultures and civilizations from late antiquity (ca. 500) to the beginning of the Enlightenment (ca. 1750). The major incorporates materials and methodologies from the fields of English, history, art, music, philosophy, religion, classical studies and foreign language. Students in the program have considerable flexibility in the design and focus of their courses of study.

## Major

Eleven courses:
I. MEMS 200
II. Core courses: five courses including HIST 105 and 106, and three courses focused in the time frame or on MEMS theory, one each in Music, Art \& Art History and literature in any language
III. Cluster courses: four courses on a topic decided in consultation with a MEMS advisor, in more than one department and including courses above the 100 level
IV. Senior research: MEMS 490

## Minor

## Medieval option

1. MEMS 200
2. 4-course cluster: four courses on a topic decided in consultation with a MEMS advisor and approved by the MEMS coordinator, in more than one department and including courses above the 100 -level. Three of the courses should provide a significant component of material relevant to the medieval era, while the fourth course must be concerned primarily with the early modern era
3. HIST 105 (Medieval Europe)

## Early Modern Option:

1. MEMS 200
2. 4-course cluster: four courses on a topic decided in consultation with a MEMS advisor and approved by the MEMS coordinator, in more than one department and including courses above the 100 level. Three of the courses should provide a significant component of material relevant to the early modern era, while the fourth course must be concerned with the medieval era.
3. HIST 106 (Early Modern Europe to 1799)

## Advising

Students choose an advisor from participating faculty. The advisor's responsibility will be to ensure that the student's "cluster courses" have an appropriate depth and academic level; i.e., a cluster cannot be composed of four courses at the 100 -level, or four courses from one department. The advisor will also guide the student in developing the cluster with an eye toward The Senior Experience (MEMS 490, see below).

## Honors in the Major

Students may elect to pursue honors as part of their Senior Experience. An abstract of the proposed project and a preliminary bibliography should be submitted before the end of the junior year for review by faculty. Upon evaluation of the final project, faculty will decide whether to award honors.

## Courses

200. Discourse and Methods in Medieval \& Early Modern Studies Sophomore methods course for the major in Medieval \& Early Modern Studies. This is a team-taught, interdisciplinary course, with topics and faculty rotating among the participating departments. Each course will be offered under the umbrella of a single topic, such as a city, a subject, an idea. An introduction to critical and historical methods and discourses within the discipline of Medieval and Early Modern Studies, including reading, critique, research, and interpretation.
201. The Senior Experience Senior Projects and Research in Medieval \& Early Modern Studies. Seniors in the major will work independently with a director and a second faculty reader (representing another discipline in the major) to produce a lengthy paper or special project which focuses on an issue relevant to the cluster of courses taken previously. Under the direction of the program coordinator, students will meet collectively 2 or 3 times during the semester with the directors (and, if possible, other MEMS faculty) to share bibliographies, research data, early drafts, and the like. This group will also meet at the end of the semester to discuss and evaluate final papers and projects. Prerequisite. 200; four-course "cluster."

## Core and Cluster Courses

ARTH 101 Introduction to the History of Art
ARTH 102 Introduction to the History of Art
ARTH 203 Medieval Art
ARTH 205 Topics [Isabella d'Este as Renaissance Music and Patron]
ARTH 300 Italian Renaissance Art 1250-1450
ARTH 301 Italian Renaissance Art 1450-1563
ARTH 391 The Arts in Late Gothic Europe
CLST 100 Greek and Roman Myth
ENGL 101 Topics [Shakespeare's Comedies; Shakespeare's Tragedies; Monty Python and the Real Grail]
ENGL 213 History of the English Language
ENGL 334 The Lyric
ENGL 339 Special Topics in Form and Genre
ENGL 345 Early Modern Women Writers [MEMS 200 in Spring 2009]
ENGL 350 Studies in Medieval Literature [Marie de France]
ENGL 352 Renaissance Lyric Poetry

ENGL 354 Pope, Dryden, Swift
ENGL 359 Special Topics in Literature before 1800 [Medieval and Renaissance Romance]
ENGL 390 Chaucer
ENGL 392 Teaching Shakespeare
ENGL 394 [Revolutionary] Milton
FREN 352 Classical Theatre and Social Myth
FREN 361 French Literature in the Renaissance
GRMN 240 German Cultural History I
HIST 105 Medieval Europe
HIST 106 Modern Europe to 1815
HIST 121 Middle East to 1750
HIST 130 Latin American History I
HIST 213 The Crusades
HIST 222 Feudal Europe
HIST 223 Renaissance Europe
HIST 228 Italian History from the Middle Ages to the Enlightenment
HIST 243 English/British History I [55BC to 1688]
HIST 253 History of Russia I
ITAL 251 Literature and Society I [14th-17th centuries]
JDST 216 Kabbalah [crosslisted as RELG 260]
LATN 234 Ovid
LATN 242 Early Christian Latin
MUAC 101 History of Music I [antiquity to ca. 1750]
MUAC 107 J.S. Bach
MUAC 351 Italian Madrigal and Poetics
MUAC 352 J.S. Bach
[MUEN 009-01 Dickinson Collegium]
PHIL 242 Medieval and Renaissance Philosophy
PHIL 243 Philosophy in the 17th and 18th Centuries
RELG 212 History of Christianity I [1st-14th centuries]
RELG 214 History of Christianity II
RELG 259 Islam
RELG 312 Eastern Orthodox Christianity
SPAN 310 Studies in Medieval Texts
SPAN 311 Studies in Pre-Columbian and Colonial Texts
SPAN 320 Spanish Golden Age Texts
SPAN 380 History of the Spanish Language
SPAN 410 Cervantes' Don Quixote

## Middle East Studies

## Major

12 courses consisting of the following:
Two years of Arabic or modern Hebrew (4 courses)
HIST 121: Middle East to 1750
HIST 122: Middle East since 1750
One social science course in another discipline (3 courses)
Three humanities courses (3 courses)
One additional elective
(NOTE: one of these electives to be in a country that is not the focus of the language study.)

The following courses will count toward the major. Relevant courses under the rubric of "topics" in various departments will also meet major requirements:

ARBI 101: Elementary Arabic<br>ARBI 102: Elementary Arabic<br>ARBI 211: Intermediate Arabic<br>ARBI 212: Intermediate Arabic<br>ARBI 360: Topics in Arabic Language and Culture<br>HEBR 103: Elementary Modern Hebrew<br>HEBR 104: Elementary Modern Hebrew<br>HEBR 116: Intermediate Modern Hebrew<br>HEBR 200: Advanced Modern Hebrew<br>HEBR 231: Hebrew Conversation and Composition<br>HEBR 232: Topics in Hebrew Literature<br>HEBR 331: Topics in Hebrew Literature and Israeli Culture<br>HIST 121/MEST 121: Middle East to 1750<br>HIST 122/MEST 122: Middle East since 1750<br>HIST 213: The Age of the Crusades<br>HIST 315: Modern Iran<br>HIST 371/MEST 371: The Arab-Israeli Conflict<br>HIST 372/RELG 259/MEST 259: Islam<br>HIST 404: US-Middle East Relations<br>JDST 104: Introduction to Judaic Studies<br>JDST 216/RELG 241: Love, Sex and Hebrew Texts<br>JDST 216: Jews and Judaism in the Medieval World<br>JDST 316: Israeli Cinema<br>POSC 277/MEST 266: International Politics of the Middle East<br>POSC 290/: Comparative Politics of the Middle East<br>POSC 290/MEST 264: Politics, Society and Culture in Israel<br>RELG 247/MEST 250: Saints and Demons<br>RELG 312: Eastern Orthodox Christianity

## Suggested Four-year Program

First Year and Second Year: Students should begin to work on the language requirement in either Arabic or Modern Hebrew, and take at least three area studies courses. During the fall semester of the second year, students should explore study abroad options.
Third Year: Majors are urged to spend at least one semester in a study abroad program to deepen their language expertise and to broaden the range of subject area courses.
Fourth Year: At the start of the fourth year, majors should consult with their advisor and with the program coordinator for guidance about designing the senior thesis and agreeing on a plan to complete it on time and to the required standard.

## Independent Study

## Opportunities for Off-campus Study

Students should consult with the program coordinator and the Office of Global Education to determine suitable opportunities for off-campus study. For students taking Arabic, Dickinson has a Partner Program with the American University in Cairo. For students taking Modern Hebrew, Dickinson has a Partner Program with the Jewish Theological Seminary in New York City.

Courses
121. Middle East to 1750 The rise of Islam, the development of Islamic civilization in medieval times and its decline relative to Europe in the early modern era, 1500-1750. This course is cross-listed as HIST 121.
122. Middle East since 1750 Bureaucratic-military reforms of the 19th century in Egypt and the Ottoman Empire, European imperialism, regional nationalisms, contemporary autocratic regimes, and the politicization of religion.This course is cross-listed ast HIST 122.
200. Selected Topics in Middle East Studies The subject matter will vary from year to year dependent upon the expertise of faculty and the needs and interests of students.
231. Arab-Israeli Conflict A study of conflict through four phases: the early stages of the Zionist movement and its impact in Ottoman Palestine to 1917; Zionist immigration and settlement and Arab reaction during the Mandate period; the creation of Israel and its wars with the Arab states to 1973; and the rise of a Palestinian Arab nationalist movement and the challenges it poses to Arab states and Israel. This course is cross-listed as HIST 371.
241. Romantic Orientalism and its Critics Ever since Byron returned from Ottoman Greece and Ali Pasha's Albania in 1811, British culture has sought to interpret the "mysterious" East in ways that were as complex as they were contradictory. Romantic orientalism emerged out of the effort to describe Arabic (and especially Islamic) culture in ways that reflected not only reality but also the biases of the Europeans who did the describing: religious, political, social, and aesthetic. Our course will begin with examples of Romantic Orientalism - The History of Nourjahad, Vathek, and Byron's own The Giaour and will then read contemporary critiques of these works (Samuel Johnson, Oliver Goldsmith, Maria Edgeworth) as well as more recent critics: Felicity Nussbaum, Adam Potkay, and Marilyn Butler. We will then read Eastern works that have had a more direct influence on our own times: The Arabian Nights, the poems of Rumi, and works of contemporary fiction and poetry by Elias Khoury, Naguib Mahfouz, Adonis, and others. Finally, we will consider film and media images of the Arab and Islamic world that have contributed to a more contemporary American version of orientalism, and we will examine the Arab world's view of these same images and stereotypes: evil sultans, alluring harems, violent terrorists. We will also consider the possibility of an occidentalism that parallels the excesses and confusions of orientalism. Our goal in all of our work will be to see the world once called "The Orient" reflected, refracted, and reimagined by Western and Eastern viewers. Along the way we will seek to understand how literary texts can help us to understand the complexities of different cultures. Two essays and a final exam. This course is cross-listed as ENGL 370. This course fulfills the DIV I.b. and Comparative Civilizations distribution requirements.
250. Saints and Demons This course will examine the complex relationship of Jews and Muslims in the Middle East and North Africa, from the dawn of Islam through the 20th century, drawing upon religious studies, cultural historical and ethnographic perspectives. We will examine sources from the "high" traditions of both religious communities, and spend the bulk of the semester closely examining "popular" traditions - such as saint veneration and spirit possession - which will challenge the idea that Jewish and Muslim ritual and practice are wholly separate and distinct. This course is cross-listed as RELG 247. The course fulfills the DIV I.a. and Comparative Civilizations distribution requirements. Offered every two years.
259. Islam An introduction to Islamic beliefs and practices in their classical forms: rituals, law, mysticism, and other topics. The course will consider aspects of Islamic cultures and societies in medieval and modern times. This course is cross-listed as HIST 372 and RELG 259. This course fulfills the DIV I. a. or DIV II social sciences distribution requirement.
260. Media \& Politics in the Middle East \& North Africa Together we will try to answer the questions: What roles do media technologies and practices (particularly new digital technologies) play in the politics of Middle Eastern and North African (MENA) countries? How do states respond to the challenges and opportunities presented by changes in the communication ecosphere? We will study the development of mass media and its regulation in the MENA region. Students will collaborate to produce presentations for the class on particular problems in the role of media in politics and society, and will also complete individual critical and reflective works. The class will make extensive use of digital and social media, seeking to understand their political and social impact partly through firsthand experience. This course is cross-listed as POSC 260. Offered every two years.
262. Zionism: Ideology, Institutions, Cultures and Contestation This course aims to provide students with a multi-dimensional understanding of Zionism as a political ideology that found its expression in the creation of a state, the establishment of a particular set of economic and cultural institutions as well as in the creation of new conceptions of land, space, and group interaction. At once a future-oriented revolutionary ideology and revivalist movement based on the idea of returning to an ancient homeland, the significance of Zionism in 20th and 21st centuries cannot be understated. Zionism (or rather, Zionists), produced a state Israel whose foundation has roiled politics in the Middle East until today. This course will look at the particular historical circumstances that gave rise to Zionism in the late 19th century, Zionist institutions, political culture and dominant historical narratives. The course will conclude with a detailed examination of more contemporary critics of Zionism both from within Israel and outside of it. This course is cross-listed as POSC 290 and JDST 216. This course fulfills the DIV I.a. or DIV II social sciences distribution requirement. This course fulfills the Comparative Civilizations distribution requirements.
264. Politics, Society and Culture in Israel This course provides an overview of the major political, social, and cultural forces that have shaped, and continue to shape, modern Israel. It covers the origins of the Zionist movement, political leadership, foreign relations, parties, the electoral system and the Israeli-Palestinian and Israeli-Arab conflict more broadly. In society, it focuses on the major cleavages in Israeli society, civil society, consumerism, as well as the impact of the Holocaust and the role of the Israel Defense Forces. The cultural component centers largely on poetry, short stories and changes in popular music. The course is intended to add nuance and depth to the often one-dimensional portrayal of Israel in the media and provide students with the analytical tools to better understand events in the Middle East. This course is cross-listed as POSC 264 and JDST 216. This course fulfills the DIV. I.a. or DIV II social sciences distribution requirement. This course fulfills the Comparative Civilizations distribution requirement.
266. International Politics of the Middle East This course examines key factors and events in the formation of the modern Middle East state system and evolving patterns of conflict and cooperation in the region. Students will apply a range of analytical approaches to issues such as the conflicts between Arabs and Israelis, Iraq's wars since 1980, and the changing place of the region in global politics and economics. This course is cross-listed as POSC 277. This course fulfills the DIV II social sciences and Comparative Civilizations distribution requirements.
280. Political Economy of the Middle East This course aims to help students gain a more nuanced understanding of the issues and problems facing the economies of the Middle East. To do so, we will review the region's history to introduce the institutional, religious, social, political and economic factors that have led to the current economic conditions and developmental problems in the region; make an introduction to the theoretical and conceptual frameworks such as human development, the political economy of oil, political Islam, alternative banking systems, the role of the state in the economy; apply the theoretical and conceptual frameworks to the analysis of the current economic and social ills such as unemployment, inflation, high dependency ratio, low trade levels; gender inequalities, civil wars; examine scenarios for the future with an emphasis on the human development framework. In our analysis, we will pay special attention of the Middle East's place in the global world economy. To understand the economic relations of the countries in the region with each other and the rest of the world, we will introduce and discuss the concepts of regional integration, trade and financial liberalization, structural adjustment programmes, economic restructuring and internal and external migration including brain drains, economic roots of terrorism. This course is cross-listed as ECON 214. This course fulfills the DIV II distribution requirement.
490. Middle East Studies Research Seminar Selected topics in Middle East Studies at the advanced level, designed for Senior research. The subject matter will vary. May be cross-listed with seminars in related programs. Prerequisite: dependent upon topic. Offered occasionally.

## Military Science

Participation in military science courses during the first and sophomore years results in no military obligation. Individuals who elect to continue in and successfully complete the program during their junior and senior years can receive a commission as a second lieutenant in the U.S. Army, National Guard or Army Reserves upon graduation. Upon graduation and commission, they will incur an eight year service obligation.

## Suggested Four Year Program

First Year: 101, 102
Second Year: 202
Third Year: 301, 302
Summer between third and fourth years: 5-week ROTC Advanced Camp
Fourth Year: 401, 402
NOTE: Options are available for those individuals who encounter scheduling conflicts or who desire to begin participation after their first year. Contact the department for further information.

Advanced Leadership Practicum: A five-week summer training program at an Army installation which stresses the application of military skills to rapidly changing situations. Participants are evaluated on their ability to make sound decisions, to direct group efforts toward the accomplishment of common goals, and to meet the mental and physical challenges presented to them. Completion of this practicum is required prior to commissioning and it is normally attended between the junior and senior years. Participants receive room, board, travel expenses, and medical care, and are paid for the five-week period.

Leadership Laboratory: Students who enroll in the ROTC program as cadets are required to attend a leadership laboratory one hour a week as a practical application and reinforcement of military skills introduced in the classroom. Non-scholarship students who take MISC 101, 102 who do not desire to enroll as cadets are encouraged to attend the leadership laboratory, but are not required to do so.

Financial Assistance: Books and equipment for military science courses and the ROTC program are provided free of charge to all cadets. All juniors and seniors in the ROTC program (advanced course) and scholarship cadets are paid a tiered, tax-free subsistence allowance of \$350-\$500 a month with an additional \$1200 each year for books. Additionally, students can qualify for room and board grants from Dickinson College, an extra incentive not available at all schools. The total scholarship incentive can exceed $\$ 40,000$ per year depending on the degree of choice.

Physical Education Credit: Two blocks of physical education for military science may be earned (one block after two years participation and a second prior to graduation).

Scholarships: Army ROTC scholarships based on merit are available. Recipients receive full tuition benefits with some fees paid as well. In addition, all scholarship recipients receive $\$ 1200$ annually for books, a tax-free stipend of up to $\$ 500$ per month and are eligible for a room and board grant from Dickinson College. High school seniors may apply for four-year scholarships. During the academic year, Dickinson students (whether enrolled or not in ROTC) may compete for two and three-year scholarships (availability subject to funding). Information may be obtained from high school counselors or any Army ROTC professor of military science. Scholarships are also available for students entering a medical school or pursuing graduate studies in the basic health sciences. For additional information contact CPT Justin Chaudrue (717) 245-1221.

Corresponding Studies Program: Students participating in an off-campus study program in the U.S. or abroad may continue participation in either the Army ROTC basic course or advanced course and receive the same course credit and benefits as a student enrolled in the on-campus program. Army ROTC scholarship students are also eligible to participate in this program. For more information contact the CPT Justin Chaudrue (717) 245-1221.

Non-Dickinson Students: Students pursuing a baccalaureate or advanced degree program at nearby colleges are eligible to cross-enroll in the Dickinson College ROTC program. These schools have procedures which allow full or partial credit toward graduation for military science courses taken through Dickinson. Contact this department for more information.

## Courses

101. Introduction to Military Leadership I Introduces Cadets to the personal challenges and competencies that are critical for effective leadership. Cadets learn how the personal development of life skills such as critical thinking, goal setting, time management, physical fitness, and stress management related to leadership, Officership, and the Army profession. The focus is on developing basic knowledge and comprehension of Army leader attributes and core leader competencies while gaining a big-picture understanding of ROTC, its purpose in the Army, and its advantages for the student. One-half course credit. Open to all Dickinson students. Meets 75 minutes per week.
102. Introduction to Military Leadership II A critical inquiry into the evolution of the relationship between military policy and the foreign and economic policies of the United States. A careful study of military history designed to foster in the student a balanced judgment of both political leaders and soldiers and of their mutual problems in the conduct of military affairs in peace and war. By means of both written and oral presentations regarding the history of military art, battle history, technical studies and the relationship of the armed forces with society, students will be encouraged to develop a habit of critical reflection. To complement their investigation of military history, students will receive practical instruction in the application of military art and basic soldier skills. One-half course credit. Open to all Dickinson students. Meets 75 minutes per week.
103. Foundations of Military Leadership I Explores the dimensions of creative and innovative tactical leadership strategies and styles by examining team dynamics and two historical leadership theories that form the basis of the Army leadership framework. Cadets practice aspects of personal motivation and team building in the context of planning, executing, and assessing team exercises and participating in leadership labs. Focus is on continued development of the knowledge of leadership values and attributes through an understanding of Army rank, structure, and duties and basic aspects of land navigation and squad tactics. Case studies provide tangible context for learning the Soldier's Creed and Warrior Ethos as they apply in the contemporary operating environment (COE).One-half course credit. Open to all Dickinson students. Meets two hours per week each semester.
104. Foundations of Military Leadership II Examines the challenges of leading tactical teams in the COE. The course highlights dimensions of terrain analysis, patrolling, and operation orders. Further study of the theoretical basis of the Army leadership framework explores the dynamics of adaptive leadership in the context of military operations. MISC 202 provides a smooth transition into MISC 301. Cadets develop greater self-awareness as they assess their own leadership styles and practice communication and team building skills. COE case studies give insight into the importance and practice of teamwork and tactics in real-world scenarios. No course credit. Open to all Dickinson students. Meets two hours per week each semester.
105. Adaptive Military Team Leadership Challenges Cadets to study, practice, and evaluate adaptive leadership skills as they are presented with challenging scenarios related to squad tactical operations. Cadets receive systematic and specific feedback on their leadership attributes and actions. Based on such feedback, as well as their own selfevaluations, Cadets continue to develop their leadership and critical thinking abilities. The focus is developing Cadets' tactical leadership abilities to enable them to succeed at ROTC?s summer Leadership Development and Assessment Course (LDAC).One course credit. Meets two hours per week each semester.
106. Applied Military Team Leadership Uses increasingly intense situational leadership challenges to build Cadet awareness and skills in leading small units. Skills in decision-making, persuading and motivating team members when "under fire" are explored, evaluated, and developed. Aspects of military operations are reviewed as a means of preparing for the ROTC Leader Development and Assessment Course (LDAC). Cadets are expected to apply basic principles of the Law of Land Warfare, Army training, and motivation to troop leading procedures. Emphasis is also placed on conducting military briefings and developing proficiency in Garrison operation orders. MISC 302 Cadets are evaluated on what they know and do as leaders.No course credit. Meets two hours per week each semester.
107. Adaptive Military Leadership Develops Cadet proficiency in planning, executing, and assessing complex operations, functioning as a member of a staff, and providing performance feedback to subordinates. Cadets assess risk, make ethical decisions, and lead fellow ROTC Cadets. Lessons on military justice and personnel processes prepare Cadets to make the transition to Army officers. MISC 401 Cadets analyze, evaluate, and instruct Cadets at lower levels. Both their classroom and battalion leadership experiences are designed to prepare MISC 401 Cadets
for their first unit of assignment. They identify responsibilities of key staff, coordinate staff roles, and use situational opportunities to teach, train, and develop subordinates. One course credit. Meets two hours per week each semester. Prerequisites: MISC 302.
108. Military Leadership in a Complex World Explores the dynamics of leading in the complex situations of current military operations in the COE. Cadets examine differences in customs and courtesies, military law, principles of war, and rules of engagement in the face of international terrorism. They also explore aspects of interacting with nongovernmental organizations, civilians on the battlefield, and host nation support. The course places significant emphasis on preparing Cadets for their first unit of assignment. It uses case studies, scenarios, and "What Now, Lieutenant?" exercises to prepare Cadets to face the complex ethical and practical demands of leading as commissioned officers in the United States Army. No course credit. Meets two hours per week each semester. Prerequisite: MISC 401.

## Modern Greek

## Courses

107. Intensive Modern Greek I This is an intensive, specialized course targeting entering archaeology students considering participation in the summer field school at Mycenae. The goals are to prepare them to communicate in Modern Greek at a basic level while living and excavating at Mycenae and to enhance their experience with the local people and culture, both on- and off-site. The course teaches a basic oral command and understanding of Modern Greek, including a basic vocabulary of commonly used words and idiomatic expressions, as well as some specialized, professional or technical terms specific to archaeology. At the same time, the course is comprehensive; it covers speaking, listening comprehension, reading, and some writing. Additional on-site summer instruction will aim at further developing oral communication skills.Required for entering students to the D.E.P.A.S. of Mycenae field program; does not fulfill the College foreign language requirement.
108. Intensive Modern Greek II An intensive, specialized course aimed at maximally preparing archaeology students returning to Mycenae to function effectively as trench assistants and trench masters at a Greek excavation, as well as enabling them to function more comfortably in Greek culture. The course significantly advances students' reading, writing, and speaking skills in Modern Greek, especially in further developing the specialized vocabulary necessary for archaeology professionals. Additional on-site summer instruction will aim at enhancing communication and research skills in Modern Greek.Prerequisite: MGRE 107; required for students returning to the D.E.P.A.S. of Mycenae field program; does not fulfill the College foreign language requirement. Offered every spring.

## Music

## Major

All majors will take a six-course core curriculum including 101, 102, 125, 126, 245, 246, plus one course from 351, 352, 353, 354. Participation for two complete semesters in one or more department ensembles to fulfill the ensemble participation requirement. Non-majors may also receive notation on the transcript for ensemble participation. To complete the major a student may choose from four options:

Music Composition emphasis: 255, 256, 491, 492. The 300-level seminar must be 354 or another seminar by permission of department chair.

Music History emphasis: Two additional courses from 351, 352, 353, 354, and either 495 or 496 (senior seminar) by advisement, culminating in a research paper.

Music Theory emphasis: 255, one additional course from 351, 352, 353, 354 and 493 or 494.

Music Performance emphasis: one additional course from 351, 352, 353, 354 and 423, 424 (repertory and performance), culminating in a senior recital. Majors with this emphasis who wish to apply for study abroad in the junior year must have their adviser's permission to pursue the Performance Studies emphasis before the end of fall semester, sophomore year.

Note: Permission may be granted by the chairperson to count a course from Music 103 to 111.

## Minor

All minors will take the following four core courses: 101, 102, 125, 126; after which they select two additional courses according to the minor emphasis: minors in theory/composition and music history choose two additional courses in music History or theory above 102. Minors with emphasis in performance take MUPS 413 and 414. Participation for two complete semesters in one or more department ensembles to fulfill the ensemble participation requirement. Non-majors may also receive notation on the transcript for ensemble participation (large ensemble or chamber music).

## Music Department Ensembles

Admission to all department ensembles is by audition at the beginning of the academic year or by permission of the director. Instrumental ensembles meet once a week for 2 to $21 / 2$ hours each. Choral ensembles meet twice a week for 1 to $11 / 4$ hours each. Credit for participation in department ensembles is noted on participants' transcripts.

Chamber Music Ensembles The department coordinates, coaches and supports performances of student chamber music ensembles according to student demand and availability. These ensembles are featured at the end of the academic year in a student chamber music concert.

College Choir This mixed choir performs several major choral works each year at Dickinson with the Orchestra.
Orchestra Open to students and faculty at the college and to instrumentalists from the surrounding area interested in the performance and study of the best in orchestral literature.

Collegium The Dickinson Collegium consists of a small choir of 24 voices, and small instrumental ensembles that occasionally perform in conjunction with the choir. The groups specialize in, but are not limited to, music of the medieval, Renaissance and Baroque eras. The Collegium performs in a variety of settings, including an annual Christmas concert in Memorial Hall.

Jazz Ensemble This ensemble performs classic big band arrangements and also features small combos from the larger group. Concerts regularly feature nationally-known guest soloists.

DICE (Dickinson Improvisation and Collaboration Ensemble), a flexible, open-instrumentation ensemble (woodwinds, brass, percussion, strings and voice). Repertoire is diverse but focuses mostly on masterworks and lesser-known pieces of the 20th and 21st centuries.

## Suggested Four Year Program

First Year: 125 (fall only), 126 (spring only); 101 and/or 102 (these may be taken out of sequence)
Second Year: 245 (fall only), 246 (spring only), 101 and/or 102, possibly 255 for composition or theory emphasis if simultaneous with 245
Third Year: remaining 200-level courses; 351-354 seminars
Fourth Year: all 400-level courses

## Courses

101. History of Music An introductory course for students with some previous music experience providing training in intelligent listening through chronological discussion and analysis of selected representative works from the Middle Ages to 1750.
102. History of Music Why do we consider Mozart and Beethoven geniuses? What distinguishes music from sound and noise? How do opera and song encode cultural mores? How have social and political issues influenced supposed "abstract" music? Is music a more definite language than words? These are some of the aesthetic and philosophical issues that students will consider in this course, which explores musical composition from the death of Bach (1750) to avant-garde and minimalist composers. Students will develop skills associated with intelligent listening while also consulting primary sources in order to understand the contexts of musical production over the past 250 years. The ability to read music is not required for this course and non-musicians are welcome and encouraged.
103. Biographical Studies A study of the life and works of a major composer, e.g., Bach, Beethoven, Mozart, or Bartok. The content of the course will be altered from year to year in order to provide a diversity of subject matter. Prerequisite: 100, 101 or 102 or permission of the instructor.
104. Performance Studies Class: Piano Introduction to piano technique and keyboard fundamentals in a group setting. Recommended for all students with no keyboard experience regardless of major. Course content includes both group and solo playing, individual practice sessions, basic music theory, and expository writing. Learning objectives include being able to read and play basic piano music with two hands and pedal. Will meet prerequisite for continued study in piano (114). Prerequisite: permission of the instructor.

## Vocal Technique

An introduction to vocal technique in a group setting. Course content includes physiology, both group and solo singing, independent practice sessions, IPA (International Phonetic Alphabet), written listening assignments and required concert attendance. Will meet prerequisite for continued study in voice (114). Prerequisite: permission of the instructor.

## Guitar

Introduction to plectrum and finger style guitar technique in a group setting. Recommended for all students wanting to learn guitar at Dickinson with little or no prior experience and for those music majors or future music majors with no guitar experience. Course content includes both group and solo playing, individual practice sessions, music notation, listening assignments, fretboard theory, basic musicianship and required concert attendance. While the emphasis in reading will be on standard notation, tablature and chord chart diagrams will be explored.
Prerequisite: permission of the instructor.

113, 114. Performance Studies I Private study open to all students who demonstrate some acquaintance with musical notation, and who should continue to study voice or an instrument at the basic level.One-half or one course each semester. Prerequisite: permission of the instructor.
115. Fundamentals of Music A hands-on introduction to the fundamentals of music through reading, writing, listening, singing, and basic keyboard skills. Emphasis is upon the acquisition of musical literacy grounded in a thorough knowledge of music notation.The course is intended for non-majors with little or no theory background, and for minors and majors as a preparation for Music 125.

125, 126. Theory of Music I An introduction to the basic materials of music by means of discussion, analysis, and written exercises, complemented by intensive drill in sight singing, ear training, and keyboard harmony.
Prerequisite: 115 or permission of the instructor for MUSC 125. For 126, must complete 125, or permission of the instructor. This course fulfills the DIV I.c. and QR distribution requirements.
205. Vocal Music Arranging This course gives students practical training in the dictation and arrangement of music for vocal ensemble performance. Prerequisite: 125.
206. Music in the United States This course explores the wide variety of music that composers and musicians created to reflect their own experience of and attitude toward American culture. The course explores not only the diverse means by which identity is encoded in musical language, including race, class, gender, ethnicity, and local practices, but also the ways in which music is employed within American culture, including religious life, social movements, wartime conflicts and protest movements, labor, and geo-political commentary. Unlike other courses at Dickinson, Music in the United States draws examples from a lengthy time-span (1600s to the present day), fosters critical listening skills (i.e., how do I listen to jazz?), and interrogates the dialogues between musical genres that are often viewed as being on opposite sides of the "high/lo" art divide (classical, religious, folk, blues, jazz, pop, rock, hip hop). Offered every two years.
209. World Music This course explores the musical cultures of six regions (Africa, India, Southeast Asia, Middle East, North American, and Europe) from the disciplinary perspective of ethnomusicology, a field that emphasizes the direct connections between social structures and musical sound/aesthetics. Students are exposed to the disciplinary methods of ethnomusicology, including its basic terminology and classification systems, and then apply these tools to the study of non-Western musics in a series of analytical assignments and presentations. Some of the questions posed in the class include: What differentiates music from sound, speech, and dance? How does music reflect cultural values and social structures? How does one learn to listen to non-western music? How has globalism affected local musical cultures? How does western musical terminology limit our understanding of another's music? What are the ideological and physical boundaries that hinder the experience of another culture's music? This course fulfills the DIV I.c. and Comparative Civilizations distribution requirements. Offered every two years.

213, 214. Performance Studies II Private study open to students who demonstrate a basic technique, and who should continue to study voice or an instrument at the intermediate level. One-half or one course each semester. Prerequisite: 114 and permission of the instructor.
221. Music in Film An introduction to the role and subject of music in film. This course will focus upon films made between ca. 1933 and the present, chosen for the variety and significance of their musical scores. Through critical reading, listening, and viewing, students will be taught to analyze the various functions of music in film, and to appreciate music as an essential and distinctive component of film narrative. No prior background in music is required for this course.

245, 246. Theory of Music II Introduction to the basic materials of music continued. Evolution of chromatic harmony in the 19th century and selected techniques in 20th century music. Increased emphasis is placed upon stylistic and critical analysis. Prerequisite: 126. This course fulfills the DIV I.c. and QR distribution requirements.
251. Score Study and Conducting An intermediate course in conducting vocal and instrumental ensembles following fundamentals of conducting taught in Music Theory 125-246. Principals of score study and analysis, score preparation, baton technique, expressivity, recitative and concerto-accompanying will be addressed. Texts include tradition choral and instrumental repertoire, examining the variety of problems and technical challenges of leading an ensemble and in developing an interpretation. Prerequisite: 245.
253. Orchestration A course in orchestrating music for a complete range of traditional Western orchestral, chamber and solo instruments. Issues of balance, transposition, score format, instrument ranges, characteristics and technical limitations will be studied. Students will practice arranging for a thorough array of instruments and will have their final orchestrations read by an ensemble. Prerequisite: 126.
255. Techniques of Composition An introduction to various compositional trends which emerged during the twentieth century. Techniques such as extended chromaticism, modal composition, free atonal counterpoint and serialism, are explored as well as the resources of MIDI (Musical Instrument Digital Interface). Current notational procedures are examined and practiced. The course concludes with a final composition project for solo or chamber instrumental or vocal forces. The music department is equipped with a computer music lab for student use on assignments and projects. Prerequisite: 125 and 126 and permission of the instructor.
256. Composition Seminar This course explores in depth composition for instruments or voices, and emphasizes scoring for large ensembles, including orchestra, symphonic band, and chorus. Extended instrumental techniques are
discussed as well as advanced notational procedures. The course concludes with a final composition project appropriate to one of the college co-curricular ensembles. Prerequisite: 255 or permission of the instructor.
257. Form Analysis This course introduces students to the major formal models of Western music from the Common Practice era (c. 1600-1900) as well as several variations of those models. Musical works from this era serve as the basis of study. Drawing on analytical skills and experience gained in Music Theory, students develop more complex, sophisticated analyses and interpretations of larger works. Prerequisite: 245.

313, 314. Performance Studies III Private study open to non-majors and majors with a performance emphasis, who demonstrate a fully developed technical skill and who should continue study on the advanced level. May be repeated for credit with the permission of the instructor.One-half or one course each semester. Prerequisite: 214 and permission of the instructor.

323, 324. Repertory and Performance (Junior Year) Private study for music majors with a performance emphasis. An upper divisional hearing is required at the end of 323 to determine if the student is prepared for the junior recital required as part of 324. Prerequisite: 214 and permission of the instructor.
351. Seminar in Medieval and Renaissance Music Studies in selected topics of the history of music from chant to ca. 1600. Prerequisite: 101 and 126 or permission of the instructor. Offered alternate years.
352. Seminar in Baroque Music Studies in selected topics of the history of music ca. 1600-1750. Prerequisite: 101 and 126 or permission of the instructor. Offered alternate years.
353. Seminar in Classic and Romantic Music Studies in selected topics of the history of music from ca. 1750 to 1900. Prerequisite: 102 and 126 or permission of the instructor. Offered alternate years.
354. Seminar in Contemporary Music Studies in selected topics of the history of music ca. 1900 to the present. Prerequisite: 102 and 126 or permission of the instructor. Offered alternate years.

413, 414. Performance Studies IV Private study for non-majors or majors without a performance emphasis who will continue study at an advanced level. Prerequisite: 314 and permission of the instructor.

423, 424. Repertory and Performance (Senior Year) A two-semester sequence of private study culminating in a public senior recital that includes a variety of musical styles and, for vocalists, languages. The culmination of 423 is a research paper on a composer, poet or genre relevant to the recital program. Must be taken in sequence within the same academic year. Prerequisite: core curriculum, 324, and permission of the instructor and chair.

491, 492. Senior Seminar in Composition Advanced independent study culminating in the creation of a substantial composition. The course must be taken as a fall-spring pair of half-credit courses. Open to seniors majoring in music. Prerequisite: 245, 246, 255 and permission of the department chair.

493, 494. Senior Seminar in Analytical Theory Advanced independent study in musical analysis culminating in the creation of a major analytical essay. Open to seniors majoring in music. Prerequisite: 245, 246, the relevant 300level seminar, and permission of the department chair.

495, 496. Senior Seminar Advanced independent study in music history culminating in a major research paper. Open to seniors majoring in music. Prerequisite: two courses from 351-354 and permission of the department chair.

NOTE: Students may withdraw from performance studies courses with a full refund (minus charges for lessons taken) up to the end of the add/drop period. After the add/drop period, no refund is made.

## Neuroscience

## Major

PSYC 125, 325, one of the following 300-level courses: PSYC 310, 330, 380 (Research Methods in Drugs \& Behavior), and one of the following 400-level courses: PSYC 425, 430, 480 (neuroscience-related topics course), BIOL 401(neuroscience-related topics course), 412 (neuroscience-related seminar course).

BIOL 124, 330 and one of the following: 216, 313, 327, 333
CHEM 131, 132 (OR CHEM 141), 241 and 242
One elective may be chosen from courses listed above that the student has not already taken or another upper-level science course related to neuroscience (300-level or above): BIOL 315, 318, 321, 326, 327, 334, 417 or 342, CHEM 490 , PSYC 355, 380 or 455.

The other elective must be outside of Division III (200-level or above), and must be a course that examines science in a philosophical, environmental, or socio-cultural context. The following are currently courses which will satisfy this second elective:

ANTH 216 Medical Anthropology
ANTH 245 Selected Topic: Health \& Healing in Africa
ANTH 331 Principles of Human Evolution
HIST 350 American Science, Technology \& Medicine
LAWP 400 Law \& Policy Seminar: Biomedical Technology, Policy \& Law
PHIL 220 Biomedical Ethics
PHIL 254 Philosophy of Science
PHIL 261 Topics (as relevant)
PHIL 391 Seminar: Morality and Mind
PHIL 391 Seminar: Free Will and Science
RELG 241 Topics: Care of the Soul
RELG 260 Topics: Spiritual Dimension of Healing
SOCI 230 Selected Topics: Sociology of Health and Illness
SOCI 230 Selected Topics: Medical Sociology
SOCI 230 Selected Topics: Women's Health
SOCI 300 Deviant Behavior \& Social Control
The elective courses must be approved in advance in consultation with the student's advisor and the neuroscience faculty. The student must be able to show how the electives fit into his/her neuroscience major.

All neuroscience majors are required to include a research experience as part of their undergraduate program. This requirement may be satisfied by the successful completion of one of the following:

1) an independent research project OR student/faculty collaborative reserach project;
2) a summer research project with a faculty member;
3) an off-campus internship with a significant research component;
4) a research experience not covered by the above but deemed equivalent by the contributing faculty.

NOTE: Two semesters of mathematical sciences (calculus and/or statistics), and two semesters of physics are strongly recommended for students intending graduate study toward an advanced degree in neuroscience or the health professions.

## Honors in the Major

The Neuroscience Program will award Honors to a Neuroscience major based on the candidate's entire undergraduate Neuroscience program. This includes all Neuroscience-related courses with their grades, the nature of the curriculum selected, and the successful completion of a two-semester (or summer plus one semester) Independent Research Project. A minimum grade point average of 3.0 is required in those courses that count toward the Neuroscience major, including CHEM 141, 241 and 242, and transfer courses that receive Neuroscience credit. The Honors research project should be distinguished by the originality and definition of the research problem, the sophistication of the experimental design and its execution, and the analysis and presentation of the results. Generally, Honors reports should be of publishable or near publishable quality. For the specific guidelines and procedures see the Neuroscience Program web site.

## Philosophy

## Major

Ten courses, including 120 or 121, 241, 243, 290, plus three 300 -level philosophy seminars, plus three additional philosophy courses. No more than one of the 300-level courses may be taken as independent study. Majors should complete the logic requirement ( 120 or 121) as soon as possible, and should take 241 (every fall semester) and 243 (every spring semester) early in the major. Majors should attempt to schedule 290 in the spring of their sophomore year. For any given term the department chair may designate courses in other programs which may be counted toward the major in philosophy; express permission of the advisor is required in each case.

Declared majors have the right to participate in Departmental Meetings and to be consulted on significant changes to the academic program and policies.

## Minor

Six courses chosen with the advice of the department.

## Suggested Four Year Program

First Year: 111 or 112 or 120 or 121
Second Year: 241, 120 or 121 (if not taken previously), 243, and 290
Third Year: a 300-level seminar and two electives
Fourth Year: two 300-level seminars (or independent study/research) and remaining elective(s)

## Independent Study

The department supports independent study by its majors, especially as leading to an Honors thesis (see below). Any student interested in independent study in philosophy should see the appropriate instructor to negotiate topics, readings, and logistics.

## Honors in the Major

Students may complete an honors thesis in their senior year. The thesis is an original piece of philosophical writing, the product of student research and reflection, written under the guidance of a member of the department acting as adviser. Usually, students work on the thesis for two semesters senior year, enrolling in Independent Research (PHIL 500) each semester. Honors are awarded upon successful oral defense of the completed thesis.

## Internships

Many students have found ways to combine their philosophical interests with internships, particularly in areas of applied ethics, law, or public policy. Contact the department chairperson.

## Opportunities for Off-Campus Study

Majors are encouraged to study abroad, at the Dickinson program at UEA or elsewhere. In the past majors have studies at universities in several other countries. The program at UEA is particularly well suited to support Dickinson philosophy majors in a year of study abroad. Contact the department chairperson.

## Courses

111. Introduction to Philosophy An introduction to Western philosophy through an examination of problems arising in primary sources. How major philosophers in the tradition have treated such questions as the scope of human reason, the assumptions of scientific method, the nature of moral action, or the connections between faith and reason.
112. Ethics Major theories in terms of which philosophers have tried to make sense of moral problems. The aims are to expand the student's understanding of ethical alternatives, to provide models and methods for thinking about moral dilemmas, and to help formulate and clarify one's own ethical position.
113. Introductory Topics in Philosophy Introduction to philosophy through the exploration of a specific topic or problem.
114. Critical Reasoning The study and practice of forms and methods of argumentation in English. Students will learn methods of identifying, evaluating, and formulating sound arguments and will learn to distinguish these from faulty reasoning that may nonetheless appear persuasive. This course fulfills the $Q R$ distribution requirement.
115. Introductory Symbolic Logic An introduction to the basic concepts and techniques of symbolic logic through the study of sentential logic and quantificational logic. Focus on symbolizing sentences and arguments, constructing formal proofs of validity, demonstrating validity and invalidity using semantic techniques. This course fulfills the $Q R$ distribution requirement.
116. Philosophy of Feminism Critical examination of key issues concerning the status and roles of women and of the developing theories which describe and explain gender-related phenomena and prescribe change for the future. Prerequisite: WGST 200, one course in philosophy or permission of instructor. This course is cross-listed as WOST 210.
117. Existentialism A study of existentialist thinkers, including Kierkegaard, Nietzsche, Sartre, de Beauvoir, and Camus, who treat the human condition as irreducibly individual and yet philosophically communicable, and for whom the experience of the existing individual is of primary importance in issues ranging from one? relationship to God to the inevitability of death. Prerequisite: one course in philosophy or permission of instructor. Offered every two years.
118. Biomedical Ethics A study of ethical issues arising in the context of medical practice, biomedical research, and health related policy making, with focus on the ethical concepts, theories and reasoning methods developed to clarify and resolve these issues. Prerequisite: One previous course in philosophy, or LPPM 200, or permission of instructor. This course is cross-listed as PMGT 220.
119. Ancient Philosophy The emergence of logos out of and in tension with Greek mythos. Presocratic myth. Plato's myth of Logos. Aristotle's Logos of 'Nature'. Retreat from/retreatment of logos after Aristotle. Prerequisite: a previous course in philosophy or permission of instructor.
120. Medieval and Renaissance Philosophy The problematic of faith and reason. Universals and universities. Neoplatonic and Aristotelian schools. Aquinas, Scotus, Ockham. Paganism, politics, and mysticism in Renaissance thought. Prerequisite: a previous course in philosophy; or HIST 257; or permission of instructor.
121. Philosophy in the 17th and 18th Centuries Origins of the modern tradition in Western philosophy. Particular emphasis on the problems of method in thinking, the nature and scope of knowledge, the quest for certainty, and views on the nature of reality. Prerequisite: a previous course in philosophy (241 recommended) or permission of instructor.
122. Asian Philosophies Characteristics and problems of thought outside the West. Methods of comparative philosophy. Close examination of works and movements within a major tradition (in different semesters: China, India, Japan, Buddhist schools). Prerequisite: a previous course in philosophy or permission of instructor.
123. Philosophy of Religion What it means to examine the phenomenon of religion philosophically. Problems which come to light from such an examination, such as the nature of religious experience, the relationship of reason and religion, and the meaning of religious language. Emphasis on the variety of forms in which the phenomenon of religion manifests itself. Prerequisite: a previous course in philosophy; or major standing in anthropology, sociology, or religion; or permission of instructor.
124. Philosophy of Art The discipline of aesthetics is primarily concerned with philosophical questions about art and beauty. This course will examine classic and contemporary Western discussions of such questions as, What is art? How can we determine what a work of art means? Are beauty and other aesthetic qualities subjective or objective? How should the quality of a work of art be assessed? Is there a general way to describe the creative process? What are the driving forces in the unfolding of art history? We will encounter such giants of the Western intellectual tradition as Plato, Aristotle, Hume, Kant, and Hegel, and also such contemporary figures as Arthur Danto, Richard Wollheim, and Kendall Walton. Prerequisite: one previous course in art history or philosophy, or permission of instructor. This course satisfies either the Division 1.a. or 1.c. distribution requirement. This course is cross-listed as ARTH 252.
125. Philosophy of Society Ways in which one's view of human nature, the human good, and the nature of justice interact in any coherent vision of the structure of a just society. Prerequisite: a previous course in philosophy or major standing in any of the social sciences.
126. Philosophy of Science Logic and methods of scientific thinking. The impact of science on the contemporary world. Conceptions of theories and of observable facts. The rationality of science and of choice among theories. General questions about knowledge, values, and ultimate beliefs as they relate to the scientific enterprise.
Prerequisite: a previous course in philosophy or major standing in mathematics or any of the natural sciences.
127. Philosophy of Law Fundamental problems of legal philosophy are considered, including the nature of law, the justification of legal authority, the relationship between legality and morality, the nature of judicial decision-making, theories of punishment, and/or issues involved in civil disobedience. Prerequisite: a previous course in philosophy or major standing in political science. This course is cross-listed as LAWP 255.
128. Philosophy of Mind This course investigates the nature of the mind and its relation to the brain, body, and the surrounding world. Analyses of these topics will draw on information from fields such as psychology, neuroscience, cognitive science, or computer science. Prerequisite: one course in philosophy, or permission of instructor.
129. Intermediate Topics in Philosophy Examination of specific problem, author, text, or movement. Prerequisite: a previous course in philosophy, major standing in a field relevant to the subject matter, or permission of the instructor.
130. Non-Western Aesthetics See course description with ARTH 265 listing. Prerequisite: one previous course in art history or philosophy, or permission of instructor. This course satisfies either the DIV 1.a. or 1.c. distribution requirement. This course is cross-listed as ARTH 265.
131. Beauty See course description with ARTH 375 listing. Prerequisite: one previous course in art history or philosophy, or permission of instructor. This course satisfies either the DIV 1.a. or 1.c. distribution requirement. This course is cross-listed as ARTH 375.
132. Contemporary Philosophy Workshop Hands-on work in contemporary methods and issues in philosophy through immersion in a controversy in current philosophical journals, with emphasis on close analytical reading of philosophical texts and arguments, constructing clear and precise arguments, and philosophical writing. Prerequisite: a previous course in philosophy. This course fulfills the WR distribution requirement.
133. Major Texts in 19th Century Philosophy A seminar centered on a major text or texts of significant 19th century philosophers such as Hegel, Kierkegaard, Marx or Nietzsche. Prerequisite: two courses in philosophy or permission of instructor.
134. American Philosophy A seminar that focuses on the emergence and influence of major philosophical texts and themes originating in the United States. It will cover such thinkers as James, Peirce, Royce, Dewey, and Santayana and such themes as naturalism, transcendentalism, and, in particular, pragmatism. Contemporary developments in the American philosophical tradition may also be included. Prerequisites: two courses in philosophy, or permission of instructor.
135. Major Texts of Twentieth Century Continental Philosophy A seminar concentrating on a single major text or a series of texts representing significant movements in continental European thought since 1900, such as phenomenology, existentialism, structuralism, or deconstruction. Typical foci: Husserl, Heidegger, Sartre, MerleauPonty, or Derrida. Prerequisite: 243 and at least one other course in the department, or permission of instructor.
136. Major Themes of Twentieth Century Analytic Philosophy A seminar critically examining selected key themes in twentieth century Anglo-American philosophy; e.g., the primacy of logic and science, naturalism vs. Antinaturalism in ethics and epistemology, the distinctions between language and fact, and facts and values, the Cartesian model of the mind, in the texts of such authors as Wittgenstein, Russell, Carnap, Quine. Prerequisite: 243 and at least one other course in the department, or permission of instructor.
137. Theories of Knowledge Conceptions of knowledge and its limits, and of the nature and possibility of truth. Prerequisite: two previous courses in philosophy or permission of instructor. Offered every other year.
138. Theories of the Real Conceptions of what is ultimately real, together with discussions of the nature and limitations of such conceptions. Prerequisite: two previous courses in philosophy or permission of instructor. Offered every other year.
139. Theories of Value Examination of the nature and logic of values and evaluations. Sources, scope, and rationality of values. Connections between values and facts. Prerequisite: two previous courses in philosophy or permission of instructor. Offered every other year.
140. Theories of History Speculative philosophies of history which have significantly influenced the shape of Western thought; history of the idea of history. Other topics include the problem of historical explanation, and the notions of historical cause and progress. Prerequisite: two previous courses in philosophy or permission of instructor. Offered every other year.
141. Seminar Ordinarily limited to majors or others with a strong background in philosophy. Recent topics have included: Kant's First Critique, Hegel's Phenomenology, Postmodern Feminism, Philosophy and Film. Prerequisite: Two prior courses in philosophy or permission of instructor.

Philosophy Colloquium. Informal colloquium bringing the department faculty and students together for discussions of contemporary issues in the field, usually based on selections from recent work or on presentations by visiting speakers.

## Physical Education

The Physical Education requirement for graduation is as follows:
Satisfactory completion of four half-semester blocks of physical education: either four fitness activity blocks or three fitness activity blocks and one cognitive physical education block.

NOTE: Effective July 1, 2009, students may repeat a physical education activity course one time. Priority during course request will be give to students who have not had the activity previously. Every student must complete the physical education requirement unless excused in writing by the Chair of Physical Education.

Intercollegiate Sports Participation can count for one block of physical education credit for each season of varsity sport played (effective July 1, 2009).

Club Sport Credit Participation can count for a maximum of two blocks subject to club approval by the Department of Physical Education.

ROTC Participation can count for one block of physical education credit for each year the student remains in the program (effective July 1, 2009).

## Physics and Astronomy

## Major

A physics major consists of a minimum of 11 courses, usually five core courses, at least four electives, and two courses of research during the senior year. Students should be aware that most physics courses have mathematics corequisites and/or prerequisites, as listed in the course description. Courses above the 200-level typically require a facility with multivariate calculus (normally requiring completion of three courses in mathematics). Each student majoring in physics is expected to acquire a basic knowledge of classical and modern physics by taking a core sequence consisting of two semesters of workshop physics (131, 132 or 141, 142) followed by 211, 212 and 282 (or, MATH 171, 262). Students will then select at least four elective courses tailored to their preparation, interests, and goals. At least two of these must be at the 300-level or above. All physics majors not enrolled in a 3-2 engineering program must complete the senior research sequence 491, 492. In general the introductory courses intended primarily for non-science majors, Life in the Universe $(105)$ and Introductory Astronomy $(109,110)$ may not be applied towards a physics major.

## Minor in Physics

A physics minor is expected to acquire a basic knowledge of classical and modern physics by taking six of the department's course offerings, including a two semester workshop physics sequence (131, 132 or 141, 142) and 212. The remaining three courses required for the minor must be at or above the 200 -level. A student may not apply courses used to fulfill the requirements of a minor in physics to fulfill the requirements of a minor in astronomy.

## Minor in Astronomy

Options are available for students who wish to add an astronomical perspective to a major in any field. The minor consists of the following: 109; 110 OR 208; an astrophysics course at the 300 level or above; three regularly offered courses, independent study, independent research, or internship credits offered by the Department of Physics and Astronomy. One of these courses/experiences may, upon prior approval by the Department, be offered by another department or be an external experience such as a summer Research Experience for Undergraduates. No more than three of these courses or experiences may count toward both the physics major and the astronomy minor.

## Suggested Four Year Program

First Year: 131, 132; MATH 170, 171 or 151, 170
Second Year: 211, 212, 213, 282; MATH 270, or 171 and 270
Third Year: four 300-level courses including 311 and 312
Students planning to do graduate study in physics, astronomy or engineering need to include 311 and 312. Students not planning to do graduate study in physics or engineering, options include 313, 314, 315, and 361 as offered. Fourth Year: 491, 492; 412, 431
Students planning to do graduate study in astronomy need to additionally take 208, 306, or 406 as offered. 204 taught in English at the University of Bremen has the prerequisites 131, 132 and GRMN 101 and 104 (or equivalent).

## Teacher Certification

For information, see the Director of Teacher Education, or visit the Education Department web site.

## Independent Study and Independent Research

Independent study and research is strongly encouraged by the department. Independent research projects are readily available in the two areas of continuing laboratory research: radiation physics, plasma physics, pattern formation, and astrophysics. Independent research students have often published papers and/or given talks at physics and astronomy meetings. Students planning on graduate study are encouraged to do independent research during the senior year, in addition to the required senior research 491, 492.

## Honors in the Major

The research topic pursued in the senior year in the 491, 492 Research Seminar may be extended into an honors project with an in-depth paper and an oral defense before the physics faculty.

## Courses in Astronomy

NOTE: Because of the similarity in course content, students will not receive graduation credit for both of the following pairs: 107 and 109, 108 and 110.
105. Life in the Universe A comprehensive study of the astronomical possibilities of extraterrestrial life including a brief survey of the universe, conditions necessary for life, and astronomical observations (including UFOs) which support or deny the premise that life in the universe is a common phenomenon. This course fulfills the $Q R$ distribution requirement. Offered in summer school only.

109, 110. Astronomy Introduction to the modern concepts of the physical nature of the astronomical universe. First semester: historical development of astronomical ideas and origin and evolution of the solar system. Second semester: cosmology and the structure and evolution of the stars and galaxies. A terminal laboratory course for nonscience students.Three hours classroom, one two-hour laboratory a week. This course will not count toward major requirements in physics. This course fulfills either the DIV III lab science or QR distribution requirement.

## Courses in Physics

NOTE: Because of the similarity in course content, students will not receive graduation credit for both of the following pairs: 102 and 202, 131 and 141, 132 and 142.
102. Meteorology The physical basis of modern meteorology: characteristics of atmospheric motions, clouds, and weather systems; methods of weather observation and forecasting; meteorological aspects of air pollution.Does not count toward a physics major. This course fulfills the QR distribution requirement. (See also PHYS 202.)
*131, 132. Introductory Physics An introduction to basic physics topics using the workshop method. This method combines inquiry-based cooperative learning with the comprehensive use of computer tools for data acquisition, data analysis and mathematical modeling. Kinematics, Newton's Laws of motion, conservation laws, rotational motion, and oscillations are studied during the first semester. In the second semester topics in thermodynamics, electricity, electronics and magnetism are covered. Additional topics in chaos or nuclear radiation are introduced. Basic calculus concepts are used throughout the course. Recommended for physical science, mathematics, and preengineering students and for biology majors preparing for graduate study and for students who wish to satisfy the two-semester, lab science sequence distribution requirement. Three two-hour sessions per week. Prerequisite: Completion of, or concurrent enrollment in, MATH 151 or 170; for 132, completion of, or concurrent enrollment in MATH 170. (Students enrolled in PHYS 132 who have completed MATH 170 are encouraged to continue their mathematics preparation while taking physics by enrolling in MATH 171.) This course fulfills either the DIV III lab science or $Q R$ distribution requirement.
*141, 142. Physics for the Life Sciences Introductory, non-calculus physics, principally for life science and premed students. Topics include mechanics, thermodynamics, acoustics, optics, electricity, magnetism, and modern physics. Three two-hour workshop sessions a week. Please read Note above. 141 fulfills either the DIV III lab science or $Q R$ distribution requirement.
202. The Physics of Meteorology The physical basis of meteorology, characteristics of atmospheric motion, clouds and weather systems. The course deals with current weather as determined by observation, local weather instruments, and current data and displays obtained from computer networks. Similar to Physics 102, but with additional emphasis on mathematical analysis of physical atmospheric systems. Prerequisite: 131 or 141 or permission of instructor. This course fulfills the $Q R$ distribution requirement.
208. Introductory Astrophysics An introduction to the physical basis of astronomy, including discussion of the creation and evolution of the solar system, the stars, and galaxies. Astronomical measurement and units, and dynamical systems, such as binary star systems and star clusters, will be discussed. Similar to Physics 108 or Physics 110, but with additional emphasis on mathematical analysis of astrophysical phenomena. Prerequisite: 131 or 141 or permission of instructor. This course fulfills the $Q R$ distribution requirement.
211. Vibrations, Waves, and Optics The physics of periodic motions, oscillating systems, resonances, propagating waves and optical phenomena. The course is centered around various projects such as the investigation of a kinetic art apparatus, the study of a tuned-mass-damper in a high-rise building, an examination of the Fourier spectrum of different musical instruments, and the dispersion relation for a very large slinky. The course culminates with a presentation at either the "Rainbow Symposium" or the "Vision Symposium." Prerequisite: 131 and 132 or 141 and 142, and MATH 170 or permission of instructor. NOTE: Completion of both 211 and 212 fulfills the WR requirement. This course fulfills either the DIV III lab science or $Q R$ distribution requirement.
212. Introduction to Relativistic and Quantum Physics A project-based course focusing on special relativity and quantum physics. Projects, such as the detection and measurement of ionizing radiation, relativistic mass increase, or the investigation of delayed choice experiments, are used to understand the concepts of the atom, nuclear structure, relativity, and quantum mechanics. Prerequisite: 132 or 142, and Math 171 or permission of instructor. NOTE: Completion of both 211 and 212 fulfills the WR requirement. This course fulfills the $Q R$ distribution requirement.
213. Analog and Digital Electronics Circuit design and the analysis of electronic devises. Modern digital and analog circuit elements, including diodes, transistors, op amps, and various integrated circuits, are used in amplifiers, power supplies, and logic circuits. Class and laboratory work are integrated during class time totaling up to seven hours per week. Students design and build projects at the end of the semester. Prerequisite: 132 or 142 or permission of instructor. This course fulfills either the Division III lab science or QR distribution requirement. Normally offered every other year.
282. Introduction to Theoretical Physics A project-centered approach to topics in theoretical physics. Projects will be selected to motivate a review of multivariable calculus and then stimulate the investigation of a number of mathematical tools including the nabla operator, Gauss' and Stokes' theorem, Legendre and Bessel functions, and Fourier analysis. The applications of some topics in linear algebra and the theory of functions of a complex variable
may also be examined. Prerequisite: 211 or permission of instructor. Corequisite: MATH 171 or permission of the instructor.This course fulfills the $Q R$ distribution requirement.
306. Intermediate Astrophysics A project-based course in selected areas of astrophysics closely allied to the development of the physical sciences in the twentieth century, including atomic spectroscopy, stellar atmospheres and stellar magnetic fields, nuclear reactions, energy generation and nucleosynthesis in stars; the structure and evolution of planetary surfaces and atmospheres. Prerequisite: 211 and 212 or permission of instructor.
311. Dynamics \& Chaos A project-oriented study of advanced classical mechanics using vector calculus and including an introduction to the analysis of chaotic systems. Topics might include particle dynamics in one, two and three dimensions; harmonic oscillators and chaos theory; central force motion; collisions and conservation laws; rigid body motion; and rotating coordinate systems. Possible examples of projects include projectile motion with air resistance; motion of a chaotic pendulum; and motion in a non-inertial reference frame. Prerequisite: 211 and 282 or permission of the instructor. This course fulfills the $Q R$ distribution requirement. Normally offered every other year.
312. Electrodynamics This course will investigate electrostatics, magnetostatics, and electrodynamics in vacuum and in matter. Maxwell's equations of electrodynamics are developed and explored in depth. Vector calculus is used throughout this course. Possible projects include the experimental study of capacitors, the force and torque on a magnetic dipole, and an exploration of Farady-induced electric fields. Prerequisite: 211, 212 and 282, or permission of instructor. This course fulfills the QR distribution requirement. Normally offered every other year.
313. Computer Interfacing and Laboratory Instrumentation A study of the interfacing techniques needed for data acquisition and the control of laboratory equipment. An introduction to the LabView programming environment and how it can be used to automate typical laboratory tasks, for example, the control of linear or rotational actuators or the measurement and analysis of audio signals. Prerequisite: 213 or permission of instructor. Normally offered every other year.
314. Energy \& Environmental Physics A project-oriented approach to the study of the thermodynamics of fossil fuel engines and devices, the physics of solar and other alternative energy sources, energy conservation principles, the physics of nuclear fission reactors and nuclear fusion research, the physics of the atmosphere, air pollution, global climate change, and ozone depletion. Examples of projects include: energy conservation analysis, and the design, construction and testing of modern wind turbines or solar energy sources. Prerequisite: 131 and 132 or 141 and 142, and 212 or permission of instructor. This course fulfills the $Q R$ distribution requirement. Offered every two years.
315. Physics of Medical Imaging This course will examine the physical principles that allow physicians to look inside the human body and will investigate how these principles are implemented in practice. This course will involve some hands-on projects, with possible topics including Magnetic Resonance Imaging (MRI), medical ultrasound, and Positron Emission Tomography (PET). Prerequisite: 212 and MATH 270 or permission of instructor. This course fulfills the QR distribution requirement. Normally offered every other year.
331. Thermodynamics and Statistical Mechanics The basic laws of thermodynamics are derived from principles of statistical mechanics. Thus, the laws governing our macroscopic world are seen as fundamentally statistical in nature. Familiar quantities, like temperature and pressure, will be re-discovered, and new ones, like entropy and free energy, will be developed and applied to real-world problems in engineering, condensed-matter physics, and chemistry. We will conclude with an examination of phase transitions and quantum statistics. Prerequisite: 211, 212. Offered every two years.
361. Topics in Modern Physics Topics to be selected from areas such as atomic, nuclear, plasma, or solid state physics, or modern optics and acoustics, or advanced electronics. Prerequisite: 211 and 212. One-half or one course.
392. Junior Seminar This course revolves around student reports and discussions on several topics in contemporary physics. Emphasis is on the development of bibliographic skill, seminar presentation and report writing techniques
as well as increasing the breadth and depth of the student's knowledge of recent research. Preparation for senior research and life after Dickinson will also be topics of discussion. Prerequisite: Physics major junior status. Onehalf course.
406. Advanced Astrophysics A project-based course in selected areas of astrophysics. Topics selected from areas of astronomy and astrophysics that require a background in dynamics and electromagnetism. Topics may include celestial mechanics and orbit determination, numerical simulation of many-body systems, galactic dynamics, spectroscopy and electrodynamics of the interstellar medium, or general relativity and cosmology. Prerequisite: 311, 312 or permission of instructor. This course fulfills the $Q R$ distribution requirement.
412. Advanced Electrodynamics and Plasmas A continuation of the topics covered in Physics 312 with an emphasis on electromagnetic waves in air, in conductors, and in space plasmas. Possible projects include the reflection and transmission of electromagnetic waves at an interface, waveguides, plasma waves in space, electromagnetic radiation from antennas, and the equilibrium and stability of plasmas. Prerequisite: 312 or permission of instructor. Offered only occasionally.
431. Quantum Mechanics Basic postulates are used to develop the theoretical framework for quantum mechanics. The course deals with measurements on quantum systems, the uncertainty principle, the Schrödinger wave equation and the probability interpretation, Heisenberg's matrix mechanics, eigenfunctions and eigenvalues, finite and infinite dimensional vector spaces, operator methods, and enables students to use the Dirac formalism for quantum mechanical manipulations for a variety of situations and systems. Prerequisites: 282 and at least one 300 level physics course, or permission of instructor. This course fulfills the QR distribution requirement. Normally offered every other year.
432. Topics in Theoretical Physics Intended for students planning to continue their physics education in graduate school. Topics will include those mathematical and theoretical subjects not covered in earlier courses taken by the particular students enrolled. Prerequisite: At least seven previous courses in physics or permission of instructor. Offered every two years.

491, 492. Senior Research Seminar Integration of theory and experiment in the conduct of research in contemporary physics or astrophysics, normally conducted in groups. The course emphasizes collaborative research, investigative techniques, and oral and written communication, and culminates in a colloquium presentation and a paper. Prerequisite: Physics major senior status. The two semester sequence (or $491+$ Independent Research for candidates for honors in the major) are required for the major. Two courses. This course fulfills the QR distribution requirement.

## The following course is offered as part of the college's Bremen Summer Immersion Program. Students are housed with German host families. The course is being taught in English.

204. The Fourth State of Matter - An Introduction to Plasma Physics The fact that more than 99\% of the visible universe is in the plasma state certainly warrants a thorough study of this 4th state of matter. This course explores a variety of space plasmas, ranging from intergalactic plasmas to the very local effect of the solar wind plasma on aurora, global communication systems and power grids. Students investigate the large spectrum of laboratory plasmas, and study numerous plasma applications from Plasma TV's plasma processing to plasma propulsion and encounter the present day difficulties fusion researchers face in harnessing the ultimate energy source for humankind. Spreadsheet simulations are used to visualize intricate plasma particle trajectories in a variety of electric and magnetic field configurations.Prerequisite: 131 and 132 and GRMN 101 and 104. Offered every two years.

## Policy Management

See Policy Studies.

## Policy Studies

## Law and Policy

## Major

Thirteen course credits, plus the transcript notation internship:
The following seven courses are required of all majors:
POSC 120: American Government
ECON 111: Microeconomics
LAWP/PHIL 255: Philosophy of Law
LAWP/POSC 248: The Judiciary
LPPM 200: Foundations
LAWP 300: Gateway
LAWP 400: Senior Seminar
In addition, the major has the following requirements:
ELECTIVES (6):
1 empirical social analysis elective
2 law-related electives
1 policy-related elective
1 additional law- or policy-related elective
1 Foundations of Economic Policy elective (normally satisfied by ECON 228)

## TRANSCRIPT NOTATION INTERNSHIP

Must focus on policy and law

## Suggested Four Year Program

First Year: POSC 120, ECON 111, LAWP/PHILO 255
Second Year: LAWP/POSC 248, LPPM 200 (2 credits), Empirical Social Analysis elective Third Year: Law and Policy internship; 1 unrestricted law elective; 1 unrestricted policy elective Fourth Year: LAWP 300, LAWP 400, unrestricted law elective, unrestricted law or policy elective

## Honors in the Major

To graduate with honors as a Policy Management (PMGT) or Law and Policy (LAWP) major you will need to conduct some original research and produce a thesis that meets the standards set by the Policy Studies faculty. PMGT projects should relate to an ongoing, real-world policy issue and be directed at an identified real-world client. LAWP projects must be a defense or a critique of a policy outcome that is legally related. You must have an overall Grade Point Average of 3.4 or better to proceed with an honors proposal.

Honors guidelines can also be referenced online by visiting the Policy Studies home page.

## Internship

Excellent quality internships are available in the local area. Carlisle is the county seat and the state capital, Harrisburg, is only 17 miles away. Dickinson alums willing to serve as mentors and internship site supervisors are well placed in both locations. Students are also urged to consider the internship-based Dickinson Semester in Washington program.

NOTE: Students who successfully complete The Washington Center program in Washington, DC, and students who complete a for-credit internship while studying abroad would satisfy their internship requirement and would not have to complete the internship notation process.

## Opportunities for Off-Campus Study

Students are encouraged to study off-campus for at least part of their junior year. Students may be able to study offcampus for the entire academic year with careful planning and close consultation with their policy studies advisor.

## Courses

LPPM 200. Foundations in Policy Studies This course will provide a foundational experience for majors in both Law and Policy and Policy Management. It will introduce key policy studies principles, including an appreciation for (1) fluid interdisciplinarity, (2) the contingent nature of knowledge, (3) connections to the wider world beyond the college, (4) principle-based models of leadership, (5) the meaningful application of ethics, and (6) the role of stakeholder values in problem analysis and decision making processes. 2 credits. Prerequisites: POSC 120 and ECON 111.

LAWP 210. Legal Ethics This course examines the moral responsibilities and ethical duties of a lawyer. While the focus is on the rules governing professional conduct, the course will examine all areas of the law governing the conduct of lawyers. Prerequisites: POSC 120 or permission of the instructor.

LAWP 230. Negotiation and Advocacy This course will focus on the role of the advocate in the law and policymaking process. It will consider various types of advocacy (public debate, litigation, public relations, etc.) and various methods of negotiation as well as compare and contrast the advocate's role in different forums (legislatures, courts, administrative agencies, the press, etc.). Prerequisites: POSC 120 or permission of the instructor.

LAWP 240. Criminal Procedure This course will examine the constitutional rights that suspects and defendants have in the criminal justice system. Special attention will be given to the right against unreasonable searches and seizures, the right against self-incrimination, and the right to an attorney. Prerequisites: POSC 120 or permission of the instructor.

LAWP 248. The Judiciary A study of the structure, processes, and institutional role of the American judiciary. Topics may include: the adversarial system, criminal and civil procedure, implementation of court decisions, judicial decision-making, legal development, and legal reasoning. Special attention is given to the federal judiciary, especially the Supreme Court. Prerequisites: POSC 120 or permission of the instructor. This course is cross-listed as POSC 248. This course fulfills the DIV II social sciences distribution requirement.

LAWP 250. Juvenile Justice This course will examine the nature and character of the American juvenile justice system, including its history, changing emphasis, and current trends. The system will be viewed from the point of entry into the system until final disposition. Various treatment alternatives, including rehabilitation, will also be examined. Prerequisites: POSC 120 or permission of the instructor.

LAWP 255. Philosophy of Law Fundamental problems of legal philosophy are considered, including the nature of law, the justification of legal authority, the relationship between legality and morality, the nature of judicial decision-making, theories of punishment, and/or issues involved in civil disobedience. Prerequisites: a previous course in philosophy or major standing in Law and Policy or Political Science. This course is cross-listed as PHIL 255. This course fulfills the DIV 1.a. distribution requirement.

LAWP 259. Law, Politics, and Society in Asia This course examines the interaction between law, legal institutions and citizens in China, Japan and India. Covering history and the contemporary scene, the course focuses on how law works in practice and is understood and used by ordinary people in Asia. It covers areas such as marriage and divorce, the legal profession, lost property, civil rights, the environment, sexuality, mediation, land development and
property, among others. Comparisons between the United States and Asia, as well as between Asian countries, will be emphasized.This course is cross-listed as EASN 259 and POSC 259.

LAWP 290. Special Topics Courses in the area of Policy Studies. The content of the course will reflect the interests and expertise of faculty and the needs of students. Prerequisite dependent upon topic.

LPPM 290. Special Topics Courses in the area of Policy Studies. The content of the course will reflect the interests and expertise of faculty and the needs of students. Prerequisite dependent upon topic.

LAWP 300. Gateway Course This course explores the diverse public-service roles that lawyers and administrators play at the local, state, national, and international levels. Emphasis will be given to the professional rights and duties attached to public-service positions and the ethical dilemmas that arise in fulfilling these responsibilities. Publicservice professionals will play an integral role in the course as visiting speakers. Prerequisite: LPPM 200.

LAWP 400. Senior Seminar This course will serve as a capstone experience for Law and Policy majors. It will echo the key principles covered in the Foundations class, including an appreciation for (1) fluid interdisciplinarity, (2) the contingent nature of knowledge, (3) connections to the wider world beyond the college, (4) principle-based models of leadership, (5) the meaningful application of ethics, and (6) the role of stakeholder values in problemsolving analysis and decision making processes. Emphasis will be placed on helping students refine their interdisciplinary approach to the topics of law and policy in a liberal arts framework. The seminar will give students one last comprehensive look at a series of policies to see how a legal regime limits policy choices and how the policy process informs and limits laws. Prerequisites: LPPM 200.

## Policy Management

## Major

Thirteen course credits, plus the transcript notation internship:
The following five courses are required of all majors:
POSC 120: American Government
ECON 111: Microeconomics
LPPM 200: Foundations
PMGT 301: Policy and Leadership
PMGT 401: Senior Seminar
In addition, the major has the following requirements:

## ELECTIVES (3):

1 ethics elective
1 empirical social analysis elective
1 Foundations of Economic Policy elective (normally satisfied by ECON 228)

## POLICY MANAGEMENT COURSES (5)

1 public sector policy elective
1 private sector policy elective
1 international policy elective
2 unrestricted policy electives

## TRANSCRIPT NOTATION INTERNSHIP

Must relate to policy management

## Suggested Four Year Program

First Year: POSC 120, ECON 11, ethics elective
Second Year: LPPM 200 (2 credits), Empirical Social Analysis elective
Third Year: Policy Management internship, Domestic Public Policy elective, Private Sector Policy elective, International Policy elective
Fourth Year: PMGT 301, PMGT 401, 2 unrestricted policy electives

## Honors in the Major

Honors guidelines can be referenced online by visiting the Policy Studies home page.

## Internship

Excellent quality internships are available in the local area. Carlisle is the county seat and the state capital, Harrisburg, is only 17 miles away. Dickinson alums willing to serve as mentors and internship site supervisors are well placed in both locations. Students are also urged to consider the internship-based Dickinson Semester in Washington program.

NOTE: Students who successfully complete The Washington Center program in Washington, DC, and students who complete a for-credit internship while studying abroad would satisfy their internship requirement and would not have to complete the internship notation process.

## Opportunities for Off-Campus Study

Students are encouraged to study off campus for at least part of the their junior year. Students may be able to study off campus for the entire academic year with careful planning and close consultation with their policy studies adviser.

## Courses

LPPM 200. Foundations in Policy Studies This course will provide a foundational experience for majors in both Law and Policy and Policy Management. It will introduce key policy studies principles, including an appreciation for (1) fluid interdisciplinarity, (2) the contingent nature of knowledge, (3) connections to the wider world beyond the college, (4) principle-based models of leadership, (5) the meaningful application of ethics, and (6) the role of stakeholder values in problem-solving analysis and decision making processes. Prerequisites: POSC 120 and ECON 111.

PMGT 220. Biomedical Ethics A study of ethical issues arising in the context of medical practice, biomedical research, and health related policy making, with focus on the ethical concepts, theories and reasoning methods developed to clarify and resolve these issues. Prerequisite: One previous course in philosophy, or LPPM 200, or permission of instructor. This course is cross-listed as PHIL 220. This course fulfills the DIV 1.a. distribution requirement.

PMGT 290. Selected Topics Courses in the area of Policy Management. The content of the course will reflect the interests and expertise of faculty and the needs of students. Prerequisite dependent upon topic.

LPPM 290. Selected Topics Courses in the area of Policy Management. The content of the course will reflect the interests and expertise of faculty and the needs of students. Prerequisite dependent upon topic.

PMGT 301. Policy and Leadership This course will focus both on traditional (top-down) and other less traditional models of leadership (bottom-up, e.g., grass roots advocacy, consensus building, and other less hierarchical models
of shared leadership). Leadership in a variety of organizational contexts (e.g., public, private, and non-profit sectors) will be covered, and ethics will be an important theme woven throughout the course. Prerequisite: LPPM 200.

PMGT 401. Senior Seminar This course will serve as a capstone experience for Policy Management majors. It will echo the key principles covered in the Foundations class, including an appreciation for (1) fluid interdisciplinarity, (2) the contingent nature of knowledge, (3) connections to the wider world beyond the college, (4) principle-based models of leadership, (5) the meaningful application of ethics, and (6) the role of stakeholder values in problem analysis and decision making processes. Emphasis will be placed on acclimating students to the processes of complex problem solving that exist in a variety of contexts, including the public, non-profit, and private sectors, as well as in various comparative cross-cultural settings. "Policy Management" majors conclude their academic study of the various frameworks, orientations, stakeholders, and value sets that exist in different policy contexts by completing a comprehensive, hands-on policy management exercise. Prerequisites: LPPM 200.

## Political Science

## Major

Ten courses, including Political Philosophy (180), American Government (120), International Relations (170), any course in Comparative Politics (150, 250, 251, 252, 253, 254, 255, 256, 257, 270, and, when appropriate, 275, 276, 190, 290), and a 390 seminar. This seminar is normally to be taken on campus during the junior or senior year. No course may be taken Pass/Fail. Normally five courses must be taken in residence.

## Minor

Six courses. Course work submitted for the minor must be from at least four of the subfields: political theory, American politics, comparative politics, and international relations. Normally three courses must be taken in residence.

## Teacher Certification

For information, see the Director of Teacher Education, or visit the Education Department web site.

## Independent Study or Research and Internships

Many majors take courses in independent study, independent research, and student/faculty collaborative research, as well as internships. A major will receive political science credit for one internship (if taken for academic credit) if the subject matter is within the field of political science and if the academic advisor is a full-time member of the Political Science department, a faculty member of a Dickinson overseas program, or a faculty member of an offcampus program with which Dickinson College is affiliated. A major may petition the chair to count an additional internship as a political science course. A major will receive political science credit for all courses of independent study (or research) if supervised by full-time members of the Political Science department. A student may petition the chair to count an independent study supervised by any other individual. If students have any questions about receiving political science credit for internships or independent studies, they should consult the department chairperson.

## Honors in the Major

The honors in the major option involves one semester of independent research in the spring of the senior year leading to a defense of a major project before the political science faculty at the end of the spring semester. Candidates interested in pursuing honors in political science must obtain a faculty supervisor during the fall semester and submit an annotated bibliography and a well-developed thesis statement explaining the project's goal by December 1. A grade point average of 3.50 in the major and 3.25 overall are required to undertake an honors
project. Students who plan to complete the honors option are strongly encouraged to take POSC 239: Research Methods, in their junior year.

## Opportunities for Off-Campus Study

Majors may apply to spend: (1) their junior year in Bologna, Italy, as students at Dickinson's K. Robert Nilsson Center for European Studies specializing in European and International Studies, or (2) in Washington, D.C. in The Washington Center Program specializing in a wide variety of programs, such as American Government, Justice, Foreign Policy, and International Development. Please see the appropriate coordinator for these and many other offcampus study possibilities.

## Courses

The following courses are grouped according to the four major subfields of political science: political theory, American politics, comparative politics, and international relations. Introductory and intermediate courses are numbered in the 100 s; advanced courses are numbered in the 200 s. Within the 100 and 200 ranges, numbering sequences reflect subdivisions of the field, not level of difficulty.

## Political Theory

180. Political Philosophy An introduction to the history of Western thought on the problems of the possibility of knowing political justice and creating a just polity. Major texts from the tradition will be discussed.
181. Recent Political Thought An introduction to the political thought of the 20th century focusing on the works of Weber, Freud, Dewey, Strauss, and others. Prerequisite: 180 or permission of the instructor.
182. American Political Thought An historical exposition of the ideals of American political culture. Concepts that will be addressed include natural law, liberty, constitutionalism, democracy, equality, and privacy. Prerequisite: 120 or permission of the instructor.
183. Marxist Political Thought An examination of the political philosophy of Karl Marx, Lenin, Trotsky, and others within the tradition of Marxist scholarship and politics. Prerequisite: 180 or permission of the instructor.

## American Politics

120. American Government A basic introductory course in American federal government which emphasizes its structure and operation. Special attention is given to the executive, legislative, and judicial processes.
121. Constitutional Law I An analysis of constitutional adjudication in the areas of separation of powers, federalism, and economic rights. Special emphasis is placed upon the idea of a written constitution and the role that judges play in our constitutional system. Topics include Watergate, war powers, and legislative veto. Prerequisite: 120 or permission of the instructor.
122. Constitutional Law II An exploration of American constitutional rights. Both historical developments and contemporary issues are addressed. Topics include racial and sexual equality, affirmative action, seditious speech, and school prayer. Prerequisite: 120 or permission of the instructor.
123. Public Policy Analysis The purpose of this course is to acquaint students with the concepts embraced in policy analysis and the methods employed by those individuals who study and analyze public policy. It is designed not only to provide a working knowledge of technique but also a knowledge of the intellectual support for that technique. Some emphasis will be placed upon the economic approach to public policy and the implications of that approach. Prerequisite: one course in political science or economics.
124. Public Administration An analysis of the organization and functioning of the national bureaucracy in a democratic society. Special attention is given to presidential management, theories of organization, independent regulatory agencies and bureaucratic pathology, financial and personnel administration, and administrative responsibility. Prerequisite: 120 or permission of the instructor.
125. Race and Gender in American Politics This course will examine the role of race and gender in the American political process, paying special attention to identity politics and how interests achieve representation in the electoral and legislative arenas. How do social movements achieve (or fail to achieve) social change? How do race and gender affect the politics and policy outcomes of areas such as immigration, affirmative action, and health care? Prerequisite: 120 or permission of the instructor.
126. Political Behavior Cultural, social, and psychological factors which contribute to forms and directions of political behavior. Special attention is given to American voting behavior, ethnic political behavior, and personality influences on politics. Field surveys are undertaken to illustrate contemporary trends. Prerequisite: 120 or permission of the instructor.
127. Mass Media and American Politics Examines the causes, content, and consequences of political news, primarily focusing on television. It will explore the ways in which audience characteristics, organizational routines, and professional socialization influence the style and substance of the news. The content of news will be analyzed for: the three branches of government, war, foreign governments, crises, and presidential campaigns. The impact of the media on political behavior will also be discussed. Content analysis will be used by students to systematically analyze television network news. Prerequisite: 120 or permission of the instructor.
128. Public Opinion Examines the origins, nature, and impact of public opinion in the United States. The ways that the public's attitudes are shaped and used by interest groups, politicians, and the mass media will be discussed. Methods of measuring public opinion, with special attention to polling, will be studied. Prerequisite: 120 or permission of the instructor. This course fulfills the DIV II social sciences and QR distribution requirements.
129. Political Parties and Interest Groups A study of the functions, structures, and operations of American political parties and interest groups. Special attention is given to the techniques of running a campaign for office, to the role of the media in superseding American parties, and to the interactions of government with the two largest "interest groups": business and labor. Prerequisite: 120 or permission of the instructor.
130. The Legislative Process An analysis of the legislative branch of government, especially Congress. Emphasis is placed upon the legislature as a social system, the decision-making process, the interrelationships with the political parties and interest groups, the executive and the judiciary. Prerequisite: 120 or permission of the instructor.
131. The American Presidency An in-depth analysis of the nature and significance of "the Man" and "the Office," including constitutional development, presidential roles and customs, the recruitment process, the executive branch, and the politics of the presidency. Prerequisite: 120 or permission of the instructor.
132. The Judiciary A study of the structure, processes, and institutional role of the American judiciary. Topics may include: the adversarial system, criminal and civil procedure, implementation of court decisions, judicial decisionmaking, legal development, and legal reasoning. Special attention is given to the federal judiciary, especially the Supreme Court. Prerequisite: 120 or permission of the instructor. This course is cross-listed as LAWP 248.
133. American Federalism This course examines the practical policy consequences of America's constitutional alliance between 50 state governments and the general union. Politics in the American states will provide the substantive focus for discussions about the complex and ever-changing intergovernmental relationships that constitute American federalism today. Prerequisite: 120 or permission of the instructor.

## Comparative Politics

150. Comparative Politics An introduction to comparative political analysis with applications to political systems, processes, and issues in countries of the Third World and in advanced industrial states alike. The purpose of the
course is to learn to observe systematically, to analyze political phenomena, and to distinguish and evaluate the assumptions underlying alternative approaches to the study of politics.
151. West European Government and Politics This course provides a general overview to West European politics and the different political configurations that exist in the major West European countries. The course outlines some of the common features of the region's ongoing political development (e.g., democratization, institutionalization of the welfare state and political integration within the European Union) as well as the differences among today's national systems of political organization.
152. Latin American Government and Politics An introduction to the politics of contemporary Latin America. Emphasis is placed upon the varied political institutional responses to socio-economic change in the Americas. Major countries to be analyzed include Argentina, Brazil, Mexico, and Cuba. Prerequisite: one course in political science or Latin American, Latino and Caribbean Studies.
153. African Government and Politics An introduction to the politics of contemporary, sub-Saharan Africa. After analyzing the historical and socio-economic context of African politics, the course examines a number of contrasting political systems in depth. The final section of the course discusses the current problems of South Africa from an international perspective. Prerequisite: one course in political science.
154. Russian Politics An introduction to contemporary Russian politics and policy, set against the backdrop of both the communist legacy and traditional Russian political culture. Coverage includes political institutions such as the presidency and the legislature, political processes and behavior such as elections and voting, and key policy issues such as economic policy. The course will conclude with an examination of Russia's evolving place and role in the international system. Prerequisite: one course in political science or permission of the instructor.
155. Comparative Asian Governments and Politics Comparison of selected Asian political systems with special attention given to the emergence of new nations from old cultures, contrasting patterns of political and economic development, and the current state of political affairs in each country studied. Prerequisite: one course in political science or East Asian Studies.
156. Chinese Politics An introduction to the contours of contemporary politics as shaped by traditional and revolutionary legacies, the institutions of state socialism, China's underdevelopment and struggles over power and policy.
157. The City An introduction to urban politics from a broadly comparative vantage point. Topics include the socioeconomic and cultural bases of city politics, power struggles and policy making within urban political arenas, and the relationship between urbanization and political development.
158. Democracy and Democratization A comparative examination of democratic politics and government with an emphasis on transitions from authoritarianism to democracy and on the consolidation or collapse of democratic institutions. Case studies and regional analyses from Europe, Asia, Latin America, and Africa will be combined with examination of broader issues such as the advantages and disadvantages of democracy, the question of cultural or economic preconditions to successful democratization, and the impact of democracy on international relations.
159. Human Rights The 1948 Universal Declaration of Human Rights embodies a global consensus on the fundamental importance of human rights as a political value. But the idea and its practical applications have provoked intense controversy around the world on issues such as freedom of expression, capital punishment and torture, gender and sexuality, religious freedom, social and economic justice, and cultural and minority rights. Prerequisite: one social science course or permission of the instructor.
160. Law, Politics, and Society in Asia This course examines the interaction between law, legal institutions and citizens in China, Japan and India. Covering history and the contemporary scene, the course focuses on how law works in practice and is understood and used by ordinary people in Asia. It covers areas such as marriage and divorce, the legal profession, lost property, civil rights, the environment, sexuality, mediation, land development and
property, among others. Comparisons between the United States and Asia, as well as between Asian countries, will be emphasized.This course is cross-listed as EASN 259 and LAWP 259.

## International Relations

170. International Relations An introduction to global politics which examines the interaction of states, international organizations, non-governmental organizations, and individuals in the world arena. Topics covered include traditional concerns such as war, balance of power, the UN and international law along with the more recent additions to the agenda of world politics such as international terrorism, human rights, and economic globalization. This course is cross-listed as INST 170.
171. Media \& Politics in the Middle East \& North Africa Together we will try to answer the questions: What roles do media technologies and practices (particularly new digital technologies) play in the politics of Middle Eastern and North African (MENA) countries? How do states respond to the challenges and opportunities presented by changes in the communication ecosphere? We will study the development of mass media and its regulation in the MENA region. Students will collaborate to produce presentations for the class on particular problems in the role of media in politics and society, and will also complete individual critical and reflective works. The class will make extensive use of digital and social media, seeking to understand their political and social impact partly through firsthand experience. This course is cross-listed as MEST 260. Offered every two years.
172. Politics, Society and Culture in Israel This course provides an overview of the major political, social, and cultural forces that have shaped, and continue to shape, modern Israel. It covers the origins of the Zionist movement, political leadership, foreign relations, parties, the electoral system and the Israeli-Palestinian and Israeli-Arab conflict more broadly. In society, it focuses on the major cleavages in Israeli society, civil society, consumerism, as well as the impact of the Holocaust and the role of the Israel Defense Forces. The cultural component centers largely on poetry, short stories and changes in popular music. The course is intended to add nuance and depth to the often one-dimensional portrayal of Israel in the media and provide students with the analytical tools to better understand events in the Middle East. This course is cross-listed as MEST 264 and JDST 216. This course fulfills the DIV I.a. or DIV II social sciences distribution requirement. This course fulfills the Comparative Civilizations distribution requirement.
173. European Union The European Union (EU) remains a work-in-progress, and this course will help students to contextualize the EU's development since the mid-1950s, understand the way that it currently functions, and think about how it is likely to evolve in the future. Substantively, the course covers the theory and history of European integration; the EU's unusual (and evolving) institutional structure and political processes; the major policy areas of the EU; and the power dynamics between the EU and its member states. This course is cross-listed as INST 270.
174. Ethics and International Security A course in applied ethics that examines the role ethical considerations both do and should play in the pursuit of national and international security objectives. Among the specific topics to be examined are the decision to go to war, rules governing how wars are fought, the ethics of weapons of mass destruction, the ethics of terrorism, the torture debate, economic sanctions, and humanitarian intervention.
Prerequisite: 170 or permission of the instructor.
175. International Political Economy This course examines the politics of global economic relations. Specific topics discussed include: trade and protectionism, international monetary relations, foreign direct investment, global institutions such as the International Monetary Fund (IMF), World Bank, and World Trade Organization (WTO), regional economic integration (e.g., the European Union [EU] and North American Free Trade Agreement [NAFTA]), economic development, and the economic emergence of China and India. The larger issue serving as the backdrop to all of this is economic globalization-- its significance, sources, and consequences. Prerequisite: 170 or permission of the instructor.

275, 276. Studies in Modern European Politics To be offered only in Bologna.
277. International Politics of the Middle East This course examines key factors and events in the formation of the modern Middle East state system and evolving patterns of conflict and cooperation in the region. Students will apply
a range of analytical approaches to issues such as the conflicts between Arabs and Israelis, Iraq's wars since 1980, and the changing place of the region in global politics and economics. This course is cross-listed as MEST 266. This course fulfills the DIV II social sciences and Comparative Civilizations distribution requirements.
280. American Foreign Policy Since 1945 A survey of U.S. foreign policy since World War II. American approaches to such issues as containment, detente, arms control, deterrence, international law, and third world economic development will be discussed. Students will also address issues of U.S. foreign policy formulation, including the roles of the public, Congress, and the president in the foreign policy process. Prerequisite: POSC 170 or INST 170 or permission of the instructor. This course is cross-listed as INST 280.
281. American National Security Policy Analysis of formulation and implementation of American national security policy within the context of American society and the international system. National security will not be considered simply in a military/strategic sense but as connoting the preservation of the core values of a society. Prerequisite: POSC 170 or 120 or INST 170 or permission of the instructor. This course is cross-listed as INST 281.

## Special Topics Courses

190, 290. Selected Topics in Political Science Topics not normally studied in depth in the regular offerings are analyzed in these special topics courses. Recent offerings have included: Contemporary Political Ideologies, Mexican Politics, Political Thought of the Enlightenment, Politics in Fiction, Separation of Powers, The Bill of Rights, and Italian Politics. Prerequisite for 290 is dependent upon topic.
239. Research Methods Helps the student answer (in the affirmative) the question, "Is political science a science?" Students will learn how to generate and test hypotheses through creating and executing research designs. Survey research, experimentation, content analysis, participant observation, and other methodologies will be studied. Although no prior knowledge of statistics is necessary, MATH 121 is helpful. This class is especially recommended for prospective graduate students in the social sciences. This course fulfills the DIV II social sciences and QR distribution requirements.
390. Seminar A seminar in selected topics in Political Science. Recent offerings have included: Political Leadership, Crime and Punishment, Democratization, Presidential Elections, Revolutions and Political Thought, Constitutional Politics, International Regimes, Russian Leadership Politics, Central American Politics, and Comparative Political Modernization. Not appropriate for first-year students.

## Portuguese

## See Spanish and Portuguese.

## Pre-Business/Management

For students interested in graduate work in management and policy in both Private and Public Sectors, many options in addition to an MBA exist. Students should speak with their academic advisor and staff in the Career Center to obtain the most complete information on options available.

For students interested in pursuing an MBA, the criteria for admission to programs are: GMAT score, cumulative grade-point average, letters of recommendation, extracurricular activities, and work experience. Students interested in an MBA can select any major field of concentration at the college; however, it is helpful to take certain courses that will orient the student more specifically in the business field. Below is a list of recommended courses.

Economics: 111, Introduction to Microeconomics; 112, Introduction to Macroeconomics

Mathematics: 121, Elementary Statistics; 151, Introduction to Calculus or 170, 171, Single Variable Calculus and Multivariable Calculus, or INBM 220, Managerial Economics

Internships and independent studies: Business-oriented internships and independent studies
Additional courses in international business and management, economics, philosophy, psychology, political science, and a foreign language are also suggested.

## Graduate Management Admissions Test (GMAT)

The GMAT should be taken by the fall semester of the senior year. The GMAT is offered as a computer-based standardized test offered at Prometric Testing Centers. Check www.gmat.org for registration information.

## MBA Direct Admissions Program

Dickinson College has a direct admission agreement with the William E. Simon Graduate School of Business Administration, University of Rochester that allows eligible students special consideration in admissions. Interested students should contact the Career Center for more information as early as their sophomore year.

## Admissions Process

Contact the Career Center for more information and assistance with admission to graduate programs.

## Pre-Engineering

An excellent preparation for a career in engineering combines a liberal arts background with a traditional engineering program. Dickinson offers this opportunity through two options: application to an engineering Master's program after completion of a science major, or, by the Binary Engineering program. For the Binary program, students must plan their program carefully in order to meet all the requirements; new students need to contact the Pre-engineering advisor, Prof. Pfister, in July as they plan their first semester.

The Binary Engineering Program is a five-year program consisting of three years at Dickinson and two years at one of two engineering schools: Case Western Reserve University or Rensselaer Polytechnic. Upon successful completion of both portions of the program, students receive the B.S. degree from Dickinson and the B.S. in engineering from the engineering school.

Requirements for the Dickinson degree: a student must complete the Dickinson distribution requirements and requirements for a major field of concentration during the three years at Dickinson. Students must begin the major field of concentration in the first year. Courses taken at the engineering school to complete Dickinson requirements must be approved before leaving Dickinson.

Requirements of the engineering schools: the participating engineering schools require a 3.00 cumulative grade point average during the three years at Dickinson and satisfactory completion of the following:
Mathematics: two years, including Differential and Integral Calculus, Multivariable Calculus, and Differential Equations.
Physics: One and one-half years of calculus-based Physics, including Mechanics, Electricity and Magnetism, and Medical and Radiation Physics.
Chemistry: one year including States of Matter, Atomic and Molecular Structure, Thermodynamics, Equilibrium and Kinetics, and Chemistry laboratory.
Computer Science: one course in the use of computers for numerical analysis.
Humanities and Social Sciences: six to twelve courses in the humanities and social sciences, depending on the engineering school.
Other science courses in the area of the expected engineering field. (The complete list of engineering programs
available at the participating schools is available from the Pre-engineering advisor, Professor Hans Pfister.)
Application to the engineering school: During the first semester of the junior year the student applies to one of the participating engineering schools. A student who has the required 3.0 average and is meeting the course requirements can expect to be admitted to full standing and to be able to complete the engineering degree in two additional years. During the spring semester of the junior year, the student pre-registers for the off-campus study for the subsequent two academic years.

Preparation for admission to M.S. programs in engineering: Students must satisfactorily complete a science major, preferably in the area of the intended field of engineering. Course work should include PHYS 131, 132, 212, and 213 , plus two years of mathematics, and CHEM 141, 241 . Students with 3.0 or higher cumulative averages are generally admitted to quality engineering schools. Most students can complete the requirements for an M.S. degree in two years after completing the Dickinson degree.

## Suggested Four Year Program

## Physics major:

First Year: PHYS 131, 132; MATH 170, 171 (or 151, 170)
Second Year: Major courses*; PHYS 211, 212; MATH 270(or 171 and 270)
Third Year: Major courses*; CHEM 141, 241, COMP 131

## Chemistry major:

First Year: CHEM 141, 241; MATH 170, 171 (or 151, 170)
Second Year: Major courses*; PHYS 131, 132; MATH 270(or 171 and 270)
Third Year: Major courses*; PHYS 212; COMP 131; (MATH 262)

## Computer Science major:

First Year: COMP 131, 132; MATH 170, 171 (or 151, 170)
Second Year: Major courses*; PHYS 131, 132; MATH 270(or 171 and 270)
Third Year: Major courses*; PHYS 212; COMP 131; (MATH 262)

## Biology major:

First Year: Any two 100-level BIOL courses; CHEM 141, 241; MATH 170, 171 (or 151, 170)
Second Year: Major courses*; PHYS 131, 132; MATH 270(or 171 and 270)
Third Year: Major courses*; PHYS 212; COMP 131; (MATH 262)

* The choice of major courses should be made in consultation with the major adviser and the binary engineering director.


## Pre-Health program

The Pre-Health Program is administered jointly by the Committee for the Health Professions and by the Career Center. Any student who is interested in a career in the health professions (medicine, dentistry, optometry, veterinary medicine, nursing, etc.), should contact the Career Center as soon as possible. At the beginning of the academic year, first year students who have expressed an interest in a health related career receive a notice to attend an informational meeting. At this meeting, information regarding required course work and the Pre-Health advising program will be covered and interested individuals will be added to the list of Pre-Health students.

Each student is assigned one of the committee members as his or her Pre-Health Advisor. The advisor will work with the student each semester on course selection and will draft the Committee letter of recommendation when the student applies to professional school. The Committee also provides advice and prepares evaluations for students interested in any of the health professions. The pre-health advisor in the Career Center supports all pre-health students with health career information as well as provides encouragement as requested by students during the application and interview process.

The majority of students who are accepted into medical school major in one of the sciences. Pursuing a major outside the sciences is possible, but students must show their ability to do superior work in biology, chemistry, and physics. If planning to attend professional school immediately following graduation, students in all majors should plan to finish the science courses by the end of the junior year in order to be prepared for the Medical College Admission Test, or other professional exam which should be taken in the spring of the junior year.

## Requirements for the medical and dental schools and many allied health schools

Satisfactory completion of the following:
Chemistry: 4 courses - 141 (OR 13, 132), 241, 242 plus one additional course (Chemistry 243 or 244 are strongly recommended) Chemistry 111 will not satisfy this requirement. [Chemistry 243 is Modern Chemical Analysis and the material covered in that course is very good preparation for the MCAT.]

Biology: any two 100-level courses (216 Genetics, 313 Cell Biology, and 333 Physiology are also recommended along with 334 Vertebrate Biology for some programs)

Physics: 2 courses - 141, 142 or 131, 132 (Although 131, 132 is acceptable, some topics on the MCAT exam are not covered in these courses.)

English: 2 courses - any two are satisfactory. The First-Year Seminar fulfills the requirement for a course in English composition. The remaining course should be in English literature.

Mathematics: 170,171 and one additional math course. Students are advised to check the requirements of schools to which they may apply.

NOTE: This is a list of the minimum courses required by all medical schools, the majority of dental schools and many of the allied health schools. While these must be taken during college, individual schools may have additional requirements.

Other admission criteria include the science grade point average, exam scores, the letter of evaluation from the undergraduate college, and the outcome of a personal interview (if required) by the professional school. An overall academic average of 3.50 or better is needed to be a competitive applicant.

The Career Center has information on professional schools, applications for these schools, and applications for the MCAT and DAT exams. A reference service is also provided by the College to support the application process. More information will be provided to juniors at the annual meeting for those applying to professional school.

## Medical school admission test (MCAT)

All applicants to medical schools must take the Medical College Admission Test (MCAT) which is given in April and August of each year. The preferred time to take it is in the spring of the applicant's junior year.

## Dental Admissions Test (DAT)

Applicants to dental schools must take the Dental Admission Test, a computer-based exam offered throughout the year at local and regional test centers. Again, spring of the junior year is the recommended time to take this test.

## Tests in other health professions

Other health professions have similar testing programs as well. Information is available from the Career Center.

## Pre-Law

Law school admissions committees agree that the most appropriate and beneficial preparation for law school is a traditional liberal arts education combined with relevant extra-curricular experiences. The Pre-Law advising and preparation at Dickinson incorporates these elements in a comprehensive approach to Pre-legal studies. Coordinated by the Pre-law advisor at the Career Center, the program is inherently flexible and allows students to explore the
breadth of their intellectual interests.
Pre-law students can select any major field of concentration at the college. It is helpful to take certain courses that will provide a substantive background in the subjects that are directly related to the practice and development of law. Students planning to pursue the study of law should include courses to refine their writing, research, and argument formation skills. Below is a list of courses that are recommended to introduce students to the skills and issues related to the study of law.

## Recommended Courses:

Since law schools do not have a preferred undergraduate major, you are free to choose nearly any academic path that emphasizes writing, research, and analytical thinking. The courses listed below are a compilation of classes designed to introduce students to the skills and issues related to the study of law.

## Economics:

Contemporary Economics or Introduction to Microeconomics
(ECON 100 or 111)

## History:

American History (HIST 117, 118)

## Philosophy:

Ethics (PHIL 112)
Logic (PHIL 121)
Persuading and Arguing (PHIL 120)

## Political Science/Policy Studies:

American Government (POSC 120)
Constitutional Law I, II (POSC 220, 221)
Philosophy of Law (LAWP 255)
The Judiciary (LAWP 248)
The Legislative Process (POSC 246)

## English:

Students should take several writing intensive courses to refine their writing, research, and argument-formation skills. Possibilities include:
Expository Writing (ENGL 211)
Writing: Special Topics (ENGL 212)
Any of the literature courses offered by the department.
The Joint Baccalaureate and Law Degree Program is a six-year program consisting of three years at Dickinson College followed by three years at the Pennsylvania State University Dickinson School of Law program. To qualify for this program, Dickinson students need to complete all requirements for the bachelor's degree (except one year of elective courses) within three years, attain a 3.5 cumulative grade average (the top 10-15\% of the class), and achieve a score on the Law School Admissions Test (LSAT) within the top 30\% of the national test-takers. Students accepted into the program enroll in the Penn State Dickinson School of Law in lieu of their final year at Dickinson College. After one year of successful study at the law school, students will earn the baccalaureate degree from Dickinson College. After two additional years of study at the law school, the students will complete the law program and earn their JD degree.

Students interested in the joint-degree program should consult the college's pre-law advisor and should be prepared to apply to the Dickinson School of Law no later than February 1 of the junior year.

## Psychology

## Major

Eleven courses:

## 1. Four 100-level courses

One course from each group and one elective from any group or PSYC 185. Group 1: 110, 125, 130. Group 2: 155, 165 , 175. Group 3: 135, 140, 145, 150. Psychology 180 courses are designated by the chair as an elective or as belonging in Group 1, 2 or 3.

## 2. 201 and 202

## 3. Two 300-level courses

One 300-level course must be taken from 310 to 375 ; the other may be a 380 .

## 4. Two 400-level courses

## 5. One Additional Advanced Psychology Course

An additional 300-level course (from 310 to 375), OR
An additional 400-level course (from 410 to 475; must have the matching 100-level course), OR
500 independent study in psychology, OR
550 independent research in psychology, OR
560 student/faculty collaboration research
Students are eligible to declare the psychology major after successful completion of 201.
All courses above the 100-level must be taken in the department. Exceptions to this rule may be granted to students who study at approved overseas programs and/or who petition the department chair.

## Minor

Six courses, including 201 and 202 and a course from the 300-level group of research methods classes. Normally, four of the six courses (including the 201, 202 sequence and the 300 -level course) must be completed in the department.

## Suggested Four Year Program

First Year: at least one 100-level courses; 201(if possible)
Second Year: at least two 100-level courses; 201 and 202
Third Year: at least one 100-level and 300-level course; 400-level seminar (if appropriate); semester abroad Fourth Year: complete all remaining requirements

## Teacher Certification

For information, see the Director of Teacher Education, or visit the Education Department web site.

## Independent Options for Non-Seniors

Exceptional students may participate in traditional internships, independent study, and independent research projects (see Bulletin section entitled Special Approaches to Study).

## Honors in the Major

Honors are granted to graduating seniors who demonstrate excellence in developing and conducting empirical research. Candidates for honors must earn a GPA of at least 3.5 in courses taken in Psychology and 3.25 in all other courses taken at the college by the beginning of the Senior year. They must earn at least one credit for independent study and/or independent research during each semester of the Senior year, under the supervision of an Honors Committee, and their work must be endorsed for honors on behalf of the department and presented publicly no later than the week of final exams. Students interested in honors should consult the document "Honors in the Psychology Major," which is available from the department and at the department's web site.

## Opportunities for Off-Campus Study

Students who are interested in study abroad are urged to plan their programs carefully and begin the major early. An advising session is offered each semester that addresses this topic.

## Courses

110. Principles of Behavior In this introductory course, we examine how fundamental principles, derived from the field of animal learning, govern simple and complex human behavior. Topics such as classical and operant conditioning, stimulus control, extinction and avoidance are discussed.
111. Brain and Behavior This course will introduce the structure and function of the brain as it influences human behavior. The level of study will be from a molar viewpoint, and findings from such fields as neuroanatomy, neurophysiology, and endocrinology will be considered in their relation to a number of behavioral processes. In the laboratory, students will engage in hand-on activities to explore brain anatomy, behavioral analysis and brainbehavior relationships. Three hours classroom and three hours laboratory a week. This course fulfills the DIV III lab science distribution requirement.
112. Perception, Memory, and Thought This introduction to cognitive psychology will cover such topics as: How do you recognize your grandmother? Can you do more than one thing at a time? Why can't you remember the names of people you just met? More formally, we will examine the processes of perception, attention, representation, and retrieval in children, adults, and machines.
113. Psychology of Women and Gender Using a feminist social psychological framework, we will examine theory and research related to the psychology of women and the psychology of gender. We will analyze gender as a system that influences men's and women's lives, and consider the ongoing significance of gender role socialization across the lifespan. Throughout the semester, we will consider the social and political implications of putting women at the center of psychological analysis. In addition, we will develop tools to critically analyze traditional psychological theory and research to expose sexist bias, and we will examine alternative research methodologies that provide ways to study the richness of women's lives in context. This course is cross-listed as WGST 135. This course fulfills the US Diversity distribution requirements.
114. Social Psychology In this introduction to psychological aspects of human social behavior, we discuss such topics as the relationship between attitudes and behavior, how people judge one another, interpersonal and group influence processes, and relations between individuals and groups, with strong emphasis on real-world applications. We also introduce scientific methods and formal theories for studying social behavior.
115. Psychology of Human Sexuality This course is a study of human sexuality emphasizing psychological aspects. We will cover sexual development from childhood to adulthood, sexual orientations, biological influences, sexual attitudes and behavior, gender, sex therapy, sexual coercion and abuse, sexually transmitted diseases and sexual health, and the development of sexual relationships. The study of human sexuality is inherently interdisciplinary in nature (drawing from such varied disciplines as sociology, women's studies, biology, anthropology, history, and others). Although we will cover some material from these disciplines, we will take an
explicitly social psychological perspective, focusing on individual, personal, and social aspects of sexual behaviors, attitudes, and beliefs.
116. Introduction to Cross-Cultural Psychology This course takes the position that human behavior can best be understood only in the cultural context in which it occurs. Discussions focus on the impact of culture on human behavior including the nature of culture; political and religious elements of culture; perceptions, stereotypes and the realities of cultural differences; how nationalism and animosity between cultures grow; and sources of prejudice and cultural conflict, and how they may be reduced. Suitable for all students, regardless of prior background in psychology.
117. Child Development This introduction to developmental psychology will cover such topics as: What are the processes of prenatal development and birth? How does an infant learn about the world around him or her? How do children develop as social beings? And, how do the cognitive abilities of thought, language, and memory develop?
118. Psychopathology An introduction to various psychological disorders and techniques of diagnosis and treatment. Relevant for students who anticipate careers in medicine, law, and the social or psychological services.
119. Introduction to Community Psychology This course will provide an introduction to the field of community psychology - a field that focuses on persons-in-context and the ways that social issues, institutions, and settings impact individuals' mental health and wellbeing. In the course, we will (a) review the historical underpinnings of community psychology; (b) examine the field's major tenets and theories, including its emphasis on understanding the role of the environment in human behavior; (c) explore the field's application to a range of clinical and social issues; and (d) emulate the field's commitment to the promotion of social change through research and action.
120. Topics in Psychology Students gain an appreciation of psychological principles by reading about and discussing a topic of interest. Course topics range from contemporary issues and historic controversies to broad themes. Recent topics courses have included Health Psychology, Unconscious Processes, and Molecules and Mental Illness.
121. Survey of Psychology A survey of areas of contemporary psychological study to acquaint students with viewpoints, findings, and techniques of investigation of the discipline.
122. Design of Psychological Research Readings and laboratory exercises introduce students to bibliographic resources in psychology, rules of valid scientific inference, and techniques for conducting psychology experiments. Three hours classroom plus three hours laboratory a week. Prerequisite: any 100-level course. NOTE: Completion of both 201 and 202 fulfills the WR requirement.
123. Analysis of Psychological Data In this course, one of the core requirements for the major, our focus is how to make sense of numerical information. Students learn to describe and analyze data. Three hours classroom plus three hours laboratory a week. Prerequisite: 201. NOTE: Completion of both 201 and 202 fulfills the WR requirement. This course fulfills the DIV II social sciences and QR distribution requirements.
124. Research Methods in Animal Learning Researchers in the field of animal learning have uncovered fundamental principles that govern the behavior of all organisms, including humans. This course examines the research methods that have assisted researchers in discovering such principles. Students conduct original experiments with animals and prepare written reports of their findings. Three hours classroom plus three hours laboratory a week. Prerequisites: 110, 201, 202 OR 125 and BIOL 124.
125. Research Methods in Biological Psychology A comprehensive coverage of the research methods employed in the field of biopsychology. Students conduct research on the relationship between the nervous system and/or the endocrine system and human behavior. Three hours classroom plus three hours laboratory a week. Prerequisites: either 125, 201, 202 OR 125 and BIOL 124. This course fulfills the WR distribution requirement.
126. Research Methods in Cognitive Psychology Students devise, conduct, analyze and prepare written reports of experiments on topics such as autobiographical memory, time management, techniques for improving learning, and
decision-making. Three hours classroom plus three hours laboratory a week. Prerequisites: either 130, 201, 202 OR 125 and BIOL 124.
127. Research Methods in Gender and Sexuality This course addresses the methodological principles underlying empirical psychological research on gender and sexuality. We will specifically consider qualitative methods as they are used within psychology. Because the study of gender in particular has been strongly guided by feminist theory, this course will focus on feminist epistemologies as related to social psychological research. Class and lab time will be spent developing the following skills: critical reading and analysis of published research, design of empirical research, data collection, and qualitative data analysis. This course will culminate in the design and implementation of an original research project in the area of psychology of gender or human sexuality. Three hours classroom plus three hours laboratory a week. Prerequisites: 201 and 202, and either 135 or 145.
128. Research Methods in Social Psychology We conduct empirical studies in order to become familiar with techniques for measuring attitudes and social behavior in the field and the lab, for analyzing and evaluating data, and for reporting findings and conclusions. Students gain direct experience in the process of conducting research studies by working as experimenters and data analysts. Three hours classroom plus three hours laboratory a week. Prerequisites: 140, 201 and 202.
129. Research Methods in Cross-Cultural Psychology Each culture is unique in its understanding and beliefs regarding human nature. These differences can lead to varied perceptions of self, in-group and out-group members, time, politics, social distance and social expectations. This course is designed to support student investigation into these cultural and subcultural differences as students generate, conduct, analyze and prepare written reports of observational, survey, correlational or experimental study designs on various topics in cross-cultural psychology, stereotypes and intercultural conflict. Three hours lecture and three hours lab per week. Prerequisite: 150, 201 and 202.
130. Research Methods in Child Development An advanced presentation of the research methods and statistical techniques used by developmental psychologists including cross-sectional, longitudinal, and sequential designs. Students conduct laboratory and field-based research and develop original research proposals in the area of child development.Three hours classroom plus three hours laboratory a week. Prerequisites: 155, 201 and 202.
131. Research Methods in Clinical Psychology This course will introduce various strategies used in empirical research of clinical phenomena. Practice in behavioral observation systems, structured clinical interviews, and assessment techniques will be gained as students conduct research and write research reports in the area of clinical psychology.Three hours classroom plus three hours laboratory a week. Prerequisites: 165, 201 and 202.
132. Research Methods in Community Psychology This course will emphasize gaining advanced knowledge and skills in the research methodologies of community psychology, answering the question: How does community psychology seek to scientifically understand relationships between environmental conditions and the development of health and well-being of all members of a community? Students will gain and practice skills in consultation and evaluation of programs to facilitate psychological competence and empowerment, and prevent disorder. Specifically, students will: (a) consider ways to assess and be responsive to the needs of people from marginalized populations with diverse socio-cultural, educational, and ethnic backgrounds; (b) become familiar with innovative programs and practices geared towards prevention and empowerment of disenfranchised groups; (c) apply learning (of theory and research strategies) to a problem in the community; and (d) develop skills in collaborating with Carlisle-area community members in identifying, designing, implementing, and interpreting community-based research. Prerequisites: 175, 201 and 202.
133. Research Methods in Psychology: Special Topics Students conduct empirical research in an area of psychological science, analyze data, and report findings and conclusions. Three hours classroom plus three hours lab per week. Prerequisite: 202. NOTE: The prerequisites for Neuroscience majors for PSYC 380 (Research Methods in Drugs \& Behavior) are PSYCH 125 and BIOL 124.
134. Seminar in Learning Elementary principles govern simple and complex human behavior. This seminar examines how such principles help us understand both typical, everyday behaviors (e.g., eating) and atypical or maladaptive behaviors (e.g., drug abuse). Formal theories of learning also are discussed. Prerequisites: 201 and 202.
135. Seminar in Biological Psychology An advanced seminar into the relationship between physiological systems and behavior. This course will include coverage of mammalian brain organization and function in terms of transmitter systems which are correlated with the interactions between anatomy, physiology, and behavior. Prerequisites: 201 and 202 OR 125 and BIOL 124.
136. Seminar in Cognitive Psychology Students will present and discuss one or more topics in human cognition using primary sources. Possible topics include, but are not limited to, intelligence and creativity, the development of physical and mental skills, changes in learning and memory as we age, and thought in humans and machines. Students will write several essays that explain and evaluate the concepts that are discussed. Prerequisites: 201 and 202.
137. Gender and Sexual Identities In this advanced discussion seminar, we will focus in depth on special topics in the field of psychology of gender and sexuality, particularly highlighting personal and social identities. We will discuss such topics as the development of heterosexual, gay, lesbian, bisexual, transgender, and queer identities; gender conformity and socialization in childhood; the coming out process; the relationship between gender and sexual orientation; social pressures and compulsory heterosexuality; heterosexism, homophobia, and the stigma and prejudice surrounding sexual minority identity; gender nonconformity and transgender identity; and special issues facing GLBTQ individuals in intimate relationships. We will also discuss social and political activism, with an emphasis on collective action stemming from group identification. The course material will include some sexually explicit material; please carefully consider your degree of comfort in discussing this type of material before enrolling in the course. Class participation will significantly contribute to your final grade. Prerequisites: 202 or WGST 250. This course is cross-listed as WGST 305. This course fulfills the US Diversity distribution requirements.
138. Seminar in Social Psychology In this seminar, we read and discuss primary sources in theoretical or applied social psychology. Previous seminars have looked at applications of social psychology principles in law, medicine, mental health, consumer behavior, conservation, and education, and theories of social construal, social influence, and social systems. Students are responsible for leading class sessions and contributing to a group document, such as an annotated bibliography or literature review. Prerequisites: 201 and 202.
139. Intergroup Relations and Cultural Psychology Investigates psychological perspectives related to the impact of culture in determining individual and social behavior, cross-cultural differences and similarities in human behavior, and the psychological sources of group conflict. Topics may include the impact of stereotypes on perceivers and targets, the psychological rationale for prejudice and discrimination, the benefits and difficulties of gender, racial, and cultural diversity, methods for prejudice and discrimination reduction, and an examination of human behavior beyond the traditional Euro-American psychological perspective. Prerequisites: 201 and 202.
140. Seminar in Developmental Psychopathology Applying a developmental perspective in which clinical disorders are viewed as either quantitative deviations from normal development or qualitatively distinct disorders this course will study the history, methods, procedures, empirical facts, and theories that influence the conceptualization of and treatment of clinical disorders in children. Prerequisites: 201 and 202.
141. Seminar in Clinical Psychology Students read and discuss primary sources in theoretical and applied clinical psychology to gain a deeper understanding of the processes of assessment and treatment used with various psychopathological conditions. Prerequisites: 201 and 202.
142. Seminar in Community Psychology The practice of community psychology is typically directed toward the design and evaluation of strategies aimed at facilitating empowerment, preventing psychological disorders, and promoting social justice and change. The goal is to optimize the well-being of individuals and communities with innovative and alternative interventions designed in collaboration with affected community members and with other related disciplines inside and outside of psychology. This course is an advanced seminar that focuses in depth on special topics in the field of community psychology. Topics may include substance abuse and addiction, delinquency, stress and coping, prevention vs. intervention, social support, and program consultation and evaluation. Students will develop their understanding of topical issues by reading primary and secondary sources and participating in class discussions and applied exercises. Prerequisites: 201 and 202.
143. Advanced Topics in Psychology Advanced seminar in which students become actively engaged in reading about, reviewing, and discussing selected topics of importance in the discipline. Recent advanced topics courses have included The Psychology of Law and Medicine, Psychopharmacology, The Psychology of Groups, and Psychology of Identification. Prerequisites: 201 and 202.

## Public Speaking

## Courses

101. Introduction to Public Speaking An introduction to public speaking addressing the construction and delivery of both informative and persuasive speeches. Students will receive training in (and will practice) overcoming anxiety, gathering and presenting information, determining and responding to audience preferences, and incorporating rhetorical tools to enhance persuasion.

## Religion

## Major

The religion major provides students with a foundation in the study of religious traditions and in the analysis of the complex roles religion has played and continues to play in world cultures.

Eleven courses are required:
Three methodological courses: RELG 101 (What is religion?), RELG
390 (Interpreting Religion), and RELG 490 (The Senior seminar)
Two courses in Western traditions (Judaism, Christianity, Islam)
Two courses in other religious traditions (e.g., Hinduism, Buddhism, Native American religions)
Three courses focusing on a particular religious tradition, related religious texts, or the cultural dynamics shaped by religion

One elective

## Minor

Six courses including RELG 101 (What is Religion?) and RELG 390 (Interpreting Religion)

## Independent Study

According to their special interests, students often develop and pursue Independent Study projects with members of the faculty. Among the projects recently undertaken have been Liberation Theology in Latin America, Abraham and Monotheism, The Hindu Temple, Martin Luther King, Jr., C. S. Lewis, Hopi Kachinas, Tibetan Views on Death, Spirituality and Activism, Women and Religion, and Philosophical Theology.

## Honors in the Major

Majors in Religion have the option of pursuing departmental honors in their senior year by writing an honors thesis of between 60 and 100 pages demonstrating their ability to engage in sustained advanced research and scholarly endeavor. The thesis project will extend over two semesters. Only the best projects will be granted honors, but any student who completes the project will receive the credit for two semesters of work, i.e., two credits. Students will
work with one advisor but may receive guidance from other members of the department and when appropriate a designated outside reader.

Those wishing to write an honors thesis should register for RELG 550 for the fall semester, and find a research advisor. No later than the third Monday of the semester, the student must submit a formal proposal, outlining the project. Within a week, the department faculty will meet to discuss the proposal and assess its feasibility. Once the proposal is approved, the student and his/her adviser will decide on a schedule of research and writing. The student is expected to adhere to all deadlines set by the advisor.

In the spring semester the student once again must register for RELG 550. The first draft of the thesis must be submitted by spring break. Copies will be given to all department faculty and when appropriate a designated outside reader. Within two weeks after spring break, members of the department will meet with the student to make comments on the draft. The final draft must be submitted before the end of spring semester classes. A defense date will be set for sometime during the exam period.

## Opportunities for Off-Campus Study

Students have regularly taken Junior Year Abroad programs in Scotland, England, Germany, France and Israel. The college also participates in the CIEE Program in Hyderabad, India.

## Courses

All 100-level courses, regardless of their specific content, provide students with a basic introduction to the academic study of religion. Sophomores and juniors may take a 200 -level course as their first course in religion, and seniors are encouraged to begin at this level. 200-level courses are more specific than 100-level courses but are not necessarily more difficult. 300-level courses are discussion-oriented seminars open to students who either have at least one previous course in religion, have junior or senior status, or have the permission of the instructor.
101. What is Religion? The course introduces students to methods in the study of religion and to major world religions, including Hinduism, Buddhism, Judaism, Christianity, and Islam. The approach in the course is comparative and interdisciplinary.
103. Hebrew Scriptures in Context A critical examination and attempt to understand the literature and the antecedent traditions remembered and formulated by the ancient Israelites in terms of their own views of God. This literature is interpreted in the context of events and cultures of the ancient Near East.
104. Judaism A basic course in the history, basic beliefs and practices, and modern manifestations of Judaism as a religion. The course concerns itself with the interactions of Judaism and other world religions, notably Christianity. This course is cross-listed as JDST 104.
105. Judaism in the Time of Jesus This course is an introduction to the Hellenistic period of Jewish history, also known as the period of the "second temple". The course will analyze the cultural interaction between Jews and Greeks at this pivotal moment in Jewish history. The course will examine the impact of classical Greek thought and culture on the development of Judaism at its formative stage. We will focus on the phenomenon of sectarian movements and the emergence of rabbinic Judaism and Christianity as two dominant religions of the West.This course is cross-listed as JDST 105.
107. New Testament in Context A critical examination and attempt to understand the New Testament as the written traditions which articulated the faith, expectations, and actions of the early Christians as they responded within Jewish and Greek culture to the historical events of their day, and especially as they responded to the life and death of Jesus of Nazareth.
110. Religion and Modern Culture Drawing upon popular examples from film, drama, and narrative, as well as critical essays, the course explores both the religious dimensions of modern culture myth, sacred space and time,
nature spirituality and the cultural contexts of contemporary theologies gender, race, economics. This course fulfills the DIV I.a. and U.S. Diversity distribution requirements.
115. Native American Religions A survey of some major religious phenomena in the relatively recent histories of selected Native American traditions with emphasis on the tribal religions of North America and the religions of the civilizations of Mexico and Central America.
121. Hinduism A study of the dominant religion of south Asia that focuses on the contemporary "embodiment" of religion in culture. This course will explore ways in which religion permeates the Hindu cycle of life, shapes choices such as occupation and marriage partner, and infuses Indian arts. It will ask whether the variation in these patterns over time, among regions of India, in city and country, and among different groups, are diverse "Hinduisms" that nevertheless contain a vital unity.
122. Buddhism A study of Asia's most influential religion that focuses on the contemporary "embodiment" of religion in culture. This course will explore ways in which Buddhists have used visual arts, music, drama, asceticism, devotion, etc., to attain spiritual goals and express enlightenment. It will look at both monastic and popular Buddhism, concentrating on South and Southeast Asia but with some reference to East Asia and the West. This course fulfills the DIV I.a. and Comparative Civilizations distribution requirements.
130. Religions of East Asia An introduction to the formative role of religious consciousness in the development of the cultures of China and Japan. This course fulfills the DIV I.a. and Comparative Civilizations distribution requirements.
201. Tibetan Buddhism Tibetan Buddhism is probably the world's most varied and complex religion, combining elements of everything found in late Indian Buddhism - huge monastic universities, esoteric rituals involving seemingly bizarre practices, an enormous pantheon of enlightened beings, demons, and others, devotional cults, sublime art - with wild and wooly indigenous Tibetan shamanism and some aspects of Chinese religions. The course examines the development of Buddhism in Tibet as well as its increasing interest and influence in the West.
206. Jews and Judaism in the United States Traces the history of Jewish immigration to America and how the American experience has produced and nurtured new forms of Judaism, notably Reform and Conservative. The course concentrates on the last hundred years of American history and includes such topics as anti-Semitism, the Holocaust, and Israel. This course is cross-listed as JDST 206. This course fulfills the DIV I.a. and U.S. Diversity distribution requirements.
208. Religion in the United States The course chronicles the relationship between religious ideas and cultural context from the founding of the first colonies through the rise of the Religious Right and New Age movements. Our journey will be guided by several key metaphors that have characterized the religious ethos of America: America as "The Promised Land"; America as the "land of opportunity", as the "melting pot." We will use primary sources, including fiction, poetry, and film.
210. Religions of Africa The course examines the variety of religious experiences, traditions, and representations of religion in African cultures. These include indigenous religions, Islam, Christianity and syncretistic traditions. We will examine the various roles that religion plays in responding to current crises facing African cultures, including the HIV/AIDS pandemic, political conflicts, and issues related to gender (e.g., girls' education, shifting perspectives on masculinity and femininity) that have been shaped by religious attitudes. Students will use novels, memoir and film to supplement scholarly readings. This course fulfills the DIV I.a. and Comparative Civilizations distribution requirements. Offered every two years.
211. Religion and Fantasy An exploration of the religious and mythological dimensions of traditional and modern fantasy literature. Our explorations will be guided by three interdependent themes: the nature of the divine, the nature of the human, and the nature of the moral life.
212. History of Christianity: From Margin to Center The course traces the emergence of Christianity from its beginnings as a minority sect in the first century to the height of its influence in the 14th century. Special attention will be given to cultural and aesthetic influences on the emerging Church.
214. History of Christianity: Reform and Modernity The course concentrates on the emergence of the Protestant tradition in the 16th century and the Catholic response. Considers the impact of the Enlightenment on both Protestant and Catholic self-understanding.
215. Jewish Environmental Ethics Since the 1960?s many writers on environmental issues have blamed our contemporary environmental crises in part on a so-called "Judeo-Christian" worldview, rooted in the Hebrew Bible. Such writers assert that the biblical heritage shared by these two religious traditions advocates an unhealthy relationship between humanity and nature, one in which human beings are destined to conquer the earth and master it. In this course we will explore Jewish perspectives on nature and the natural world through close readings of biblical and other classical Jewish texts. Emphasizing the way "land" figures as an important theme in classical Jewish theology, history and ritual practice, we will also examine the ways in which this motif is re-conceptualized in modern secular contexts (i.e., Zionism and the kibbutz movement). We will conclude by studying contemporary varieties of Jewish environmental advocacy. In addition to texts focused specifically on Judeo-Christian traditions, the syllabus will include other classic works of Environmental ethics foundational to the field of Environmental studies. Offered every three years in rotation with the offering of ENST 111. This course is cross-listed as JDST 215 and ENST 215.
219. History of the Jews Willing or not, Jews have participated in world history since the dawn of civilization in the Middle East, ca. 3000 b.c.e. This course surveys the part Jews have played, concentrating on the interplay between Jews, Christians, and Muslims. This course is cross-listed as JDST 219.
226. Yoga: Theory and Practice Yoga is an ancient Indian religious philosophy with a unique and complex world view. The Yoga system sees the human and the cosmos as homologous and therefore places special emphasis on the control of the body and mind in its pursuit of the realization of ultimate reality. In order to test Yoga's assertions about the effect of physical and contemplative techniques, students will participation in a lab section in addition to lectures and discussion. Prerequisite: 121, 122, or permission of instructor.
227. Spiritual Dimensions of Healing The effect of the mind on the body, long a principle of systems of healing around the globe, is again being recognized in modern medicine. This course will be concerned with "integrative medicine" and related topics, such as ancient systems of healing, shamanism in contemporary cultures, the relationship between religious faith and recovery from illness, the appropriation of traditional healing methods by medical professionals and New Age alternative healing practitioners, yoga, meditation and health, the Holistic Medicine movement in the West, and the Positive Psychology movement in the West. This course fulfills the DIV I.a. and Comparative Civilizations distribution requirements. Offered every two years.
228. Conflict, Violence and Peacemaking This course will examine the nexus of conflict/violence and religious belief in an attempt to understand the confusing array of contemporary conflicts in which multiple sides claim divine authority for their actions. This course fulfills the DIV I.a. and Comparative Civilizations distribution requirements. Offered every two years.
230. Buddhism in China and Japan A study of the many phenomena of Chinese and Japanese Buddhism: historical development, socio-cultural context, personalities, texts, practices, thought, and aesthetics.
235. New American Religious Diversity Until relatively recently, religious diversity in the U.S. meant Protestant, Catholic and Jewish. With changing immigration patterns since the latter half of the 20th century, religious diversity in the American context has to take into account other world religious traditions, such as Islam, Hinduism, Buddhism, and others. Furthermore, new immigrants from Asia, Africa and Latin America have brought their own distinctive Christian practices, whether joining existing American congregations or forming ethnically distinct congregations. This course will examine the experience of these emergent religious communities within the nexus of social and cultural processes - examining the dynamic interplay of religion and communities in the context of immigration and defining a place within the American experience. This course fulfills the DIV I.a. and U.S. Diversity distribution requirements. Offered every two years.
241. Topics in Arts, Literature, and Religion (e.g., Religion and Psychology; Faith and Identity; American Jewish Fiction; Jesus in Theology, Art, and Literature; Religion and Film) Prerequisite dependent upon topic.
243. Dead Sea Scrolls The discovery of a cache of ancient scrolls in 1947 in caves near the Dead Sea led to a revolution in the study of Second Temple Judaism and Christian origins. This course will focus on these texts, situating them in the context of the history of Judaism from the Hellenistic period through the first century C.E. What do they reveal about beliefs and institutions of the Essenes, the enigmatic community which produced them? What was life like at Qumran, the Essene community's center? How did the sect start, how did it differ from mainstream Judaism, and what was its vision of the future? What possible connections existed between the Essene community and the emergence of Christianity? How have the Dead Sea scrolls contributed to the study of the Hebrew Bible and the New Testament?
245. Hidden Scriptures Besides the books included in the Hebrew Bible (Christian Old Testament) and the New Testament, a number of texts were excluded for various reasons. Their circulation and reading were discouraged, but they survived nonetheless. This course examines these texts, placing them in their historical context and using them as a "lens" through which we can better understand Judaism in the Hellenistic and Roman period and Christianity in some of its primitive (often "heretical") expressions.
246. The Way of the Shaman The shaman, a figure in some form or another in nearly every culture past and present, is a healer of the body and soul who is the protector of the psychic integrity of the people he or she serves. Through initiation, the shaman is a human bridge to the supernatural. The course will use the methods of psychology and anthropology to analyze examples ranging from Siberia to Tibet to the Great Plains. This course fulfills the DIV I.a. and Comparative Civilizations distribution requirements. Offered every two years.
247. Saints and Demons This course will examine the complex relationship of Jews and Muslims in the Middle East and North Africa, from the dawn of Islam through the 20th century, drawing upon religious studies, cultural historical and ethnographic perspectives. We will examine sources from the "high" traditions of both religious communities, and spend the bulk of the semester closely examining "popular" traditions - such as saint veneration and spirit possession - which will challenge the idea that Jewish and Muslim ritual and practice are wholly separate and distinct.This course is cross-listed as MEST 250. This course fulfills the DIV I.a. and Comparative Civilizations distribution requirements. Offered every two years.
248. Religion and Non-Violence Although religion in our world today is often associated with violence, this course examines the lives and work of important religious figures who advocated non-violence for social change. What are the ethical debates about non-violence as a response to injustice? We will read works by Mahatma Gandhi, Martin Luther King, Jr., Bishop Tutu, Dorothy Day, the Dalai Lama, Thich Nhat Hanh, and others. This course fulfills the DIV I.a. and Comparative Civilizations distribution requirements. Offered every two years.
250. Topics in Religion and Culture (e.g., Goddess and Devotee; Women \& Religion; Sexuality and Spirituality; Women's Ways of Believing)
259. Islam An introduction to Islamic beliefs and practices in their classical forms: rituals, law, mysticism, and other topics. The course will consider aspects of Islamic cultures and societies in medieval and modern times. This course is cross-listed as HIST 372 and MEST 259. This course fulfills the DIV I.a. or DIV II social sciences distribution requirement.
260. Topics in Religious Traditions (e.g., Islam; Shamanism; Apocrypha)Prerequisite dependent upon topic.
304. Religion, Love and Sex Sexuality: the power of the sacred within us, or the curse of original sin? Romantic love: an illusion created by hormones and imagination, or a path to union with the divine? Love and sex are basic facts of life with which religions have always had a deep and complex relationship. This course will use a multidisciplinary and comparative religions approach to understand the history, science, and theology of love, sex, and religion. This course fulfills the DIV I.a. distribution requirement. Offered every two years.
309. Christian Spiritualities This course will situate the development of various Christian spiritualities against the backdrop of Christian history, from apostolic Christianity to the present day. Even though emphasis will be given to analysis of key texts, consideration will also be given to the ways in which Christian spiritualities have found expression in liturgy, art, music, cinema, and social movements. We will also consider how various Christian spiritualities continue to shape the lives of people in the United States, especially in south central Pennsylvania.Prerequisites: 107 or 212 or 214, or permission of instructor. This course fulfills the DIV I.a. distribution requirement. Offered every two years.
310. Topics in the Study of Myth (e.g., Comparative Mythology; Myths of Creation)Prerequisite dependent upon topic.
311. Buddhism and the Environment Although protection of the environment is not a Buddhist goal per se, it is involved in the quest for enlightenment. The course will apply Buddhist perspectives to questions about the relations between humans and the rest of nature, to specific environmental problems, to the tradeoffs between human good and protection of other species, and to consumption and consumerism. Prerequisites: 122 or ENST 111, or permission of instructor. This course fulfills the DIV I.a. and Comparative Civilizations distribution requirements. Offered every two years
312. Topics in the History of Christianity (e.g., Contemporary Roman Catholic Thought; Medieval Mysticism; Christianity in Crisis; Augustine of Hippo; Eastern Orthodoxy)Prerequisite dependent upon topic.
313. Eastern Orthodox Christianity Even though it is the second largest denomination in world Christianity, Eastern Orthodoxy is a religious tradition virtually unknown in the West. This course will explore Eastern Orthodoxy as a historical, conceptual, and experiential system. That is, it will trace the development of the Orthodox Church from its inception until the present decade, examine a number of writings representative of its theological perspective, and consider how its spirituality and liturgical life foster a distinctive type of religious experience among its adherents. Prerequisites: 107 or 212, or permission of instructor. This course fulfills the DIV I.a. distribution requirement. Offered every three years.
314. Topics in Religious Ethics (e.g., Bonhoeffer, Peace and War; God and Evil; Religion and Ecology; Contemporary Christian Ethics)Prerequisite dependent upon topic.
316. Topics in Judaic Studies (e.g., Twentieth Century Jewish Thought; Principles and Topics in Jewish Law)This course is cross-listed as JDST 316. Prerequisite dependent upon topic.
318. Topics in Religion and Culture (e.g., Religion and Science; Encounters with Death; Liberation Theologies)Prerequisite dependent upon topic.
320. Topics in Indian Religions (e.g., Hindu Theology; Buddhist Tantra; Enlightenment in Comparative Perspective)Prerequisite dependent upon topic.
330. Topics in East Asian Religions (e.g., Zen; Confucianism and Taoism; Chinese Folk Religions)Prerequisite dependent upon topic.
390. Interpreting Religion An advanced introduction to some fundamental issues of theory and method in the academic study of religion. Selected religious phenomena will be examined using the perspectives such as those of the history of religions, psychology, sociology, anthropology, philology, philosophy, and theology. Emphasis will be placed upon methods of research and styles of writing in the study of religion.This course fulfills the WR requirement.
490. Seminar Advanced investigation of methods and critical perspectives for the study of religion with a focus to be determined by the instructor. Writing enriched. Prerequisite: 390 or permission of the instructor.

The following course is offered abroad:
242. Jerusalem, Layer by Layer This course will examine the centrality of Jerusalem in the evolution of Judaism, Christianity, and Islam. The development and interaction of these religions will be situated within the sweep of the city's history, from the period of the ancient Israelite monarchy to the present. Through the study of monumental structures, archaeological remains, and textual records, Jerusalem's story will be uncovered layer by layer, with special attention given to the social and political dynamics which have shaped its monotheistic communities through the centuries. This course fulfills the DIV I.a. and Comparative Civilizations requirements.

## Russian

## Major

## (11 courses)

## Core Curriculum Courses:

100, Russia and the West
Four courses in the Russian language (above 116), including at least one 300-level course;
Any two Russian literature or culture courses taught in English and covering, when combined, both nineteenth and twentieth century Russian literature and/or culture.

## At least 4 elective courses will be chosen from the following list:

Up to two additional upper level Russian language courses;
One additional literature or culture course taught in English;
Up to two Russian or East European History courses,
One Political Science course with Russian content;
One Religion or Philosophy course with Russian content.

## Minor

Five courses numbered 200 and above. At least three of these courses must be in the Russian language.

## Teacher Certification

For information, see the Director of Teacher Education, or visit the Education Department web site.

## Independent Study

Independent study projects are an option open to motivated students who wish to pursue a topic in Russian or Slavic literatures and cultures not offered as part of the regular curriculum. Interested students must be willing to initiate their own study project and meet with their director on a weekly basis. All faculty members are willing to assist. Most projects are taken for half or full course credit. Qualified seniors may wish to write an Honors Thesis.

## Honors in the Major

A student who wishes to be considered for honors in the major must have an overall grade point average of 3.33 or higher. Each candidate for honors must write a thesis of exceptional merit; the thesis should be in Russian and approximately 25 pages in length. The Honors Thesis will usually be developed from work written during the senior year in a course numbered 300 or above, and it should be supervised by a member of the faculty. An oral examination will be conducted by members of the Russian department on those papers judged to be of honors quality.

## Opportunities for Off-Campus Study

Junior Year All students majoring or minoring in Russian are encouraged to spend one or two semesters in Russia during the junior year. The Dickinson program in Moscow is based at Language Link and is affiliated with the Russian State University for the Humanities. The program offers a wide range of courses in Russian language and culture.

Summer Immersion Program The Russian Department offers a five-week student immersion program in Moscow or Moscow/St. Petersburg. See the course description for RUSS 215, Moscow Summer Immersion Program.

## Courses

100. Russia and the West An introductory and multi-disciplinary survey intended to explore the relationship between Russian culture and Western civilization. In the process, students will be exposed to aspects of Russia's history, literature, religion, philosophical traditions, music and art, politics, and economics. Suitable for those interested in a one semester introduction to Russia, and required for those who choose a major or minor in Russian. This course fulfills the Comparative Civilizations distribution requirement.
*101, 104. Elementary Russian An intensive study of the fundamentals of Russian grammar, with an emphasis on the development of reading, writing, speaking, and understanding skills. Short stories and songs will supplement the text.
101. Intermediate Russian Advanced grammar review incorporating controlled reading and composition. Emphasis on speaking competence continued through oral reports and conversational topics. Prerequisite: 104 or the equivalent.
102. Advanced Training in the Russian Language Emphasis on the development of reading, speaking, and writing skills. Reading of simple texts to acquaint the student with a variety of styles of the Russian language, concentration on some of the more difficult problems in the Russian grammar, translation, written composition, vocabulary building, and intonation. Prerequisite: 116 or equivalent, with a grade of at least $C$.
103. Life's Cursed Questions: Russian Literature through the Nineteenth Century An introduction to Russian literature, presenting its development and the major literary movements from the earliest period to the middle of the 19th century. Readings will include works by Pushkin, Lermontov, Gogol, Goncharov, Turgenev, and Tolstoy. No knowledge of Russian necessary. Conducted in English. This course fulfills the DIV I.b. distribution requirement. Offered every other year.
104. Revolution and Dissidence: Twentieth-Century Russian Literature An introduction to Russian literature, presenting its development and the major literary movements from the middle of the 19th century to the present. Readings will include works by Dostoevsky, Chekhov, Gorky, Blok, Mayakovsky, Babel, Zamiatin, Gladkov, Bulgakov, Pasternak, Solzhenitsyn, Voinovich, Trifonov, Shukshin, and Aitmatov. No knowledge of Russian necessary. Conducted in English. This course fulfills the DIV I.b. distribution requirement. Offered every other year.
105. Advanced Russian for Heritage Speakers The course is designed for heritage learners who have had little or no formal training in their native language and who desire to improve their reading, writing, and formal communicative skills. Basic rules of orthography and advanced grammar will be reviewed. Texts will be drawn from contemporary Russian press, movie scripts, and fiction. Prerequisite: placement by department. Offered every two years.
106. Russian Conversation and Composition Practice in the techniques and patterns of everyday conversation, especially as these reflect different cultural orientation. Reading and discussion of short works by well-known Russian authors. Prerequisite: 200 or the equivalent, with a grade of at least $C$.
107. Masterpieces of Russian Literature Reading and discussion of literary works by representative authors from the pre- and post-Revolutionary periods. Prerequisite: 200 or the equivalent, with a grade of at least $C$.
108. Russian and East European Film The course will examine a contribution by Russian and East European directors to the development of film as an art form. It will also investigate the role which those film have played in forming the cultural identity of various East European nations in recent times. Films by the following directors may be studied: Eisenstein, Dziga Vertov, Dovzhenko, Forman, Bacso, Tarkovskij, Mikhalkov, Wajda, Makavejev, Szabo and others. Conducted in English. This course fulfills the DIV I.c. distribution requirement. Offered every other year.
109. Tolstoy in the 21st Century This course investigates the numerous ways in which Tolstoy, one of the most influential Russian writers and thinkers, transcends his time and through his works speaks to our concerns today. What makes life meaningful? What kind of love lasts? Why do certain attempts to modernize society fail while others succeed? It is worth reconsidering Tolstoy's ideas on these and other issues because he teaches us to see the world more wisely. Students will read and discuss Tolstoy's fiction, including War and Peace and Anna Karenina, as well as his essays on religious, philosophical, social and artistic issues. Students are encouraged to have read War and Peace before the semester begins. Taught in English. This course fulfills the DIV I.b. distribution requirement. Offered every two years.
110. Dostoevsky in American Culture This course will consider how the works of Fyodor Dostoevsky have affected and continue to affect the world today. Readings will include "The Double," Crime and Punishment, and The Brothers Karamazov. The psychological, moral and artistic problems with which Dostoevsky struggled will be discussed in the context of America at the turn of the twenty-first century. Included in the discussion will be works by such American writers as Mailer, Percy, and Vonnegut, and such films as Dogma and Match Point. The course will consider the similarities and differences between Dostoevsky's ideas and those of the contemporary world. Taught in English. This course fulfills the DIV I.b. distribution requirement. Offered every two years.
111. Russia, the Environment and the Natural Sciences Although the territory of the Russian Federation contains some of the world's largest supplies of natural resources (e.g. the most voluminous freshwater lake; the most square miles of forest), Russo-Soviet history also boasts a long list of environmental disasters and mismanagement, including widespread nuclear and chemical contamination, unsuccessful forced-labor canal projects, and attempts to reverse the flow of Russia's Northern rivers to the south. Yet, perhaps paradoxically, the environment and the natural sciences have played pivotal roles in the Russian cultural imagination of the past two centuries, with "the scientist" and "the naturalist" emerging as key figures in the history of literature, criticism, film, and underground culture. Furthermore, despite its problematic environmental record, Russian writers have long advocated a holistic, organic approach to life that is in many ways compatible with contemporary debates on sustainability and conservation. In particular, we will look at Leo Tolstoy's writings on minimal environmental impact, vegetarianism, independent farming, and pacifism (which would go on to influence Gandhi). Our analysis of these texts and ideas will be paired with trips to the Dickinson College farm, where we will put Tolstoy's approaches to the land - both on the pages of his novels and in his own life - into practice. Taught in English. This course fulfills the DIV I.b. distribution requirement. Offered every two years.
112. Topics in Russian Studies In-depth analysis and discussion of selected areas and problems in Russian literature or culture. Recent topics have included: Russian Theatre and Drama, Nobel Laureates in Russian Literature, Russian Short Prose, Salvation Through Beauty: the World of Dostoevsky, Russian and Soviet Film, East European Literature, Modernism in Italy and Russia. Conducted in English. This course fulfills the DIV I.b. distribution requirement. Offered every other year.
113. Aspects of Russian Society and Civilization Scholarly and journalistic texts concerning the social sciences present a specific set of challenges, including a special vocabulary, methods of dealing with data, and idiosyncratic grammar. Discussing or writing about issues in the social sciences likewise requires the special ability to derive the basic import from texts and discuss it with the appropriate vocabulary and use of data. This course prepares students for further work in reading social-science texts in Russian and using the information effectively. Prerequisite: 231, 232 or equivalent, with a grade of at least $C$.
114. Workshop in Translation This course focuses on specific techniques for translating various kinds of texts (business, journalistic, scholarly, epistolary, and literary) from Russian into English, and from English into Russian. Concentrating on the practical matter of reading and writing, the course will also include special grammatical topics which present particular difficulties in translation, discussion of theories of translation, and introduction to
technological tools of translation. The goal of the course is to further students language ability and provide them with useful linguistic skills. Prerequisite: 231, 232 or equivalent. Offered every two years.
115. Popular Culture in Russia This course will examine the evolution of Russian popular cultural tradition beginning with folk tales, epics, songs, proverbs and popular theater to representations of the "low" genres in contemporary Russian culture including detective novels, popular tv series, cartoons and anecdotes. Focusing on the interplay of the "high" and the "low" cultural traditions in Russia, students will develop methodology of cultural analysis. Prerequisite: 231, 232 or equivalent.
116. Topics in Russian Language and Literature A thorough investigation of a significant figure or major development in Russian literature, or an extensive examination of selected aspects of the Russian language, with emphasis on seminar reports and discussions. Conducted in Russian. Prerequisite: Russian major or instructor's permission.

The following courses are offered in Moscow:
215. Moscow Summer Immersion Program A four-week course in contemporary Russian language and culture offered at the Mendeleev University in Moscow. Students will speak only Russian during this four-week period, and participate in intensive language classes, special lectures and field trips arranged with Russian university instructors. Prerequisite: 116 or equivalent and permission of the department.

250, 251. Russian Language in Context This is an intensive language laboratory on location in Moscow. Designed to improve students' comprehension and command of spoken Russian, this course initiates the students in everyday verbal and cultural communication prevalent in Russia. A variety of topics, including students' first-hand experience with contemporary Russian culture, will be used to improve comprehension oral skills. A workshop on phonetics is an important component of this course. Prerequisite: 200.

255, 256. Writing Workshop These courses are designed to further develop the students' written skills through practice in lexical expansion, idiomatic expression and syntactical patterns. Grammar review is a significant component of these courses. Topics will consist of a variety of cultural themes chosen by a professor. Prerequisite: 200.
265. Topics in Russian Studies This is an advanced language course which will help students develop linguistic tools necessary for critical analysis in a particular area of Russian Studies: history, politics, literature or film. Based on their academic focus, students will choose a topic from a list of offerings. "Readings in Russian History" will teach students how to read and analyze scholarly texts on Russian history; "Understanding Contemporary Russian Politics" will focus on the language of Russian mass media; "Russian Short Story" will give students linguistic and critical skills necessary for analyzing literature and "Russian Through Film" will introduce students to the main controversies of contemporary Russian society as they are portrayed in post-Soviet films. Oral and written presentations are important components of this course. Prerequisite: 200.
270. Intellectual, Historical, and Cultural Aspects of Russian Orthodoxy This course focuses on the specific Russian way of being Christian and examines the reverberations of the Eastern Orthodoxy in different cultural, intellectual and political spheres of the Russian life, both past and present. Taught in English. Offered every two years.
271. Visual and Performing Arts in Russia This multi-media survey course introduces students to masterpieces of Russian architecture, painting, theater, and cinematography. It is designed to enhance students' knowledge of the artistic and spiritual aspects of Russian culture, as well as to provide insights to traditions, lifestyle, and the psychology of Russian people. Visits to art museums and theater performances are required. Taught in English. Offered every two years.
273. Russia Today The course first presents an overview of major social, political, and economic developments in Russia in the second half of the twentieth century. Then the attention turns to Russia's transition from Soviet totalitarianism to post-Soviet democracy and from the Soviet planned economy to the post-Soviet free market.

Finally, the presentation focuses on the challenges which the Russian state faces in the twenty-first century. Taught in English. Offered every two years.
280. Research Project in Russian History or Politics The independent research project is carried out in conjunction with a course on Russian history or politics taught at RSUH in Russian, for Russian students. Dickinson-in-Moscow participants will audit one such course during their second semester in Moscow. Students will choose a topic for their research, appropriate to the focus of the course and have it approved by the professor who teaches the course. Students will regularly meet with the professor who will serve as the project's advisor. The project will be overseen by the Resident Director of Dickinson-in-Moscow.

## Science, Technology \& Culture

## Courses

*101, 102. Scientific Investigations A series of activity-based courses in which two topics will be introduced each semester that encompass a range of physical phenomena. Scientific concepts are introduced to provide a basis for understanding of phenomena such as rainbows, cloud formation, global warming, the development of scientific theories, and electrical brain activity. The main emphasis of the course will be on the processes of scientific investigation, with students developing hands-on projects throughout each semester. This course can be taken one or more times for laboratory science credit provided that new topics are covered in each course.The course will meet for a total of six hours each week in a laboratory setting.
179. Women and Science in the United States Science is the human endeavor to understand our world and our universe. However, the popular view of a scientist in the United States traditionally has not been one of a woman. There have been many social and institutional barriers to women who wish to pursue scientific careers. This course will examine these barriers, popular representations of scientists, and the history of women in science in the United States.This course fulfills the US Diversity distribution requirement.
211. Science from Antiquity to the 17th Century The first half deals with Greek, Arabic, and Medieval Latin theories of matter, motion, and growth, including the transmission of science and science education. The latter half deals with the scientific revolution from Copernicus to Newton with attention focused on the radical restructuring of basic assumptions about nature and method.
212. Science from Newton to Einstein Growth of quantitative methods in physical science and experimental methods in biology and natural history in the 18th, 19th, and early 20th centuries. Particular emphasis on Enlightenment and Romantic science, Darwinian evolution and genetic theory, the new physics of relativity and quantum mechanics, and modern cosmology. Gradual separation of science from philosophy and theology.
258. Topics in the History of Science The nature of science as a major aspect of Western civilization. Examines science and the scientific enterprise by devoting particular attention to the following: the structuring of basic assumptions about nature and method; social, cultural, and religious dimensions of scientific change and discovery; noted developments in the physical and life sciences. Topics vary and will be announced each term. Recent topics have included: The Scientific Revolution, History of the Physical Sciences, Development of Cosmology, Science and Religion, Light in Science and Art, and Ethnoastronomy.
259. Writing Science News Science hits the news more now than ever before. Is the news we read true to the research that it reports? Does it matter? Those are our concerns in this course. We analyze how scientists report their findings, how those findings become news, and what happens on the way. Taking knowledge into practice, you will conduct background research, interview scientists, and write your own science news. The portfolio you produce will include polished news releases based on science research at Dickinson. This course is primarily designed for future scientists who want to be able to communicate about their research, and for science majors considering a writing career. It is also appropriate for non-scientists who wish to be savvy consumers of science news.This course fulfills the WR distribution requirement.
260. Energy and The Environment A lecture course on the role of conventional and alternative energy sources, nuclear energy, and nuclear weapons in modern society. Topics may include the relationship of scientific principles to an understanding of the greenhouse effect, the thinning of the ozone layer, the disposal of nuclear waste, and the technology, effects, and proliferation of nuclear weapons. This course fulfills the $Q R$ distribution requirement.
432. Senior Colloquium The senior colloquium in science will explore new developments in science as well as philosophical, social, and ethical dimensions of the scientific enterprise. This will be a team-taught course in which senior science majors will work with faculty members to select readings and lead discussions. One-half course credit. Prerequisite: senior standing with a major in one of the natural or mathematical sciences.

The following courses are offered on The Dickinson Science Program in England:
300. Science and Society This course explores cultural, philosophical, and ethical aspects of the interplay between science and society. Particular emphasis will be placed on differences in perspective on scientific issues between Europe and the United States. Examples could include, but not be limited to, topics such as biotechnology, the environment, evolution, and health care, and their past and present representation in the media, literature and art.
301. Sustainability Science This course explores the role of science in environmental sustainability. Particular emphasis will be placed on population growth, biodiversity, renewable vs. nonrenewable natural resources (e.g., water, soil, energy, minerals), and temporal limits of nonrenewable natural resources (e.g., peak oil). Intercultural differences in perspective on sustainability issues will be examined between the UK, EU, and US.

## Security Studies

## Certificate in Security Studies

(7 courses)
Three core courses:
POSC 170: International Relations Theory
POSC 280: U.S. Foreign Policy since 1945
POSC 281: U.S. National Security Policy
Three elective courses:

1) These will focus on U.S. national security and strategy; concerns of another country or region (for example, a course that focused on EU security matters); or, transnational issues (for example, a course about the proliferation of nuclear weapons).
2) These courses could include a for-credit, site-based, independent study project pursued under the guidance of a Dickinson faculty member. (internship at the Army War College or participation in the Washington Semester Program)

A Senior Seminar Capstone Course:
A senior seminar in International Studies, or an approved seminar in another department.

## Sociology

## Major

10 courses, including 110, 240, 244, 330 or 331, one course at the 400 - level, and five other courses, two of which may be taken outside of the major with the approval of the department. Students must take three courses in their thematic area, one of which may be outside the department.

## Minor

Six courses, including 110, 240 or 244 , and 330 or 331.

## Teacher Certification

For information, see the Director of Teacher Education, or visit the Education Department web site.

## Honors in the Major

Honors may be granted in Sociology for a two-semester project that results in a well-researched, analytically sophisticated, and finely crafted thesis within the range of 50 to 100 pages. Students will work closely with an advisor from the Sociology department but may receive guidance and resources from other members of the faculty both within and outside the department. Only the best projects will be granted Honors, but any student who completes the project will receive credit for the two independent studies conducted as part of their two semesters of work.

## Courses

110. Social Analysis Selected topics in the empirical study of the ways in which people's character and life choices are affected by variations in the organization of their society and of the activities by which social arrangements varying in their adequacy to human needs are perpetuated or changed. This course fulfills the DIV II social sciences and US Diversity requirements.
111. Family Phenomena In both the ideal and real worlds, the family is credited with producing social leaders and blamed for creating social misfits. Social scientists, policy makers, and writers have focused on the family as a central and powerful social institution. This course explores the nature and role of families, and how families vary across cultures and over time. The course will address such topics as socialization, gender, work-family issues, and domestic violence.
112. Families and Gender in a Cross-Cultural Perspective In this comparative course in family systems, we will study the impact of production and politics on family life in various cultures, including Africa, Latin America, the Far East and the United States. The course uses ethnographic studies and documentaries to illuminate the impact of the political economy on family life, the life course, and gender roles and relationships. Various theories of development will place the ethnographies into socio-political and historical context. This course fulfills the DIV II social sciences and Comparative Civilizations distribution requirements.
113. Urban Life The nature of the city and how it fosters cosmopolitanism and urbanity. Urban planning, good and bad. City lifestyles contrasted with those of the suburb and country. Includes optional field trip to a local city.
114. Race, Class, and Gender Explores the personal, intergroup, and institutional dimensions of race, class and gender as simultaneous and interactive systems of meaning and experience. Examines theories of the economic, social and psychological dynamics of oppression; the social construction and reconstruction of identity; and the nature of racism, classism, and sexism. Social change strategies for eliminating oppression are also explored.
115. Sex, Gender, and Religion Exploring the interactions between religion and gender and sexuality, this course examines: how various religious traditions perceive sexuality and gender; the ways in which religion influences social policy both within the United States and globally; and the impact this has on individuals, families, and societies. The course focuses on contemporary concerns, while offering a comparative (historical and cross-cultural) introduction to these issues across several religious traditions. Particular emphasis is given to religious fundamentalisms across the three major monotheistic religions: Christianity, Islam, and Judaism. Offered every two years.
116. Selected Topics in Sociology Courses which examine special topics in sociology and will include on a regular basis, Labor History, Comparative Race \& Ethnicity, and Conflict Resolution.
117. Medical Sociology In this course we will examine theories and practices which contribute to the development of a sociological understanding of medicine, health and illness. Health care access and delivery, social epidemiology, and the patient-practitioner relationship are among the issues to be developed. Offered every year.
118. Stratification This course takes a critical look at the layers of American society that shape, construct, and inhibit the basic pursuit for equality of opportunity. Students will be asked to examine how the three most fundamental elements of social stratification (race, class, and gender) function both separately and in tandem to organize systems of inequality. The course uses theoretical and practical applications of stratification to evaluate how social constructions of difference include the institutions and social policy. Additionally, class discussions will also consider how the forces of racism, sexism, and classism impact the attainment of basic needs, such as wages, health care, and housing. Offered every year.
119. Global Inequality Exploring the relationship between globalization and inequality, this course examines the complex forces driving the integration of ideas, people, societies and economies worldwide. This inquiry into global disparities will consider the complexities of growth, poverty reduction, and the roles of international organizations. Among the global issues under scrutiny, will be environmental degradation; debt forgiveness; land distribution; sweatshops, labor practices and standards; slavery in the global economy; and the vulnerability of the world's children. Under specific investigation will be the social construction and processes of marginalization, disenfranchisement and the effects of globalization that have reinforced the division between the world's rich and poor. Offered every year.
120. Consumer Culture The sociology of consumerism is a major specialty in European sociology, and is only recently receiving attention by American sociologists. In this class, we will examine the increasing importance of consumerism in daily life and the degree to which culture has become commercialized. We will discuss the sign value of commodities, as well as the shift from a stratification system based on the relationship of the means of production to one based on styles and patterns of consumption. We will also concern ourselves with the relationships between consumption and more traditional sociological concerns such as gender, race, and social class. Offered every two years.
121. Work and Occupations "Never work just for money or for power. They won't save your soul or help you sleep at night." (Marian Wright Edelman) The problem is, work is all of those things: our livelihood, our mobility, and our identity. This course is a sociological examination of how we structure, fill, and define work in the United States. Course material will investigate how occupational positions have come to define American social stratification in terms of prestige, skill, and distributed rewards. Specifically, class discussions will be concerned with who occupies certain positions, how we socially construct occupational opportunities, and how this impacts life circumstances according to race, gender, and class. The goal is to understand, through the use of both theory and contemporary application, how the nature of work and occupations shapes our daily lives. Offered every two years.
122. Qualitative Methods This course introduces students to the theory and methods of social science research, beginning with an examination of the philosophies underlying various research methodologies. The course then focuses on ethnographic field methods, introducing students to the techniques of participant observation, structured and informal interviewing, oral histories, sociometrics, and content analysis. Students will design their own field projects. Prerequisite: 110 and one additional course in sociology, or permission of instructor. This course is crosslisted as ANTH 240.
123. Quantitative Research Methods The quantitative research methods course introduces students to basic principles of social science research methodologies and statistical analysis. Students will use examples from scholarly research to understand concepts related to research design, sample selection, appropriate measurement, and survey construction. Additionally, students will apply these concepts to conduct introductory data analysis. Using elemental tools of descriptive and inferential statistics, students will learn to quantitatively assess social research questions in order to draw meaningful conclusions. Prerequisite: 110 and one additional course in sociology, or permission of instructor. This course fulfills the DIV II social sciences and QR distribution requirements.
124. Social Movements, Protest and Conflict The study of protest politics and social movements is the study of collective agency. Social movements arise when people act together to promote or resist social change. Movements represent not only grievances on a particular set of issues, but also frustration with more established political forms of making claims in societies. In this course, we will engage with some of the large theoretical debates in the study of social movements, reading both empirical treatments of particular movements and theoretical treatments of key issues. The featured case studies will include civil rights, feminism, ecology, the antinuclear movement, the New Right and the alternative globalization movement. We will be particularly concerned with the social and political context of protest, focusing on basic questions, such as: under what circumstances do social movements emerge? How do dissidents choose political tactics and strategies? And, how do movements affect social and political change? This course fulfills the DIV II social sciences and US Diversity distribution requirements. Offered every two years.
125. Comparative Social Policy This course will look at social policy in a comparative and global perspective. Gender, race, class and colonization will inform our comparison of policies and policy systems. This course also explores the increasing internationalization of social policy and the advent of a new "global social policy," whereby international organizations play a powerful role in shaping welfare state development in the developing world and in post-communist states. Topics covered will include comparative methodology; and international variation in formulation and response to issues, such as employment, housing, domestic violence, poverty, health, and child welfare. Offered every two years.
126. Deviant Behavior and Social Control Critical examination, through original works by Merton, Parsons, Cohen, Cloward, Matza, McHugh, Blum, and others, of the two major contrasting approaches in American sociology to the theoretical explanation of delinquency and crime. Crime and evil will also be examined by using Plato to reflect on the Holocaust.
127. Gender and the Media This course is concerned with a wide range of issues surrounding gender and the media. We will consider interpretations of gender both as essence and as construction, and we will examine the role of the media in contemporary culture. Finally, we will examine the representation of genders in the media as well as representations of gender by the media. Prerequisite: Either 110, 222 or 224; or work in Art History or Women's and Gender Studies. This course fulfills the DIV II social sciences and US Diversity distribution requirements.
128. Special Topics This course will focus on specialized topics within Sociology, such as Women and Health, Cuban Society and Economy. Prerequisite dependent upon topic.
129. Classical Sociological Theory This course will examine alternative ways of understanding the human being, society, and culture as they have been presented in classical sociological theory (through 1925). It will focus on the theoretical logic of accounting for simple and complex forms of social life, interactions between social processes and individual and group identities, major and minor changes in society and culture, and the linkages between intimate and large-scale human experience. Prerequisite: 110 and one additional course in sociology, or permission of instructor.
130. Contemporary Sociological Theory This course will examine alternative ways of understanding the human being, society, and culture as they have been presented in contemporary sociological theory (1925-present). It will focus on the theoretical logic of accounting for simple and complex forms of social life, interactions between social processes and individual and group identities, major and minor changes in society and culture, and the linkages between intimate and large-scale human experience. Prerequisite: 110 and one additional course in sociology, or permission of instructor.
131. The Sociology of Health and Illness This course is an examination of the theories and practices that constitute a sociological understanding of medicine, health, and illness. Social epidemiology, health care systems, stigma, medicalization, suffering, and death, are some of the phenomena considered. Prerequisite: 233, or permission of instructor. Offered every two years.
132. Advanced Quantitative Data Analysis This course is intended for the social science major who is interested in a deeper exploration of the topics and techniques covered in an introductory course on social research methods. Students taking this course will have the opportunity to design their own research study, either by collecting original
data or by using a secondary data source (such as the General Social Survey). The semester-long project will provide in-depth instruction on survey design, data collection, and data entry. Additionally, students will use the SPSS statistical package to comprehensively analyze data, from descriptive results to multiple regression. Prerequisite: 244, or the equivalent. This course fulfills the DIV II social sciences and QR distribution requirements. Offered every two years.
133. Postmodernism, Culture, and Communication This course will examine postmodernism as both an intellectual development and a cultural condition. In doing the former we will analyze the works of "postmodernists" such as Foucault, Lyotard, and Baudrillard. For the latter, issues such as the relationship between self and identity, the rise of the information society, and the development of the surveillance society will be examined. Prerequisite: 330, or permission of instructor.
134. Senior Seminar A specialized seminar, intended to relate a broad area of theoretical concern to the problems and procedures of current research. Regularly offered topics: American Society; Art and Society; Eating Disorders and Health; Sociology of Religion; Postmodernism, Culture, and Communication. Prerequisite: three of the five required courses for the major. Offered every fall.
135. Senior Thesis The Senior Thesis Colloquium in sociology provides students an opportunity to study a sociological problem independently and in-depth, while engaging in a colloquium where they will present and peerreview work. A student enrolled in SOCI 405 formulates a specific research question, identifies and reviews relevant literature, collects or obtains appropriate empirical data, analyzes data, and develops theoretically meaningful conclusions from the results of the analysis. A thesis is the written report of such a research project. Senior theses in sociology generally range from 35 to 50 pages in length. Proposals are due the Friday after Thanksgiving. Prerequisite: permission of instructor.

## Spanish and Portuguese

## Spanish

## Major

The Spanish major consists of a total of eleven courses numbered 200 and above. Required courses are 230 (Advanced Grammar), 231 (Spanish Composition), 305 (Introduction to Literary Analysis and Theory) and 410 (Seminar in Hispanic Literature). A maximum of 4 of the courses may be at the 200 level. A minimum of ten courses must be conducted in the Spanish language; only one course in English related to Luso-Hispanic themes can count towards the major. This course should be taken with the FLIC option if it is available. Before taking a 400level course students should complete at least two courses at the 300 level. SPAN 410 must be taken in the senior year.

For Majors Intending Off-Campus Study and Transfer Students: Regardless of the amount of transfer credit or off-campus study credit earned, a student majoring in Spanish must complete a minimum of five courses on campus. Of these five, at least two regular courses must be completed during the senior year.

## Minor

The Spanish minor consists of a total of six courses numbered 200 or above. Required courses are 230 (Advanced Grammar), 231 (Spanish Composition), and 305 (Introduction to Literary Analysis and Theory). A maximum of four courses may be at the 200 level. Exceptions can be made by permission of the Chair.

## Suggested Four Year Program

First Year: 230 231, 305
Second Year: 200-level courses not taken in the first year, 305 if not taken in first year, and/or 300-level

Third Year: Junior Year Abroad, or 300-level courses not taken in second year. 300-level courses may also be taken in the third year.
Fourth Year: 300 and 400-level courses, including 410
NOTE: The courses for the Spanish major should be carefully planned in consultation with the student's major advisor.

## Teacher Certification

For information, see the Director of Teacher Education, or visit the Education Department web site.

## Independent Study

This is an opportunity to explore individually an area of special interest to the student within the discipline. It is normally arranged through individual contact between the student and the professor involved in the semester preceding the actual project, and approved by the department chairperson.

## Honors in the Major

Spanish majors wishing to graduate with honors in the Department of Spanish \& Portuguese should speak with the department Chair during the fall semester of the senior year. Honors will be awarded to students who successfully complete a significant scholarly essay (normally thirty to fifty pages in length) and defend the work during an oral examination given by a committee of departmental faculty. This project should be done in close collaboration with a department faculty member and cannot be undertaken before fulfillment of the senior seminar requirement. Essays done for the senior seminar or other advanced course will often be the starting point for the Honors project.

## Opportunities for Off-Campus Study

Dickinson offers fall semester or full year programs at the University of Málaga, Spain. This program is intended to enhance and enrich the strong Spanish major the student has initiated on the Carlisle campus. Students wishing to study in Latin America may take advantage of Dickinson's program in Querétaro, Mexico. Dickinson also has Partner Programs in Argentina and Brazil. Information is available from faculty in the Spanish Department or the Office of Global Education.

NOTE: Spanish majors going abroad should carefully plan their course schedule with the assistance of their faculty advisor.

## Courses

101. Elementary Spanish This course is designed for students who have never taken Spanish previously. The course focuses on all four language skills: listening, reading, writing, speaking, with an emphasis on vocabulary development and listening comprehension development. Prerequisite: No prior study of Spanish and permission of department.
102. Elementary Spanish This course is a continuation of Spanish 101. The course focuses on all four language skills: listening, reading, writing, speaking, with increasing emphasis on speaking. Prerequisite: 101. Upon completion, students go to 116.
103. Intermediate Spanish This course is a continuation of Spanish 104. The course focuses on all four language skills: listening, reading, writing, speaking, with increasing emphasis on writing and speaking. Prerequisite: 104, 108, or placement by department.
104. Spanish for Heritage Speakers Spanish for Heritage Speakers is an intermediate language course designed for heritage learners, but which includes other student interests in specific content areas, such as US Latino
immigration, identity, ethnicity, education, and representation in the media. Linguistic goals include vocabulary acquisition, improvement in writing, and enhancement of formal communicative skills. Prerequisite: Placement by department. This course is for students with no previous formal training, no high school Spanish, who live in a home in which Spanish is spoken. This course fulfills the foreign language distribution requirement.
105. Advanced Grammar The primary goal of this course is to develop students' formal knowledge of Spanish by reviewing and studying the more challenging grammatical structures. The course will also work on development of skills in reading, oral expression, and vocabulary development. The purpose of the course is to equip students with the formal grammatical background necessary to be successful in courses on Hispanic literatures, linguistics and cultures. Prerequisite: 116, 120, or the equivalent.
106. Spanish Composition The primary goal of this course is to develop students' writing skills in Spanish. Course topics will consist of a focused cultural theme chosen by the professor. Examples of possible topics include:
Hispanic Cultures through Film: Students will learn about the current culture and history of Spanish-speaking countries through discussion of films. This course will emphasize acquisition of the critical skills necessary to analyze Spanish-language cinema within the context of its country of origin. Hispanic Cultures through Painting: This course will analyze major themes in Hispanic cultures through the lens of painting. Readings that illuminate social, political, and cultural contexts will prepare students to better appreciate the historical significance of a wide variety of well-known painters. Hispanic Cultures through Literature: Students will learn the literary tradition of selected countries through novels, poems and short plays by representative writers. Emphasis will be on tracing the development of the culture of the country studied. Hispanic Cultures through Media: Students will learn the values, mores and traditions of selected Spanish-speaking countries through popular media and its portrayal of current events. Emphasis will be on analyzing Spanish-language newspapers, magazines and television in order to understand their imagined audience. Prerequisite: 230. This course fulfills the WR distribution requirement.
107. Spanish for Business Professions This is a specialized course that emphasizes the language of business. Students will study the lexicon and language protocols appropriate to the basic functions of international business. The goal is to improve oral, reading, and writing skills while acquiring a general business vocabulary, and a broadened intercultural perspective. Prerequisite: 230, or permission of instructor.
108. Spanish for Health Professions This is a specialized course emphasizing Spanish language and culture as they relate to health and medicine. The course goal is written and oral communication and cultural fluency as they relate to the delivery of health-care services to Limited-English-Proficient, Hispanic patients. Off-campus volunteer work with native Spanish speakers is required. Prerequisite: 116 and permission of instructor, or, 200 level placement, or 230. Offered every fall semester.
109. Introduction to Literary Analysis and Theory This course introduces students to different methods of reading and analyzing literary and non-literary texts. These may include - among others - formalist, psychoanalytic, feminist, semiotic, and poststructuralist approaches. Students will read both primary texts and theoretical studies, and they will be required to analyze texts themselves. Prerequisite: 231. This course fulfills the WR distribution requirement.
110. Medieval Iberian Texts and Literatures This course explores texts written from the 8th-through the 15thcenturies, in the Medieval Iberian Peninsula, within the cultural context of Medieval Iberia's pluralistic society of Christians, Jews, and Muslims. Topics may include the chivalric tradition, folklore, and the literature of courtly love. Earlier texts may be studied in modernized versions. Prerequisite: 305.
111. Pre-Columbian and Colonial Spanish American Texts This course will cover literatures of Spanish America produced before 1492 as well as during the colonial period. In their consideration of the development of what can be considered American discourses during this period, students will explore how local and regional identities were formed and expressed in the pre-colonial and colonial context. Prerequisite: 305.
112. Studies in Spanish Golden Age Texts This course will present the diversity of Spanish literature during a moment of great achievement. The evolution of various genres will be studied, and various works by writers such as Cervantes, Lope de Vega, Calderón, Góngora, Quevedo and others will be read. The purpose is to acquaint the student with works that have had a significant impact on Hispanic cultures and literatures. Prerequisite: 305.
113. Late Colonial and Nineteenth Century Latin American Literatures This course covers literature produced in Latin America during the late colonial and early national periods. Possible themes include the role of literature with regard to the development of national, regional, and hemispheric identities, nationalism, gender, race, and visual cultures. Prerequisite: 305.
114. Eighteenth- and Nineteenth-Century Spanish Literature This class will focus on literature from the eighteenth- and nineteenth-centuries in Spain, with particular emphasis on literary movements, including Neoclassicism, the Enlightenment, Romanticism, Realism and Naturalism. Readings will include poetry, novels, essays and plays. We will pay particular attention to textual analysis and to the relevant cultural, social and historical contexts of the literature under study. Prerequisite: 305.
115. Modernismo and Vanguardias This course will explore major literary and cultural trends in Spanish America Poetry from the Modernista and Vanguardia movements. The study of the concept of Modernity, its impact on humanity and the reaction of the intellectuals to it will be the main focus of the class. Emphasis will be given to poets such as Rubén Darío, José Martí, Delmira Agustini, and Jorge Luis Borges. Special attention will be paid to the connections of poetry and socio-politics in late Nineteenth-Century and early Twentieth-Century Spanish America. Prerequisite: 305.
116. Modern and Contemporary Spanish Literature This course introduces students to a variety of texts from different genres and periods, with an emphasis on significant cultural trends and the texts that reflect them. Close critical reading and attention to relevant cultural, social, and historical contexts will be emphasized. Prerequisite: 305.
117. Studies in Twentieth-Century Spanish American Texts This course will analyze major literary and cultural trends in Spanish American narratives and drama of the 20th Century. Special attention will be given to the connection between these works and the important socio-political movements of the time. Prerequisite: 305.
118. Latino/Latina Literatures This course provides a literary and interdisciplinary examination of the Latina and Latino experience in the United States. Students will become familiarized with various theoretical perspectives on the artistic, social, political, and economic condition of Latinos as producers of American culture. Attention will be given to understanding the ties between literary and social transformation in the literature of Latinas and Latinos. Prerequisite: 305. This course fulfills the DIV I.b. and US Diversity distribution requirements.
119. Introduction to Translation Studies An introduction to translation as a professional discipline. Emphasis will be on literary translation (principally Spanish to English). Students will learn how translation advances their knowledge of both English and Spanish and how it makes them more perceptive readers as well as more critical observers of the cultural presuppositions that inform all texts. Attention will also be given to some of the major theoretical issues that have vexed translators historically. Prerequisites: 305 and one additional 300-level course; or, 305 and permission of the instructor.
120. Introduction to Hispanic Linguistics This course serves as an introduction to the concepts of phonetics, phonology, morphology and syntax of the Spanish language. Students are introduced to the concept of descriptive linguistics and linguistic analysis. Students are introduced to linguistic development, historical linguistics and linguistic variation and change. Prerequisite: 231.
121. Introduction to Spanish Sociolinguistics This course will introduce students to the study of variation and change in Spanish based on a variety of sociological factors. Topics will include phonological variation, morphological and morphosyntactic variation, discourse analysis, and languages in contact. Prerequisite: 365.
122. Topics in Hispanic and Luso-Brazilian Studies Study of significant cultural, literary, and historical topics concerning the Spanish and/or Portuguese speaking world. Some topics offered recently were: Medieval Women Writers, Perverted Subjects in 19th century Spain, Latin American Jewish Women Writers, The Growing Up Theme in Hispanic Literatures. Prerequisite: 305 or permission of the instructor.
123. Seminar in Hispanic Literature A thorough investigation of major figures or important literary trends in Hispanic literature which were not covered by the majors in previous courses. The majors will work on a semiindependent basis with a particular instructor and will present reports to the seminar and participate in subsequent discussions. Emphasis on methods of literary research. Prerequisite: 305.

The following courses are offered only at the Dickinson Study Center in Málaga:
200. Málaga Summer Immersion A five-week course in contemporary Spanish language and culture offered at the University of Málaga, Málaga, Spain. Students will reside with Spanish families, speak only Spanish during this five-week period, and participate in intensive language and culture classes, special lectures, and field trips arranged by Dickinson in cooperation with the Cursos para Extranjeros of the University of Málaga. Prerequisite: 116 or equivalent and permission of the department.
251. Language Tutorial Oral practice and written compositions on a variety of topics including the students' firsthand encounters with key aspects of Spanish society. This course functions as an intensive language laboratory on location in the city.
371. Literary Analysis of Hispanic Texts An in-depth study of texts of a specific period and/or genre. This course often focuses on contemporary writers and includes class visits by authors being studied.
372. Spanish Society and Culture In-depth study of several aspects of Spanish cultural traditions and values. Contrasts Andalusian culture with other peninsular cultures. Oral and written reports concerning cultural aspects of life in Málaga. Local field trips and interviews are an important part of the course. Offered in the fall semester.
373. Spanish and Hispanoarab Art An overview of Spanish art followed by an emphasis on the Hispanoarab art of Andalusia. This course requires students to visit many museums and places of architectural importance. Includes onsite oral presentations and research. This course fulfills the DIV I.c. distribution requirement.
374. Spain and the European Union An interdisciplinary course that focuses on the institutions of the EU and how they impact Spain and the lives of Spaniards. Topics discussed include immigration, tourism, and national identity. Attention also given to bilateral and multilateral relations between Spain and other EU member states. Does not count for credit towards the Spanish major.
381. Topics in Hispanic Studies Study of significant cultural, literary, and historical topics concerning the Spanishspeaking world. Peninsular and Latin American topics may be offered. Specific topics to be announced.

## Portuguese

Neither a major nor a minor program is offered in Portuguese. Students may take significant course work on the language, culture, and literature of the Luso-Brazilian world through regular courses, tutorial and independent studies. Any student who has studied Portuguese should contact the department for appropriate placement.

Courses in Portuguese are not offered on a regular basis. Students interested in taking Portuguese should consult with the chair of the Department of Spanish \& Portuguese.

## Opportunities for Off-Campus Study

Students with at least two years of college-level Spanish or one year of Portuguese (or the equivalent) may take advantage of the CIEE Program in Saõ Paulo, Brazil, located at the Catholic University. All classes are taught in Portuguese. Contact the Office of Global Education for information about the Partner Program in Brazil.

## Courses

*101, 104. Elementary Portuguese An intensive study of the fundamentals of Portuguese grammar, with special attention given to pronunciation and oral expression. Composition and literary and cultural readings.
115. Portuguese for Speakers of a Romance Language This course is designed for students who have previously studied another Romance language and would like to develop speaking, reading, writing and listening skills in Portuguese. The course assumes no previous knowledge of Portuguese, and will rely on the comparative grammar and cognate vocabulary of Spanish and other Romance languages to develop language skills over the course of the semester. In addition, the class will explore aspects of Portuguese-speaking cultures in Europe, Latin America and Africa. Prerequisites: four semesters of a Romance language (or the equivalent), or permission of instructor. Offered every two years.
116. Intermediate Portuguese Review of Portuguese syntax. Introduction to conversation and composition through selected cultural and literary readings. Prerequisite: 104 or the equivalent.
231. Portuguese Conversation and Composition Advanced practice in oral and written Portuguese. In-class work focuses primarily on oral practice through presentations and class-wide discussions of these presentations, of current events, readings and films, as well as small group practice emphasizing everyday situations. Out-of-class work focuses on writing and revision of compositions with emphasis on both grammar and style. Prerequisite: 116 or the equivalent.

In addition to the above offerings, Portuguese is offered on a tutorial basis.

## Sustainability

301. Practicum in Sustainability Students will gain practical skills for creating a sustainable society by using the Dickinson College campus or other selected organization or community as a living laboratory in which to study and develop solutions to real and pressing problems of sustainable planning and management. Concepts of sustainable systems and sustainable planning and management will be explored and reinforced through application in a significant group or individual project that requires students to identify a problem; analyze potential solutions that would advance sustainability goals that encompass environmental stewardship, social justice and economic vitality; develop recommendations; and communicate recommendations to relevant constituencies with the aim of seeing their recommendations implemented. Examples of problem areas on which the course may focus include reducing campus greenhouse gas emissions; performing a campus sustainability audit; and developing plans to address transportation, nutrition, public health, economic development and biodiversity conservation needs in the local community and region. Prerequisite dependent upon topic.
302. Global Environmental Challenges and Governance Many environmental challenges cross international borders and some, like climate change, are truly global in their causes, consequences and potential solutions. These challenges often are beyond the means of individual nations to solve and global institutions have been created to negotiate, mobilize and oversee international cooperation to address them. Taking an interdisciplinary approach, we will explore the demographic, social and economic drivers of a selected global environmental challenge, the dangers it poses to ecological systems, human wellbeing, sustainable development and national security; policy options for responding to the dangers; and the processes, politics and effectiveness of the governance institutions that have jurisdiction over it. The exploration will result in students being able to articulate the perspectives of key stakeholders on important issues in the governance of global environmental change and critically analyze the performance of global environmental governance institutions. Prerequisites: Any two DIV III lab science courses, or permission of instructor.

## Theatre \& Dance

## Major: Theatre Arts

## CORE:

101: Introduction to Theatre OR 102: Dance and Culture
200: Fundamentals of Dance
203: Acting
205: Directing OR 204: Fundamentals of Choreography
210: Topics in Design and Technology for the Theatre (2 courses required)
One approved Course in Dramatic Literature, OR, 214:Topics in Dance and the Body
316: Dance History Seminar, OR, 313: Theatre History Seminar

## PRE-APPROVED CLUSTERS:

## For Acting and Directing (Choose 3):

300: Movement and Text
303: Advanced Acting
305: Advanced Directing
An Approved Course in Dramatic Literature
495: Senior Project

## For Dance (Choose a combination of 3 full courses):

300: Movement and Text
304: Applied Choreography
Any studio dance instruction 200-level or higher
495: Senior Project

## For Design and Technology:

ONE additional section of 210: Topics in Design and Technology
Select two additional courses:
495: Senior Project
500: Independent Study in Applied Design or Technology
550: Independent Research in Applied Design or Technology
560: Student/faculty collaborative research in Applied Design or Technology
ARTH 101 or 102: An Introduction to the History of Art
ARTH 122: Fundamentals of Composition and Drawing
ARTH 123: Fundamentals of Sculpture and Three-Dimensional Design

## For Dramatic Literature:

Three additional approved courses in Dramatic Literature, one of which must have a pre-1800 focus. Examples include:
CLST 110: Introduction to Greek Civilization
ENGL 366: Studies in Drama
ENGL 387: Contemporary Drama
ENGL 392: Shakespeare
FREN 364: Topics in French and Francophone Literatures
(if substantially dramatic in focus)
GRMN 342: Sturm und Drang and German Classicism
GRMN 345: German Expressionism
GREK 234: Greek Tragedy
GREK 332: Greek Comedy
SPAN 320: Studies in Spanish Golden Age Texts
SPAN 360: Introduction to Translation Studies (when focus on Dramatic translation is possible)

495: Senior Project

## NOTE:

Students may propose individualized clusters; however, these must be submitted for approval by the department of theatre and dance by the end of the student's 5th semester in residence. If a student does not propose a cluster by this point, they MUST complete one of the pre-approved clusters as listed.

Enrollment in 495: Senior Project requires departmental approval. Students may only be approved for PERFORMANCE BASED senior projects if they have had significant experience with a departmental co-curricular program. (Mermaid Players or Dance Theatre Group Mainstage Productions)

## Minor

Theatre Arts: 101, 200 OR 300, 203, 210, 205, 313
Dance: 102, 204, 210, 316, one course in dance technique, one course selected from 220 or 304

## Co-Curricular Programs

## The Mermaid Players

Student co-curricular organization in theatre which produces three major productions annually in collaboration with the Department of Theatre and Dance. Membership and voting privileges are open to all students who meet established membership criteria. Auditions for productions are open to all students.

## Dance Theatre Group

Student co-curricular organization in dance which produces fall and spring concerts of choreography created by students, faculty and guest artists in collaboration with the Department of Theatre and Dance. Membership is open to all students who meet established criteria. Auditions for dance concerts are open to all students.

## The First-Year Plays

A program of one-act plays presented each fall by student directors with first-year students in the casts.

## Lab Shows

A laboratory program sponsored by the Mermaid Players to encourage and provide for a series of experimental productions.

## Courses

101. Introduction to Theatre A course designed to encourage an understanding and appreciation of theatre as an art form. Aesthetic foundations of theatre are explored, as well as the role of various theatre practitioners in the creation of today's theatre. The course surveys the evolution of theatre through major time periods, exposing students in the process to various types of dramatic literature and theatrical practice.
102. Introduction to Global Dance Studies This is an introductory course that explores dance forms from six different regions: Africa, India, North America, Europe, South America and Asia. Focus will be on how dance functions within various social structures and how these functions operate to re-inscribe, contest or legitimate race, class, and gender identity formations. Issues such as authenticity, hybridity, cultural tourism and globalization will be examined. Through an interactive classroom, guest artists and studio work, we will gain a deeper kinesthetic understanding of how dance can operate as a powerful cultural tool, glue or agent for social change. This course fulfills the DIV I.c. and Comparative Civilizations requirements. Offered every two years.

111, 112; 211, 212; 311, 312; 411, 412. Ballet: Classical Ballet Classes taught by CPYB faculty under the direction of Marcia Dale Weary founder and artistic director of the Central Pennsylvania Youth Ballet CPYB. Instruction will utilize the precise, disciplined and repetitive methods of ballet training developed by Ms. Weary. Careful
consideration to alignment, placement and proper execution of steps will be covered in depth. Dickinson students at all levels of experience are welcome but will be required to take the official placement class usually held during the first week of the semester. All classes are taught at the CPYB Warehouse and Barn studio during studio hours on or after 4:30 pm Monday through Friday and at 9am Saturday with other possible classes until 4pm. When taken for . 5 academic credit, these courses do not fulfill a distribution requirement, but will carry 2 PE blocks. When taken for 1 full academic credit, these courses satisfy the DIV I.c. distribution requirement and 2 PE blocks.

121, 122; 221, 222; 321, 322. Modern Dance I, II, and III Studio courses in modern dance offered at three levels: I. the basic level, which assumes no previous dance experience; II. the intermediate level, open to students who demonstrate basic accomplishment in dance technique; III. the advanced level, open to students who demonstrate substantial technical skill. All courses will explore the principles of modern dance, emphasizing body awareness and the expressive use of weight, space, and time. Materials will be selected from a variety of contemporary dance and movement training practices such as Pilates, yoga, somatics and ballet to promote performance of a range of movement dynamics, as well as musicality, strength, flexibility, and improved body alignment. Each course may be repeated for credit with permission of the instructor. Each carries . 5 academic credit and 2 PE blocks.

123, 124; 223, 224; 323, 324. Jazz Dance I, II, and III Studio courses in jazz dance offered at three levels: I. the basic level, which assumes no previous dance experience; II. the intermediate level, open to students who demonstrate basic accomplishment in dance technique; III. the advanced level, open to students who demonstrate substantial technical skill. All courses will focus on the movement vocabulary and dynamics of jazz dance. Elements of rhythm, body isolations, and various styles of jazz technique will be emphasized. Each course may be repeated for credit with permission of the instructor. Each carries .5 academic credit and 1 PE block.
125. International Dance This course will introduce the movement vocabulary and performance techniques of dance form(s) from different cultures. In this studio-based course, students will develop their skills as performers of specific styles/forms of dance from around the world. The historical and cultural significance of the dance form(s) will also be addressed. Carries .5 academic credit and 1 PE block.
200. Introduction to Dance and the Western Tradition A studio based survey course that introduces the student to the socio-political contexts that gave rise to predominant movement genres in Western theatrical dance: ballet, jazz, tap, musical theater, hip hop and modern dance. Themes such as the impact of the slave trade on dance forms, class divisions within popular and aesthetic dance, and the rise of individual expression in modern dance will be explored. Through interactive lectures, discussions, studio practice, viewings, and guest teachers, students will engage with the material on multiple levels with an emphasis on finding a historical approach to developing a creative voice.
203. Acting An introduction to the principles and theories of acting combined with practical exercises and scene performance.
204. Fundamentals of Choreography and Dance Composition A studio-based course designed to introduce the student to various tools to generate and create original dance compositions. Basic elements such as time, space, energy, dynamics, movement generation, and quality are explored in addition to multiple structuring devices. Using an interdisciplinary lens, this course offers a different approach to art making from related fields such as visual art, literature, and media in order to treat dance composition as a relevant response to the contemporary moment. Prerequisite: 200, or permission of the instructor. One studio course in dance is recommended.
205. Directing A study of the major techniques employed by stage directors. Visual theory, text analysis, collaborative techniques, and organizational strategies are examined and applied in class exercises including the direction of scenes. Prerequisite: 203.
210. Topics in Design and Technology for the Theatre A course of study in dramatic production examining the collaborative relationship between designers and technicians in the major design and technical fields supporting theatre and dance production. Students will learn the work and craft of the designer as a visual artist complemented by experience with the tools and technologies which bring the designers' concepts to the stage. Two topics will be selected each semester from the fields of costuming, lighting, sceneography, stage properties production, and sound production. Basic design skills in drawing, drafting, painting, rendering, and model making will be augmented with
experience in the shops and with the tools, techniques, and equipment by which abstract design concepts are brought to dramatic life. Three hours of classroom and a two-hour laboratory per week. Offered every semester with rotating topics to be announced.
214. Topics in Dance and the Body This course examines and applies theoretical and/or scientific study to the dancing body through experiential investigation, reading and lecture. Prerequisite: Proficiency in ballet or modern dance at the intermediate level or permission of instructor.
220. Dance Repertory A laboratory experience in the creation and performance of dance for the concert stage. Under the guidance of faculty or guest professional choreographers, students will explore the interpretive processes by which dances are created. NOTE: This course carries .5 credit (graded credit/no credit) and 1 PE block. Prerequisite: permission of the instructor based on an open audition process. Co-requisite: 200, or a dance technique course and/or participation in weekly Dance Theatre Group company class.
300. Movement and Text This course will explore the creative process through movement and language. The student will work individually and in groups to create performance pieces based upon principles of text and movement. The class aims to develop the expressive power of the voice and body while fostering interdisciplinary thinking and artistic experimentation and an appreciation for the historic intersection of dance and theater.Prerequisite: Acting and/or 200-level movement.
302. Special Topics in Theatre and Dance An examination of selected aspects of theatrical experiment, theory, and practice. Topics chosen at the discretion of the instructor and in consultation with students, e.g., advanced study in various aspects of production, design, performance, and staging as well as special topics in dramatic literature, history, and theory.
303. Advanced Acting An in-depth examination of the process of acting. Technical, interpretive, and psychological aspects are explored through reading, exercises, and scene performances. Major theories of acting are presented and discussed in the context of developing a workable, individualized approach to acting. Prerequisite: 203.
304. Applied Choreography This course will focus on the principles of choreography as they may be applied to the development of original dance works for inclusion in the fully produced, mainstage Dance Theatre Group Spring Concert. Through weekly workshop/discussion sessions, readings, and rehearsals, selected elements of dance composition as well as issues of aesthetic perception and articulation are explored. The processes involved in generating movement material, running constructive and creative rehearsals, and working with lighting and costume designers, are our primary concerns. The course work will include an audition showings, production of the dances, and the final performance. Prerequisites: 200, 204, 220. 1 credit.
305. Advanced Directing An inquiry into the process of translating a play from the printed text to the live stage. Detailed analytical techniques and major directorial theories are examined through readings, class discussion, and written assignments. Each student directs a one-act production under advisement of the instructor. Prerequisite: 205 and 210.
313. Theatre History Seminar An intensive investigation of theatre in its various historical contexts within a seminar structure. Selected eras of Western Theatre are examined in depth, as are various non-western theatrical traditions. Prerequisites: 101 or permission of instructor.
314. Topics in Dance Advanced study in dance history or dance ethnology. Prerequisite: 102 and 104.
316. Dance History Seminar: Modernism and the Body This course will focus on contemporary dance history using theoretical frameworks that interrogate how race, class and gender resist, assimilate, and converge to create the construction of American modern concert dance. We will explore how the politics of the dancing female body on the concert stage produced a radicalized agenda for contemporary dance. We will address key themes and questions throughout the semester, questions such as: What makes a body "modern?" How does the feminist agenda on the concert stage aid in the construction of a "modern" body? What was the role of appropriating from exotic cultures in the making of contemporary concert dance? What is the role of technology in the creation of modern dance? What
are the effects of war and politics on the dancing body? Orientalism, the Africanist presence in Western concert dance, and the restaging of Native American dances by American choreographers will be addressed as part of the overall construction of American modern dance. Through response papers, in-class presentations, and an in-depth research paper, students will engage with significant issues contributing to the development of modern concert dance. Prerequisite: 200. This is a Writing Intensive Course. This course fulfills the US Diversity distribution requirement. This course is cross-listed as WGST 300.

317, 318, 417, 418. Advanced Classical Ballet Ballet instruction at the higher levels of classes are taught by СРҮВ faculty under the direction of Marcia Dale Weary founder and artistic director of the Central Pennsylvania Youth Ballet. Instruction will utilize the precise, disciplined and repetitive methods of ballet training developed by Ms. Weary.Prerequisites: 212 and placement at higher level by CPYB. This course satisfies the DIV I.c. distribution requirement.
495. Senior Project A culminating experience for students completing the Theatre major with emphasis in Dramatic Literature, Acting/Directing, or Dance. The specific nature of projects will be determined on an individual basis, but all senior projects will consist of at least two of the following: a) scholarship, b) technical/production work, and c) performance. Prerequisite: Senior major status.

The following course is offered in summer semester in England program:
110. Theatre in England A topics course in the history and performance of drama which uses performances in and expertise of the theatrical world in London as resources for its study. Taught only in the Summer Semester in England program.

## Women's and Gender Studies

## Major

All Women's and Gender Studies majors will take ten courses and a transcript notation internship. The ten courses must include:

## Core courses (all four are required):

WGST 200: Introduction to Women's and Gender Studies
WGST 250: Methods in Women's and Gender Studies
WGST 300: Topics in Women's and Gender Studies
WGST 400: Senior Seminar in Women's and Gender Studies
OR, another course approved by the department chair.

## Feminist perspectives (one course required):

WGST 210: Philosophy of Feminism
WGST 220: History of American Feminism
WGST 230: European Feminism
OR, another course approved by the department chair.

## Cross Cultural Study of Women and Gender (one course required):

WGST 217: Cross Cultural Perspectives on Gender
WGST 218: Biosocial Aspects of Female Sexuality
WGST 219: Geographies of Gender
SOCI 224: Political Economy of the Family
OR, another course approved by the department chair.

## Electives (four courses required):

Four additional courses in Women's and Gender Studies or courses from a list of approved electives from other departments.

Internship: All majors must successfully complete a transcript notation internship approved by the department chair and the Career Center.

Graduating seniors are asked to write an evaluative essay explaining how the Women's and Gender Studies major has influenced them personally. In this essay, students explain how particular courses or groups of courses have illuminated new issues for them, and they discuss the ways they have participated in feminist activism such as through internships, student groups, extra-curricular activities, class presentations or conferences.

## Minor

All Women's and Gender Studies minor students will take six courses and an internship for transcript notation, chosen in consultation with the department chair or minor advisor. The courses must include:

WGST 200: Introduction to Women's and Gender Studies
Feminist Perspectives: (one course required):
WGST 210: Philosophy of Feminism
WGST 220: History of American Feminism
WGST 230: European Feminism
OR, another course approved by department chair

## Cross Cultural Studies of Women and Gender (one course required):

WGST 217: Cross Cultural Perspectives on Gender
WGST 218: Biosocial Aspects of Female Sexuality
WGST 219: Geography of Gender
SOCI 224: Political Economy of the Family
OR, another course approved by department chair
Electives: Three additional courses in Women's and Gender Studies or courses from a list of approved electives from other departments.

Internship: All students must successfully complete an internship for transcript notation approved by the department chair and the internship office.

## Suggested Four Year Program

First and Second Years: WGST 200; WGST 250; a course on feminism; a course on cross-cultural study of women and gender; one or two electives
Third Year: WGST 300; one or two electives; possible internship; possible study abroad
Fourth Year: WGST 400; internship and/or elective as needed
The Department encourages study abroad. Early planning makes this more possible. The internship may be done while abroad.

## Honors in the Major

A student pursuing honors must enroll for a one semester, independent study that will culminate in a wellresearched, sophisticated, and clearly written thesis ranging from 50-75 pages. Students can self-nominate, but will be officially selected based on performance in the Senior Seminar, especially the research paper, which must show strong potential for further development toward a thesis. The selection is also based on the department faculty's assessment of the student's academic ability and potential for successfully completing the project. Once accepted, the student will work closely with one advisor but will receive guidance and resources from other members of the department. The project must be completed by two weeks prior to the last class day in the spring semester of the senior year, so that the professor and students have time to prepare for an oral defense. The committee will be
comprised of two department faculty members and a third faculty member who contributes to Women's and Gender Studies. Only the best projects will be granted Honors, but any student who completes the project will receive credit for the one semester of independent study.

If a student is pursuing honors in two majors through an interdisciplinary thesis, the project must be of a significant length and scope to qualify for honors in two departments. The specific criteria must be established and mutually agreed upon by the student and the advisers of both departments.

## Internships

All students must successfully complete an internship for transcript notation approved by the department chair and the internship office.

## Courses

101. Topics in Women's and Gender Studies This course will focus on specific topics within women's studies in the humanities, such as women and literature; women and the arts; women's voices across culture.This course fulfills either a DIV I.a. or a DIV I.b. requirement, depending upon topic.
102. Topics in Women's and Gender Studies This course will focus on specific topics within women's studies in the social sciences, such as girlhood and adolescence, women and popular culture; coming of age from crosscultural perspectives; women and diversity; women and work. This course fulfills the DIV II social sciences distribution requirement.
103. Psychology of Women and Gender See course description with PSYC 135 listing. This course fulfills the DIV II social sciences and US Diversity distribution requirements.
104. Introduction to Women's and Gender Studies This is an interdisciplinary course, integrating literature, economics, sociology, psychology, history, anthropology, and geography. This course will focus on historical and contemporary representations of women. It will also examine the varied experiences of women, with attention to the gendered dynamics of family, work, sexuality, race, religion, socioeconomic class, labor, and feminism.
Prerequisite: one semester of college study, with preference given to sophomores. This course fulfills the DIV II social sciences and US Diversity distribution requirements.
105. Topics in Women's and Gender Studies This course will focus on specific topics within women's studies in the humanities, such as women and literature, women and the arts, women's voices across culture. This course fulfills the DIV I.a. distribution requirement.
106. Topics in Women's and Gender Studies This course will focus on specific topics within women's studies in the social sciences, such as girlhood and adolescence; food, gender, and dieting; women and popular culture; women and diversity; women and work. This course fulfills the DIV II social sciences distribution requirement.
107. Philosophy of Feminism See course description with PHIL 210 listing. This course fulfills the DIV I.a. distribution requirement.
108. Cross-Cultural Perspectives on Gender See course description with ANTH 217 listing. This course fulfills the DIV II social sciences and Comparative Civilizations distribution requirement. Offered every other year.
109. Biosocial Aspects of Female Sexuality See course description with ANTH 218 listing. This course fulfills the DIV II social sciences distribution requirement. Offered every other year.
110. Gender, Space and Identity See course description with ANTH 219 listing. This course fulfills the DIV II social sciences distribution requirement. Offered every other year.
111. History of American Feminism This course will emphasize such topics as the 19th century women's movement, the suffrage movement, radical and liberal feminism, and African-American feminism. We will pay particular attention to the diversity of women's experiences in the United States and to women's multiple and often conflicting responses to patriarchy and other forms of oppression. Prerequisite: One course in WGST or HIST or permission of the instructor.
112. European Feminism Studies in the history of European feminist movements, their political and cultural expressions, and how they interconnect with other contemporary social and cultural movements in Europe and the U.S.A. Prerequisite: 200 or permission of the instructor.
113. Methods in Women's and Gender Studies This course will provide an intensive workshop introducing students to a range of methods and theories drawn from different disciplines for the study of gender and women's lives. Students will return to these methods and theories in greater depth in 400. Prerequisite (or corequisite): 200. This course fulfills the DIV II social sciences distribution requirement. This course fulfills the WR requirement.
114. European Women's History This course will explore the lives of European women in the modern period (1789 to the post WWII period). It looks at both rural and urban women, issues of class, family and motherhood as well as demands for social and political rights for women. The readings include primary sources such as housekeeping guides, novels and war propaganda and as well as secondary sources such as biographies and anthropological studies.This course is cross-listed as HIST 278. This course fulfills the DIV II social sciences distribution requirement. Offered every two years.
115. Topics in Women's and Gender Studies This course will focus on specialized topics within Women's Studies, such as women and creativity; women and film; health issues for women; global feminism; and feminist theologies. Prerequisite: one WGST course.
116. Gender and Sexual Identities See course description with Psychology 435 listing. Prerequisites: PSYC 202 or WGST 250, or permission of the instructor. This course fulfills the DIV II social sciences and US Diversity distribution requirements.
117. African Women's History This course examines the role of women in African societies since the nineteenth century. Lectures and readings will be arranged thematically. Themes include sexuality and reproduction, the household, women's economic activity, political power, religion, colonialism, and democracy. After a discussion of gender, we will analyze pre-colonial production and reproduction, family life and religion in the twentieth century, women's roles in nationalist politics, the politics of female genital mutilation, and the lives of two contemporary African women leaders. Readings, including historical studies and novels, songs, and art, will be drawn from across the cultures and languages of Africa. This course is cross-listed as HIST 374. This course fulfills the DIV II social sciences and Comparative Civilizations distribution requirement. Offered every two years.
118. Consumerism, Nationalism, and Gender This reading seminar examines the development of consumerism and nationalism in Europe and America beginning in the late 18th century and continuing on into the post-WWII era - from American Revolutionary boycotts to French fast food establishments. We will look for overlaps or polarities between the movements and the way gender interacted with both of them. Students may be surprised at the gendered aspects of both movements. We will consider, for example, the historical development of the image of women loving to shop, and we will study propaganda from the two world wars with men in uniform and women on the "home front." Our readings will include both promoters and critics of each movement. This course is cross-listed as HIST 377. This course fulfills the DIV II social sciences distribution requirement. Offered every two or three years.
119. Society and the Sexes This is a reading seminar that investigates three separate but interrelated threads - the history of sexuality, the history of the body and the construction of gender - in both pre-industrial and modern Europe. The course explores how definitions of male/female and feminine/masculine have changed over time and how they shaped the life experiences of men and women. Readings will include medical opinions, legal texts, diaries, novels, and political debates.This course is cross-listed as HIST 378. Offered every two or three years.
120. Senior Seminar in Women's and Gender Studies All topics will draw upon the knowledge of the history and theories of feminism and will be interdisciplinary in nature. Prerequisite: 200, or permission of the instructor.

## Writing Program

## Courses

100. U.S. Academic Writing for International Students Recognizing that different cultures define good writing in different ways, this course introduces international students to American academic writing. Students will learn the qualities of a good thesis, a variety of organizational patterns, the characteristics of sound evidence, the roles of the reader and writer, and issues of word choice and American idioms. One-half credit. Offered during the summer program for international students.
101. U.S. Research Writing for International Students Reinforcing and extending skills taught in First-Year Seminar, this course explains American academic discourse to international students by examining the forms, conventions, and expectations of American academic writing. Students will practice the research and writing processes, analyze the choices American writers make in organization and argument, and improve their word choice and sentence structure. One-half credit. Offered every year.
102. Advanced Critical Thinking and U.S. Academic Writing for International Students This course offers international students advanced instruction in the rhetoric and writing strategies employed by successful American academic writers. Focusing on a course theme chosen by the instructor, students will delve deeply into a topic over the course of the semester. Students will learn to craft an arguable thesis, develop an original interpretation, create increasingly complex organizational structures, experiment with sentence length and style, and construct a voice as a writer. This course fulfills the WR distribution requirement.
103. Topics in Expository Writing A course in expository prose which focuses on the writing process itself emphasizing the organization of ideas and development of style. Seminars, group tutorials, or individual instruction. This course fulfills the WR distribution requirement.
104. Working with Writers: Theory and Practice Designed primarily for students who serve as tutors in the Norman M. Eberly Writing Center as well as for future teachers, this course examines how people learn to write from both a theoretical and a hands-on perspective. Prerequisite: permission of the Director of the Writing Program.
